APPENDIX G

LABORATORY REPORTS

Ninyo & Moore

Project: Clairmont H.S., 105338088

ATL Work Order: 1302545, 1302547, 1302581

PRIVILEGED AND CONFIDENTIAL

Advanced Technology Laboratories

3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

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ATL Work Order: **1302545, 1302547, 1302581**

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ADVANCED TECHNOLOGY
LABORATORIES

September 25, 2013

ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196
ORELAP No.: CA300003

Lisa Bestard
Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123
Tel: (858) 576-1000
Fax:(858) 576-9600

Re: ATL #1302545 : Project CLAIREMONT H.S., 105338071 & 105338088 - Received 08/21/2013
ATL #1302547 : Project CLAIREMONT H.S., 105338071 & 105338088 - Received 08/21/2013
ATL #1302581 : Project CLAIREMONT H.S., 105338071 & 105338088 - Received 08/23/2013

Enclosed are the results for sample(s) received by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Eddie Rodriguez

Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of the National Environmental Laboratory

3275 Walnut Avenue, Signal Hill, CA 90755 • Tel: 562-989-4045 • Fax: 562-989-4040
www.atlglobal.com

Ninyo & Moore	Project Number : Clairmont H.S., 105338088
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 9/25/2013

CASE NARRATIVE

The sample for EPA 8290 (Dioxin & Furan) analysis was subcontracted to Pace Analytical Lab with DOHS Cert. 2155.

Sample Receiving/General Comments:

1. All sample containers were received intact with proper chain of custody documentation.
2. Information on sample receipt conditions including discrepancies can be found in the attached Sample Receipt Acknowledgment Form.
3. Sample preservation was verified upon receipt of samples, if applicable.
4. All samples were analyzed with method holding times.

Ninyo & Moore	Project Number : Clairmont H.S., 105338088
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 9/25/2013

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T-12-S	1302545-01	Soil	8/20/13 0:00	8/21/13 13:20
T-12-2	1302545-03	Soil	8/20/13 0:00	8/21/13 13:20
T-12-9.5	1302545-05	Soil	8/20/13 0:00	8/21/13 13:20
T-13-S	1302545-09	Soil	8/20/13 0:00	8/21/13 13:20
T-13-2	1302545-10	Soil	8/20/13 0:00	8/21/13 13:20
T-13-4	1302545-11	Soil	8/20/13 0:00	8/21/13 13:20
T-14-0.5	1302545-13	Soil	8/20/13 0:00	8/21/13 13:20
T-14-5.5	1302545-14	Soil	8/20/13 0:00	8/21/13 13:20
T-14-21	1302545-17	Soil	8/20/13 16:30	8/21/13 13:20

Ninyo & Moore	Project Number : Clairmont H.S., 105338088
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 9/25/2013

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T-15-4	1302547-02	Soil	8/21/13 7:40	8/21/13 13:20
T-15-14	1302547-05	Soil	8/21/13 8:45	8/21/13 13:20
T-15-2	1302547-07	Soil	8/21/13 10:04	8/21/13 13:20
T-16-S	1302547-08	Soil	8/21/13 10:45	8/21/13 13:20
T-16-2	1302547-09	Soil	8/21/13 10:50	8/21/13 13:20
T-16-9	1302547-11	Soil	8/21/13 11:07	8/21/13 13:20
T-16-12	1302547-12	Soil	8/21/13 11:40	8/21/13 13:20

Ninyo & Moore	Project Number : Clairemont HS BS, 105338077
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 9/25/2013

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T-17-0.5	1302581-01	Soil	8/22/13 13:50	8/23/13 11:25
T-17-1.5	1302581-02	Soil	8/22/13 14:05	8/23/13 11:25
T-17-5	1302581-03	Soil	8/22/13 14:30	8/23/13 11:25
T-18-0.5	1302581-04	Soil	8/22/13 15:15	8/23/13 11:25
T-18-3	1302581-05	Soil	8/22/13 15:30	8/23/13 11:25
T-18-5.5	1302581-06	Soil	8/22/13 15:50	8/23/13 11:25
T-19-1	1302581-07	Soil	8/22/13 8:29	8/23/13 11:25
T-19-3.5	1302581-08	Soil	8/22/13 8:46	8/23/13 11:25
T-19-7	1302581-09	Soil	8/22/13 9:00	8/23/13 11:25
T-20-1	1302581-10	Soil	8/22/13 10:05	8/23/13 11:25
T-20-3.5	1302581-11	Soil	8/22/13 10:20	8/23/13 11:25
T-20-6.5	1302581-12	Soil	8/22/13 10:35	8/23/13 11:25
T-21-1	1302581-13	Soil	8/22/13 12:09	8/23/13 11:25
T-21-2	1302581-14	Soil	8/22/13 12:50	8/23/13 11:25
T-22-1	1302581-15	Soil	8/22/13 14:50	8/23/13 11:25
T-22-4.5	1302581-16	Soil	8/22/13 15:22	8/23/13 11:25
T-22-7	1302581-17	Soil	8/22/13 15:40	8/23/13 11:25
T-23-1	1302581-18	Soil	8/22/13 16:37	8/23/13 11:25
T-23-3	1302581-19	Soil	8/22/13 16:47	8/23/13 11:25
T-23-8	1302581-20	Soil	8/22/13 17:00	8/23/13 11:25
Dup-2	1302581-21	Soil	8/22/13 0:00	8/23/13 11:25
Dup-1	1302581-22	Soil	8/22/13 0:00	8/23/13 11:25

Ninyo & Moore 5710 Ruffin Road San Diego , CA 92123	Project Number : Clairmont H.S., 105338088 Report To : Lisa Bestard Reported : 9/25/2013

Client Sample ID T-12-S

Lab ID: 1302545-01

Title 22 Metals by ICP-AES EPA 6010B — **Analyst: CB**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	**3.9**	2.0	0.22	1	B3H0462	08/24/2013	08/24/13 10:27	
Arsenic	**6.0**	1.0	0.38	1	B3H0462	08/24/2013	08/24/13 10:27	
Barium	**220**	1.0	0.08	1	B3H0462	08/24/2013	08/24/13 10:26	
Beryllium	ND	1.0	0.02	1	B3H0462	08/24/2013	08/24/13 10:26	
Cadmium	**2.1**	1.0	0.02	1	B3H0462	08/24/2013	08/24/13 10:27	
Chromium	**12**	1.0	0.04	1	B3H0462	08/24/2013	08/24/13 10:27	
Cobalt	**3.6**	1.0	0.06	1	B3H0462	08/24/2013	08/24/13 10:27	
Copper	**81**	2.0	0.11	1	B3H0462	08/24/2013	08/24/13 10:26	
Lead	**190**	1.0	0.14	1	B3H0462	08/24/2013	08/24/13 10:27	
Molybdenum	**2.7**	1.0	0.04	1	B3H0462	08/24/2013	08/24/13 10:27	
Nickel	**11**	1.0	0.04	1	B3H0462	08/24/2013	08/24/13 10:27	
Selenium	ND	1.0	0.24	1	B3H0462	08/24/2013	08/24/13 10:27	
Silver	ND	1.0	0.06	1	B3H0462	08/24/2013	08/24/13 10:26	
Thallium	ND	1.0	0.29	1	B3H0462	08/24/2013	08/24/13 10:27	
Vanadium	**20**	1.0	0.17	1	B3H0462	08/24/2013	08/24/13 10:26	
Zinc	**330**	1.0	0.50	1	B3H0462	08/24/2013	08/24/13 10:26	

Mercury by AA (Cold Vapor) EPA 7471A — **Analyst: VV**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.008	1	B3H0471	08/26/2013	08/26/13 13:10	

Hydrocarbon Chain Distribution by EPA 8015B (Modified) — **Analyst: CR**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	10	1	B3I0015	09/03/2013	09/04/13 13:19	
T/R Hydrocarbons: C10-C18	ND	10	10	1	B3I0015	09/03/2013	09/04/13 13:19	
T/R Hydrocarbons: C18-C28	**33**	10	10	1	B3I0015	09/03/2013	09/04/13 13:19	
T/R Hydrocarbons: C28-C36	**140**	10	10	1	B3I0015	09/03/2013	09/04/13 13:19	
T/R Hydrocarbons: C36-C40	**54**	10	10	1	B3I0015	09/03/2013	09/04/13 13:19	
T/R Hydrocarbons: C8-C40 Total (HS	230	10	10	1	B3I0015	09/03/2013	09/04/13 13:19	
Surrogate: p-Terphenyl	*139 %*		*55 - 153*		B3I0015	09/03/2013	*09/04/13 13:19*	

Ninyo & Moore 5710 Ruffin Road San Diego , CA 92123	Project Number : Clairmont H.S., 105338088 Report To : Lisa Bestard Reported : 9/25/2013

Client Sample ID T-12-S

Lab ID: 1302545-01

Organochlorine Pesticides by EPA 8081

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.12	1	B3I0018	09/03/2013	09/04/13 10:26	
4,4'-DDE	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:26	
4,4'-DDT	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:26	
Aldrin	ND	1.0	0.09	1	B3I0018	09/03/2013	09/04/13 10:26	
alpha-BHC	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 10:26	
alpha-Chlordane	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 10:26	
beta-BHC	ND	1.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:26	
Chlordane	ND	8.5	1.5	1	B3I0018	09/03/2013	09/04/13 10:26	
delta-BHC	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 10:26	
Dieldrin	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:26	
Endosulfan I	ND	1.0	0.12	1	B3I0018	09/03/2013	09/04/13 10:26	
Endosulfan II	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:26	
Endosulfan sulfate	ND	2.0	0.12	1	B3I0018	09/03/2013	09/04/13 10:26	
Endrin	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:26	
Endrin aldehyde	ND	2.0	0.19	1	B3I0018	09/03/2013	09/04/13 10:26	
Endrin ketone	ND	2.0	0.14	1	B3I0018	09/03/2013	09/04/13 10:26	
gamma-BHC	ND	1.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:26	
gamma-Chlordane	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 10:26	
Heptachlor	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 10:26	
Heptachlor epoxide	ND	1.0	0.12	1	B3I0018	09/03/2013	09/04/13 10:26	
Methoxychlor	ND	5.0	0.13	1	B3I0018	09/03/2013	09/04/13 10:26	
Toxaphene	ND	50	11	1	B3I0018	09/03/2013	09/04/13 10:26	
Surrogate: Decachlorobiphenyl	*65.3 %*		*32 - 113*		B3I0018	09/03/2013	*09/04/13 10:26*	
Surrogate: Tetrachloro-m-xylene	*83.8 %*		*32 - 101*		B3I0018	09/03/2013	*09/04/13 10:26*	

Ninyo & Moore 5710 Ruffin Road San Diego , CA 92123	Project Number : Clairmont H.S., 105338088 Report To : Lisa Bestard Reported : 9/25/2013

Client Sample ID T-12-S

Lab ID: 1302545-01

Semivolatile Organic Compounds by EPA 8270/SIM

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	50	7.5	10	B3I0021	09/03/2013	09/10/13 02:32	D1
Acenaphthene	ND	50	4.3	10	B3I0021	09/03/2013	09/10/13 02:32	D1
Acenaphthylene	ND	50	3.5	10	B3I0021	09/03/2013	09/10/13 02:32	D1
Anthracene	ND	50	5.0	10	B3I0021	09/03/2013	09/10/13 02:32	D1
Benzo(a)anthracene	ND	50	7.1	10	B3I0021	09/03/2013	09/10/13 02:32	D1
Benzo(a)pyrene	ND	50	9.7	10	B3I0021	09/03/2013	09/10/13 02:32	D1
Benzo(b)fluoranthene	ND	50	3.8	10	B3I0021	09/03/2013	09/10/13 02:32	D1
Benzo(g,h,i)perylene	ND	50	16	10	B3I0021	09/03/2013	09/10/13 02:32	D1
Benzo(k)fluoranthene	ND	50	11	10	B3I0021	09/03/2013	09/10/13 02:32	D1
Chrysene	ND	50	7.6	10	B3I0021	09/03/2013	09/10/13 02:32	D1
Dibenz(a,h)anthracene	ND	50	16	10	B3I0021	09/03/2013	09/10/13 02:32	D1
Fluoranthene	ND	50	5.3	10	B3I0021	09/03/2013	09/10/13 02:32	D1
Fluorene	ND	50	4.7	10	B3I0021	09/03/2013	09/10/13 02:32	D1
Indeno(1,2,3-cd)pyrene	ND	50	15	10	B3I0021	09/03/2013	09/10/13 02:32	D1
Naphthalene	ND	50	5.4	10	B3I0021	09/03/2013	09/10/13 02:32	D1
Phenanthrene	ND	50	6.3	10	B3I0021	09/03/2013	09/10/13 02:32	D1
Pyrene	ND	50	4.9	10	B3I0021	09/03/2013	09/10/13 02:32	D1
Surrogate: 1,2-Dichlorobenzene-d4	*56.1 %*	*28 - 96*			B3I0021	09/03/2013	*09/10/13 02:32*	D1
Surrogate: 2-Fluorobiphenyl	*63.3 %*	*36 - 113*			B3I0021	09/03/2013	*09/10/13 02:32*	D1
Surrogate: Nitrobenzene-d5	*42.9 %*	*29 - 106*			B3I0021	09/03/2013	*09/10/13 02:32*	D1
Surrogate: 4-Terphenyl-d14	*67.3 %*	*39 - 138*			B3I0021	09/03/2013	*09/10/13 02:32*	D1

Ninyo & Moore	Project Number : Clairmont H.S., 105338088
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 9/25/2013

Client Sample ID T-12-2

Lab ID: 1302545-03

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	14	1.0	0.14	1	B3H0462	08/24/2013	08/26/13 13:08	

Ninyo & Moore 5710 Ruffin Road San Diego , CA 92123	Project Number : Clairmont H.S., 105338088 Report To : Lisa Bestard Reported : 9/25/2013

Client Sample ID T-12-9.5

Lab ID: 1302545-05

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3500**	5.0	0.70	5	B3H0462	08/24/2013	08/26/13 13:51	D6

STLC DI Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	0.056	20	B3I0060	09/05/2013	09/05/13 13:20	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:04	
T/R Hydrocarbons: C10-C18	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:04	
T/R Hydrocarbons: C18-C28	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:04	
T/R Hydrocarbons: C28-C36	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:04	
T/R Hydrocarbons: C36-C40	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:04	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:04	
Surrogate: p-Terphenyl	*118 %*	*55 - 153*			B3I0015	09/03/2013	*09/04/13 11:04*	

Organochlorine Pesticides by EPA 8081

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.12	1	B3I0018	09/03/2013	09/04/13 10:13	
4,4'-DDE	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:13	
4,4'-DDT	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:13	
Aldrin	ND	1.0	0.09	1	B3I0018	09/03/2013	09/04/13 10:13	
alpha-BHC	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 10:13	
alpha-Chlordane	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 10:13	
beta-BHC	ND	1.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:13	
Chlordane	ND	8.5	1.5	1	B3I0018	09/03/2013	09/04/13 10:13	
delta-BHC	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 10:13	
Dieldrin	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:13	
Endosulfan I	ND	1.0	0.12	1	B3I0018	09/03/2013	09/04/13 10:13	

Ninyo & Moore 5710 Ruffin Road San Diego , CA 92123	Project Number : Clairmont H.S., 105338088 Report To : Lisa Bestard Reported : 9/25/2013

Client Sample ID T-12-9.5

Lab ID: 1302545-05

Organochlorine Pesticides by EPA 8081 **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Endosulfan II	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:13	
Endosulfan sulfate	ND	2.0	0.12	1	B3I0018	09/03/2013	09/04/13 10:13	
Endrin	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:13	
Endrin aldehyde	ND	2.0	0.19	1	B3I0018	09/03/2013	09/04/13 10:13	
Endrin ketone	ND	2.0	0.14	1	B3I0018	09/03/2013	09/04/13 10:13	
gamma-BHC	ND	1.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:13	
gamma-Chlordane	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 10:13	
Heptachlor	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 10:13	
Heptachlor epoxide	ND	1.0	0.12	1	B3I0018	09/03/2013	09/04/13 10:13	
Methoxychlor	ND	5.0	0.13	1	B3I0018	09/03/2013	09/04/13 10:13	
Toxaphene	ND	50	11	1	B3I0018	09/03/2013	09/04/13 10:13	
Surrogate: Decachlorobiphenyl	*72.6 %*	*32 - 113*			B3I0018	09/03/2013	*09/04/13 10:13*	
Surrogate: Tetrachloro-m-xylene	*89.8 %*	*32 - 101*			B3I0018	09/03/2013	*09/04/13 10:13*	

Semivolatile Organic Compounds by EPA 8270/SIM **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	5.0	0.75	1	B3I0021	09/03/2013	09/10/13 00:17	
Acenaphthene	ND	5.0	0.43	1	B3I0021	09/03/2013	09/10/13 00:17	
Acenaphthylene	ND	5.0	0.35	1	B3I0021	09/03/2013	09/10/13 00:17	
Anthracene	ND	5.0	0.50	1	B3I0021	09/03/2013	09/10/13 00:17	
Benzo(a)anthracene	ND	5.0	0.71	1	B3I0021	09/03/2013	09/10/13 00:17	
Benzo(a)pyrene	ND	5.0	0.97	1	B3I0021	09/03/2013	09/10/13 00:17	
Benzo(b)fluoranthene	ND	5.0	0.38	1	B3I0021	09/03/2013	09/10/13 00:17	
Benzo(g,h,i)perylene	ND	5.0	1.6	1	B3I0021	09/03/2013	09/10/13 00:17	
Benzo(k)fluoranthene	ND	5.0	1.1	1	B3I0021	09/03/2013	09/10/13 00:17	
Chrysene	ND	5.0	0.76	1	B3I0021	09/03/2013	09/10/13 00:17	
Dibenz(a,h)anthracene	ND	5.0	1.6	1	B3I0021	09/03/2013	09/10/13 00:17	
Fluoranthene	ND	5.0	0.53	1	B3I0021	09/03/2013	09/10/13 00:17	
Fluorene	ND	5.0	0.47	1	B3I0021	09/03/2013	09/10/13 00:17	
Indeno(1,2,3-cd)pyrene	ND	5.0	1.5	1	B3I0021	09/03/2013	09/10/13 00:17	
Naphthalene	ND	5.0	0.54	1	B3I0021	09/03/2013	09/10/13 00:17	
Phenanthrene	ND	5.0	0.63	1	B3I0021	09/03/2013	09/10/13 00:17	
Pyrene	ND	5.0	0.49	1	B3I0021	09/03/2013	09/10/13 00:17	

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Client Sample ID T-12-9.5

Lab ID: 1302545-05

Semivolatile Organic Compounds by EPA 8270/SIM **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: 1,2-Dichlorobenzene-d4	*71.2 %*		*28 - 96*		B3I0021	09/03/2013	*09/10/13 00:17*	
Surrogate: 2-Fluorobiphenyl	*80.9 %*		*36 - 113*		B3I0021	09/03/2013	*09/10/13 00:17*	
Surrogate: Nitrobenzene-d5	*61.9 %*		*29 - 106*		B3I0021	09/03/2013	*09/10/13 00:17*	
Surrogate: 4-Terphenyl-d14	*82.8 %*		*39 - 138*		B3I0021	09/03/2013	*09/10/13 00:17*	

Ninyo & Moore	Project Number : Clairmont H.S., 105338088
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Client Sample ID T-13-S

Lab ID: 1302545-09

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**9.1**	1.0	0.14	1	B3H0462	08/24/2013	08/26/13 13:11	

Ninyo & Moore 5710 Ruffin Road San Diego , CA 92123	Project Number : Clairmont H.S., 105338088 **Report To : Lisa Bestard** **Reported : 9/25/2013**

Client Sample ID T-13-2

Lab ID: 1302545-10

Title 22 Metals by ICP-AES EPA 6010B **Analyst: SB**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.22	1	B3H0462	08/24/2013	08/26/13 13:13	
Arsenic	**7.0**	1.0	0.38	1	B3H0462	08/24/2013	08/26/13 13:13	
Barium	**28**	1.0	0.08	1	B3H0462	08/24/2013	08/26/13 13:13	
Beryllium	ND	1.0	0.02	1	B3H0462	08/24/2013	08/26/13 13:13	
Cadmium	ND	1.0	0.02	1	B3H0462	08/24/2013	08/26/13 13:13	
Chromium	**7.0**	1.0	0.04	1	B3H0462	08/24/2013	08/26/13 13:13	
Cobalt	**2.0**	1.0	0.06	1	B3H0462	08/24/2013	08/26/13 13:13	
Copper	**8.8**	2.0	0.11	1	B3H0462	08/24/2013	08/26/13 13:13	
Lead	**8.9**	1.0	0.14	1	B3H0462	08/24/2013	08/26/13 13:13	
Molybdenum	ND	1.0	0.04	1	B3H0462	08/24/2013	08/26/13 13:13	
Nickel	**4.2**	1.0	0.04	1	B3H0462	08/24/2013	08/26/13 13:13	
Selenium	ND	1.0	0.24	1	B3H0462	08/24/2013	08/26/13 13:13	
Silver	ND	1.0	0.06	1	B3H0462	08/24/2013	08/26/13 13:13	
Thallium	ND	1.0	0.29	1	B3H0462	08/24/2013	08/26/13 13:13	
Vanadium	**21**	1.0	0.17	1	B3H0462	08/24/2013	08/26/13 13:13	
Zinc	**28**	1.0	0.50	1	B3H0462	08/24/2013	08/26/13 13:13	

Mercury by AA (Cold Vapor) EPA 7471A **Analyst: VV**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.008	1	B3H0471	08/26/2013	08/26/13 13:12	

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Client Sample ID T-13-4

Lab ID: 1302545-11

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**1100**	1.0	0.14	1	B3H0462	08/24/2013	08/26/13 13:14	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	10	1	B3I0015	09/03/2013	09/04/13 12:12	
T/R Hydrocarbons: C10-C18	ND	10	10	1	B3I0015	09/03/2013	09/04/13 12:12	
T/R Hydrocarbons: C18-C28	ND	10	10	1	B3I0015	09/03/2013	09/04/13 12:12	
T/R Hydrocarbons: C28-C36	**18**	10	10	1	B3I0015	09/03/2013	09/04/13 12:12	
T/R Hydrocarbons: C36-C40	ND	10	10	1	B3I0015	09/03/2013	09/04/13 12:12	
T/R Hydrocarbons: C8-C40 Total (HS	18	10	10	1	B3I0015	09/03/2013	09/04/13 12:12	
Surrogate: p-Terphenyl	*100 %*		*55 - 153*		B3I0015	09/03/2013	*09/04/13 12:12*	

Organochlorine Pesticides by EPA 8081

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.12	1	B3I0018	09/03/2013	09/04/13 10:00	
4,4'-DDE	**8.1**	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:00	
4,4'-DDT	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:00	
Aldrin	ND	1.0	0.09	1	B3I0018	09/03/2013	09/04/13 10:00	
alpha-BHC	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 10:00	
alpha-Chlordane	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 10:00	
beta-BHC	ND	1.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:00	
Chlordane	ND	8.5	1.5	1	B3I0018	09/03/2013	09/04/13 10:00	
delta-BHC	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 10:00	
Dieldrin	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:00	
Endosulfan I	ND	1.0	0.12	1	B3I0018	09/03/2013	09/04/13 10:00	
Endosulfan II	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:00	
Endosulfan sulfate	ND	2.0	0.12	1	B3I0018	09/03/2013	09/04/13 10:00	
Endrin	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:00	
Endrin aldehyde	ND	2.0	0.19	1	B3I0018	09/03/2013	09/04/13 10:00	
Endrin ketone	ND	2.0	0.14	1	B3I0018	09/03/2013	09/04/13 10:00	
gamma-BHC	ND	1.0	0.11	1	B3I0018	09/03/2013	09/04/13 10:00	
gamma-Chlordane	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 10:00	

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Organochlorine Pesticides by EPA 8081

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Heptachlor	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 10:00	
Heptachlor epoxide	ND	1.0	0.12	1	B3I0018	09/03/2013	09/04/13 10:00	
Methoxychlor	ND	5.0	0.13	1	B3I0018	09/03/2013	09/04/13 10:00	
Toxaphene	ND	50	11	1	B3I0018	09/03/2013	09/04/13 10:00	
Surrogate: Decachlorobiphenyl	*80.0 %*	*32 - 113*			B3I0018	09/03/2013	*09/04/13 10:00*	
Surrogate: Tetrachloro-m-xylene	*90.3 %*	*32 - 101*			B3I0018	09/03/2013	*09/04/13 10:00*	

Semivolatile Organic Compounds by EPA 8270/SIM

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	5.0	0.75	1	B3I0021	09/03/2013	09/10/13 01:12	
Acenaphthene	ND	5.0	0.43	1	B3I0021	09/03/2013	09/10/13 01:12	
Acenaphthylene	ND	5.0	0.35	1	B3I0021	09/03/2013	09/10/13 01:12	
Anthracene	ND	5.0	0.50	1	B3I0021	09/03/2013	09/10/13 01:12	
Benzo(a)anthracene	ND	5.0	0.71	1	B3I0021	09/03/2013	09/10/13 01:12	
Benzo(a)pyrene	ND	5.0	0.97	1	B3I0021	09/03/2013	09/10/13 01:12	
Benzo(b)fluoranthene	ND	5.0	0.38	1	B3I0021	09/03/2013	09/10/13 01:12	
Benzo(g,h,i)perylene	ND	5.0	1.6	1	B3I0021	09/03/2013	09/10/13 01:12	
Benzo(k)fluoranthene	ND	5.0	1.1	1	B3I0021	09/03/2013	09/10/13 01:12	
Chrysene	ND	5.0	0.76	1	B3I0021	09/03/2013	09/10/13 01:12	
Dibenz(a,h)anthracene	ND	5.0	1.6	1	B3I0021	09/03/2013	09/10/13 01:12	
Fluoranthene	ND	5.0	0.53	1	B3I0021	09/03/2013	09/10/13 01:12	
Fluorene	ND	5.0	0.47	1	B3I0021	09/03/2013	09/10/13 01:12	
Indeno(1,2,3-cd)pyrene	ND	5.0	1.5	1	B3I0021	09/03/2013	09/10/13 01:12	
Naphthalene	ND	5.0	0.54	1	B3I0021	09/03/2013	09/10/13 01:12	
Phenanthrene	ND	5.0	0.63	1	B3I0021	09/03/2013	09/10/13 01:12	
Pyrene	ND	5.0	0.49	1	B3I0021	09/03/2013	09/10/13 01:12	
Surrogate: 1,2-Dichlorobenzene-d4	*66.7 %*	*28 - 96*			B3I0021	09/03/2013	*09/10/13 01:12*	
Surrogate: 2-Fluorobiphenyl	*79.7 %*	*36 - 113*			B3I0021	09/03/2013	*09/10/13 01:12*	
Surrogate: Nitrobenzene-d5	*57.8 %*	*29 - 106*			B3I0021	09/03/2013	*09/10/13 01:12*	
Surrogate: 4-Terphenyl-d14	*81.8 %*	*39 - 138*			B3I0021	09/03/2013	*09/10/13 01:12*	

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Client Sample ID T-14-0.5

Lab ID: 1302545-13

Title 22 Metals by ICP-AES EPA 6010B **Analyst: SB**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.22	1	B3H0462	08/24/2013	08/26/13 13:16	
Arsenic	**3.2**	1.0	0.38	1	B3H0462	08/24/2013	08/26/13 13:16	
Barium	**36**	1.0	0.08	1	B3H0462	08/24/2013	08/26/13 13:16	
Beryllium	ND	1.0	0.02	1	B3H0462	08/24/2013	08/26/13 13:16	
Cadmium	ND	1.0	0.02	1	B3H0462	08/24/2013	08/26/13 13:16	
Chromium	**9.6**	1.0	0.04	1	B3H0462	08/24/2013	08/26/13 13:16	
Cobalt	**2.3**	1.0	0.06	1	B3H0462	08/24/2013	08/26/13 13:16	
Copper	**5.9**	2.0	0.11	1	B3H0462	08/24/2013	08/26/13 13:16	
Lead	**6.3**	1.0	0.14	1	B3H0462	08/24/2013	08/26/13 13:16	
Molybdenum	ND	1.0	0.04	1	B3H0462	08/24/2013	08/26/13 13:16	
Nickel	**3.0**	1.0	0.04	1	B3H0462	08/24/2013	08/26/13 13:16	
Selenium	ND	1.0	0.24	1	B3H0462	08/24/2013	08/26/13 13:16	
Silver	ND	1.0	0.06	1	B3H0462	08/24/2013	08/26/13 13:16	
Thallium	ND	1.0	0.30	1	B3H0462	08/24/2013	08/26/13 13:16	
Vanadium	**26**	1.0	0.17	1	B3H0462	08/24/2013	08/26/13 13:16	
Zinc	**17**	1.0	0.51	1	B3H0462	08/24/2013	08/26/13 13:16	

Mercury by AA (Cold Vapor) EPA 7471A **Analyst: VV**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.008	1	B3H0471	08/26/2013	08/26/13 13:14	

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Client Sample ID T-14-5.5

Lab ID: 1302545-14

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**5.5**	1.0	0.14	1	B3H0462	08/24/2013	08/26/13 13:18	

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Client Sample ID T-14-21

Lab ID: 1302545-17

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	**6.6**	2.0	0.22	1	B3H0462	08/24/2013	08/26/13 13:19	
Arsenic	**18**	1.0	0.38	1	B3H0462	08/24/2013	08/26/13 13:19	
Barium	**860**	5.0	0.42	5	B3H0462	08/24/2013	08/26/13 13:52	D6
Beryllium	ND	1.0	0.02	1	B3H0462	08/24/2013	08/26/13 13:19	
Cadmium	**17**	1.0	0.02	1	B3H0462	08/24/2013	08/26/13 13:19	
Chromium	**60**	1.0	0.04	1	B3H0462	08/24/2013	08/26/13 13:19	
Cobalt	**7.1**	1.0	0.06	1	B3H0462	08/24/2013	08/26/13 13:19	
Copper	**640**	2.0	0.11	1	B3H0462	08/24/2013	08/26/13 13:19	
Lead	**1400**	1.0	0.14	1	B3H0462	08/24/2013	08/26/13 13:19	
Molybdenum	**8.5**	1.0	0.04	1	B3H0462	08/24/2013	08/26/13 13:19	
Nickel	**56**	1.0	0.04	1	B3H0462	08/24/2013	08/26/13 13:19	
Selenium	ND	1.0	0.24	1	B3H0462	08/24/2013	08/26/13 13:19	
Silver	**9.3**	1.0	0.06	1	B3H0462	08/24/2013	08/26/13 13:19	
Thallium	ND	1.0	0.30	1	B3H0462	08/24/2013	08/26/13 13:19	
Vanadium	**21**	1.0	0.17	1	B3H0462	08/24/2013	08/26/13 13:19	
Zinc	**3200**	5.0	2.5	5	B3H0462	08/24/2013	08/26/13 13:52	D6

STLC DI Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	0.056	20	B3I0060	09/05/2013	09/05/13 13:24	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	**43**	4.0	0.33	40	B3H0471	08/26/2013	08/26/13 13:28	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	10	1	B3I0015	09/03/2013	09/04/13 12:29	
T/R Hydrocarbons: C10-C18	ND	10	10	1	B3I0015	09/03/2013	09/04/13 12:29	
T/R Hydrocarbons: C18-C28	ND	10	10	1	B3I0015	09/03/2013	09/04/13 12:29	
T/R Hydrocarbons: C28-C36	ND	10	10	1	B3I0015	09/03/2013	09/04/13 12:29	

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Client Sample ID T-14-21

Lab ID: 1302545-17

Hydrocarbon Chain Distribution by EPA 8015B (Modified) **Analyst: CR**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C36-C40	ND	10	10	1	B3I0015	09/03/2013	09/04/13 12:29	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	10	1	B3I0015	09/03/2013	09/04/13 12:29	
Surrogate: p-Terphenyl	*104 %*	*55 - 153*			B3I0015	09/03/2013	*09/04/13 12:29*	

Organochlorine Pesticides by EPA 8081 **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	**ND**	2.0	0.12	1	B3I0018	09/03/2013	09/04/13 09:46	
4,4'-DDE	**20**	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:46	
4,4'-DDT	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:46	
Aldrin	ND	1.0	0.09	1	B3I0018	09/03/2013	09/04/13 09:46	
alpha-BHC	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:46	
alpha-Chlordane	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:46	
beta-BHC	ND	1.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:46	
Chlordane	ND	8.5	1.5	1	B3I0018	09/03/2013	09/04/13 09:46	
delta-BHC	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:46	
Dieldrin	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:46	
Endosulfan I	ND	1.0	0.12	1	B3I0018	09/03/2013	09/04/13 09:46	
Endosulfan II	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:46	
Endosulfan sulfate	ND	2.0	0.12	1	B3I0018	09/03/2013	09/04/13 09:46	
Endrin	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:46	
Endrin aldehyde	ND	2.0	0.19	1	B3I0018	09/03/2013	09/04/13 09:46	
Endrin ketone	ND	2.0	0.14	1	B3I0018	09/03/2013	09/04/13 09:46	
gamma-BHC	ND	1.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:46	
gamma-Chlordane	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:46	
Heptachlor	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:46	
Heptachlor epoxide	ND	1.0	0.12	1	B3I0018	09/03/2013	09/04/13 09:46	
Methoxychlor	ND	5.0	0.13	1	B3I0018	09/03/2013	09/04/13 09:46	
Toxaphene	ND	50	11	1	B3I0018	09/03/2013	09/04/13 09:46	
Surrogate: Decachlorobiphenyl	*77.7 %*	*32 - 113*			B3I0018	09/03/2013	*09/04/13 09:46*	
Surrogate: Tetrachloro-m-xylene	*84.9 %*	*32 - 101*			B3I0018	09/03/2013	*09/04/13 09:46*	

Ninyo & Moore	Project Number : Clairmont H.S., 105338088
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San Diego , CA 92123	Reported : 9/25/2013

Client Sample ID T-14-21

Lab ID: 1302545-17

Semivolatile Organic Compounds by EPA 8270/SIM **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	5.0	0.75	1	B3I0021	09/03/2013	09/10/13 01:38	
Acenaphthene	ND	5.0	0.43	1	B3I0021	09/03/2013	09/10/13 01:38	
Acenaphthylene	ND	5.0	0.35	1	B3I0021	09/03/2013	09/10/13 01:38	
Anthracene	ND	5.0	0.50	1	B3I0021	09/03/2013	09/10/13 01:38	
Benzo(a)anthracene	ND	5.0	0.71	1	B3I0021	09/03/2013	09/10/13 01:38	
Benzo(a)pyrene	ND	5.0	0.97	1	B3I0021	09/03/2013	09/10/13 01:38	
Benzo(b)fluoranthene	ND	5.0	0.38	1	B3I0021	09/03/2013	09/10/13 01:38	
Benzo(g,h,i)perylene	ND	5.0	1.6	1	B3I0021	09/03/2013	09/10/13 01:38	
Benzo(k)fluoranthene	ND	5.0	1.1	1	B3I0021	09/03/2013	09/10/13 01:38	
Chrysene	ND	5.0	0.76	1	B3I0021	09/03/2013	09/10/13 01:38	
Dibenz(a,h)anthracene	ND	5.0	1.6	1	B3I0021	09/03/2013	09/10/13 01:38	
Fluoranthene	ND	5.0	0.53	1	B3I0021	09/03/2013	09/10/13 01:38	
Fluorene	ND	5.0	0.47	1	B3I0021	09/03/2013	09/10/13 01:38	
Indeno(1,2,3-cd)pyrene	ND	5.0	1.5	1	B3I0021	09/03/2013	09/10/13 01:38	
Naphthalene	ND	5.0	0.54	1	B3I0021	09/03/2013	09/10/13 01:38	
Phenanthrene	ND	5.0	0.63	1	B3I0021	09/03/2013	09/10/13 01:38	
Pyrene	ND	5.0	0.49	1	B3I0021	09/03/2013	09/10/13 01:38	
Surrogate: 1,2-Dichlorobenzene-d4	*62.6 %*	*28 - 96*			B3I0021	09/03/2013	*09/10/13 01:38*	
Surrogate: 2-Fluorobiphenyl	*80.6 %*	*36 - 113*			B3I0021	09/03/2013	*09/10/13 01:38*	
Surrogate: Nitrobenzene-d5	*56.9 %*	*29 - 106*			B3I0021	09/03/2013	*09/10/13 01:38*	
Surrogate: 4-Terphenyl-d14	*84.5 %*	*39 - 138*			B3I0021	09/03/2013	*09/10/13 01:38*	

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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0462 - EPA 3050B									
Blank (B3H0462-BLK1)				Prepared: 8/24/2013 Analyzed: 8/24/2013					
Lead	ND	1.0			NR				
LCS (B3H0462-BS1)				Prepared: 8/24/2013 Analyzed: 8/24/2013					
Lead	52.0702	1.0	50.0000		104	80 - 120			
Matrix Spike (B3H0462-MS1)		**Source: 1302545-01**		Prepared: 8/24/2013 Analyzed: 8/24/2013					
Lead	365.129	1.0	125.000	192.932	138	51 - 106			M1
Matrix Spike Dup (B3H0462-MSD1)		**Source: 1302545-01**		Prepared: 8/24/2013 Analyzed: 8/24/2013					
Lead	222.517	1.0	125.000	192.932	23.7	51 - 106	48.5	20	M1, R

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QUALITY CONTROL SECTION

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0462 - EPA 3050B									
Blank (B3H0462-BLK1)				Prepared: 8/24/2013 Analyzed: 8/24/2013					
Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	ND	1.0			NR				
Beryllium	ND	1.0			NR				
Cadmium	ND	1.0			NR				
Chromium	ND	1.0			NR				
Cobalt	ND	1.0			NR				
Copper	ND	2.0			NR				
Lead	ND	1.0			NR				
Molybdenum	ND	1.0			NR				
Nickel	ND	1.0			NR				
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	ND	1.0			NR				
LCS (B3H0462-BS1)				Prepared: 8/24/2013 Analyzed: 8/24/2013					
Antimony	51.3548	2.0	50.0000		103	80 - 120			
Arsenic	50.4178	1.0	50.0000		101	80 - 120			
Barium	53.9127	1.0	50.0000		108	80 - 120			
Beryllium	56.6674	1.0	50.0000		113	80 - 120			
Cadmium	50.5566	1.0	50.0000		101	80 - 120			
Chromium	54.3394	1.0	50.0000		109	80 - 120			
Cobalt	52.1474	1.0	50.0000		104	80 - 120			
Copper	54.0990	2.0	50.0000		108	80 - 120			
Lead	52.0702	1.0	50.0000		104	80 - 120			
Molybdenum	51.8474	1.0	50.0000		104	80 - 120			
Nickel	50.2858	1.0	50.0000		101	80 - 120			
Selenium	47.5461	1.0	50.0000		95.1	80 - 120			
Silver	47.0613	1.0	50.0000		94.1	80 - 120			
Thallium	52.2978	1.0	50.0000		105	80 - 120			
Vanadium	53.9608	1.0	50.0000		108	80 - 120			
Zinc	47.6911	1.0	50.0000		95.4	80 - 120			
Matrix Spike (B3H0462-MS1)		**Source: 1302545-01**		Prepared: 8/24/2013 Analyzed: 8/24/2013					
Antimony	338.881	2.0	125.000	3.86908	268	21 - 109			M1
Arsenic	120.144	1.0	125.000	6.00210	91.3	55 - 102			
Barium	210.352	1.0	125.000	220.820	-8.37	40 - 130			M1
Beryllium	117.800	1.0	125.000	ND	94.2	60 - 104			

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QUALITY CONTROL SECTION

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0462 - EPA 3050B (continued)									
Matrix Spike (B3H0462-MS1) - Continued		**Source: 1302545-01**		Prepared: 8/24/2013 Analyzed: 8/24/2013					
Cadmium	106.956	1.0	125.000	2.14439	83.8	52 - 100			
Chromium	126.551	1.0	125.000	11.9870	91.7	53 - 113			
Cobalt	117.041	1.0	125.000	3.56592	90.8	53 - 104			
Copper	237.894	2.0	125.000	81.2562	125	51 - 122			M1
Lead	365.129	1.0	125.000	192.932	138	51 - 106			M1
Molybdenum	115.596	1.0	125.000	2.67000	90.3	55 - 103			
Nickel	117.480	1.0	125.000	10.7080	85.4	48 - 112			
Selenium	106.643	1.0	125.000	ND	85.3	53 - 104			
Silver	115.347	1.0	125.000	ND	92.3	61 - 109			
Thallium	103.791	1.0	125.000	ND	83.0	44 - 103			
Vanadium	141.396	1.0	125.000	20.3254	96.9	55 - 115			
Zinc	1169.03	1.0	125.000	332.013	670	24 - 130			M1
Matrix Spike Dup (B3H0462-MSD1)		**Source: 1302545-01**		Prepared: 8/24/2013 Analyzed: 8/24/2013					
Antimony	102.774	2.0	125.000	3.86908	79.1	21 - 109	107	20	R
Arsenic	121.887	1.0	125.000	6.00210	92.7	55 - 102	1.44	20	
Barium	218.046	1.0	125.000	220.820	-2.22	40 - 130	3.59	20	M1
Beryllium	120.454	1.0	125.000	ND	96.4	60 - 104	2.23	20	
Cadmium	109.919	1.0	125.000	2.14439	86.2	52 - 100	2.73	20	
Chromium	128.364	1.0	125.000	11.9870	93.1	53 - 113	1.42	20	
Cobalt	118.950	1.0	125.000	3.56592	92.3	53 - 104	1.62	20	
Copper	216.700	2.0	125.000	81.2562	108	51 - 122	9.32	20	
Lead	222.517	1.0	125.000	192.932	23.7	51 - 106	48.5	20	M1, R
Molybdenum	118.560	1.0	125.000	2.67000	92.7	55 - 103	2.53	20	
Nickel	120.387	1.0	125.000	10.7080	87.7	48 - 112	2.44	20	
Selenium	111.332	1.0	125.000	ND	89.1	53 - 104	4.30	20	
Silver	117.546	1.0	125.000	ND	94.0	61 - 109	1.89	20	
Thallium	105.557	1.0	125.000	ND	84.4	44 - 103	1.69	20	
Vanadium	140.845	1.0	125.000	20.3254	96.4	55 - 115	0.391	20	
Zinc	370.078	1.0	125.000	332.013	30.5	24 - 130	104	20	R

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QUALITY CONTROL SECTION

STLC DI Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3I0060 - STLC DI Extraction									
Blank (B3I0060-BLK1)				Prepared: 9/5/2013 Analyzed: 9/5/2013					
Lead	ND	1.0			NR				
LCS (B3I0060-BS1)				Prepared: 9/5/2013 Analyzed: 9/5/2013					
Lead	2.23246	1.0	2.00000		112	80 - 120			
Duplicate (B3I0060-DUP1)		**Source: 1302547-11**		Prepared: 9/5/2013 Analyzed: 9/5/2013					
Lead	0.246635	1.0		ND	NR			20	
Matrix Spike (B3I0060-MS1)		**Source: 1302547-11**		Prepared: 9/5/2013 Analyzed: 9/5/2013					
Lead	2.70088	1.0	2.50000	ND	108	70 - 130			
Matrix Spike Dup (B3I0060-MSD1)		**Source: 1302547-11**		Prepared: 9/5/2013 Analyzed: 9/5/2013					
Lead	2.70566	1.0	2.50000	ND	108	70 - 130	0.177	20	

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QUALITY CONTROL SECTION

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0471 - EPA 7471									
Blank (B3H0471-BLK1)				Prepared: 8/26/2013 Analyzed: 8/26/2013					
Mercury	ND	0.10			NR				
LCS (B3H0471-BS1)				Prepared: 8/26/2013 Analyzed: 8/26/2013					
Mercury	0.964349	0.10	0.833333		116	80 - 120			
Matrix Spike (B3H0471-MS1)		**Source: 1302514-01**		Prepared: 8/26/2013 Analyzed: 8/26/2013					
Mercury	0.992497	0.10	0.819672	0.028358	118	70 - 130			
Matrix Spike Dup (B3H0471-MSD1)		**Source: 1302514-01**		Prepared: 8/26/2013 Analyzed: 8/26/2013					
Mercury	0.972738	0.10	0.819672	0.028358	115	70 - 130	2.01	20	
Post Spike (B3H0471-PS1)		**Source: 1302514-01**		Prepared: 8/26/2013 Analyzed: 8/26/2013					
Mercury	0.006196		5.00000E-3	0.000340	117	85 - 115			M1

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QUALITY CONTROL SECTION

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3I0015 - GCSEMI_DRO									
Blank (B3I0015-BLK1)				Prepared: 9/3/2013 Analyzed: 9/4/2013					
T/R Hydrocarbons: C8-C10	ND	10			NR				
T/R Hydrocarbons: C10-C18	ND	10			NR				
T/R Hydrocarbons: C18-C28	ND	10			NR				
T/R Hydrocarbons: C28-C36	ND	10			NR				
T/R Hydrocarbons: C36-C40	ND	10			NR				
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10			NR				
Surrogate: p-Terphenyl	*86.46*		*80.0000*		*108*	*55 - 153*			
LCS (B3I0015-BS1)				Prepared: 9/3/2013 Analyzed: 9/4/2013					
DRO	1024.54	10	1000.00		102	65 - 151			
Surrogate: p-Terphenyl	*83.83*		*80.0000*		*105*	*55 - 153*			
Matrix Spike (B3I0015-MS1)		**Source: 1302547-12**		Prepared: 9/3/2013 Analyzed: 9/4/2013					
DRO	1007.07	10	1000.00	ND	101	45 - 168			
Surrogate: p-Terphenyl	*89.78*		*80.0000*		*112*	*55 - 153*			
Matrix Spike Dup (B3I0015-MSD1)		**Source: 1302547-12**		Prepared: 9/3/2013 Analyzed: 9/4/2013					
DRO	975.430	10	1000.00	ND	97.5	45 - 168	3.19	20	
Surrogate: p-Terphenyl	*82.08*		*80.0000*		*103*	*55 - 153*			

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QUALITY CONTROL SECTION

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3I0018 - GCSEMI_PCB/PEST									
Blank (B3I0018-BLK1)				Prepared: 9/3/2013 Analyzed: 9/4/2013					
4,4'-DDD	ND	2.0			NR				
4,4'-DDD [2C]	ND	2.0			NR				
4,4'-DDE	ND	2.0			NR				
4,4'-DDE [2C]	ND	2.0			NR				
4,4'-DDT	ND	2.0			NR				
4,4'-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3I0018 - GCSEMI_PCB/PEST (continued)									
Blank (B3I0018-BLK1) - Continued				Prepared: 9/3/2013 Analyzed: 9/4/2013					
Methoxychlor	ND	5.0			NR				
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*11.93*		*16.6667*		*71.6*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*12.71*		*16.6667*		*76.3*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*12.99*		*16.6667*		*77.9*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*12.69*		*16.6667*		*76.1*	*32 - 101*			
LCS (B3I0018-BS1)				Prepared: 9/3/2013 Analyzed: 9/4/2013					
4,4'-DDT	12.5252	2.0	16.6667		75.2	60 - 108			
4,4'-DDT [2C]	14.4887	2.0	16.6667		86.9	60 - 108			
Aldrin	13.6718	1.0	16.6667		82.0	57 - 111			
Aldrin [2C]	13.0053	1.0	16.6667		78.0	57 - 111			
Dieldrin	12.9073	2.0	16.6667		77.4	61 - 106			
Dieldrin [2C]	12.6792	2.0	16.6667		76.1	61 - 106			
Endrin	12.1877	2.0	16.6667		73.1	57 - 97			
Endrin [2C]	12.3100	2.0	16.6667		73.9	57 - 97			
gamma-BHC	14.0502	1.0	16.6667		84.3	61 - 109			
gamma-BHC [2C]	13.7977	1.0	16.6667		82.8	61 - 109			
Heptachlor	14.6188	1.0	16.6667		87.7	58 - 115			
Heptachlor [2C]	15.5230	1.0	16.6667		93.1	58 - 115			
Surrogate: Decachlorobiphenyl	*12.80*		*16.6667*		*76.8*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*13.77*		*16.6667*		*82.6*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*13.11*		*16.6667*		*78.6*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*13.49*		*16.6667*		*80.9*	*32 - 101*			
Matrix Spike (B3I0018-MS1)		**Source: 1302547-12**		Prepared: 9/3/2013 Analyzed: 9/4/2013					
4,4'-DDT	16.0780	2.0	16.6667	ND	96.5	26 - 133			
4,4'-DDT [2C]	18.3302	2.0	16.6667	ND	110	26 - 133			
Aldrin	15.0963	1.0	16.6667	ND	90.6	38 - 119			
Aldrin [2C]	15.1845	1.0	16.6667	ND	91.1	38 - 119			
Dieldrin	15.4520	2.0	16.6667	ND	92.7	30 - 120			
Dieldrin [2C]	15.4297	2.0	16.6667	ND	92.6	30 - 120			
Endrin	15.7060	2.0	16.6667	ND	94.2	30 - 114			
Endrin [2C]	15.6680	2.0	16.6667	ND	94.0	30 - 114			
gamma-BHC	15.6800	1.0	16.6667	ND	94.1	31 - 122			
gamma-BHC [2C]	15.7277	1.0	16.6667	ND	94.4	31 - 122			
Heptachlor	15.8100	1.0	16.6667	ND	94.9	38 - 123			
Heptachlor [2C]	18.0050	1.0	16.6667	ND	108	38 - 123			

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QUALITY CONTROL SECTION

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3I0018 - GCSEMI_PCB/PEST (continued)									
Matrix Spike (B3I0018-MS1) - Continued		**Source: 1302547-12**		Prepared: 9/3/2013 Analyzed: 9/4/2013					
Surrogate: Decachlorobiphenyl	*15.03*		*16.6667*		*90.2*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*16.46*		*16.6667*		*98.8*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*14.19*		*16.6667*		*85.2*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.02*		*16.6667*		*90.1*	*32 - 101*			
Matrix Spike Dup (B3I0018-MSD1)		**Source: 1302547-12**		Prepared: 9/3/2013 Analyzed: 9/4/2013					
4,4'-DDT	15.4095	2.0	16.6667	ND	92.5	26 - 133	4.25	20	
4,4'-DDT [2C]	17.3803	2.0	16.6667	ND	104	26 - 133	5.32	20	
Aldrin	14.8060	1.0	16.6667	ND	88.8	38 - 119	1.94	20	
Aldrin [2C]	14.9453	1.0	16.6667	ND	89.7	38 - 119	1.59	20	
Dieldrin	14.9032	2.0	16.6667	ND	89.4	30 - 120	3.62	20	
Dieldrin [2C]	14.8320	2.0	16.6667	ND	89.0	30 - 120	3.95	20	
Endrin	15.1940	2.0	16.6667	ND	91.2	30 - 114	3.31	20	
Endrin [2C]	15.0668	2.0	16.6667	ND	90.4	30 - 114	3.91	20	
gamma-BHC	15.5715	1.0	16.6667	ND	93.4	31 - 122	0.694	20	
gamma-BHC [2C]	15.6218	1.0	16.6667	ND	93.7	31 - 122	0.675	20	
Heptachlor	15.7422	1.0	16.6667	ND	94.5	38 - 123	0.430	20	
Heptachlor [2C]	17.9592	1.0	16.6667	ND	108	38 - 123	0.255	20	
Surrogate: Decachlorobiphenyl	*14.49*		*16.6667*		*86.9*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*16.03*		*16.6667*		*96.2*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*14.17*		*16.6667*		*85.0*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.00*		*16.6667*		*90.0*	*32 - 101*			

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QUALITY CONTROL SECTION

Semivolatile Organic Compounds by EPA 8270/SIM - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3I0021 - MSSEMI									
Blank (B3I0021-BLK1)				Prepared: 9/3/2013 Analyzed: 9/9/2013					
2-Methylnaphthalene	ND	5.0			NR				
Acenaphthene	ND	5.0			NR				
Acenaphthylene	ND	5.0			NR				
Anthracene	ND	5.0			NR				
Benzo(a)anthracene	ND	5.0			NR				
Benzo(a)pyrene	ND	5.0			NR				
Benzo(b)fluoranthene	ND	5.0			NR				
Benzo(g,h,i)perylene	ND	5.0			NR				
Benzo(k)fluoranthene	ND	5.0			NR				
Chrysene	ND	5.0			NR				
Dibenz(a,h)anthracene	ND	5.0			NR				
Fluoranthene	ND	5.0			NR				
Fluorene	ND	5.0			NR				
Indeno(1,2,3-cd)pyrene	ND	5.0			NR				
Naphthalene	ND	5.0			NR				
Phenanthrene	ND	5.0			NR				
Pyrene	ND	5.0			NR				
Surrogate: 1,2-Dichlorobenzene-d4	*15.26*		*33.3333*		*45.8*	*28 - 96*			
Surrogate: 2-Fluorobiphenyl	*17.20*		*33.3333*		*51.6*	*36 - 113*			
Surrogate: Nitrobenzene-d5	*13.60*		*33.3333*		*40.8*	*29 - 106*			
Surrogate: 4-Terphenyl-d14	*27.52*		*33.3333*		*82.6*	*39 - 138*			
LCS (B3I0021-BS1)				Prepared: 9/3/2013 Analyzed: 9/9/2013					
Acenaphthene	21.1763	5.0	33.3333		63.5	50 - 93			
Phenanthrene	24.3747	5.0	33.3333		73.1	46 - 98			
Pyrene	26.2043	5.0	33.3333		78.6	52 - 112			
Surrogate: 1,2-Dichlorobenzene-d4	*18.29*		*33.3333*		*54.9*	*28 - 96*			
Surrogate: 2-Fluorobiphenyl	*20.32*		*33.3333*		*61.0*	*36 - 113*			
Surrogate: Nitrobenzene-d5	*16.52*		*33.3333*		*49.6*	*29 - 106*			
Surrogate: 4-Terphenyl-d14	*24.28*		*33.3333*		*72.8*	*39 - 138*			
Matrix Spike (B3I0021-MS1)		**Source: 1302547-12**		Prepared: 9/3/2013 Analyzed: 9/9/2013					
Acenaphthene	24.6473	5.0	33.3333	ND	73.9	45 - 103			
Phenanthrene	26.8527	5.0	33.3333	ND	80.6	43 - 115			
Pyrene	27.1540	5.0	33.3333	ND	81.5	49 - 125			
Surrogate: 1,2-Dichlorobenzene-d4	*21.21*		*33.3333*		*63.6*	*28 - 96*			
Surrogate: 2-Fluorobiphenyl	*24.49*		*33.3333*		*73.5*	*36 - 113*			
Surrogate: Nitrobenzene-d5	*19.77*		*33.3333*		*59.3*	*29 - 106*			
Surrogate: 4-Terphenyl-d14	*25.42*		*33.3333*		*76.3*	*39 - 138*			

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QUALITY CONTROL SECTION

Semivolatile Organic Compounds by EPA 8270/SIM - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3I0021 - MSSEMI (continued)									
Matrix Spike Dup (B3I0021-MSD1)		**Source: 1302547-12**		Prepared: 9/3/2013 Analyzed: 9/9/2013					
Acenaphthene	25.9103	5.0	33.3333	ND	77.7	45 - 103	5.00	20	
Phenanthrene	27.3927	5.0	33.3333	ND	82.2	43 - 115	1.99	20	
Pyrene	26.7757	5.0	33.3333	ND	80.3	49 - 125	1.40	20	
Surrogate: 1,2-Dichlorobenzene-d4	*21.75*		*33.3333*		*65.2*	*28 - 96*			
Surrogate: 2-Fluorobiphenyl	*24.87*		*33.3333*		*74.6*	*36 - 113*			
Surrogate: Nitrobenzene-d5	*19.91*		*33.3333*		*59.7*	*29 - 106*			
Surrogate: 4-Terphenyl-d14	*24.23*		*33.3333*		*72.7*	*39 - 138*			

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Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
D6	Sample required dilution due to high concentration of target analyte.
D5	Sample diluted due to failing internal standard in the original run.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte not detected at or above reporting limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA1	CA-NELAP (CDPH)
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

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Client Sample ID T-15-4

Lab ID: 1302547-02

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**19**	1.0	0.14	1	B3H0462	08/24/2013	08/26/13 13:20	

Ninyo & Moore	Project Number : Clairmont H.S., 105338088
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Client Sample ID T-15-14

Lab ID: 1302547-05

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	**30**	2.0	0.22	1	B3H0462	08/24/2013	08/26/13 13:22	
Arsenic	**21**	1.0	0.38	1	B3H0462	08/24/2013	08/26/13 13:22	
Barium	**770**	5.0	0.42	5	B3H0462	08/24/2013	08/26/13 13:54	D6
Beryllium	ND	1.0	0.02	1	B3H0462	08/24/2013	08/26/13 13:22	
Cadmium	**11**	1.0	0.02	1	B3H0462	08/24/2013	08/26/13 13:22	
Chromium	**45**	1.0	0.04	1	B3H0462	08/24/2013	08/26/13 13:22	
Cobalt	**6.4**	1.0	0.06	1	B3H0462	08/24/2013	08/26/13 13:22	
Copper	**690**	2.0	0.11	1	B3H0462	08/24/2013	08/26/13 13:22	
Lead	**1600**	1.0	0.14	1	B3H0462	08/24/2013	08/26/13 13:22	
Molybdenum	**7.3**	1.0	0.04	1	B3H0462	08/24/2013	08/26/13 13:22	
Nickel	**43**	1.0	0.04	1	B3H0462	08/24/2013	08/26/13 13:22	
Selenium	ND	1.0	0.24	1	B3H0462	08/24/2013	08/26/13 13:22	
Silver	**6.5**	1.0	0.06	1	B3H0462	08/24/2013	08/26/13 13:22	
Thallium	ND	1.0	0.29	1	B3H0462	08/24/2013	08/26/13 13:22	
Vanadium	**19**	1.0	0.17	1	B3H0462	08/24/2013	08/26/13 13:22	
Zinc	**3500**	5.0	2.5	5	B3H0462	08/24/2013	08/26/13 13:54	D6

STLC DI Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	0.056	20	B3I0060	09/05/2013	09/05/13 13:27	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	**0.63**	0.10	0.008	1	B3H0471	08/26/2013	08/26/13 13:18	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:55	
T/R Hydrocarbons: C10-C18	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:55	
T/R Hydrocarbons: C18-C28	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:55	
T/R Hydrocarbons: C28-C36	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:55	

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Lab ID: 1302547-05

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C36-C40	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:55	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:55	
Surrogate: p-Terphenyl	*117 %*	*55 - 153*			B3I0015	09/03/2013	*09/04/13 11:55*	

Organochlorine Pesticides by EPA 8081

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	**ND**	2.0	**0.12**	1	B3I0018	09/03/2013	09/04/13 09:07	
4,4'-DDE [2C]	**3.3**	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:07	
4,4'-DDT	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:07	
Aldrin	ND	1.0	0.09	1	B3I0018	09/03/2013	09/04/13 09:07	
alpha-BHC	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:07	
alpha-Chlordane	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:07	
beta-BHC	ND	1.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:07	
Chlordane	ND	8.5	1.5	1	B3I0018	09/03/2013	09/04/13 09:07	
delta-BHC	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:07	
Dieldrin [2C]	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:07	
Endosulfan I	ND	1.0	0.12	1	B3I0018	09/03/2013	09/04/13 09:07	
Endosulfan II	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:07	
Endosulfan sulfate	ND	2.0	0.12	1	B3I0018	09/03/2013	09/04/13 09:07	
Endrin	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:07	
Endrin aldehyde	ND	2.0	0.19	1	B3I0018	09/03/2013	09/04/13 09:07	
Endrin ketone	ND	2.0	0.14	1	B3I0018	09/03/2013	09/04/13 09:07	
gamma-BHC	ND	1.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:07	
gamma-Chlordane	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:07	
Heptachlor	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:07	
Heptachlor epoxide	ND	1.0	0.12	1	B3I0018	09/03/2013	09/04/13 09:07	
Methoxychlor	ND	5.0	0.13	1	B3I0018	09/03/2013	09/04/13 09:07	
Toxaphene	ND	50	11	1	B3I0018	09/03/2013	09/04/13 09:07	
Surrogate: Decachlorobiphenyl	*84.6 %*	*32 - 113*			B3I0018	09/03/2013	*09/04/13 09:07*	
Surrogate: Tetrachloro-m-xylene	*84.2 %*	*32 - 101*			B3I0018	09/03/2013	*09/04/13 09:07*	

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Client Sample ID T-15-14

Lab ID: 1302547-05

Semivolatile Organic Compounds by EPA 8270/SIM **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	5.0	0.75	1	B3I0021	09/03/2013	09/10/13 02:05	
Acenaphthene	ND	5.0	0.43	1	B3I0021	09/03/2013	09/10/13 02:05	
Acenaphthylene	ND	5.0	0.35	1	B3I0021	09/03/2013	09/10/13 02:05	
Anthracene	ND	5.0	0.50	1	B3I0021	09/03/2013	09/10/13 02:05	
Benzo(a)anthracene	ND	5.0	0.71	1	B3I0021	09/03/2013	09/10/13 02:05	
Benzo(a)pyrene	ND	5.0	0.97	1	B3I0021	09/03/2013	09/10/13 02:05	
Benzo(b)fluoranthene	ND	5.0	0.38	1	B3I0021	09/03/2013	09/10/13 02:05	
Benzo(g,h,i)perylene	ND	5.0	1.6	1	B3I0021	09/03/2013	09/10/13 02:05	
Benzo(k)fluoranthene	ND	5.0	1.1	1	B3I0021	09/03/2013	09/10/13 02:05	
Chrysene	ND	5.0	0.76	1	B3I0021	09/03/2013	09/10/13 02:05	
Dibenz(a,h)anthracene	ND	5.0	1.6	1	B3I0021	09/03/2013	09/10/13 02:05	
Fluoranthene	ND	5.0	0.53	1	B3I0021	09/03/2013	09/10/13 02:05	
Fluorene	ND	5.0	0.47	1	B3I0021	09/03/2013	09/10/13 02:05	
Indeno(1,2,3-cd)pyrene	ND	5.0	1.5	1	B3I0021	09/03/2013	09/10/13 02:05	
Naphthalene	ND	5.0	0.54	1	B3I0021	09/03/2013	09/10/13 02:05	
Phenanthrene	ND	5.0	0.63	1	B3I0021	09/03/2013	09/10/13 02:05	
Pyrene	ND	5.0	0.49	1	B3I0021	09/03/2013	09/10/13 02:05	
Surrogate: 1,2-Dichlorobenzene-d4	*59.3 %*	*28 - 96*			B3I0021	09/03/2013	*09/10/13 02:05*	
Surrogate: 2-Fluorobiphenyl	*74.0 %*	*36 - 113*			B3I0021	09/03/2013	*09/10/13 02:05*	
Surrogate: Nitrobenzene-d5	*55.2 %*	*29 - 106*			B3I0021	09/03/2013	*09/10/13 02:05*	
Surrogate: 4-Terphenyl-d14	*76.2 %*	*39 - 138*			B3I0021	09/03/2013	*09/10/13 02:05*	

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Client Sample ID T-15-2

Lab ID: 1302547-07

Title 22 Metals by ICP-AES EPA 6010B **Analyst: SB**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.22	1	B3H0462	08/24/2013	08/26/13 13:43	
Arsenic	**1.8**	1.0	0.38	1	B3H0462	08/24/2013	08/26/13 13:43	
Barium	**42**	1.0	0.08	1	B3H0462	08/24/2013	08/26/13 13:43	
Beryllium	ND	1.0	0.02	1	B3H0462	08/24/2013	08/26/13 13:43	
Cadmium	ND	1.0	0.02	1	B3H0462	08/24/2013	08/26/13 13:43	
Chromium	**6.9**	1.0	0.04	1	B3H0462	08/24/2013	08/26/13 13:43	
Cobalt	**2.4**	1.0	0.06	1	B3H0462	08/24/2013	08/26/13 13:43	
Copper	**9.9**	2.0	0.11	1	B3H0462	08/24/2013	08/26/13 13:43	
Lead	**12**	1.0	0.14	1	B3H0462	08/24/2013	08/26/13 13:43	
Molybdenum	ND	1.0	0.04	1	B3H0462	08/24/2013	08/26/13 13:43	
Nickel	**3.0**	1.0	0.04	1	B3H0462	08/24/2013	08/26/13 13:43	
Selenium	ND	1.0	0.24	1	B3H0462	08/24/2013	08/26/13 13:43	
Silver	ND	1.0	0.06	1	B3H0462	08/24/2013	08/26/13 13:43	
Thallium	ND	1.0	0.30	1	B3H0462	08/24/2013	08/26/13 13:43	
Vanadium	**16**	1.0	0.17	1	B3H0462	08/24/2013	08/26/13 13:43	
Zinc	**42**	1.0	0.51	1	B3H0462	08/24/2013	08/26/13 13:43	

Mercury by AA (Cold Vapor) EPA 7471A **Analyst: VV**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.008	1	B3H0471	08/26/2013	08/26/13 13:26	

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Client Sample ID T-16-S

Lab ID: 1302547-08

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**11**	1.0	0.14	1	B3H0462	08/24/2013	08/26/13 13:45	

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Client Sample ID T-16-2

Lab ID: 1302547-09

Total Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**7.7**	1.0	0.14	1	B3H0462	08/24/2013	08/26/13 13:46	

Ninyo & Moore	Project Number : Clairmont H.S., 105338088
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Client Sample ID T-16-9

Lab ID: 1302547-11

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	**9.3**	2.0	0.22	1	B3H0462	08/24/2013	08/26/13 13:48	
Arsenic	**41**	1.0	0.38	1	B3H0462	08/24/2013	08/26/13 13:48	
Barium	**350**	1.0	0.08	1	B3H0462	08/24/2013	08/26/13 13:48	
Beryllium	ND	1.0	0.02	1	B3H0462	08/24/2013	08/26/13 13:48	
Cadmium	**2.4**	1.0	0.02	1	B3H0462	08/24/2013	08/26/13 13:48	
Chromium	**32**	1.0	0.04	1	B3H0462	08/24/2013	08/26/13 13:48	
Cobalt	**6.1**	1.0	0.06	1	B3H0462	08/24/2013	08/26/13 13:48	
Copper	**600**	2.0	0.11	1	B3H0462	08/24/2013	08/26/13 13:48	
Lead	**1300**	1.0	0.14	1	B3H0462	08/24/2013	08/26/13 13:48	
Molybdenum	**6.0**	1.0	0.04	1	B3H0462	08/24/2013	08/26/13 13:48	
Nickel	**39**	1.0	0.04	1	B3H0462	08/24/2013	08/26/13 13:48	
Selenium	ND	1.0	0.24	1	B3H0462	08/24/2013	08/26/13 13:48	
Silver	**2.6**	1.0	0.06	1	B3H0462	08/24/2013	08/26/13 13:48	
Thallium	ND	1.0	0.30	1	B3H0462	08/24/2013	08/26/13 13:48	
Vanadium	**6.2**	1.0	0.17	1	B3H0462	08/24/2013	08/26/13 13:48	
Zinc	**940**	1.0	0.51	1	B3H0462	08/24/2013	08/26/13 13:48	

STLC DI Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	0.056	20	B3I0060	09/05/2013	09/05/13 13:31	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.008	1	B3H0471	08/26/2013	08/26/13 13:30	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:21	
T/R Hydrocarbons: C10-C18	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:21	
T/R Hydrocarbons: C18-C28	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:21	
T/R Hydrocarbons: C28-C36	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:21	

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Lab ID: 1302547-11

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C36-C40	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:21	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:21	
Surrogate: p-Terphenyl	*111 %*	*55 - 153*			B3I0015	09/03/2013	*09/04/13 11:21*	

Organochlorine Pesticides by EPA 8081

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.12	1	B3I0018	09/03/2013	09/04/13 09:20	
4,4'-DDE	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:20	
4,4'-DDT	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:20	
Aldrin	ND	1.0	0.09	1	B3I0018	09/03/2013	09/04/13 09:20	
alpha-BHC	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:20	
alpha-Chlordane	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:20	
beta-BHC	ND	1.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:20	
Chlordane	ND	8.5	1.5	1	B3I0018	09/03/2013	09/04/13 09:20	
delta-BHC	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:20	
Dieldrin	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:20	
Endosulfan I	ND	1.0	0.12	1	B3I0018	09/03/2013	09/04/13 09:20	
Endosulfan II	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:20	
Endosulfan sulfate	ND	2.0	0.12	1	B3I0018	09/03/2013	09/04/13 09:20	
Endrin	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:20	
Endrin aldehyde	ND	2.0	0.19	1	B3I0018	09/03/2013	09/04/13 09:20	
Endrin ketone	ND	2.0	0.14	1	B3I0018	09/03/2013	09/04/13 09:20	
gamma-BHC	ND	1.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:20	
gamma-Chlordane	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:20	
Heptachlor	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:20	
Heptachlor epoxide	ND	1.0	0.12	1	B3I0018	09/03/2013	09/04/13 09:20	
Methoxychlor	ND	5.0	0.13	1	B3I0018	09/03/2013	09/04/13 09:20	
Toxaphene	ND	50	11	1	B3I0018	09/03/2013	09/04/13 09:20	
Surrogate: Decachlorobiphenyl	*84.5 %*	*32 - 113*			B3I0018	09/03/2013	*09/04/13 09:20*	
Surrogate: Tetrachloro-m-xylene	*89.9 %*	*32 - 101*			B3I0018	09/03/2013	*09/04/13 09:20*	

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Lab ID: 1302547-11

Semivolatile Organic Compounds by EPA 8270/SIM **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	5.0	0.75	1	B3I0021	09/03/2013	09/10/13 00:45	
Acenaphthene	ND	5.0	0.43	1	B3I0021	09/03/2013	09/10/13 00:45	
Acenaphthylene	ND	5.0	0.35	1	B3I0021	09/03/2013	09/10/13 00:45	
Anthracene	ND	5.0	0.50	1	B3I0021	09/03/2013	09/10/13 00:45	
Benzo(a)anthracene	ND	5.0	0.71	1	B3I0021	09/03/2013	09/10/13 00:45	
Benzo(a)pyrene	ND	5.0	0.97	1	B3I0021	09/03/2013	09/10/13 00:45	
Benzo(b)fluoranthene	ND	5.0	0.38	1	B3I0021	09/03/2013	09/10/13 00:45	
Benzo(g,h,i)perylene	ND	5.0	1.6	1	B3I0021	09/03/2013	09/10/13 00:45	
Benzo(k)fluoranthene	ND	5.0	1.1	1	B3I0021	09/03/2013	09/10/13 00:45	
Chrysene	ND	5.0	0.76	1	B3I0021	09/03/2013	09/10/13 00:45	
Dibenz(a,h)anthracene	ND	5.0	1.6	1	B3I0021	09/03/2013	09/10/13 00:45	
Fluoranthene	ND	5.0	0.53	1	B3I0021	09/03/2013	09/10/13 00:45	
Fluorene	ND	5.0	0.47	1	B3I0021	09/03/2013	09/10/13 00:45	
Indeno(1,2,3-cd)pyrene	ND	5.0	1.5	1	B3I0021	09/03/2013	09/10/13 00:45	
Naphthalene	ND	5.0	0.54	1	B3I0021	09/03/2013	09/10/13 00:45	
Phenanthrene	ND	5.0	0.63	1	B3I0021	09/03/2013	09/10/13 00:45	
Pyrene	ND	5.0	0.49	1	B3I0021	09/03/2013	09/10/13 00:45	
Surrogate: 1,2-Dichlorobenzene-d4	*68.3 %*	*28 - 96*			B3I0021	09/03/2013	*09/10/13 00:45*	
Surrogate: 2-Fluorobiphenyl	*78.5 %*	*36 - 113*			B3I0021	09/03/2013	*09/10/13 00:45*	
Surrogate: Nitrobenzene-d5	*59.5 %*	*29 - 106*			B3I0021	09/03/2013	*09/10/13 00:45*	
Surrogate: 4-Terphenyl-d14	*78.6 %*	*39 - 138*			B3I0021	09/03/2013	*09/10/13 00:45*	

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Lab ID: 1302547-12

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	4.0	0.44	2	B3H0462	08/24/2013	08/26/13 13:59	D5
Arsenic	**7.9**	2.0	0.76	2	B3H0462	08/24/2013	08/26/13 13:59	D5
Barium	**69**	2.0	0.17	2	B3H0462	08/24/2013	08/26/13 13:59	D5
Beryllium	ND	2.0	0.04	2	B3H0462	08/24/2013	08/26/13 13:59	D5
Cadmium	ND	2.0	0.04	2	B3H0462	08/24/2013	08/26/13 13:59	D5
Chromium	**10**	2.0	0.07	2	B3H0462	08/24/2013	08/26/13 13:59	D5
Cobalt	**7.2**	2.0	0.11	2	B3H0462	08/24/2013	08/26/13 13:59	D5
Copper	**30**	4.0	0.22	2	B3H0462	08/24/2013	08/26/13 13:59	D5
Lead	**78**	2.0	0.28	2	B3H0462	08/24/2013	08/26/13 13:59	D5
Molybdenum	ND	2.0	0.09	2	B3H0462	08/24/2013	08/26/13 13:59	D5
Nickel	**10**	2.0	0.09	2	B3H0462	08/24/2013	08/26/13 13:59	D5
Selenium	ND	2.0	0.48	2	B3H0462	08/24/2013	08/26/13 13:59	D5
Silver	ND	2.0	0.13	2	B3H0462	08/24/2013	08/26/13 13:59	D5
Thallium	ND	2.0	0.59	2	B3H0462	08/24/2013	08/26/13 13:59	D5
Vanadium	**19**	2.0	0.34	2	B3H0462	08/24/2013	08/26/13 13:59	D5
Zinc	**100**	2.0	1.0	2	B3H0462	08/24/2013	08/26/13 13:59	D5

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.008	1	B3H0471	08/26/2013	08/26/13 13:32	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:38	
T/R Hydrocarbons: C10-C18	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:38	
T/R Hydrocarbons: C18-C28	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:38	
T/R Hydrocarbons: C28-C36	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:38	
T/R Hydrocarbons: C36-C40	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:38	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	10	1	B3I0015	09/03/2013	09/04/13 11:38	
Surrogate: p-Terphenyl	*120 %*	*55 - 153*			B3I0015	09/03/2013	*09/04/13 11:38*	

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Lab ID: 1302547-12

Organochlorine Pesticides by EPA 8081 **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.12	1	B3I0018	09/03/2013	09/04/13 09:33	
4,4'-DDE	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:33	
4,4'-DDT	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:33	
Aldrin	ND	1.0	0.09	1	B3I0018	09/03/2013	09/04/13 09:33	
alpha-BHC	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:33	
alpha-Chlordane	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:33	
beta-BHC	ND	1.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:33	
Chlordane	ND	8.5	1.5	1	B3I0018	09/03/2013	09/04/13 09:33	
delta-BHC	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:33	
Dieldrin	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:33	
Endosulfan I	ND	1.0	0.12	1	B3I0018	09/03/2013	09/04/13 09:33	
Endosulfan II	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:33	
Endosulfan sulfate	ND	2.0	0.12	1	B3I0018	09/03/2013	09/04/13 09:33	
Endrin	ND	2.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:33	
Endrin aldehyde	ND	2.0	0.19	1	B3I0018	09/03/2013	09/04/13 09:33	
Endrin ketone	ND	2.0	0.14	1	B3I0018	09/03/2013	09/04/13 09:33	
gamma-BHC	ND	1.0	0.11	1	B3I0018	09/03/2013	09/04/13 09:33	
gamma-Chlordane	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:33	
Heptachlor	ND	1.0	0.10	1	B3I0018	09/03/2013	09/04/13 09:33	
Heptachlor epoxide	ND	1.0	0.12	1	B3I0018	09/03/2013	09/04/13 09:33	
Methoxychlor	ND	5.0	0.13	1	B3I0018	09/03/2013	09/04/13 09:33	
Toxaphene	ND	50	11	1	B3I0018	09/03/2013	09/04/13 09:33	
Surrogate: Decachlorobiphenyl	*76.5 %*	*32 - 113*			B3I0018	09/03/2013	*09/04/13 09:33*	
Surrogate: Tetrachloro-m-xylene	*83.7 %*	*32 - 101*			B3I0018	09/03/2013	*09/04/13 09:33*	

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Lab ID: 1302547-12

Semivolatile Organic Compounds by EPA 8270/SIM **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	5.0	0.75	1	B3I0021	09/03/2013	09/09/13 23:51	
Acenaphthene	ND	5.0	0.43	1	B3I0021	09/03/2013	09/09/13 23:51	
Acenaphthylene	ND	5.0	0.35	1	B3I0021	09/03/2013	09/09/13 23:51	
Anthracene	ND	5.0	0.50	1	B3I0021	09/03/2013	09/09/13 23:51	
Benzo(a)anthracene	ND	5.0	0.71	1	B3I0021	09/03/2013	09/09/13 23:51	
Benzo(a)pyrene	ND	5.0	0.97	1	B3I0021	09/03/2013	09/09/13 23:51	
Benzo(b)fluoranthene	ND	5.0	0.38	1	B3I0021	09/03/2013	09/09/13 23:51	
Benzo(g,h,i)perylene	ND	5.0	1.6	1	B3I0021	09/03/2013	09/09/13 23:51	
Benzo(k)fluoranthene	ND	5.0	1.1	1	B3I0021	09/03/2013	09/09/13 23:51	
Chrysene	ND	5.0	0.76	1	B3I0021	09/03/2013	09/09/13 23:51	
Dibenz(a,h)anthracene	ND	5.0	1.6	1	B3I0021	09/03/2013	09/09/13 23:51	
Fluoranthene	ND	5.0	0.53	1	B3I0021	09/03/2013	09/09/13 23:51	
Fluorene	ND	5.0	0.47	1	B3I0021	09/03/2013	09/09/13 23:51	
Indeno(1,2,3-cd)pyrene	ND	5.0	1.5	1	B3I0021	09/03/2013	09/09/13 23:51	
Naphthalene	ND	5.0	0.54	1	B3I0021	09/03/2013	09/09/13 23:51	
Phenanthrene	ND	5.0	0.63	1	B3I0021	09/03/2013	09/09/13 23:51	
Pyrene	ND	5.0	0.49	1	B3I0021	09/03/2013	09/09/13 23:51	
Surrogate: 1,2-Dichlorobenzene-d4	*72.6 %*	*28 - 96*			B3I0021	09/03/2013	*09/09/13 23:51*	
Surrogate: 2-Fluorobiphenyl	*84.6 %*	*36 - 113*			B3I0021	09/03/2013	*09/09/13 23:51*	
Surrogate: Nitrobenzene-d5	*64.9 %*	*29 - 106*			B3I0021	09/03/2013	*09/09/13 23:51*	
Surrogate: 4-Terphenyl-d14	*84.3 %*	*39 - 138*			B3I0021	09/03/2013	*09/09/13 23:51*	

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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0462 - EPA 3050B									
Blank (B3H0462-BLK1)				Prepared: 8/24/2013 Analyzed: 8/24/2013					
Lead	ND	1.0			NR				
LCS (B3H0462-BS1)				Prepared: 8/24/2013 Analyzed: 8/24/2013					
Lead	52.0702	1.0	50.0000		104	80 - 120			
Matrix Spike (B3H0462-MS1)		**Source: 1302545-01**		Prepared: 8/24/2013 Analyzed: 8/24/2013					
Lead	365.129	1.0	125.000	192.932	138	51 - 106			M1
Matrix Spike Dup (B3H0462-MSD1)		**Source: 1302545-01**		Prepared: 8/24/2013 Analyzed: 8/24/2013					
Lead	222.517	1.0	125.000	192.932	23.7	51 - 106	48.5	20	M1, R

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QUALITY CONTROL SECTION

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0462 - EPA 3050B									
Blank (B3H0462-BLK1)				Prepared: 8/24/2013 Analyzed: 8/24/2013					
Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	ND	1.0			NR				
Beryllium	ND	1.0			NR				
Cadmium	ND	1.0			NR				
Chromium	ND	1.0			NR				
Cobalt	ND	1.0			NR				
Copper	ND	2.0			NR				
Lead	ND	1.0			NR				
Molybdenum	ND	1.0			NR				
Nickel	ND	1.0			NR				
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	ND	1.0			NR				
LCS (B3H0462-BS1)				Prepared: 8/24/2013 Analyzed: 8/24/2013					
Antimony	51.3548	2.0	50.0000		103	80 - 120			
Arsenic	50.4178	1.0	50.0000		101	80 - 120			
Barium	53.9127	1.0	50.0000		108	80 - 120			
Beryllium	56.6674	1.0	50.0000		113	80 - 120			
Cadmium	50.5566	1.0	50.0000		101	80 - 120			
Chromium	54.3394	1.0	50.0000		109	80 - 120			
Cobalt	52.1474	1.0	50.0000		104	80 - 120			
Copper	54.0990	2.0	50.0000		108	80 - 120			
Lead	52.0702	1.0	50.0000		104	80 - 120			
Molybdenum	51.8474	1.0	50.0000		104	80 - 120			
Nickel	50.2858	1.0	50.0000		101	80 - 120			
Selenium	47.5461	1.0	50.0000		95.1	80 - 120			
Silver	47.0613	1.0	50.0000		94.1	80 - 120			
Thallium	52.2978	1.0	50.0000		105	80 - 120			
Vanadium	53.9608	1.0	50.0000		108	80 - 120			
Zinc	47.6911	1.0	50.0000		95.4	80 - 120			
Matrix Spike (B3H0462-MS1)		**Source: 1302545-01**		Prepared: 8/24/2013 Analyzed: 8/24/2013					
Antimony	338.881	2.0	125.000	3.86908	268	21 - 109			M1
Arsenic	120.144	1.0	125.000	6.00210	91.3	55 - 102			
Barium	210.352	1.0	125.000	220.820	-8.37	40 - 130			M1
Beryllium	117.800	1.0	125.000	ND	94.2	60 - 104			

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QUALITY CONTROL SECTION

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0462 - EPA 3050B (continued)									
Matrix Spike (B3H0462-MS1) - Continued		**Source: 1302545-01**		Prepared: 8/24/2013 Analyzed: 8/24/2013					
Cadmium	106.956	1.0	125.000	2.14439	83.8	52 - 100			
Chromium	126.551	1.0	125.000	11.9870	91.7	53 - 113			
Cobalt	117.041	1.0	125.000	3.56592	90.8	53 - 104			
Copper	237.894	2.0	125.000	81.2562	125	51 - 122			M1
Lead	365.129	1.0	125.000	192.932	138	51 - 106			M1
Molybdenum	115.596	1.0	125.000	2.67000	90.3	55 - 103			
Nickel	117.480	1.0	125.000	10.7080	85.4	48 - 112			
Selenium	106.643	1.0	125.000	ND	85.3	53 - 104			
Silver	115.347	1.0	125.000	ND	92.3	61 - 109			
Thallium	103.791	1.0	125.000	ND	83.0	44 - 103			
Vanadium	141.396	1.0	125.000	20.3254	96.9	55 - 115			
Zinc	1169.03	1.0	125.000	332.013	670	24 - 130			M1
Matrix Spike Dup (B3H0462-MSD1)		**Source: 1302545-01**		Prepared: 8/24/2013 Analyzed: 8/24/2013					
Antimony	102.774	2.0	125.000	3.86908	79.1	21 - 109	107	20	R
Arsenic	121.887	1.0	125.000	6.00210	92.7	55 - 102	1.44	20	
Barium	218.046	1.0	125.000	220.820	-2.22	40 - 130	3.59	20	M1
Beryllium	120.454	1.0	125.000	ND	96.4	60 - 104	2.23	20	
Cadmium	109.919	1.0	125.000	2.14439	86.2	52 - 100	2.73	20	
Chromium	128.364	1.0	125.000	11.9870	93.1	53 - 113	1.42	20	
Cobalt	118.950	1.0	125.000	3.56592	92.3	53 - 104	1.62	20	
Copper	216.700	2.0	125.000	81.2562	108	51 - 122	9.32	20	
Lead	222.517	1.0	125.000	192.932	23.7	51 - 106	48.5	20	M1, R
Molybdenum	118.560	1.0	125.000	2.67000	92.7	55 - 103	2.53	20	
Nickel	120.387	1.0	125.000	10.7080	87.7	48 - 112	2.44	20	
Selenium	111.332	1.0	125.000	ND	89.1	53 - 104	4.30	20	
Silver	117.546	1.0	125.000	ND	94.0	61 - 109	1.89	20	
Thallium	105.557	1.0	125.000	ND	84.4	44 - 103	1.69	20	
Vanadium	140.845	1.0	125.000	20.3254	96.4	55 - 115	0.391	20	
Zinc	370.078	1.0	125.000	332.013	30.5	24 - 130	104	20	R

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QUALITY CONTROL SECTION

STLC DI Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3I0060 - STLC DI Extraction									
Blank (B3I0060-BLK1)				Prepared: 9/5/2013 Analyzed: 9/5/2013					
Lead	ND	1.0			NR				
LCS (B3I0060-BS1)				Prepared: 9/5/2013 Analyzed: 9/5/2013					
Lead	2.23246	1.0	2.00000		112	80 - 120			
Duplicate (B3I0060-DUP1)		**Source: 1302547-11**		Prepared: 9/5/2013 Analyzed: 9/5/2013					
Lead	0.246635	1.0		ND	NR			20	
Matrix Spike (B3I0060-MS1)		**Source: 1302547-11**		Prepared: 9/5/2013 Analyzed: 9/5/2013					
Lead	2.70088	1.0	2.50000	ND	108	70 - 130			
Matrix Spike Dup (B3I0060-MSD1)		**Source: 1302547-11**		Prepared: 9/5/2013 Analyzed: 9/5/2013					
Lead	2.70566	1.0	2.50000	ND	108	70 - 130	0.177	20	

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QUALITY CONTROL SECTION

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0471 - EPA 7471									
Blank (B3H0471-BLK1)				Prepared: 8/26/2013 Analyzed: 8/26/2013					
Mercury	ND	0.10			NR				
LCS (B3H0471-BS1)				Prepared: 8/26/2013 Analyzed: 8/26/2013					
Mercury	0.964349	0.10	0.833333		116	80 - 120			
Matrix Spike (B3H0471-MS1)		**Source: 1302514-01**		Prepared: 8/26/2013 Analyzed: 8/26/2013					
Mercury	0.992497	0.10	0.819672	0.028358	118	70 - 130			
Matrix Spike Dup (B3H0471-MSD1)		**Source: 1302514-01**		Prepared: 8/26/2013 Analyzed: 8/26/2013					
Mercury	0.972738	0.10	0.819672	0.028358	115	70 - 130	2.01	20	
Post Spike (B3H0471-PS1)		**Source: 1302514-01**		Prepared: 8/26/2013 Analyzed: 8/26/2013					
Mercury	0.006196		5.00000E-3	0.000340	117	85 - 115			M1

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QUALITY CONTROL SECTION

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3I0015 - GCSEMI_DRO									
Blank (B3I0015-BLK1)				Prepared: 9/3/2013 Analyzed: 9/4/2013					
T/R Hydrocarbons: C8-C10	ND	10			NR				
T/R Hydrocarbons: C10-C18	ND	10			NR				
T/R Hydrocarbons: C18-C28	ND	10			NR				
T/R Hydrocarbons: C28-C36	ND	10			NR				
T/R Hydrocarbons: C36-C40	ND	10			NR				
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10			NR				
Surrogate: p-Terphenyl	*86.46*		*80.0000*		*108*	*55 - 153*			
LCS (B3I0015-BS1)				Prepared: 9/3/2013 Analyzed: 9/4/2013					
DRO	1024.54	10	1000.00		102	65 - 151			
Surrogate: p-Terphenyl	*83.83*		*80.0000*		*105*	*55 - 153*			
Matrix Spike (B3I0015-MS1)		**Source: 1302547-12**		Prepared: 9/3/2013 Analyzed: 9/4/2013					
DRO	1007.07	10	1000.00	ND	101	45 - 168			
Surrogate: p-Terphenyl	*89.78*		*80.0000*		*112*	*55 - 153*			
Matrix Spike Dup (B3I0015-MSD1)		**Source: 1302547-12**		Prepared: 9/3/2013 Analyzed: 9/4/2013					
DRO	975.430	10	1000.00	ND	97.5	45 - 168	3.19	20	
Surrogate: p-Terphenyl	*82.08*		*80.0000*		*103*	*55 - 153*			

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QUALITY CONTROL SECTION

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3I0018 - GCSEMI_PCB/PEST									
Blank (B3I0018-BLK1)				Prepared: 9/3/2013 Analyzed: 9/4/2013					
4,4'-DDD	ND	2.0			NR				
4,4'-DDD [2C]	ND	2.0			NR				
4,4'-DDE	ND	2.0			NR				
4,4'-DDE [2C]	ND	2.0			NR				
4,4'-DDT	ND	2.0			NR				
4,4'-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				

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QUALITY CONTROL SECTION

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3I0018 - GCSEMI_PCB/PEST (continued)									
Blank (B3I0018-BLK1) - Continued				Prepared: 9/3/2013 Analyzed: 9/4/2013					
Methoxychlor	ND	5.0			NR				
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*11.93*		*16.6667*		*71.6*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*12.71*		*16.6667*		*76.3*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*12.99*		*16.6667*		*77.9*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*12.69*		*16.6667*		*76.1*	*32 - 101*			
LCS (B3I0018-BS1)				Prepared: 9/3/2013 Analyzed: 9/4/2013					
4,4'-DDT	12.5252	2.0	16.6667		75.2	60 - 108			
4,4'-DDT [2C]	14.4887	2.0	16.6667		86.9	60 - 108			
Aldrin	13.6718	1.0	16.6667		82.0	57 - 111			
Aldrin [2C]	13.0053	1.0	16.6667		78.0	57 - 111			
Dieldrin	12.9073	2.0	16.6667		77.4	61 - 106			
Dieldrin [2C]	12.6792	2.0	16.6667		76.1	61 - 106			
Endrin	12.1877	2.0	16.6667		73.1	57 - 97			
Endrin [2C]	12.3100	2.0	16.6667		73.9	57 - 97			
gamma-BHC	14.0502	1.0	16.6667		84.3	61 - 109			
gamma-BHC [2C]	13.7977	1.0	16.6667		82.8	61 - 109			
Heptachlor	14.6188	1.0	16.6667		87.7	58 - 115			
Heptachlor [2C]	15.5230	1.0	16.6667		93.1	58 - 115			
Surrogate: Decachlorobiphenyl	*12.80*		*16.6667*		*76.8*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*13.77*		*16.6667*		*82.6*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*13.11*		*16.6667*		*78.6*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*13.49*		*16.6667*		*80.9*	*32 - 101*			
Matrix Spike (B3I0018-MS1)		**Source: 1302547-12**		Prepared: 9/3/2013 Analyzed: 9/4/2013					
4,4'-DDT	16.0780	2.0	16.6667	ND	96.5	26 - 133			
4,4'-DDT [2C]	18.3302	2.0	16.6667	ND	110	26 - 133			
Aldrin	15.0963	1.0	16.6667	ND	90.6	38 - 119			
Aldrin [2C]	15.1845	1.0	16.6667	ND	91.1	38 - 119			
Dieldrin	15.4520	2.0	16.6667	ND	92.7	30 - 120			
Dieldrin [2C]	15.4297	2.0	16.6667	ND	92.6	30 - 120			
Endrin	15.7060	2.0	16.6667	ND	94.2	30 - 114			
Endrin [2C]	15.6680	2.0	16.6667	ND	94.0	30 - 114			
gamma-BHC	15.6800	1.0	16.6667	ND	94.1	31 - 122			
gamma-BHC [2C]	15.7277	1.0	16.6667	ND	94.4	31 - 122			
Heptachlor	15.8100	1.0	16.6667	ND	94.9	38 - 123			
Heptachlor [2C]	18.0050	1.0	16.6667	ND	108	38 - 123			

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QUALITY CONTROL SECTION

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3I0018 - GCSEMI_PCB/PEST (continued)									
Matrix Spike (B3I0018-MS1) - Continued		**Source: 1302547-12**		Prepared: 9/3/2013 Analyzed: 9/4/2013					
Surrogate: Decachlorobiphenyl	*15.03*		*16.6667*		*90.2*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*16.46*		*16.6667*		*98.8*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*14.19*		*16.6667*		*85.2*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.02*		*16.6667*		*90.1*	*32 - 101*			
Matrix Spike Dup (B3I0018-MSD1)		**Source: 1302547-12**		Prepared: 9/3/2013 Analyzed: 9/4/2013					
4,4'-DDT	15.4095	2.0	16.6667	ND	92.5	26 - 133	4.25	20	
4,4'-DDT [2C]	17.3803	2.0	16.6667	ND	104	26 - 133	5.32	20	
Aldrin	14.8060	1.0	16.6667	ND	88.8	38 - 119	1.94	20	
Aldrin [2C]	14.9453	1.0	16.6667	ND	89.7	38 - 119	1.59	20	
Dieldrin	14.9032	2.0	16.6667	ND	89.4	30 - 120	3.62	20	
Dieldrin [2C]	14.8320	2.0	16.6667	ND	89.0	30 - 120	3.95	20	
Endrin	15.1940	2.0	16.6667	ND	91.2	30 - 114	3.31	20	
Endrin [2C]	15.0668	2.0	16.6667	ND	90.4	30 - 114	3.91	20	
gamma-BHC	15.5715	1.0	16.6667	ND	93.4	31 - 122	0.694	20	
gamma-BHC [2C]	15.6218	1.0	16.6667	ND	93.7	31 - 122	0.675	20	
Heptachlor	15.7422	1.0	16.6667	ND	94.5	38 - 123	0.430	20	
Heptachlor [2C]	17.9592	1.0	16.6667	ND	108	38 - 123	0.255	20	
Surrogate: Decachlorobiphenyl	*14.49*		*16.6667*		*86.9*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*16.03*		*16.6667*		*96.2*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*14.17*		*16.6667*		*85.0*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.00*		*16.6667*		*90.0*	*32 - 101*			

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QUALITY CONTROL SECTION

Semivolatile Organic Compounds by EPA 8270/SIM - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3I0021 - MSSEMI									
Blank (B3I0021-BLK1)				Prepared: 9/3/2013 Analyzed: 9/9/2013					
2-Methylnaphthalene	ND	5.0			NR				
Acenaphthene	ND	5.0			NR				
Acenaphthylene	ND	5.0			NR				
Anthracene	ND	5.0			NR				
Benzo(a)anthracene	ND	5.0			NR				
Benzo(a)pyrene	ND	5.0			NR				
Benzo(b)fluoranthene	ND	5.0			NR				
Benzo(g,h,i)perylene	ND	5.0			NR				
Benzo(k)fluoranthene	ND	5.0			NR				
Chrysene	ND	5.0			NR				
Dibenz(a,h)anthracene	ND	5.0			NR				
Fluoranthene	ND	5.0			NR				
Fluorene	ND	5.0			NR				
Indeno(1,2,3-cd)pyrene	ND	5.0			NR				
Naphthalene	ND	5.0			NR				
Phenanthrene	ND	5.0			NR				
Pyrene	ND	5.0			NR				
Surrogate: 1,2-Dichlorobenzene-d4	*15.26*		*33.3333*		*45.8*	*28 - 96*			
Surrogate: 2-Fluorobiphenyl	*17.20*		*33.3333*		*51.6*	*36 - 113*			
Surrogate: Nitrobenzene-d5	*13.60*		*33.3333*		*40.8*	*29 - 106*			
Surrogate: 4-Terphenyl-d14	*27.52*		*33.3333*		*82.6*	*39 - 138*			
LCS (B3I0021-BS1)				Prepared: 9/3/2013 Analyzed: 9/9/2013					
Acenaphthene	21.1763	5.0	33.3333		63.5	50 - 93			
Phenanthrene	24.3747	5.0	33.3333		73.1	46 - 98			
Pyrene	26.2043	5.0	33.3333		78.6	52 - 112			
Surrogate: 1,2-Dichlorobenzene-d4	*18.29*		*33.3333*		*54.9*	*28 - 96*			
Surrogate: 2-Fluorobiphenyl	*20.32*		*33.3333*		*61.0*	*36 - 113*			
Surrogate: Nitrobenzene-d5	*16.52*		*33.3333*		*49.6*	*29 - 106*			
Surrogate: 4-Terphenyl-d14	*24.28*		*33.3333*		*72.8*	*39 - 138*			
Matrix Spike (B3I0021-MS1)		**Source: 1302547-12**		Prepared: 9/3/2013 Analyzed: 9/9/2013					
Acenaphthene	24.6473	5.0	33.3333	ND	73.9	45 - 103			
Phenanthrene	26.8527	5.0	33.3333	ND	80.6	43 - 115			
Pyrene	27.1540	5.0	33.3333	ND	81.5	49 - 125			
Surrogate: 1,2-Dichlorobenzene-d4	*21.21*		*33.3333*		*63.6*	*28 - 96*			
Surrogate: 2-Fluorobiphenyl	*24.49*		*33.3333*		*73.5*	*36 - 113*			
Surrogate: Nitrobenzene-d5	*19.77*		*33.3333*		*59.3*	*29 - 106*			
Surrogate: 4-Terphenyl-d14	*25.42*		*33.3333*		*76.3*	*39 - 138*			

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Semivolatile Organic Compounds by EPA 8270/SIM - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3I0021 - MSSEMI (continued)									
Matrix Spike Dup (B3I0021-MSD1)		**Source: 1302547-12**		Prepared: 9/3/2013 Analyzed: 9/9/2013					
Acenaphthene	25.9103	5.0	33.3333	ND	77.7	45 - 103	5.00	20	
Phenanthrene	27.3927	5.0	33.3333	ND	82.2	43 - 115	1.99	20	
Pyrene	26.7757	5.0	33.3333	ND	80.3	49 - 125	1.40	20	
Surrogate: 1,2-Dichlorobenzene-d4	*21.75*		*33.3333*		*65.2*	*28 - 96*			
Surrogate: 2-Fluorobiphenyl	*24.87*		*33.3333*		*74.6*	*36 - 113*			
Surrogate: Nitrobenzene-d5	*19.91*		*33.3333*		*59.7*	*29 - 106*			
Surrogate: 4-Terphenyl-d14	*24.23*		*33.3333*		*72.7*	*39 - 138*			

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Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
D6	Sample required dilution due to high concentration of target analyte.
D5	Sample diluted due to failing internal standard in the original run.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte not detected at or above reporting limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA1	CA-NELAP (CDPH)
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

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Client Sample ID T-17-0.5

Lab ID: 1302581-01

Total Metals by ICP-AES EPA 6010B **Analyst: AG**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	11	1.0	0.14	1	B3H0501	08/27/2013	08/27/13 18:43	

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Client Sample ID T-17-1.5

Lab ID: 1302581-02

Title 22 Metals by ICP-AES EPA 6010B **Analyst: AG**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.22	1	B3H0501	08/27/2013	08/27/13 18:44	
Arsenic	**2.9**	1.0	0.38	1	B3H0501	08/27/2013	08/27/13 18:44	
Barium	**50**	1.0	0.08	1	B3H0501	08/27/2013	08/27/13 18:44	
Beryllium	ND	1.0	0.02	1	B3H0501	08/27/2013	08/27/13 18:44	
Cadmium	ND	1.0	0.02	1	B3H0501	08/27/2013	08/27/13 18:44	
Chromium	**8.6**	1.0	0.04	1	B3H0501	08/27/2013	08/27/13 18:44	
Cobalt	**3.1**	1.0	0.06	1	B3H0501	08/27/2013	08/27/13 18:44	
Copper	**7.0**	2.0	0.11	1	B3H0501	08/27/2013	08/27/13 18:44	
Lead	**9.8**	1.0	0.14	1	B3H0501	08/27/2013	08/27/13 18:44	
Molybdenum	ND	1.0	0.04	1	B3H0501	08/27/2013	08/27/13 18:44	
Nickel	**3.3**	1.0	0.04	1	B3H0501	08/27/2013	08/27/13 18:44	
Selenium	ND	1.0	0.24	1	B3H0501	08/27/2013	08/27/13 18:44	
Silver	ND	1.0	0.06	1	B3H0501	08/27/2013	08/27/13 18:44	
Thallium	ND	1.0	0.29	1	B3H0501	08/27/2013	08/27/13 18:44	
Vanadium	**23**	1.0	0.17	1	B3H0501	08/27/2013	08/27/13 18:44	
Zinc	**22**	1.0	0.50	1	B3H0501	08/27/2013	08/27/13 18:44	

Mercury by AA (Cold Vapor) EPA 7471A **Analyst: VV**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.008	1	B3H0553	08/28/2013	08/28/13 17:22	

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Client Sample ID T-17-5

Lab ID: 1302581-03

Total Metals by ICP-AES EPA 6010B **Analyst: AG**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.8**	1.0	0.14	1	B3H0501	08/27/2013	08/27/13 18:46	

Ninyo & Moore	Project Number : Clairemont HS BS, 105338077
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San Diego , CA 92123	Reported : 9/25/2013

Client Sample ID T-18-0.5

Lab ID: 1302581-04

Title 22 Metals by ICP-AES EPA 6010B **Analyst: AG**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.22	1	B3H0501	08/27/2013	08/27/13 18:47	
Arsenic	**2.8**	1.0	0.38	1	B3H0501	08/27/2013	08/27/13 18:47	
Barium	**36**	1.0	0.08	1	B3H0501	08/27/2013	08/27/13 18:47	
Beryllium	ND	1.0	0.02	1	B3H0501	08/27/2013	08/27/13 18:47	
Cadmium	ND	1.0	0.02	1	B3H0501	08/27/2013	08/27/13 18:47	
Chromium	**13**	1.0	0.04	1	B3H0501	08/27/2013	08/27/13 18:47	
Cobalt	**2.5**	1.0	0.06	1	B3H0501	08/27/2013	08/27/13 18:47	
Copper	**21**	2.0	0.11	1	B3H0501	08/27/2013	08/27/13 18:47	
Lead	**24**	1.0	0.14	1	B3H0501	08/27/2013	08/27/13 18:47	
Molybdenum	ND	1.0	0.04	1	B3H0501	08/27/2013	08/27/13 18:47	
Nickel	**3.3**	1.0	0.04	1	B3H0501	08/27/2013	08/27/13 18:47	
Selenium	ND	1.0	0.24	1	B3H0501	08/27/2013	08/27/13 18:47	
Silver	ND	1.0	0.06	1	B3H0501	08/27/2013	08/27/13 18:47	
Thallium	ND	1.0	0.30	1	B3H0501	08/27/2013	08/27/13 18:47	
Vanadium	**19**	1.0	0.17	1	B3H0501	08/27/2013	08/27/13 18:47	
Zinc	**36**	1.0	0.51	1	B3H0501	08/27/2013	08/27/13 18:47	

Mercury by AA (Cold Vapor) EPA 7471A **Analyst: VV**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.008	1	B3H0553	08/28/2013	08/28/13 17:42	

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Client Sample ID T-18-3

Lab ID: 1302581-05

Total Metals by ICP-AES EPA 6010B **Analyst: AG**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**9.2**	1.0	0.14	1	B3H0501	08/27/2013	08/27/13 18:52	

Ninyo & Moore	Project Number : Clairemont HS BS, 105338077
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Client Sample ID T-18-5.5

Lab ID: 1302581-06

Total Metals by ICP-AES EPA 6010B **Analyst: AG**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.6**	1.0	0.14	1	B3H0501	08/27/2013	08/27/13 18:54	

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Client Sample ID T-19-1

Lab ID: 1302581-07

Title 22 Metals by ICP-AES EPA 6010B **Analyst: AG**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.22	1	B3H0501	08/27/2013	08/27/13 18:56	
Arsenic	**1.2**	1.0	0.38	1	B3H0501	08/27/2013	08/27/13 18:56	
Barium	**24**	1.0	0.08	1	B3H0501	08/27/2013	08/27/13 18:56	
Beryllium	ND	1.0	0.02	1	B3H0501	08/27/2013	08/27/13 18:56	
Cadmium	ND	1.0	0.02	1	B3H0501	08/27/2013	08/27/13 18:56	
Chromium	**11**	1.0	0.04	1	B3H0501	08/27/2013	08/27/13 18:56	
Cobalt	**2.5**	1.0	0.06	1	B3H0501	08/27/2013	08/27/13 18:56	
Copper	**4.8**	2.0	0.11	1	B3H0501	08/27/2013	08/27/13 18:56	
Lead	**2.4**	1.0	0.14	1	B3H0501	08/27/2013	08/27/13 18:56	
Molybdenum	ND	1.0	0.04	1	B3H0501	08/27/2013	08/27/13 18:56	
Nickel	**3.2**	1.0	0.04	1	B3H0501	08/27/2013	08/27/13 18:56	
Selenium	ND	1.0	0.24	1	B3H0501	08/27/2013	08/27/13 18:56	
Silver	ND	1.0	0.06	1	B3H0501	08/27/2013	08/27/13 18:56	
Thallium	ND	1.0	0.29	1	B3H0501	08/27/2013	08/27/13 18:56	
Vanadium	**16**	1.0	0.17	1	B3H0501	08/27/2013	08/27/13 18:56	
Zinc	**19**	1.0	0.50	1	B3H0501	08/27/2013	08/27/13 18:56	

Mercury by AA (Cold Vapor) EPA 7471A **Analyst: VV**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.008	1	B3H0553	08/28/2013	08/28/13 17:44	

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Client Sample ID T-19-3.5

Lab ID: 1302581-08

Total Metals by ICP-AES EPA 6010B **Analyst: AG**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.2**	1.0	0.14	1	B3H0501	08/27/2013	08/27/13 18:57	

Ninyo & Moore	Project Number : Clairemont HS BS, 105338077
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Client Sample ID T-19-7

Lab ID: 1302581-09

Total Metals by ICP-AES EPA 6010B **Analyst: AG**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.3**	1.0	0.14	1	B3H0501	08/27/2013	08/27/13 18:59	

Ninyo & Moore	Project Number : Clairemont HS BS, 105338077
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Client Sample ID T-20-1

Lab ID: 1302581-10

Total Metals by ICP-AES EPA 6010B **Analyst: AG**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.3**	1.0	0.14	1	B3H0501	08/27/2013	08/27/13 19:00	

Ninyo & Moore	Project Number : Clairemont HS BS, 105338077
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San Diego , CA 92123	Reported : 9/25/2013

Client Sample ID T-20-3.5

Lab ID: 1302581-11

Title 22 Metals by ICP-AES EPA 6010B **Analyst: AG**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.22	1	B3H0501	08/27/2013	08/27/13 19:02	
Arsenic	**1.3**	1.0	0.38	1	B3H0501	08/27/2013	08/27/13 19:02	
Barium	**28**	1.0	0.08	1	B3H0501	08/27/2013	08/27/13 19:02	
Beryllium	ND	1.0	0.02	1	B3H0501	08/27/2013	08/27/13 19:02	
Cadmium	ND	1.0	0.02	1	B3H0501	08/27/2013	08/27/13 19:02	
Chromium	**8.1**	1.0	0.04	1	B3H0501	08/27/2013	08/27/13 19:02	
Cobalt	**1.7**	1.0	0.06	1	B3H0501	08/27/2013	08/27/13 19:02	
Copper	**5.6**	2.0	0.11	1	B3H0501	08/27/2013	08/27/13 19:02	
Lead	**2.2**	1.0	0.14	1	B3H0501	08/27/2013	08/27/13 19:02	
Molybdenum	ND	1.0	0.04	1	B3H0501	08/27/2013	08/27/13 19:02	
Nickel	**2.8**	1.0	0.04	1	B3H0501	08/27/2013	08/27/13 19:02	
Selenium	ND	1.0	0.24	1	B3H0501	08/27/2013	08/27/13 19:02	
Silver	ND	1.0	0.06	1	B3H0501	08/27/2013	08/27/13 19:02	
Thallium	ND	1.0	0.29	1	B3H0501	08/27/2013	08/27/13 19:02	
Vanadium	**16**	1.0	0.17	1	B3H0501	08/27/2013	08/27/13 19:02	
Zinc	**14**	1.0	0.50	1	B3H0501	08/27/2013	08/27/13 19:02	

Mercury by AA (Cold Vapor) EPA 7471A **Analyst: VV**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.008	1	B3H0553	08/28/2013	08/28/13 17:46	

Ninyo & Moore	Project Number : Clairemont HS BS, 105338077
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Client Sample ID T-20-6.5

Lab ID: 1302581-12

Total Metals by ICP-AES EPA 6010B **Analyst: AG**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**5.3**	1.0	0.14	1	B3H0501	08/27/2013	08/27/13 19:03	

Ninyo & Moore	Project Number : Clairemont HS BS, 105338077
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Client Sample ID T-21-1

Lab ID: 1302581-13

Title 22 Metals by ICP-AES EPA 6010B **Analyst: AG**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.22	1	B3H0501	08/27/2013	08/27/13 19:05	
Arsenic	**2.7**	1.0	0.38	1	B3H0501	08/27/2013	08/27/13 19:05	
Barium	**45**	1.0	0.08	1	B3H0501	08/27/2013	08/27/13 19:05	
Beryllium	ND	1.0	0.02	1	B3H0501	08/27/2013	08/27/13 19:05	
Cadmium	ND	1.0	0.02	1	B3H0501	08/27/2013	08/27/13 19:05	
Chromium	**8.0**	1.0	0.04	1	B3H0501	08/27/2013	08/27/13 19:05	
Cobalt	**2.4**	1.0	0.06	1	B3H0501	08/27/2013	08/27/13 19:05	
Copper	**7.0**	2.0	0.11	1	B3H0501	08/27/2013	08/27/13 19:05	
Lead	**8.1**	1.0	0.14	1	B3H0501	08/27/2013	08/27/13 19:05	
Molybdenum	ND	1.0	0.04	1	B3H0501	08/27/2013	08/27/13 19:05	
Nickel	**3.1**	1.0	0.04	1	B3H0501	08/27/2013	08/27/13 19:05	
Selenium	ND	1.0	0.24	1	B3H0501	08/27/2013	08/27/13 19:05	
Silver	ND	1.0	0.06	1	B3H0501	08/27/2013	08/27/13 19:05	
Thallium	ND	1.0	0.30	1	B3H0501	08/27/2013	08/27/13 19:05	
Vanadium	**22**	1.0	0.17	1	B3H0501	08/27/2013	08/27/13 19:05	
Zinc	**20**	1.0	0.51	1	B3H0501	08/27/2013	08/27/13 19:05	

Mercury by AA (Cold Vapor) EPA 7471A **Analyst: VV**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.008	1	B3H0553	08/28/2013	08/28/13 17:48	

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Client Sample ID T-21-2

Lab ID: 1302581-14

Total Metals by ICP-AES EPA 6010B **Analyst: AG**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.4	1.0	0.14	1	B3H0501	08/27/2013	08/27/13 19:06	

Ninyo & Moore	Project Number : Clairemont HS BS, 105338077
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Client Sample ID T-22-1

Lab ID: 1302581-15

Title 22 Metals by ICP-AES EPA 6010B — **Analyst: AG**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.22	1	B3H0501	08/27/2013	08/27/13 19:12	
Arsenic	**2.0**	1.0	0.38	1	B3H0501	08/27/2013	08/27/13 19:12	
Barium	**26**	1.0	0.08	1	B3H0501	08/27/2013	08/27/13 19:12	
Beryllium	ND	1.0	0.02	1	B3H0501	08/27/2013	08/27/13 19:12	
Cadmium	ND	1.0	0.02	1	B3H0501	08/27/2013	08/27/13 19:12	
Chromium	**12**	1.0	0.04	1	B3H0501	08/27/2013	08/27/13 19:12	
Cobalt	**2.2**	1.0	0.06	1	B3H0501	08/27/2013	08/27/13 19:12	
Copper	**7.7**	2.0	0.11	1	B3H0501	08/27/2013	08/27/13 19:12	
Lead	**7.0**	1.0	0.14	1	B3H0501	08/27/2013	08/27/13 19:12	
Molybdenum	ND	1.0	0.04	1	B3H0501	08/27/2013	08/27/13 19:12	
Nickel	**3.2**	1.0	0.04	1	B3H0501	08/27/2013	08/27/13 19:12	
Selenium	ND	1.0	0.24	1	B3H0501	08/27/2013	08/27/13 19:12	
Silver	ND	1.0	0.06	1	B3H0501	08/27/2013	08/27/13 19:12	
Thallium	ND	1.0	0.29	1	B3H0501	08/27/2013	08/27/13 19:12	
Vanadium	**23**	1.0	0.17	1	B3H0501	08/27/2013	08/27/13 19:12	
Zinc	**26**	1.0	0.50	1	B3H0501	08/27/2013	08/27/13 19:12	

Mercury by AA (Cold Vapor) EPA 7471A — **Analyst: VV**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.008	1	B3H0553	08/28/2013	08/28/13 17:50	

Hydrocarbon Chain Distribution by EPA 8015B (Modified) — **Analyst: MFR**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	10	1	B3H0499	08/27/2013	08/27/13 17:29	
T/R Hydrocarbons: C10-C18	ND	10	10	1	B3H0499	08/27/2013	08/27/13 17:29	
T/R Hydrocarbons: C18-C28	ND	10	10	1	B3H0499	08/27/2013	08/27/13 17:29	
T/R Hydrocarbons: C28-C36	ND	10	10	1	B3H0499	08/27/2013	08/27/13 17:29	
T/R Hydrocarbons: C36-C40	ND	10	10	1	B3H0499	08/27/2013	08/27/13 17:29	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	10	1	B3H0499	08/27/2013	08/27/13 17:29	
Surrogate: p-Terphenyl	*95.4 %*	*55 - 153*			B3H0499	08/27/2013	*08/27/13 17:29*	

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Organochlorine Pesticides by EPA 8081 **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.12	1	B3H0528	08/28/2013	08/28/13 14:52	
4,4'-DDE	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:52	
4,4'-DDT	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:52	
Aldrin	ND	1.0	0.09	1	B3H0528	08/28/2013	08/28/13 14:52	
alpha-BHC	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 14:52	
alpha-Chlordane	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 14:52	
beta-BHC	ND	1.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:52	
Chlordane	ND	8.5	1.5	1	B3H0528	08/28/2013	08/28/13 14:52	
delta-BHC	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 14:52	
Dieldrin	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:52	
Endosulfan I	ND	1.0	0.12	1	B3H0528	08/28/2013	08/28/13 14:52	
Endosulfan II	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:52	
Endosulfan sulfate	ND	2.0	0.12	1	B3H0528	08/28/2013	08/28/13 14:52	
Endrin	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:52	
Endrin aldehyde	ND	2.0	0.19	1	B3H0528	08/28/2013	08/28/13 14:52	
Endrin ketone	ND	2.0	0.14	1	B3H0528	08/28/2013	08/28/13 14:52	
gamma-BHC	ND	1.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:52	
gamma-Chlordane	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 14:52	
Heptachlor	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 14:52	
Heptachlor epoxide	ND	1.0	0.12	1	B3H0528	08/28/2013	08/28/13 14:52	
Methoxychlor	ND	5.0	0.13	1	B3H0528	08/28/2013	08/28/13 14:52	
Toxaphene	ND	50	11	1	B3H0528	08/28/2013	08/28/13 14:52	
Surrogate: Decachlorobiphenyl	*67.0 %*	*32 - 113*			B3H0528	08/28/2013	*08/28/13 14:52*	
Surrogate: Tetrachloro-m-xylene	*93.6 %*	*32 - 101*			B3H0528	08/28/2013	*08/28/13 14:52*	

Ninyo & Moore	Project Number : Clairemont HS BS, 105338077
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 9/25/2013

Client Sample ID T-22-1

Lab ID: 1302581-15

Semivolatile Organic Compounds by EPA 8270/SIM **Analyst: MFR**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	5.0	0.75	1	B3H0509	08/27/2013	08/27/13 19:35	
Acenaphthene	ND	5.0	0.43	1	B3H0509	08/27/2013	08/27/13 19:35	
Acenaphthylene	ND	5.0	0.35	1	B3H0509	08/27/2013	08/27/13 19:35	
Anthracene	ND	5.0	0.50	1	B3H0509	08/27/2013	08/27/13 19:35	
Benzo(a)anthracene	ND	5.0	0.71	1	B3H0509	08/27/2013	08/27/13 19:35	
Benzo(a)pyrene	ND	5.0	0.97	1	B3H0509	08/27/2013	08/27/13 19:35	
Benzo(b)fluoranthene	ND	5.0	0.38	1	B3H0509	08/27/2013	08/27/13 19:35	
Benzo(g,h,i)perylene	ND	5.0	1.6	1	B3H0509	08/27/2013	08/27/13 19:35	
Benzo(k)fluoranthene	ND	5.0	1.1	1	B3H0509	08/27/2013	08/27/13 19:35	
Chrysene	ND	5.0	0.76	1	B3H0509	08/27/2013	08/27/13 19:35	
Dibenz(a,h)anthracene	ND	5.0	1.6	1	B3H0509	08/27/2013	08/27/13 19:35	
Fluoranthene	ND	5.0	0.53	1	B3H0509	08/27/2013	08/27/13 19:35	
Fluorene	ND	5.0	0.47	1	B3H0509	08/27/2013	08/27/13 19:35	
Indeno(1,2,3-cd)pyrene	ND	5.0	1.5	1	B3H0509	08/27/2013	08/27/13 19:35	
Naphthalene	ND	5.0	0.54	1	B3H0509	08/27/2013	08/27/13 19:35	
Phenanthrene	ND	5.0	0.63	1	B3H0509	08/27/2013	08/27/13 19:35	
Pyrene	ND	5.0	0.49	1	B3H0509	08/27/2013	08/27/13 19:35	
Surrogate: 1,2-Dichlorobenzene-d4	*68.4 %*		*28 - 96*		B3H0509	08/27/2013	*08/27/13 19:35*	
Surrogate: 2-Fluorobiphenyl	*75.1 %*		*36 - 113*		B3H0509	08/27/2013	*08/27/13 19:35*	
Surrogate: Nitrobenzene-d5	*77.9 %*		*29 - 106*		B3H0509	08/27/2013	*08/27/13 19:35*	
Surrogate: 4-Terphenyl-d14	*112 %*		*39 - 138*		B3H0509	08/27/2013	*08/27/13 19:35*	

Ninyo & Moore	Project Number : Clairemont HS BS, 105338077
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 9/25/2013

Client Sample ID T-22-4.5

Lab ID: 1302581-16

Total Metals by ICP-AES EPA 6010B **Analyst: AG**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**1.4**	1.0	0.14	1	B3H0501	08/27/2013	08/27/13 19:13	

Ninyo & Moore	Project Number : Clairemont HS BS, 105338077
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 9/25/2013

Client Sample ID T-22-7

Lab ID: 1302581-17

Total Metals by ICP-AES EPA 6010B **Analyst: AG**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**6.2**	5.0	0.70	5	B3H0501	08/27/2013	08/28/13 14:47	D5

Ninyo & Moore	Project Number : Clairemont HS BS, 105338077
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 9/25/2013

Client Sample ID T-23-1

Lab ID: 1302581-18

Total Metals by ICP-AES EPA 6010B **Analyst: AG**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**32**	1.0	0.14	1	B3H0501	08/27/2013	08/27/13 19:16	

Ninyo & Moore	Project Number : Clairemont HS BS, 105338077
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 9/25/2013

Client Sample ID T-23-3

Lab ID: 1302581-19

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.22	1	B3H0502	08/27/2013	08/27/13 19:22	
Arsenic	**1.4**	1.0	0.38	1	B3H0502	08/27/2013	08/27/13 19:22	
Barium	**17**	1.0	0.08	1	B3H0502	08/27/2013	08/27/13 19:22	
Beryllium	ND	1.0	0.02	1	B3H0502	08/27/2013	08/27/13 19:22	
Cadmium	ND	1.0	0.02	1	B3H0502	08/27/2013	08/27/13 19:22	
Chromium	**9.6**	1.0	0.04	1	B3H0502	08/27/2013	08/27/13 19:22	
Cobalt	**1.4**	1.0	0.06	1	B3H0502	08/27/2013	08/27/13 19:22	
Copper	**5.0**	2.0	0.11	1	B3H0502	08/27/2013	08/27/13 19:22	
Lead	**4.3**	1.0	0.14	1	B3H0502	08/27/2013	08/27/13 19:22	
Molybdenum	ND	1.0	0.04	1	B3H0502	08/27/2013	08/27/13 19:22	
Nickel	**2.5**	1.0	0.04	1	B3H0502	08/27/2013	08/27/13 19:22	
Selenium	ND	1.0	0.24	1	B3H0502	08/27/2013	08/27/13 19:22	
Silver	ND	1.0	0.06	1	B3H0502	08/27/2013	08/27/13 19:22	
Thallium	ND	1.0	0.30	1	B3H0502	08/27/2013	08/27/13 19:22	
Vanadium	**22**	1.0	0.17	1	B3H0502	08/27/2013	08/27/13 19:22	
Zinc	**15**	1.0	0.51	1	B3H0502	08/27/2013	08/27/13 19:22	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.008	1	B3H0553	08/28/2013	08/28/13 17:52	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: MFR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	10	1	B3H0499	08/27/2013	08/27/13 17:46	
T/R Hydrocarbons: C10-C18	ND	10	10	1	B3H0499	08/27/2013	08/27/13 17:46	
T/R Hydrocarbons: C18-C28	ND	10	10	1	B3H0499	08/27/2013	08/27/13 17:46	
T/R Hydrocarbons: C28-C36	ND	10	10	1	B3H0499	08/27/2013	08/27/13 17:46	
T/R Hydrocarbons: C36-C40	ND	10	10	1	B3H0499	08/27/2013	08/27/13 17:46	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	10	1	B3H0499	08/27/2013	08/27/13 17:46	
Surrogate: p-Terphenyl	*107 %*	*55 - 153*			B3H0499	08/27/2013	*08/27/13 17:46*	

Ninyo & Moore	Project Number : Clairemont HS BS, 105338077
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 9/25/2013

Client Sample ID T-23-3

Lab ID: 1302581-19

Organochlorine Pesticides by EPA 8081 **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.12	1	B3H0528	08/28/2013	08/28/13 13:33	
4,4'-DDE	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 13:33	
4,4'-DDT	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 13:33	
Aldrin	ND	1.0	0.09	1	B3H0528	08/28/2013	08/28/13 13:33	
alpha-BHC	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 13:33	
alpha-Chlordane	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 13:33	
beta-BHC	ND	1.0	0.11	1	B3H0528	08/28/2013	08/28/13 13:33	
Chlordane	ND	8.5	1.5	1	B3H0528	08/28/2013	08/28/13 13:33	
delta-BHC	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 13:33	
Dieldrin	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 13:33	
Endosulfan I	ND	1.0	0.12	1	B3H0528	08/28/2013	08/28/13 13:33	
Endosulfan II	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 13:33	
Endosulfan sulfate	ND	2.0	0.12	1	B3H0528	08/28/2013	08/28/13 13:33	
Endrin	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 13:33	
Endrin aldehyde	ND	2.0	0.19	1	B3H0528	08/28/2013	08/28/13 13:33	
Endrin ketone	ND	2.0	0.14	1	B3H0528	08/28/2013	08/28/13 13:33	
gamma-BHC	ND	1.0	0.11	1	B3H0528	08/28/2013	08/28/13 13:33	
gamma-Chlordane	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 13:33	
Heptachlor	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 13:33	
Heptachlor epoxide	ND	1.0	0.12	1	B3H0528	08/28/2013	08/28/13 13:33	
Methoxychlor	ND	5.0	0.13	1	B3H0528	08/28/2013	08/28/13 13:33	
Toxaphene	ND	50	11	1	B3H0528	08/28/2013	08/28/13 13:33	
Surrogate: Decachlorobiphenyl	*73.4 %*		*32 - 113*		B3H0528	08/28/2013	*08/28/13 13:33*	
Surrogate: Tetrachloro-m-xylene	*84.0 %*		*32 - 101*		B3H0528	08/28/2013	*08/28/13 13:33*	

Ninyo & Moore	Project Number : Clairemont HS BS, 105338077
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 9/25/2013

Client Sample ID T-23-3

Lab ID: 1302581-19

Semivolatile Organic Compounds by EPA 8270/SIM **Analyst: MFR**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	5.0	0.75	1	B3H0509	08/27/2013	08/27/13 20:02	
Acenaphthene	ND	5.0	0.43	1	B3H0509	08/27/2013	08/27/13 20:02	
Acenaphthylene	ND	5.0	0.35	1	B3H0509	08/27/2013	08/27/13 20:02	
Anthracene	ND	5.0	0.50	1	B3H0509	08/27/2013	08/27/13 20:02	
Benzo(a)anthracene	ND	5.0	0.71	1	B3H0509	08/27/2013	08/27/13 20:02	
Benzo(a)pyrene	ND	5.0	0.97	1	B3H0509	08/27/2013	08/27/13 20:02	
Benzo(b)fluoranthene	ND	5.0	0.38	1	B3H0509	08/27/2013	08/27/13 20:02	
Benzo(g,h,i)perylene	ND	5.0	1.6	1	B3H0509	08/27/2013	08/27/13 20:02	
Benzo(k)fluoranthene	ND	5.0	1.1	1	B3H0509	08/27/2013	08/27/13 20:02	
Chrysene	ND	5.0	0.76	1	B3H0509	08/27/2013	08/27/13 20:02	
Dibenz(a,h)anthracene	ND	5.0	1.6	1	B3H0509	08/27/2013	08/27/13 20:02	
Fluoranthene	ND	5.0	0.53	1	B3H0509	08/27/2013	08/27/13 20:02	
Fluorene	ND	5.0	0.47	1	B3H0509	08/27/2013	08/27/13 20:02	
Indeno(1,2,3-cd)pyrene	ND	5.0	1.5	1	B3H0509	08/27/2013	08/27/13 20:02	
Naphthalene	ND	5.0	0.54	1	B3H0509	08/27/2013	08/27/13 20:02	
Phenanthrene	ND	5.0	0.63	1	B3H0509	08/27/2013	08/27/13 20:02	
Pyrene	ND	5.0	0.49	1	B3H0509	08/27/2013	08/27/13 20:02	
Surrogate: 1,2-Dichlorobenzene-d4	*76.0 %*	*28 - 96*			B3H0509	08/27/2013	*08/27/13 20:02*	
Surrogate: 2-Fluorobiphenyl	*75.8 %*	*36 - 113*			B3H0509	08/27/2013	*08/27/13 20:02*	
Surrogate: Nitrobenzene-d5	*80.5 %*	*29 - 106*			B3H0509	08/27/2013	*08/27/13 20:02*	
Surrogate: 4-Terphenyl-d14	*119 %*	*39 - 138*			B3H0509	08/27/2013	*08/27/13 20:02*	

Ninyo & Moore	Project Number : Clairemont HS BS, 105338077
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 9/25/2013

Client Sample ID T-23-8

Lab ID: 1302581-20

Total Metals by ICP-AES EPA 6010B **Analyst: AG**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**18**	5.0	0.70	5	B3H0502	08/27/2013	08/28/13 14:49	D5

Ninyo & Moore	Project Number : Clairemont HS BS, 105338077
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 9/25/2013

Client Sample ID Dup-2

Lab ID: 1302581-21

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.22	1	B3H0502	08/27/2013	08/27/13 19:32	
Arsenic	**1.6**	1.0	0.38	1	B3H0502	08/27/2013	08/27/13 19:32	
Barium	**14**	1.0	0.08	1	B3H0502	08/27/2013	08/27/13 19:32	
Beryllium	ND	1.0	0.02	1	B3H0502	08/27/2013	08/27/13 19:32	
Cadmium	ND	1.0	0.02	1	B3H0502	08/27/2013	08/27/13 19:32	
Chromium	**8.7**	1.0	0.04	1	B3H0502	08/27/2013	08/27/13 19:32	
Cobalt	**1.4**	1.0	0.06	1	B3H0502	08/27/2013	08/27/13 19:32	
Copper	**4.1**	2.0	0.11	1	B3H0502	08/27/2013	08/27/13 19:32	
Lead	**1.6**	1.0	0.14	1	B3H0502	08/27/2013	08/27/13 19:32	
Molybdenum	ND	1.0	0.04	1	B3H0502	08/27/2013	08/27/13 19:32	
Nickel	**2.5**	1.0	0.04	1	B3H0502	08/27/2013	08/27/13 19:32	
Selenium	ND	1.0	0.24	1	B3H0502	08/27/2013	08/27/13 19:32	
Silver	ND	1.0	0.06	1	B3H0502	08/27/2013	08/27/13 19:32	
Thallium	ND	1.0	0.30	1	B3H0502	08/27/2013	08/27/13 19:32	
Vanadium	**22**	1.0	0.17	1	B3H0502	08/27/2013	08/27/13 19:32	
Zinc	**14**	1.0	0.51	1	B3H0502	08/27/2013	08/27/13 19:32	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.008	1	B3H0553	08/28/2013	08/28/13 17:54	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: MFR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	10	1	B3H0499	08/27/2013	08/27/13 18:03	
T/R Hydrocarbons: C10-C18	ND	10	10	1	B3H0499	08/27/2013	08/27/13 18:03	
T/R Hydrocarbons: C18-C28	ND	10	10	1	B3H0499	08/27/2013	08/27/13 18:03	
T/R Hydrocarbons: C28-C36	ND	10	10	1	B3H0499	08/27/2013	08/27/13 18:03	
T/R Hydrocarbons: C36-C40	ND	10	10	1	B3H0499	08/27/2013	08/27/13 18:03	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	10	1	B3H0499	08/27/2013	08/27/13 18:03	
Surrogate: p-Terphenyl	*106 %*	*55 - 153*			B3H0499	08/27/2013	*08/27/13 18:03*	

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Client Sample ID Dup-2

Lab ID: 1302581-21

Organochlorine Pesticides by EPA 8081 **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.12	1	B3H0528	08/28/2013	08/28/13 14:26	
4,4'-DDE	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:26	
4,4'-DDT	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:26	
Aldrin	ND	1.0	0.09	1	B3H0528	08/28/2013	08/28/13 14:26	
alpha-BHC	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 14:26	
alpha-Chlordane	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 14:26	
beta-BHC	ND	1.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:26	
Chlordane	ND	8.5	1.5	1	B3H0528	08/28/2013	08/28/13 14:26	
delta-BHC	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 14:26	
Dieldrin	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:26	
Endosulfan I	ND	1.0	0.12	1	B3H0528	08/28/2013	08/28/13 14:26	
Endosulfan II	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:26	
Endosulfan sulfate	ND	2.0	0.12	1	B3H0528	08/28/2013	08/28/13 14:26	
Endrin	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:26	
Endrin aldehyde	ND	2.0	0.19	1	B3H0528	08/28/2013	08/28/13 14:26	
Endrin ketone	ND	2.0	0.14	1	B3H0528	08/28/2013	08/28/13 14:26	
gamma-BHC	ND	1.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:26	
gamma-Chlordane	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 14:26	
Heptachlor	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 14:26	
Heptachlor epoxide	ND	1.0	0.12	1	B3H0528	08/28/2013	08/28/13 14:26	
Methoxychlor	ND	5.0	0.13	1	B3H0528	08/28/2013	08/28/13 14:26	
Toxaphene	ND	50	11	1	B3H0528	08/28/2013	08/28/13 14:26	
Surrogate: Decachlorobiphenyl	*58.4 %*	*32 - 113*			B3H0528	08/28/2013	*08/28/13 14:26*	
Surrogate: Tetrachloro-m-xylene	*82.3 %*	*32 - 101*			B3H0528	08/28/2013	*08/28/13 14:26*	

Ninyo & Moore	Project Number : Clairemont HS BS, 105338077
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 9/25/2013

Client Sample ID Dup-2

Lab ID: 1302581-21

Semivolatile Organic Compounds by EPA 8270/SIM **Analyst: MFR**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	5.0	0.75	1	B3H0509	08/27/2013	08/27/13 20:29	
Acenaphthene	ND	5.0	0.43	1	B3H0509	08/27/2013	08/27/13 20:29	
Acenaphthylene	ND	5.0	0.35	1	B3H0509	08/27/2013	08/27/13 20:29	
Anthracene	ND	5.0	0.50	1	B3H0509	08/27/2013	08/27/13 20:29	
Benzo(a)anthracene	ND	5.0	0.71	1	B3H0509	08/27/2013	08/27/13 20:29	
Benzo(a)pyrene	ND	5.0	0.97	1	B3H0509	08/27/2013	08/27/13 20:29	
Benzo(b)fluoranthene	ND	5.0	0.38	1	B3H0509	08/27/2013	08/27/13 20:29	
Benzo(g,h,i)perylene	ND	5.0	1.6	1	B3H0509	08/27/2013	08/27/13 20:29	
Benzo(k)fluoranthene	ND	5.0	1.1	1	B3H0509	08/27/2013	08/27/13 20:29	
Chrysene	ND	5.0	0.76	1	B3H0509	08/27/2013	08/27/13 20:29	
Dibenz(a,h)anthracene	ND	5.0	1.6	1	B3H0509	08/27/2013	08/27/13 20:29	
Fluoranthene	ND	5.0	0.53	1	B3H0509	08/27/2013	08/27/13 20:29	
Fluorene	ND	5.0	0.47	1	B3H0509	08/27/2013	08/27/13 20:29	
Indeno(1,2,3-cd)pyrene	ND	5.0	1.5	1	B3H0509	08/27/2013	08/27/13 20:29	
Naphthalene	ND	5.0	0.54	1	B3H0509	08/27/2013	08/27/13 20:29	
Phenanthrene	ND	5.0	0.63	1	B3H0509	08/27/2013	08/27/13 20:29	
Pyrene	ND	5.0	0.49	1	B3H0509	08/27/2013	08/27/13 20:29	
Surrogate: 1,2-Dichlorobenzene-d4	*81.3 %*	*28 - 96*			B3H0509	08/27/2013	*08/27/13 20:29*	
Surrogate: 2-Fluorobiphenyl	*80.1 %*	*36 - 113*			B3H0509	08/27/2013	*08/27/13 20:29*	
Surrogate: Nitrobenzene-d5	*88.1 %*	*29 - 106*			B3H0509	08/27/2013	*08/27/13 20:29*	
Surrogate: 4-Terphenyl-d14	*123 %*	*39 - 138*			B3H0509	08/27/2013	*08/27/13 20:29*	

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Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.22	1	B3H0502	08/27/2013	08/27/13 19:34	
Arsenic	**1.9**	1.0	0.38	1	B3H0502	08/27/2013	08/27/13 19:34	
Barium	**54**	1.0	0.08	1	B3H0502	08/27/2013	08/27/13 19:34	
Beryllium	ND	1.0	0.02	1	B3H0502	08/27/2013	08/27/13 19:34	
Cadmium	ND	1.0	0.02	1	B3H0502	08/27/2013	08/27/13 19:34	
Chromium	**11**	1.0	0.04	1	B3H0502	08/27/2013	08/27/13 19:34	
Cobalt	**2.2**	1.0	0.06	1	B3H0502	08/27/2013	08/27/13 19:34	
Copper	**7.3**	2.0	0.11	1	B3H0502	08/27/2013	08/27/13 19:34	
Lead	**6.0**	1.0	0.14	1	B3H0502	08/27/2013	08/27/13 19:34	
Molybdenum	ND	1.0	0.04	1	B3H0502	08/27/2013	08/27/13 19:34	
Nickel	**3.0**	1.0	0.04	1	B3H0502	08/27/2013	08/27/13 19:34	
Selenium	ND	1.0	0.24	1	B3H0502	08/27/2013	08/27/13 19:34	
Silver	ND	1.0	0.06	1	B3H0502	08/27/2013	08/27/13 19:34	
Thallium	ND	1.0	0.30	1	B3H0502	08/27/2013	08/27/13 19:34	
Vanadium	**21**	1.0	0.17	1	B3H0502	08/27/2013	08/27/13 19:34	
Zinc	**25**	1.0	0.51	1	B3H0502	08/27/2013	08/27/13 19:34	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	0.008	1	B3H0553	08/28/2013	08/28/13 17:56	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: MFR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	10	1	B3H0499	08/27/2013	08/27/13 11:16	
T/R Hydrocarbons: C10-C18	ND	10	10	1	B3H0499	08/27/2013	08/27/13 11:16	
T/R Hydrocarbons: C18-C28	ND	10	10	1	B3H0499	08/27/2013	08/27/13 11:16	
T/R Hydrocarbons: C28-C36	ND	10	10	1	B3H0499	08/27/2013	08/27/13 11:16	
T/R Hydrocarbons: C36-C40	ND	10	10	1	B3H0499	08/27/2013	08/27/13 11:16	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	10	1	B3H0499	08/27/2013	08/27/13 11:16	
Surrogate: p-Terphenyl	*91.9 %*	*55 - 153*			B3H0499	08/27/2013	*08/27/13 11:16*	

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Organochlorine Pesticides by EPA 8081 **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	0.12	1	B3H0528	08/28/2013	08/28/13 14:39	
4,4'-DDE	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:39	
4,4'-DDT	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:39	
Aldrin	ND	1.0	0.09	1	B3H0528	08/28/2013	08/28/13 14:39	
alpha-BHC	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 14:39	
alpha-Chlordane	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 14:39	
beta-BHC	ND	1.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:39	
Chlordane	ND	8.5	1.5	1	B3H0528	08/28/2013	08/28/13 14:39	
delta-BHC	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 14:39	
Dieldrin	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:39	
Endosulfan I	ND	1.0	0.12	1	B3H0528	08/28/2013	08/28/13 14:39	
Endosulfan II	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:39	
Endosulfan sulfate	ND	2.0	0.12	1	B3H0528	08/28/2013	08/28/13 14:39	
Endrin	ND	2.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:39	
Endrin aldehyde	ND	2.0	0.19	1	B3H0528	08/28/2013	08/28/13 14:39	
Endrin ketone	ND	2.0	0.14	1	B3H0528	08/28/2013	08/28/13 14:39	
gamma-BHC	ND	1.0	0.11	1	B3H0528	08/28/2013	08/28/13 14:39	
gamma-Chlordane	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 14:39	
Heptachlor	ND	1.0	0.10	1	B3H0528	08/28/2013	08/28/13 14:39	
Heptachlor epoxide	ND	1.0	0.12	1	B3H0528	08/28/2013	08/28/13 14:39	
Methoxychlor	ND	5.0	0.13	1	B3H0528	08/28/2013	08/28/13 14:39	
Toxaphene	ND	50	11	1	B3H0528	08/28/2013	08/28/13 14:39	
Surrogate: Decachlorobiphenyl	*57.1 %*		*32 - 113*		B3H0528	08/28/2013	*08/28/13 14:39*	
Surrogate: Tetrachloro-m-xylene	*79.6 %*		*32 - 101*		B3H0528	08/28/2013	*08/28/13 14:39*	

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Semivolatile Organic Compounds by EPA 8270/SIM **Analyst: MFR**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	5.0	0.75	1	B3H0509	08/27/2013	08/27/13 20:55	
Acenaphthene	ND	5.0	0.43	1	B3H0509	08/27/2013	08/27/13 20:55	
Acenaphthylene	ND	5.0	0.35	1	B3H0509	08/27/2013	08/27/13 20:55	
Anthracene	ND	5.0	0.50	1	B3H0509	08/27/2013	08/27/13 20:55	
Benzo(a)anthracene	ND	5.0	0.71	1	B3H0509	08/27/2013	08/27/13 20:55	
Benzo(a)pyrene	ND	5.0	0.97	1	B3H0509	08/27/2013	08/27/13 20:55	
Benzo(b)fluoranthene	ND	5.0	0.38	1	B3H0509	08/27/2013	08/27/13 20:55	
Benzo(g,h,i)perylene	ND	5.0	1.6	1	B3H0509	08/27/2013	08/27/13 20:55	
Benzo(k)fluoranthene	ND	5.0	1.1	1	B3H0509	08/27/2013	08/27/13 20:55	
Chrysene	ND	5.0	0.76	1	B3H0509	08/27/2013	08/27/13 20:55	
Dibenz(a,h)anthracene	ND	5.0	1.6	1	B3H0509	08/27/2013	08/27/13 20:55	
Fluoranthene	ND	5.0	0.53	1	B3H0509	08/27/2013	08/27/13 20:55	
Fluorene	ND	5.0	0.47	1	B3H0509	08/27/2013	08/27/13 20:55	
Indeno(1,2,3-cd)pyrene	ND	5.0	1.5	1	B3H0509	08/27/2013	08/27/13 20:55	
Naphthalene	ND	5.0	0.54	1	B3H0509	08/27/2013	08/27/13 20:55	
Phenanthrene	ND	5.0	0.63	1	B3H0509	08/27/2013	08/27/13 20:55	
Pyrene	ND	5.0	0.49	1	B3H0509	08/27/2013	08/27/13 20:55	
Surrogate: 1,2-Dichlorobenzene-d4	*69.6 %*	*28 - 96*			B3H0509	08/27/2013	*08/27/13 20:55*	
Surrogate: 2-Fluorobiphenyl	*72.6 %*	*36 - 113*			B3H0509	08/27/2013	*08/27/13 20:55*	
Surrogate: Nitrobenzene-d5	*77.0 %*	*29 - 106*			B3H0509	08/27/2013	*08/27/13 20:55*	
Surrogate: 4-Terphenyl-d14	*111 %*	*39 - 138*			B3H0509	08/27/2013	*08/27/13 20:55*	

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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0501 - EPA 3050B									
Blank (B3H0501-BLK1)				Prepared: 8/27/2013 Analyzed: 8/27/2013					
Lead	ND	1.0			NR				
LCS (B3H0501-BS1)				Prepared: 8/27/2013 Analyzed: 8/27/2013					
Lead	46.3248	1.0	50.0000		92.6	80 - 120			
Matrix Spike (B3H0501-MS1)		**Source: 1302553-04**		Prepared: 8/27/2013 Analyzed: 8/27/2013					
Lead	101.900	1.0	125.628	9.77072	73.3	51 - 106			
Matrix Spike Dup (B3H0501-MSD1)		**Source: 1302553-04**		Prepared: 8/27/2013 Analyzed: 8/27/2013					
Lead	123.436	1.0	125.628	9.77072	90.5	51 - 106	19.1	20	

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QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0502 - EPA 3050B									
Blank (B3H0502-BLK1)				Prepared: 8/27/2013 Analyzed: 8/27/2013					
Lead	ND	1.0			NR				
LCS (B3H0502-BS1)				Prepared: 8/27/2013 Analyzed: 8/27/2013					
Lead	48.0110	1.0	50.0000		96.0	80 - 120			
Matrix Spike (B3H0502-MS1)		**Source: 1302581-19**		Prepared: 8/27/2013 Analyzed: 8/27/2013					
Lead	107.541	1.0	125.000	4.32169	82.6	51 - 106			
Matrix Spike Dup (B3H0502-MSD1)		**Source: 1302581-19**		Prepared: 8/27/2013 Analyzed: 8/27/2013					
Lead	105.488	1.0	125.000	4.32169	80.9	51 - 106	1.93	20	

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QUALITY CONTROL SECTION

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0501 - EPA 3050B									
Blank (B3H0501-BLK1)				Prepared: 8/27/2013 Analyzed: 8/27/2013					
Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	ND	1.0			NR				
Beryllium	ND	1.0			NR				
Cadmium	ND	1.0			NR				
Chromium	ND	1.0			NR				
Cobalt	ND	1.0			NR				
Copper	ND	2.0			NR				
Lead	ND	1.0			NR				
Molybdenum	ND	1.0			NR				
Nickel	ND	1.0			NR				
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	ND	1.0			NR				
LCS (B3H0501-BS1)				Prepared: 8/27/2013 Analyzed: 8/27/2013					
Antimony	45.5193	2.0	50.0000		91.0	80 - 120			
Arsenic	45.1432	1.0	50.0000		90.3	80 - 120			
Barium	48.0044	1.0	50.0000		96.0	80 - 120			
Beryllium	47.5121	1.0	50.0000		95.0	80 - 120			
Cadmium	45.7351	1.0	50.0000		91.5	80 - 120			
Chromium	49.4383	1.0	50.0000		98.9	80 - 120			
Cobalt	47.0126	1.0	50.0000		94.0	80 - 120			
Copper	47.1274	2.0	50.0000		94.3	80 - 120			
Lead	46.3248	1.0	50.0000		92.6	80 - 120			
Molybdenum	48.1178	1.0	50.0000		96.2	80 - 120			
Nickel	46.5633	1.0	50.0000		93.1	80 - 120			
Selenium	43.7986	1.0	50.0000		87.6	80 - 120			
Silver	45.8586	1.0	50.0000		91.7	80 - 120			
Thallium	48.2531	1.0	50.0000		96.5	80 - 120			
Vanadium	47.0970	1.0	50.0000		94.2	80 - 120			
Zinc	43.5008	1.0	50.0000		87.0	80 - 120			
Matrix Spike (B3H0501-MS1)		**Source: 1302553-04**		Prepared: 8/27/2013 Analyzed: 8/27/2013					
Antimony	69.9063	2.0	125.628	0.226140	55.5	21 - 109			
Arsenic	100.814	1.0	125.628	3.03102	77.8	55 - 102			
Barium	192.254	1.0	125.628	90.9634	80.6	40 - 130			
Beryllium	96.0923	1.0	125.628	0.221536	76.3	60 - 104			

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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0501 - EPA 3050B (continued)									
Matrix Spike (B3H0501-MS1) - Continued		**Source: 1302553-04**		Prepared: 8/27/2013 Analyzed: 8/27/2013					
Cadmium	87.5116	1.0	125.628	ND	69.7	52 - 100			
Chromium	123.462	1.0	125.628	23.0401	79.9	53 - 113			
Cobalt	97.4611	1.0	125.628	9.71019	69.8	53 - 104			
Copper	206.382	2.0	125.628	59.9777	117	51 - 122			
Lead	101.900	1.0	125.628	9.77072	73.3	51 - 106			
Molybdenum	98.9325	1.0	125.628	1.37564	77.7	55 - 103			
Nickel	117.558	1.0	125.628	26.4391	72.5	48 - 112			
Selenium	92.4710	1.0	125.628	ND	73.6	53 - 104			
Silver	100.127	1.0	125.628	ND	79.7	61 - 109			
Thallium	91.6812	1.0	125.628	0.446545	72.6	44 - 103			
Vanadium	132.364	1.0	125.628	32.1138	79.8	55 - 115			
Zinc	159.544	1.0	125.628	54.0052	84.0	24 - 130			
Matrix Spike Dup (B3H0501-MSD1)		**Source: 1302553-04**		Prepared: 8/27/2013 Analyzed: 8/27/2013					
Antimony	82.3972	2.0	125.628	0.226140	65.4	21 - 109	16.4	20	
Arsenic	121.430	1.0	125.628	3.03102	94.2	55 - 102	18.6	20	
Barium	280.993	1.0	125.628	90.9634	151	40 - 130	37.5	20	M1, R
Beryllium	116.311	1.0	125.628	0.221536	92.4	60 - 104	19.0	20	
Cadmium	107.314	1.0	125.628	ND	85.4	52 - 100	20.3	20	R
Chromium	155.193	1.0	125.628	23.0401	105	53 - 113	22.8	20	R
Cobalt	118.463	1.0	125.628	9.71019	86.6	53 - 104	19.5	20	
Copper	169.293	2.0	125.628	59.9777	87.0	51 - 122	19.7	20	
Lead	123.436	1.0	125.628	9.77072	90.5	51 - 106	19.1	20	
Molybdenum	119.150	1.0	125.628	1.37564	93.7	55 - 103	18.5	20	
Nickel	143.080	1.0	125.628	26.4391	92.8	48 - 112	19.6	20	
Selenium	108.690	1.0	125.628	ND	86.5	53 - 104	16.1	20	
Silver	123.972	1.0	125.628	ND	98.7	61 - 109	21.3	20	R
Thallium	109.650	1.0	125.628	0.446545	86.9	44 - 103	17.8	20	
Vanadium	164.960	1.0	125.628	32.1138	106	55 - 115	21.9	20	R
Zinc	182.460	1.0	125.628	54.0052	102	24 - 130	13.4	20	

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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0502 - EPA 3050B									
Blank (B3H0502-BLK1)				Prepared: 8/27/2013 Analyzed: 8/27/2013					
Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	ND	1.0			NR				
Beryllium	ND	1.0			NR				
Cadmium	ND	1.0			NR				
Chromium	ND	1.0			NR				
Cobalt	ND	1.0			NR				
Copper	ND	2.0			NR				
Lead	ND	1.0			NR				
Molybdenum	ND	1.0			NR				
Nickel	ND	1.0			NR				
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	ND	1.0			NR				
LCS (B3H0502-BS1)				Prepared: 8/27/2013 Analyzed: 8/27/2013					
Antimony	47.0294	2.0	50.0000		94.1	80 - 120			
Arsenic	46.5678	1.0	50.0000		93.1	80 - 120			
Barium	49.5719	1.0	50.0000		99.1	80 - 120			
Beryllium	49.3620	1.0	50.0000		98.7	80 - 120			
Cadmium	47.8318	1.0	50.0000		95.7	80 - 120			
Chromium	51.0374	1.0	50.0000		102	80 - 120			
Cobalt	48.6570	1.0	50.0000		97.3	80 - 120			
Copper	48.8524	2.0	50.0000		97.7	80 - 120			
Lead	48.0110	1.0	50.0000		96.0	80 - 120			
Molybdenum	50.2258	1.0	50.0000		100	80 - 120			
Nickel	48.1922	1.0	50.0000		96.4	80 - 120			
Selenium	45.4041	1.0	50.0000		90.8	80 - 120			
Silver	47.3568	1.0	50.0000		94.7	80 - 120			
Thallium	50.1247	1.0	50.0000		100	80 - 120			
Vanadium	48.1473	1.0	50.0000		96.3	80 - 120			
Zinc	45.9998	1.0	50.0000		92.0	80 - 120			
Matrix Spike (B3H0502-MS1)		**Source: 1302581-19**		Prepared: 8/27/2013 Analyzed: 8/27/2013					
Antimony	88.7987	2.0	125.000	0.334224	70.8	21 - 109			
Arsenic	104.171	1.0	125.000	1.39494	82.2	55 - 102			
Barium	125.460	1.0	125.000	17.2902	86.5	40 - 130			
Beryllium	107.258	1.0	125.000	0.251609	85.6	60 - 104			

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QUALITY CONTROL SECTION

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0502 - EPA 3050B (continued)									
Matrix Spike (B3H0502-MS1) - Continued		**Source: 1302581-19**		Prepared: 8/27/2013 Analyzed: 8/27/2013					
Cadmium	105.214	1.0	125.000	0.05392	84.1	52 - 100			
Chromium	119.820	1.0	125.000	9.58718	88.2	53 - 113			
Cobalt	108.264	1.0	125.000	1.42811	85.5	53 - 104			
Copper	117.564	2.0	125.000	5.03998	90.0	51 - 122			
Lead	107.541	1.0	125.000	4.32169	82.6	51 - 106			
Molybdenum	107.528	1.0	125.000	0.201343	85.9	55 - 103			
Nickel	109.996	1.0	125.000	2.53968	86.0	48 - 112			
Selenium	100.114	1.0	125.000	ND	80.1	53 - 104			
Silver	108.811	1.0	125.000	ND	87.0	61 - 109			
Thallium	104.746	1.0	125.000	ND	83.8	44 - 103			
Vanadium	128.710	1.0	125.000	21.7620	85.6	55 - 115			
Zinc	122.310	1.0	125.000	14.6311	86.1	24 - 130			
Matrix Spike Dup (B3H0502-MSD1)		**Source: 1302581-19**		Prepared: 8/27/2013 Analyzed: 8/27/2013					
Antimony	85.2999	2.0	125.000	0.334224	68.0	21 - 109	4.02	20	
Arsenic	101.462	1.0	125.000	1.39494	80.1	55 - 102	2.63	20	
Barium	118.422	1.0	125.000	17.2902	80.9	40 - 130	5.77	20	
Beryllium	105.014	1.0	125.000	0.251609	83.8	60 - 104	2.11	20	
Cadmium	99.5756	1.0	125.000	0.05392	79.6	52 - 100	5.51	20	
Chromium	113.422	1.0	125.000	9.58718	83.1	53 - 113	5.49	20	
Cobalt	102.623	1.0	125.000	1.42811	81.0	53 - 104	5.35	20	
Copper	111.438	2.0	125.000	5.03998	85.1	51 - 122	5.35	20	
Lead	105.488	1.0	125.000	4.32169	80.9	51 - 106	1.93	20	
Molybdenum	98.0801	1.0	125.000	0.201343	78.3	55 - 103	9.19	20	
Nickel	103.947	1.0	125.000	2.53968	81.1	48 - 112	5.65	20	
Selenium	97.2268	1.0	125.000	ND	77.8	53 - 104	2.93	20	
Silver	102.856	1.0	125.000	ND	82.3	61 - 109	5.63	20	
Thallium	101.267	1.0	125.000	ND	81.0	44 - 103	3.38	20	
Vanadium	121.997	1.0	125.000	21.7620	80.2	55 - 115	5.35	20	
Zinc	115.468	1.0	125.000	14.6311	80.7	24 - 130	5.76	20	

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QUALITY CONTROL SECTION

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0553 - EPA 7471									
Blank (B3H0553-BLK1)				Prepared: 8/28/2013 Analyzed: 8/28/2013					
Mercury	ND	0.10			NR				
LCS (B3H0553-BS1)				Prepared: 8/28/2013 Analyzed: 8/28/2013					
Mercury	0.791357	0.10	0.833333		95.0	80 - 120			
Matrix Spike (B3H0553-MS1)		**Source: 1302581-02**		Prepared: 8/28/2013 Analyzed: 8/28/2013					
Mercury	0.812980	0.10	0.833333	0.015021	95.8	70 - 130			
Matrix Spike Dup (B3H0553-MSD1)		**Source: 1302581-02**		Prepared: 8/28/2013 Analyzed: 8/28/2013					
Mercury	0.795502	0.10	0.833333	0.015021	93.7	70 - 130	2.17	20	
Post Spike (B3H0553-PS1)		**Source: 1302581-02**		Prepared: 8/28/2013 Analyzed: 8/28/2013					
Mercury	0.004890		5.00000E-3	0.000180	94.2	85 - 115			

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QUALITY CONTROL SECTION

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0499 - GCSEMI_DRO									
Blank (B3H0499-BLK1)				Prepared: 8/27/2013 Analyzed: 8/27/2013					
T/R Hydrocarbons: C8-C10	ND	10			NR				
T/R Hydrocarbons: C10-C18	ND	10			NR				
T/R Hydrocarbons: C18-C28	ND	10			NR				
T/R Hydrocarbons: C28-C36	ND	10			NR				
T/R Hydrocarbons: C36-C40	ND	10			NR				
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10			NR				
Surrogate: p-Terphenyl	*73.51*		*80.0000*		*91.9*	*55 - 153*			
LCS (B3H0499-BS1)				Prepared: 8/27/2013 Analyzed: 8/27/2013					
DRO	1017.08	10	1000.00		102	65 - 151			
Surrogate: p-Terphenyl	*76.61*		*80.0000*		*95.8*	*55 - 153*			
Matrix Spike (B3H0499-MS1)		**Source: 1302581-22**		Prepared: 8/27/2013 Analyzed: 8/27/2013					
DRO	1164.57	10	1000.00	ND	116	45 - 168			
Surrogate: p-Terphenyl	*85.79*		*80.0000*		*107*	*55 - 153*			
Matrix Spike Dup (B3H0499-MSD1)		**Source: 1302581-22**		Prepared: 8/27/2013 Analyzed: 8/27/2013					
DRO	1182.02	10	1000.00	ND	118	45 - 168	1.49	20	
Surrogate: p-Terphenyl	*88.34*		*80.0000*		*110*	*55 - 153*			

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QUALITY CONTROL SECTION

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0528 - GCSEMI_PCB/PEST									
Blank (B3H0528-BLK1)				Prepared: 8/28/2013 Analyzed: 8/28/2013					
4,4'-DDD	ND	2.0			NR				
4,4'-DDD [2C]	ND	2.0			NR				
4,4'-DDE	ND	2.0			NR				
4,4'-DDE [2C]	ND	2.0			NR				
4,4'-DDT	ND	2.0			NR				
4,4'-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				

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QUALITY CONTROL SECTION

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0528 - GCSEMI_PCB/PEST (continued)									
Blank (B3H0528-BLK1) - Continued				Prepared: 8/28/2013 Analyzed: 8/28/2013					
Methoxychlor	ND	5.0			NR				
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*10.37*		*16.6667*		*62.2*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*11.26*		*16.6667*		*67.5*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*11.46*		*16.6667*		*68.7*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*11.29*		*16.6667*		*67.8*	*32 - 101*			
LCS (B3H0528-BS1)				Prepared: 8/28/2013 Analyzed: 8/28/2013					
4,4'-DDT	12.0903	2.0	16.6667		72.5	60 - 108			
4,4'-DDT [2C]	13.8113	2.0	16.6667		82.9	60 - 108			
Aldrin	12.6592	1.0	16.6667		76.0	57 - 111			
Aldrin [2C]	12.0685	1.0	16.6667		72.4	57 - 111			
Dieldrin	11.8433	2.0	16.6667		71.1	61 - 106			
Dieldrin [2C]	11.7780	2.0	16.6667		70.7	61 - 106			
Endrin	12.5257	2.0	16.6667		75.2	57 - 97			
Endrin [2C]	12.6215	2.0	16.6667		75.7	57 - 97			
gamma-BHC	13.5828	1.0	16.6667		81.5	61 - 109			
gamma-BHC [2C]	13.4043	1.0	16.6667		80.4	61 - 109			
Heptachlor	14.7767	1.0	16.6667		88.7	58 - 115			
Heptachlor [2C]	16.4642	1.0	16.6667		98.8	58 - 115			
Surrogate: Decachlorobiphenyl	*11.19*		*16.6667*		*67.2*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*11.81*		*16.6667*		*70.8*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*12.62*		*16.6667*		*75.7*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*12.94*		*16.6667*		*77.6*	*32 - 101*			
Matrix Spike (B3H0528-MS1)		**Source: 1302581-19**		Prepared: 8/28/2013 Analyzed: 8/28/2013					
4,4'-DDT	16.1120	2.0	16.6667	ND	96.7	26 - 133			
4,4'-DDT [2C]	18.1945	2.0	16.6667	ND	109	26 - 133			
Aldrin	15.8102	1.0	16.6667	ND	94.9	38 - 119			
Aldrin [2C]	15.6835	1.0	16.6667	ND	94.1	38 - 119			
Dieldrin	16.3482	2.0	16.6667	1.46033	89.3	30 - 120			
Dieldrin [2C]	16.3330	2.0	16.6667	1.14633	91.1	30 - 120			
Endrin	15.4843	2.0	16.6667	ND	92.9	30 - 114			
Endrin [2C]	16.2322	2.0	16.6667	ND	97.4	30 - 114			
gamma-BHC	16.7697	1.0	16.6667	ND	101	31 - 122			
gamma-BHC [2C]	17.0062	1.0	16.6667	ND	102	31 - 122			
Heptachlor	18.7450	1.0	16.6667	ND	112	38 - 123			
Heptachlor [2C]	21.1547	1.0	16.6667	ND	127	38 - 123			M2

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QUALITY CONTROL SECTION

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0528 - GCSEMI_PCB/PEST (continued)									
Matrix Spike (B3H0528-MS1) - Continued		**Source: 1302581-19**		Prepared: 8/28/2013 Analyzed: 8/28/2013					
Surrogate: Decachlorobiphenyl	*14.03*		*16.6667*		*84.2*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*15.55*		*16.6667*		*93.3*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*14.63*		*16.6667*		*87.8*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*16.43*		*16.6667*		*98.6*	*32 - 101*			
Matrix Spike Dup (B3H0528-MSD1)		**Source: 1302581-19**		Prepared: 8/28/2013 Analyzed: 8/28/2013					
4,4'-DDT	14.7760	2.0	16.6667	ND	88.7	26 - 133	8.65	20	
4,4'-DDT [2C]	16.9168	2.0	16.6667	ND	102	26 - 133	7.28	20	
Aldrin	14.9977	1.0	16.6667	ND	90.0	38 - 119	5.27	20	
Aldrin [2C]	14.9115	1.0	16.6667	ND	89.5	38 - 119	5.05	20	
Dieldrin	15.2628	2.0	16.6667	1.46033	82.8	30 - 120	6.87	20	
Dieldrin [2C]	15.4732	2.0	16.6667	1.14633	86.0	30 - 120	5.41	20	
Endrin	14.6655	2.0	16.6667	ND	88.0	30 - 114	5.43	20	
Endrin [2C]	15.4535	2.0	16.6667	ND	92.7	30 - 114	4.91	20	
gamma-BHC	16.1920	1.0	16.6667	ND	97.2	31 - 122	3.51	20	
gamma-BHC [2C]	16.2407	1.0	16.6667	ND	97.4	31 - 122	4.60	20	
Heptachlor	17.9097	1.0	16.6667	ND	107	38 - 123	4.56	20	
Heptachlor [2C]	20.0807	1.0	16.6667	ND	120	38 - 123	5.21	20	
Surrogate: Decachlorobiphenyl	*12.52*		*16.6667*		*75.1*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*14.28*		*16.6667*		*85.7*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*14.21*		*16.6667*		*85.2*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*14.35*		*16.6667*		*86.1*	*32 - 101*			

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QUALITY CONTROL SECTION

Semivolatile Organic Compounds by EPA 8270/SIM - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0509 - MSSEMI_ISOTOPEDILN									
Blank (B3H0509-BLK1)				Prepared: 8/27/2013 Analyzed: 8/27/2013					
2-Methylnaphthalene	ND	5.0			NR				
Acenaphthene	ND	5.0			NR				
Acenaphthylene	ND	5.0			NR				
Anthracene	ND	5.0			NR				
Benzo(a)anthracene	ND	5.0			NR				
Benzo(a)pyrene	ND	5.0			NR				
Benzo(b)fluoranthene	ND	5.0			NR				
Benzo(g,h,i)perylene	ND	5.0			NR				
Benzo(k)fluoranthene	ND	5.0			NR				
Chrysene	ND	5.0			NR				
Dibenz(a,h)anthracene	ND	5.0			NR				
Fluoranthene	ND	5.0			NR				
Fluorene	ND	5.0			NR				
Indeno(1,2,3-cd)pyrene	ND	5.0			NR				
Naphthalene	ND	5.0			NR				
Phenanthrene	ND	5.0			NR				
Pyrene	ND	5.0			NR				
Surrogate: 1,2-Dichlorobenzene-d4	*21.46*		*33.3333*		*64.4*	*28 - 96*			
Surrogate: 2-Fluorobiphenyl	*14.94*		*33.3333*		*44.8*	*36 - 113*			
Surrogate: Nitrobenzene-d5	*26.17*		*33.3333*		*78.5*	*29 - 106*			
Surrogate: 4-Terphenyl-d14	*33.26*		*33.3333*		*99.8*	*39 - 138*			
LCS (B3H0509-BS1)				Prepared: 8/27/2013 Analyzed: 8/27/2013					
Acenaphthene	24.4153	5.0	33.3333		73.2	50 - 93			
Phenanthrene	26.6273	5.0	33.3333		79.9	46 - 98			
Pyrene	31.8883	5.0	33.3333		95.7	52 - 112			
Surrogate: 1,2-Dichlorobenzene-d4	*22.85*		*33.3333*		*68.5*	*28 - 96*			
Surrogate: 2-Fluorobiphenyl	*23.13*		*33.3333*		*69.4*	*36 - 113*			
Surrogate: Nitrobenzene-d5	*25.54*		*33.3333*		*76.6*	*29 - 106*			
Surrogate: 4-Terphenyl-d14	*32.77*		*33.3333*		*98.3*	*39 - 138*			
Matrix Spike (B3H0509-MS1)		**Source: 1302581-19**		Prepared: 8/27/2013 Analyzed: 8/27/2013					
Acenaphthene	26.3007	5.0	33.3333	ND	78.9	45 - 103			
Phenanthrene	27.7783	5.0	33.3333	ND	83.3	43 - 115			
Pyrene	29.9390	5.0	33.3333	ND	89.8	49 - 125			
Surrogate: 1,2-Dichlorobenzene-d4	*22.23*		*33.3333*		*66.7*	*28 - 96*			
Surrogate: 2-Fluorobiphenyl	*24.59*		*33.3333*		*73.8*	*36 - 113*			
Surrogate: Nitrobenzene-d5	*30.06*		*33.3333*		*90.2*	*29 - 106*			
Surrogate: 4-Terphenyl-d14	*35.48*		*33.3333*		*106*	*39 - 138*			

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QUALITY CONTROL SECTION

Semivolatile Organic Compounds by EPA 8270/SIM - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3H0509 - MSSEMI_ISOTOPEDILN (continued)									
Matrix Spike Dup (B3H0509-MSD1)		**Source: 1302581-19**		Prepared: 8/27/2013 Analyzed: 8/27/2013					
Acenaphthene	27.3473	5.0	33.3333	ND	82.0	45 - 103	3.90	20	
Phenanthrene	28.9180	5.0	33.3333	ND	86.8	43 - 115	4.02	20	
Pyrene	32.3383	5.0	33.3333	ND	97.0	49 - 125	7.71	20	
Surrogate: 1,2-Dichlorobenzene-d4	*24.18*		*33.3333*		*72.5*	*28 - 96*			
Surrogate: 2-Fluorobiphenyl	*25.78*		*33.3333*		*77.3*	*36 - 113*			
Surrogate: Nitrobenzene-d5	*31.65*		*33.3333*		*94.9*	*29 - 106*			
Surrogate: 4-Terphenyl-d14	*40.18*		*33.3333*		*121*	*39 - 138*			

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Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
D6	Sample required dilution due to high concentration of target analyte.
D5	Sample diluted due to failing internal standard in the original run.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte not detected at or above reporting limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA1	CA-NELAP (CDPH)
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

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* broken glass in same container

Instruction: Complete all shaded areas.

For Laboratory Use Only					ATLCOC Ver: 20130715
Method of Transport	Sample Conditions Upon Receipt				
	Condition	Y	N	Condition	Y / N
☐ Client ☑ ATL ☐ FedEx ☐ OnTrac ☐ GSO ☐ Other:	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☐ ☐
	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐ ☐
	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C: 4.4	
	4. SEALED	☐	☐		

CUSTOMER

Company: Ninyo & Moore
Address: 5710 Ruffin Rd
City: San Diego State: CA Zip: 92123
Tel: 858 576-1000
Fax:

SEND REPORT TO:
Attn: Lisa Bestard
Email: LBestard@NinyoandMoore.com
Company: Ninyo & Moore
Address: 5710 Ruffin Rd
City: San Diego CA State: CA Zip: 92123

SEND INVOICE TO: ☑ Same as SEND REPORT TO
Attn:
Email:
Company: Same as Report
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name: Clairemont H.S.
Project No.: 1053380088
Sampler: BMC/BAD
Quote No:
PO #:
Special Instructions/Comments: otherwise have metal/total lead results we will assign TPH, PAH, OCP on highest metal concentration

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; 6010B/7471B Title 22; 6010B Lead

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE/ FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

Container: # ; Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Liter; 6=Jar; 7 = Canister; Material: 1=Glass; 2=Plastic; 3=Metal; Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2; 6=NaOH; 7=NaOH2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B/7471B Title 22	6010B Lead	TAT	Container #	Type	Material	Preservative	REMARKS
1	1302545 - 1	T-12-S	08.20.13									X	X		5					
2	-2	T-12-0.5																		
3	-3	T-12-2											X							
4	-4	T-12-4																		
5	-5	T-12-9.5											X							
6	-6	T-12-11.5																		
7	-7	T-12-15																		
8	-8	T-12-16																		
9	-9	T-13-S											X							
10	-10	T-13-2										X	X							

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
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6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name _____ Signature _____

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
[signature]	8/21/13	1230	[signature] Edward Rodriguez	8-21-13	13:20
[signature] Edward Rodriguez	8-21-13	1717	[signature]	8/21/13	1717

ADVANCED TECHNOLOGY LABORATORIES
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 2 of 2

*Broken glass in containers

Instruction: Complete all shaded areas.

For Laboratory Use Only					ATLCOC Ver: 20130715
Method of Transport	Sample Conditions Upon Receipt				
	Condition	Y	N	Condition	Y / N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐ ☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐ ☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:	
☐ Other: _____	4. SEALED	☐	☐		

CUSTOMER

Company: Ninyo & Moore
Address: 8710 Ruffin Rd
City: San Diego
State: CA
Zip: 92123
Tel: 858 576-1000
Fax: 858 576-9600

SEND REPORT TO:
Attn: Lisa Bestard
Email: LBestard@NinyoandMoore.com
Company: Ninyo & Moore
Address: 8710 Ruffin Rd
City: San Diego
State: CA
Zip: 92104

SEND INVOICE TO: ☒ same as SEND REPORT TO
Attn:
Email:
Company:
Address:
City:
State:
Zip:

PROJECT SAMPLES

Project Name: Clairmont H.S.
Project No.: 105338088
Sampler: BAB/BMC
Quote No:
PO #:
Special Instructions/Comments:

Encircle or Write Requested Analysis

ITEM	Lab No.	Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B/7471A Title 22	6010B Cd	TPH	TAT	Container #	Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Bladder; 7=Canister	Material: 1=glass; 2=plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NaHSO3	REMARKS
1	1302545 -11	T-13-4	08.20.13											X		5					
2	-12	T-13-7.5																			
3	-13	T-14-0.5											X								
4	-14	T-14-5.5												X							
5	-15	T-14-10		16:00																	
6	-16	T-14-15		16:25																	
7	-17	T-14-21		16:30									X								
8																					
9																					
10																					

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE/ FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
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   TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
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8. Hard copy reports will be disposed of after 45 calendar days from report date.
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   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reformat ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name _____ Signature _____

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
[signature]	8/21/13	1230	[signature] Edwardo Rodriguez	8-21-13	13:15
[signature] Edward Rodriguez	8-21-13	1717	[signature] FEDEX	8/21/13	1717
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

broken glass in some containers

Page 1 of 2

Instruction: Complete all shaded areas.

For Laboratory Use Only			ATLCOC Ver: 20130715
Method of Transport	Sample Conditions Upon Receipt		
	Condition	Y	N
☑ Client ☑ ATL	1. CHILLED	☑	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐
☐ Other:	4. SEALED	☐	☐
	Condition	Y	N
	5. # OF SAMPLES MATCH COC	☐	☐
	6. PRESERVED	☐	☐
	7. COOLER TEMP, deg C: 4.8		

CUSTOMER

Company: Ninyo & Moore
Address: 5710 Ruffin Road
City: San Diego State: CA Zip: 92123
Tel: 858 576-1000 Fax: 858 576-9600

SEND REPORT TO:
Attn: Lisa Bestard Email: LBestard@NinyoandMoore.com
Company: Ninyo and Moore
Address: 5710 Ruffin Rd
City: San Diego State: CA Zip: 92123

SEND INVOICE TO: ☑ same as SEND REPORT TO
Attn: Same as Report Email:
Company:
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name: Clairmont H.S.
Project No.: 105338088
Sampler: BAB/BMC
Quote No:
PO #: metal
Special Instructions/Comments: after we have metal and lead results we will assign TPH, PAH, OCPs on highest concentrations

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; 6010B / 7470 Title 22; 6010B lead

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE/ FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

ITEM	Lab No.	Sample ID / Location	Date	Time	8260 / 624	8015(GRO)	8015(DRO)	8270	8081	8082	6010 / 7000	TO-15	6010B / 7470	6010B lead	TAT	Container #	Type	Material	Preservative	REMARKS
1	1302547-1	T-15-0.5	08/21/13	720											5					
2	-2	T-15-4		740									X							
3	-3	T-15-8		800																
4	-4	T-15-11		815																
5	-5	T-15-14		845									X	X BAB 08.21.13						
6	-6	T-15-19		900																
7	-7	T-15-2		1004									X							
8	-8	T-16-5		1045										X						
9	-9	T-16-2		1050										X						
10	-10	T-16-5		1100																

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Bottle; 7=Canister
Material: 1=Glass; 2=Plastic; 3=Metal
Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NaHSO3

TERMS

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10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name _____ Signature _____

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Brianne Cartright	8/21/13	1230	Edward Rodriguez	8-21-13	13:20
Edward Rodriguez	8-21-13	1717		8/21/13	1717

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 2 of 2

☆ Caution broken glass in some containers

Instruction: Complete all shaded areas.

For Laboratory Use Only					ATLCOC Ver: 20130715
Method of Transport	Sample Conditions Upon Receipt				
	Condition	Y	N	Condition	Y / N
☐ Client ☐ ATL ☐ FedEx ☐ OnTrac ☐ GSO ☐ Other:	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐ ☐
	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐ ☐
	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:	
	4. SEALED	☐	☐		

CUSTOMER

Company: Ninyo & Moore
Address: 5710 Ruffin Rd
City: San Diego State: CA Zip: 92123
Tel: 858 576-1000 Fax: 858 576-9600

SEND REPORT TO:
Attn: Lisa Bestard
Email: LBestard@NinyoandMoore.com
Company: Ninyo & Moore
Address: 5710 Ruffin Rd
City: San Diego State: CA Zip: 92104

SEND INVOICE TO: ☒ Same as SEND REPORT TO
Attn:
Email:
Company:
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name: Clairmont H.S.
Project No.: 105338088
Sampler: BAB/BME
Quote No:
PO #:
Special Instructions/Comments:

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; 6010B/7471A Title 22 metals; 6010B Total lead

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE/ FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

ITEM	Lab No.	Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B/7471A Title 22 metals	6010B Total lead	TAT	#	Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Pedlar; 7=Canister	Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NAS2O3	REMARKS
1	1302547-11	T-16-9	08.21.13	11:07									X		5					
2	↓ -12	T-16-12	↓	11:40									X		↓					
3	↓ -13	T-16-13	↓	11:50									X		↓					
4																				
5																				
6																				
7																				
8																				
9																				
10																				

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS

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10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name _____ Signature _____

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Brianne Cerbolt	8/21/13	1230	Edward Rodriguez	8-21-13	13:20
Edward Rodriguez	8-21-13	1717	FPOWA	8/21/13	1717

Rachelle Arada

From: Lisa Bestard [lbestard@ninyoandmoore.com]
Sent: Friday, August 30, 2013 5:01 PM
To: Rachelle Arada
Subject: FW: Results - Clairemont HS BS, 105338077 (ATL# 1302581)

Importance: High

Please see request for additional analyses below.
-----Original Message-----
From: Beth Abramson-Beck
Sent: Friday, August 30, 2013 4:58 PM
To: Lisa Bestard
Subject: RE: Results - Clairemont HS BS, 105338077 (ATL# 1302581)
Importance: High

Hello Rachelle,

Please analyze the following **seven samples** for

TPH C8-C40 8015(M) B

polynuclear aromatic hydrocarbons (PAHs) 8270C

organochlorine pesticides 8081A

T-12-9.5
T-13-4
T-14-21
T-15-14
T-16-9
T-12-S
T-16-12

Please analyze the **two highest lead samples** for dioxin and furans by 8290
T-12-9.5
T-15-14

Please analyze the **four highest lead samples** with the highest lead concentrations by DI WET for lead

T-12-9.5
T-14-21
T-15-14
T-16-9

We need a Level III Data Validation Package to accompany this report

Beth S.Abramson-Beck, P.G. 4580
Principal Geologist

ADVANCED TECHNOLOGY LABORATORIES
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 3

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport: ☐ Client ☒ ATL ☐ FedEx ☐ OnTrac ☐ GSO ☐ Other: ________

Sample Conditions Upon Receipt:

Condition	Y	N	Condition	Y	N
1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
4. SEALED	☐	☐			

CUSTOMER

Company: Ninyo & Moore
Address:
City:
State:
Zip:
Tel:
Fax:

SEND REPORT TO:
Attn: Lisa Bestard
Email: lbestard@ninyoandmoore.com
Company: Ninyo & Moore
Address: 5710 Ruffin Road
City: San Diego
State: CA
Zip: 92121

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn:
Email:
Company:
Address:
City:
State:
Zip:

PROJECT SAMPLES

Project Name: Clairemont HS BS
Project No.: 105338077
Sampler: BAB/BR
Quote No:
PO #:

Special Instructions/Comments: additional analyses for TPH, PAH & OCP on highest lead metals. - N&M will assign after initial results

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; 6010B/7471A; 6010B

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

TAT

Container: #; Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister; Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn(AC)2; 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

ITEM	Lab No.	Sample ID / Location	Date	Time	6010B/7471A	6010B
1	1302581-1	T-17-0.5		13:50	X	X
2	-2	T-17-1.5		14:05	X	X
3	-3	T-17-5		14:30		X
4	-4	T-18-0.5		15:25	X	X
5	-5	T-18-3		15:30		X
6	-6	T-18-5.5		15:50		X
7	-7	T-19-1		8:29	X	
8	-8	T-19-3.5		8:46		X
9	-9	T-19-7		9:00		X
10	-10	T-20-1		10:05		X

TERMS

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8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reformatted report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name ____________ Signature ____________

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
[signature]			[signature] Edward Rodriguez	8-23-13	11:25
[signature] Edward Rodriguez	8-23-13	16:10	[signature]	8/23/13	16:10

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 2 of 3

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt: Condition	Y	N	Condition	Y	N
☐ Client ☒ ATL ☐ FedEx ☐ OnTrac ☐ GSO ☐ Other:	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
	4. SEALED	☐	☐			

CUSTOMER

Company: Ninyo & Moore
Address:
City:
State:
Zip:
Tel:
Fax:

SEND REPORT TO:
Attn: Lisa Bestard
Email: lbestard@ninyoandmoore.com
Company: Ninyo & Moore
Address: 5710 Ruffin Road
City: San Diego
State: CA
Zip: 92123

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: [redacted] Bestard
Email:
Company: Ninyo & Moore
Address:
City: SD
State:
Zip:

PROJECT SAMPLES

Project Name: Claremont HS
Project No.: 105338-077
Sampler: BAB
Quote No:
PO #:
Special Instructions/Comments: additional analyses for TPH, PAH, OCP on highest total metals/lead. NeM will assign after initial results

Encircle or Write Requested Analysis

ITEM	Lab No.	Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles) PAH's	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Lead (6010) total Lead	TPH-CA-LUFT	Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Vial; 7=Canister	Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NaAsO2	QA/QC ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV	REMARKS
1	1302581 -11	T-20-3.5	08.22.13	10:20								X														
2	-12	T-20-6.5		10:35									X													
3	-13	T-21-1		12:09								X														
4	-14	T-21-2		12:50									X													
5	-15	T-22-1	14:50	14:50				X	X			X		X												
6	DUP	~~T-22-1D~~		~~14:50~~				X	X			X		X												
7	-16	T-22-4.5		15:22									X													
8	-17	T-22-7		15:40									X													
9	-18	T-23-1		16:37									X													
10	-19	T-23-3		16:42				X	X			X		X												

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab — ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reformatted report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name _____ Signature _____

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
[signature]	08.22.13		[signature] Edward Rodriguez	8-23-13	11:25
[signature] Edward Rodriguez	8-23-13	16:10	[signature] FEDEX	8/23/13	1610
[signature]					

CHAIN OF CUSTODY RECORD

ADVANCED TECHNOLOGY LABORATORIES
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

P.O.#: _____ Quote #: _____
Logged By: _____ Date: _____
NOTE: Please include your Quote No. to ensure proper pricing of your project.

FOR LABORATORY USE ONLY:

Method of Transport: ☐ Client ☒ ATL ☐ FedEx ☐ OnTrac ☐ GSO ☐ Other: _____

Sample Condition Upon Receipt:
1. CHILLED Y☐ N☐ 4. SEALED Y☐ N☐
2. HEADSPACE (VOA) Y☐ N☐ 5. # OF SPLS MATCH COC Y☐ N☐
3. CONTAINER INTACT Y☐ N☐ 6. PRESERVED Y☐ N☐

Client: Attn: Ninyo & Moore
Address: 5710 Ruffin Road
City: San Diego State: CA Zip Code: 92123
TEL: FAX:
Project Name: Clairemont HS Project #: 105338077 Sampler: BAB (Printed Name) (Signature)

Relinquished by: (Signature and Printed Name)	Date: 08.22.13	Time:	Received by: (Signature and Printed Name) Edward Rodriguez	Date: 8-23-13	Time: 11:25
Relinquished by: (Signature and Printed Name) Edward Rodriguez	Date: 8-23-13	Time: 16:10	Received by: (Signature and Printed Name)	Date: 8/23/13	Time: 1610
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: _____ Print Name _____ Date _____ Signature

Send Report To: Attn: LISA Bestard; Co: Ninyo & Moore; Addr: 5710 Ruffin Rd; City: SD State: CA Zip: 92123

Bill To: Attn: _____ Co: SAME Addr: _____ City: _____ State: _____ Zip: _____

Special Instructions/Comments: additional analyses for TPH, PAH, OCP on highest total metals/lead. Nom will assign a flex initial results

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.
Storage Fees (applies when storage is requested):
- Sample : $2.00 / sample / mo (after 45 days)
- Records : $1.00 / ATL workorder / mo (after 1 year)

Circle or Add Analysis(es) Requested

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D. / Location	Date	Time	8081A (Pesticides)	8082 (PCB)	8260B (Volatiles)	8270C (BNA) PAHs	8010B (Total Metal)	8015B (GRO) / 8021 (BTEX)	8015B (DRO)	TITLE 22 / CAM 17 (6010 / 7000) Lead 6010B only	TPH C8-C40	SEDIMENT	SOLID	SOIL	DRINKING WATER	GROUND WATER	WASTEWATER	STORMWATER	AQUEOUS	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	BAB	~~T-23 3D~~	08.22.13	16:14	X		X				X	X														
	1302181-20	T-23 8	08.22.13	17:00								X														
	BAB	~~DUP-1~~																								
	-21	DUP-2			X		X				X	X	X													
	-22	DUP-1			X		X				X	X	X													

QA/QC: RTNE ☐ CT ☐ Legal ☐ SWRCB ☐ Logcode ____ OTHER ____

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: ☐A= Overnight ≤ 24 hrs ☐B= Emergency Next workday ☐C= Critical 2 Workdays ☐D= Urgent 3 Workdays ☐E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

Rev. 2010-0325

DISTRIBUTION: White with report, Yellow to folder, Pink to submitter.

Rachelle Arada

From: Lisa Bestard [lbestard@ninyoandmoore.com]
Sent: Friday, August 30, 2013 5:01 PM
To: Rachelle Arada
Subject: FW: Results - Clairemont HS BS, 105338077 (ATL# 1302581)

Importance: High

Please see request for additional analyses below.
-----Original Message-----
From: Beth Abramson-Beck
Sent: Friday, August 30, 2013 4:58 PM
To: Lisa Bestard
Subject: RE: Results - Clairemont HS BS, 105338077 (ATL# 1302581)
Importance: High

Hello Rachelle,

Please analyze the following **seven samples** for

TPH C8-C40 8015(M) B

polynuclear aromatic hydrocarbons (PAHs) 8270C

organochlorine pesticides 8081A

T-12-9.5
T-13-4
T-14-21
T-15-14
T-16-9
T-12-S
T-16-12

Please analyze the **two highest lead samples** for dioxin and furans by 8290
T-12-9.5
T-15-14

Please analyze the **four highest lead samples** with the highest lead concentrations by DI WET for lead

T-12-9.5
T-14-21
T-15-14
T-16-9

We need a Level III Data Validation Package to accompany this report

Beth S.Abramson-Beck, P.G. 4580
Principal Geologist

ADVANCED TECHNOLOGY LABORATORIES

Sample Receipt Acknowledgement

Work Order # 1302545

Client:	**Ninyo & Moore - SD**	**Project Manager:**	**Rachelle Arada**
Project:	**CLAIREMONT H.S., 105338071 & 105338088**	**Project Number:**	**CLAIREMONT H.S., 105338088**

Report To:	**Invoice To:**
Ninyo & Moore - SD	Ninyo & Moore - SD
Lisa Bestard	Lisa Bestard
5710 Ruffin Road	5710 Ruffin Road
San Diego, CA 92123	San Diego, CA 92123
Phone: (858) 576-1000	Phone :(858) 576-1000
Fax: (858) 576-9600	Fax: (858) 576-9600

Date Due:	08/28/13 17:00 (5 day TAT)	Date Received:	08/21/13 13:20
Received By:	**Ron Diwa**	**Date Logged In:**	**08/22/13 10:43**
Logged In By:	Ron Diwa	Shipped by:	ATL

Please review the checklist below. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues. If you have any questions or further instructions, please contact your Project Manager at (526) 989-4045.

Sample(s) received on ice?	**Yes**	☐	**No**	☑
Sample(s) received on blue ice?	**Yes**	☑	**No**	☐
Cooler temperature within acceptance limit?	**Yes**	☑	**No**	☐
Shipping container received in good condition?	**Yes**	☑	**No**	☐
Custody seals present on shipping container?	**Yes**	☐	**No**	☑
Custody seals intact on shipping container?	**Yes**	☐	**No**	☑
Custody seals present on sample bottles?	**Yes**	☐	**No**	☑
Custody seals intact on sample bottles?	**Yes**	☐	**No**	☑
Chain of Custody (COC) present?	**Yes**	☑	**No**	☐
Sampler name present in COC?	**Yes**	☑	**No**	☐
COC signed when relinquished and received?	**Yes**	☑	**No**	☐
COC agrees with sample labels?	Yes	☑	No	☐
Samples in proper container/bottle?	Yes	☑	No	☐
Sample containers intact?	Yes	☑	No	☐
Sufficient sample amount for indicated tests?	Yes	☑	No	☐
All samples received within holding time?	Yes	☑	No	☐
VOA vials for VOC meet headspace criteria?	Yes	☐	No	☑
Water samples meet preservation criteria?	Yes	☐	No	☑

Default Cooler	Temp: 4.8 °C

Sample Receipt Comments:

ADVANCED TECHNOLOGY LABORATORIES

Sample Receipt Acknowledgement

Work Order # 1302547

Client:	Ninyo & Moore - SD	**Project Manager:**	Rachelle Arada
Project:	CLAIREMONT H.S., 105338071 & 105338088	**Project Number:**	CLAIREMONT H.S., 105338088

Report To:	**Invoice To:**
Ninyo & Moore - SD	Ninyo & Moore - SD
Lisa Bestard	Lisa Bestard
5710 Ruffin Road	5710 Ruffin Road
San Diego, CA 92123	San Diego, CA 92123
Phone: (858) 576-1000	Phone :(858) 576-1000
Fax: (858) 576-9600	Fax: (858) 576-9600

Date Due:	08/28/13 17:00 (5 day TAT)	Date Received:	08/21/13 13:20
Received By:	Ron Diwa	Date Logged In:	08/22/13 11:03
Logged In By:	Ron Diwa	Shipped by:	ATL

Please review the checklist below. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues. If you have any questions or further instructions, please contact your Project Manager at (526) 989-4045.

Sample(s) received on ice?	Yes	☐	No	☑
Sample(s) received on blue ice?	Yes	☑	No	☐
Cooler temperature within acceptance limit?	Yes	☑	No	☐
Shipping container received in good condition?	Yes	☑	No	☐
Custody seals present on shipping container?	Yes	☐	No	☑
Custody seals intact on shipping container?	Yes	☐	No	☑
Custody seals present on sample bottles?	Yes	☐	No	☑
Custody seals intact on sample bottles?	Yes	☐	No	☑
Chain of Custody (COC) present?	Yes	☑	No	☐
Sampler name present in COC?	Yes	☑	No	☐
COC signed when relinquished and received?	Yes	☑	No	☐
COC agrees with sample labels?	Yes	☑	No	☐
Samples in proper container/bottle?	Yes	☑	No	☐
Sample containers intact?	Yes	☑	No	☐
Sufficient sample amount for indicated tests?	Yes	☑	No	☐
All samples received within holding time?	Yes	☑	No	☐
VOA vials for VOC meet headspace criteria?	Yes	☐	No	☑
Water samples meet preservation criteria?	Yes	☐	No	☑

Default Cooler	Temp: 4.8 °C

Sample Receipt Comments:

ADVANCED TECHNOLOGY LABORATORIES

Sample Receipt Acknowledgement

Work Order # 1302581

Client:	Ninyo & Moore - SD	Project Manager:	Rachelle Arada
Project:	CLAIREMONT H.S., 105338071 & 105338088	Project Number:	CLAIREMONT HS BS, 105338077

Report To:
Ninyo & Moore - SD
Lisa Bestard
5710 Ruffin Road
San Diego, CA 92123
Phone: (858) 576-1000
Fax: (858) 576-9600

Invoice To:
Ninyo & Moore - SD
Lisa Bestard
5710 Ruffin Road
San Diego, CA 92123
Phone :(858) 576-1000
Fax: (858) 576-9600

Date Due:	08/30/13 17:00 (5 day TAT)	Date Received:	08/23/13 11:25
Received By:	Ron Diwa	Date Logged In:	08/23/13 17:30
Logged In By:	Ron Diwa	Shipped by:	ATL

Please review the checklist below. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues. If you have any questions or further instructions, please contact your Project Manager at (526) 989-4045.

Sample(s) received on ice?	Yes	☐	No	☑
Sample(s) received on blue ice?	Yes	☑	No	☐
Cooler temperature within acceptance limit?	Yes	☑	No	☐
Shipping container received in good condition?	Yes	☑	No	☐
Custody seals present on shipping container?	Yes	☐	No	☑
Custody seals intact on shipping container?	Yes	☐	No	☑
Custody seals present on sample bottles?	Yes	☐	No	☑
Custody seals intact on sample bottles?	Yes	☐	No	☑
Chain of Custody (COC) present?	Yes	☑	No	☐
Sampler name present in COC?	Yes	☑	No	☐
COC signed when relinquished and received?	Yes	☑	No	☐
COC agrees with sample labels?	Yes	☑	No	☐
Samples in proper container/bottle?	Yes	☑	No	☐
Sample containers intact?	Yes	☑	No	☐
Sufficient sample amount for indicated tests?	Yes	☑	No	☐
All samples received within holding time?	Yes	☑	No	☐
VOA vials for VOC meet headspace criteria?	Yes	☐	No	☑
Water samples meet preservation criteria?	Yes	☐	No	☑

Default Cooler	Temp: 5.7 °C

Sample Receipt Comments:
All samples are collected 8/22/13 as indicated on sample jars.

Method EPA 8015B

ANALYSIS RUN LOG

INJECTION LOG

Sam #	File Name	QC Batch	Sample Name	Date of Injection	Time of Injection
96	O0208_001.rst	MeCl2	Solvent Blank	2/8/2013	11:36:25 AM
96	O0208_002.rst	MeCl2	Solvent Blank A2L0054	2/8/2013	11:53:02 AM
97	O0208_003.rst	Marker	C8-C40,A2L0023, ~~A2F0444~~	2/8/2013	12:44:34 PM
1	O0208_004.rst	Diesel	10/8ppm,ICAL, A2L0001	2/8/2013	1:01:34 PM
2	O0208_005.rst	Diesel	100/40ppm,ICAL, A2L0002	2/8/2013	1:18:11 PM
3	O0208_006.rst	Diesel	500/80ppm,ICAL, A2L0003	2/8/2013	1:34:55 PM
4	O0208_007.rst	Diesel	1000/100ppm,ICAL, A2L0004	2/8/2013	1:51:49 PM
5	O0208_008.rst	Diesel	5000/120ppm,ICAL, A2L0005	2/8/2013	2:08:48 PM
96	O0208_009.rst	MeCl2	Solvent Blank	2/8/2013	2:25:40 PM
6	O0208_010.rst	Motor Oil	10/8ppm,ICAL A2L0007	2/8/2013	2:54:35 PM
7	O0208_011.rst	Motor Oil	100/40ppm,ICAL A2L0008	2/8/2013	3:11:43 PM
8	O0208_012.rst	Motor Oil	500/80ppm,ICAL A2L0009	2/8/2013	3:28:48 PM
9	O0208_013.rst	Motor Oil	1000/100ppm,ICAL A2L0010	2/8/2013	3:45:47 PM
10	O0208_014.rst	Motor Oil	5000/120ppm,ICAL A2L0011	2/8/2013	4:02:47 PM
11	O0208_015.rst	Hydraulic Oil	10/8ppm,ICAL A2L0130	2/8/2013	4:19:47 PM
12	O0208_016.rst	Hydraulic Oil	100/40ppm,ICAL A2L0131	2/8/2013	4:36:43 PM
13	O0208_017.rst	Hydraulic Oil	500/80ppm,ICAL A2L0132	2/8/2013	4:53:32 PM
14	O0208_018.rst	Hydraulic Oil	1000/100ppm,ICAL A2L0133	2/8/2013	5:10:15 PM
15	O0208_019.rst	Hydraulic Oil	5000/120ppm,ICAL A2L0134	2/8/2013	5:26:56 PM
96	O0208_020.rst	MeCl2	Solvent Blank	2/8/2013	5:43:36 PM
96	O0208_021.rst	MeCl2	Solvent Blank	2/8/2013	6:00:13 PM
98	O0208_022.rst	Diesel	500/80ppm,ICV A2L0006	2/8/2013	6:16:47 PM
99	O0208_023.rst	Motor Oil	500/80ppm,ICV A2L0012	2/8/2013	6:33:20 PM
100	O0208_024.rst	Hydraulic Oil	500/80ppm,ICV A2L0135	2/8/2013	6:49:57 PM
96	O0208_025.rst	MeCl2	Solvent Blank	2/8/2013	7:07:04 PM

INSTRUMENT ID.: GC 21

QUANT. METHOD: 0020813

ANALYSIS SEQUENCE

Sequence Comments:

S3I0141

Instrument: GC-21
Calibration ID: UNASSIGNED

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
S3I0141-CAL1	QC		1	A2L0001		
S3I0141-CAL2	QC		2	A2L0002		
S3I0141-CAL3	QC		3	A2L0003		
S3I0141-CAL4	QC		4	A2L0004		
S3I0141-CAL5	QC		5	A2L0005		
S3I0141-CAL6	QC		6	A2L0007		
S3I0141-CAL7	QC		7	A2L0008		
S3I0141-CAL8	QC		8	A2L0009		
S3I0141-CAL9	QC		9	A2L0010		
S3I0141-CALA	QC		10	A2L0011		
S3I0141-CALB	QC		11	A2L0130		
S3I0141-CALC	QC		12	A2L0131		
S3I0141-CALD	QC		13	A2L0132		
S3I0141-CALE	QC		14	A2L0133		
S3I0141-CALF	QC		15	A2L0134		
S3I0141-ICV1	QC		16	A2L0006		
S3I0141-ICV2	QC		17	A2L0012		
S3I0141-ICV3	QC		18	A2L0135		

Samples Loaded By — Date: 9/16/13

Data Processed By — Date: 9/16/13

INJECTION LOG

Sam #	File Name	QC Batch	Sample Name	Date of Injection	Time of Injection
96	O0827_001.rst	MeCl2	Solvent Blank	8/27/2013	8:46:25 AM
97	O0827_002.rst	Marker	C8-C40,A2L0023,	8/27/2013	9:02:50 AM
98	O0827_003.rst	Diesel	S3H0319-CCV1	8/27/2013	9:19:27 AM
99	O0827_004.rst	Motor Oil	S3H0319-CCV2 NR, BIAS LOW	8/27/2013	9:36:07 AM
99	O0827_005.rst	Motor Oil	S3H0319-CCV2	8/27/2013	9:52:53 AM
1	O0827_006.rst	B3H0499	B3H0499-BLK1@1	8/27/2013	10:09:36 AM
2	O0827_007.rst	B3H0499	B3H0499-BS1@1	8/27/2013	10:26:17 AM
3	O0827_008.rst	B3H0499	B3H0499-MS1@1	8/27/2013	10:42:56 AM
4	O0827_009.rst	B3H0499	B3H0499-MSD1@1	8/27/2013	10:59:39 AM
5	O0827_010.rst	B3H0499	1302581-22@1	8/27/2013	11:16:22 AM
6	O0827_011.rst	B3H0499	1302601-01@5	8/27/2013	11:33:06 AM
7	O0827_012.rst	B3H0499	1302601-02@5	8/27/2013	11:49:56 AM
8	O0827_013.rst	B3H0499	1302601-03@5	8/27/2013	12:06:41 PM
98	O0827_014.rst	Diesel	S3H0319-CCV3	8/27/2013	1:52:02 PM
99	O0827_015.rst	Motor Oil	S3H0319-CCV4	8/27/2013	2:08:51 PM
13	O0827_016.rst	B3H0499	1302476-47@1	8/27/2013	2:25:42 PM
14	O0827_017.rst	B3H0499	1302476-48@1	8/27/2013	2:42:26 PM
15	O0827_018.rst	B3H0499	1302476-53@1	8/27/2013	2:59:11 PM
16	O0827_019.rst	B3H0499	1302476-58@1	8/27/2013	3:15:55 PM
17	O0827_020.rst	B3H0499	1302476-63@1	8/27/2013	3:32:38 PM
18	O0827_021.rst	B3H0499	1302476-AC@1	8/27/2013	3:49:19 PM
19	O0827_022.rst	B3H0499	1302476-AS@1	8/27/2013	4:06:08 PM
20	O0827_023.rst	B3H0499	1302476-AT@1	8/27/2013	4:22:48 PM
21	O0827_024.rst	B3H0499	1302476-AX@1	8/27/2013	4:39:28 PM
22	O0827_025.rst	B3H0499	1302476-BC@1	8/27/2013	4:56:09 PM
23	O0827_026.rst	B3H0499	1302610-09@1	8/27/2013	5:12:55 PM
9	O0827_027.rst	B3H0499	1302581-15@1	8/27/2013	5:29:39 PM
10	O0827_028.rst	B3H0499	1302581-19@1	8/27/2013	5:46:23 PM
11	O0827_029.rst	B3H0499	1302581-21@1	8/27/2013	6:03:03 PM
12	O0827_030.rst	B3H0499	1302565-01@1	8/27/2013	6:19:39 PM
96	O0827_031.rst	MeCl2	Solvent Blank	8/27/2013	6:36:12 PM
98	O0827_032.rst	Diesel	S3H0319-CCV5	8/27/2013	7:03:33 PM
99	O0827_033.rst	Motor Oil	S3H0319-CCV6	8/27/2013	7:20:11 PM

INSTRUMENT ID.: GC-21

QUANT. METHOD: 0020813

SIGNATURE: [signature] INITIAL: [initials]

ANALYSIS SEQUENCE

S3H0319

Sequence Comments:

Instrument: GC-21
Calibration ID: UNASSIGNED

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
S3H0319-CCV1	QC		1	A3F0497		
S3H0319-CCV2	QC		2	A3F0498		
B3H0499-BLK1	QC		3			
B3H0499-BS1	QC		4			
B3H0499-MS1	QC		5			
B3H0499-MSD1	QC		6			
1302581-22	8015_HCID	A	7			
1302581-22	8015_DRO	A	8			BatchQC
1302581-22	8015_HCID_CUST	A	9			BatchQC
1302601-01	8015_DRO	A	10			
1302601-02	8015_DRO	A	11			
1302601-03	8015_DRO	A	12			
S3H0319-CCV3	QC		13	A3F0497		
S3H0319-CCV4	QC		14	A3F0498		
1302476-47	8015_HCID	A	15			C8-40
1302476-48	8015_HCID	A	16			C8-40
1302476-53	8015_HCID	A	17			C8-40
1302476-58	8015_HCID	A	18			C8-40
1302476-63	8015_HCID	A	19			C8-40
1302476-AC	8015_HCID	A	20			C8-40
1302476-AS	8015_HCID	A	21			C8-40
1302476-AT	8015_HCID	A	22			C8-40
1302476-AX	8015_HCID	A	23			C8-40

Samples Loaded By — Date: 9/14/13

Data Processed By — Date: 9/14/13

ANALYSIS SEQUENCE

S3H0319

Sequence Comments:

Instrument: GC-21
Calibration ID: UNASSIGNED

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
1302476-BC	8015_HCID	A	24			C8-40
1302610-09	8015_HCID_CUST	A	25			
1302581-15	8015_HCID	A	26			
1302581-19	8015_HCID	A	27			
1302581-21	8015_HCID	A	28			
1302565-01	8015_HCID_CUST	A	29			
S3H0319-CCV5	QC		30	A3F0497		
S3H0319-CCV6	QC		31	A3F0498		

Samples Loaded By Date Data Processed By Date

Printed: 9/16/2013 4:23:40PM :: C:\Program Files\Promium\Element\Print\seq_ATL_Default(2).rpt

INJECTION LOG

Sam #	File Name	QC Batch	Sample Name	Date of Injection	Time of Injection
96	O0904_001.rst	MeCl2	Solvent Blank	9/4/2013	8:14:34 AM
97	O0904_002.rst	Marker	C8-C40,A2L0023,	9/4/2013	8:34:32 AM
98	O0904_003.rst	Diesel	S3I0010-CCV1	9/4/2013	8:51:16 AM
99	O0904_004.rst	Motor Oil	S3I0010-CCV2 SURR HIGH	9/4/2013	9:07:55 AM
1	O0904_005.rst	B3I0015	B3I0015-BLK1@1	9/4/2013	9:24:36 AM
2	O0904_006.rst	B3I0015	B3I0015-BS1@1	9/4/2013	9:41:21 AM
3	O0904_007.rst	B3I0015	1302661-01@1	9/4/2013	9:57:53 AM
4	O0904_008.rst	B3I0015	1302661-02@1	9/4/2013	10:14:39 AM
5	O0904_009.rst	B3I0015	1302661-03@1	9/4/2013	10:31:15 AM
6	O0904_010.rst	B3I0015	1302661-04@1	9/4/2013	10:48:04 AM
7	O0904_011.rst	B3I0015	1302545-05@1	9/4/2013	11:04:52 AM
8	O0904_012.rst	B3I0015	1302547-11@1	9/4/2013	11:21:40 AM
9	O0904_013.rst	B3I0015	1302547-12@1	9/4/2013	11:38:36 AM
10	O0904_014.rst	B3I0015	1302547-05@1	9/4/2013	11:55:29 AM
11	O0904_015.rst	B3I0015	1302545-11@1	9/4/2013	12:12:17 PM
12	O0904_016.rst	B3I0015	1302545-17@1	9/4/2013	12:29:03 PM
13	O0904_017.rst	B3I0015	B3I0015-MS1@1	9/4/2013	12:45:53 PM
14	O0904_018.rst	B3I0015	B3I0015-MSD1@1	9/4/2013	1:02:39 PM
15	O0904_019.rst	B3I0015	1302545-01@1	9/4/2013	1:19:25 PM
96	O0904_020.rst	MeCl2	Solvent Blank	9/4/2013	1:36:13 PM
98	O0904_021.rst	Diesel	S3I0010-CCV3	9/4/2013	1:47:24 PM
99	O0904_022.rst	Motor Oil	S3I0010-CCV4 SURR HIGH, UR	9/4/2013	2:04:07 PM
99	O0904_023.rst	Motor Oil	S3I0010-CCV4	9/4/2013	2:21:00 PM

INSTRUMENT ID.: GC 21
QUANT. METHOD: 0020813
SIGNATURE: [signature] INITIAL: [initials]

ANALYSIS SEQUENCE

Sequence Comments:

S3I0010

Instrument: GC-21
Calibration ID: UNASSIGNED

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
S3I0010-CCV1	QC		1	A3F0497		
S3I0010-CCV2	QC		2	A3F0498		
B3I0015-BLK1	QC		3			
B3I0015-BS1	QC		4			
B3I0015-MS1	QC		5			
B3I0015-MSD1	QC		6			
1302661-04	8015_HCID_CUST	A	7			
1302661-03	8015_HCID_CUST	A	8			
1302545-11	8015_HCID	A	9			
1302661-02	8015_HCID_CUST	A	10			
1302661-01	8015_HCID_CUST	A	11			
1302547-12	8015_HCID	A	12			
1302547-12	8015_HCID_CUST	A	13			BatchQC
1302547-11	8015_HCID	A	14			
1302547-05	8015_HCID	A	15			
1302545-17	8015_HCID	A	16			
1302545-05	8015_HCID	A	17			
1302545-01	8015_HCID	A	18			
S3I0010-CCV3	QC		19	A3F0497		
S3I0010-CCV4	QC		20	A3F0498		

Samples Loaded By — Date: 9/4/13

Data Processed By — Date: 9/4/13

SAMPLE PREPARATION LOG

PREPARATION BENCH SHEET

B3H0499

Advanced Technology Laboratories

Matrix: Soil
Date Prepared: 08/27/13 11:29
End Date/Time: 08/27/13 15:24

Prepared by: AL
IS Code:
IS Volume:

Prep Code: GCSEMI_DRO

Lab Number	Analysis	Sample pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Surrogate ID	ul Surrogate	Extraction Comments
1302476-47	8015_HCID		10.0	10						A3H0157	1000	C8-40
1302476-48	8015_HCID		10.0	10						A3H0157	1000	C8-40
1302476-53	8015_HCID		10.0	10						A3H0157	1000	C8-40
1302476-58	8015_HCID		10.0	10						A3H0157	1000	C8-40
1302476-63	8015_HCID		10.0	10						A3H0157	1000	C8-40
1302476-AC	8015_HCID		10.0	10						A3H0157	1000	C8-40
1302476-AS	8015_HCID		10.0	10						A3H0157	1000	C8-40
1302476-AT	8015_HCID		10.0	10						A3H0157	1000	C8-40
1302476-AX	8015_HCID		10.0	10						A3H0157	1000	C8-40
1302476-BC	8015_HCID		10.0	10						A3H0157	1000	C8-40
1302565-01	8015_HCID_CUST		9.9	10						A3H0157	1000	
1302581-15	8015_HCID		10.0	10						A3H0157	1000	
1302581-19	8015_HCID		9.9	10						A3H0157	1000	
1302581-21	8015_HCID		10.0	10						A3H0157	1000	
1302581-22	8015_DRO		10.0	10						A3H0157	1000	Added for BatchQC in: B3H0499
1302581-22	8015_HCID		10.0	10						A3H0157	1000	
1302581-22	8015_HCID_CUST		10.0	10						A3H0157	1000	Added for BatchQC in: B3H0499
1302601-01	8015_DRO		9.9	10						A3H0157	1000	
1302601-02	8015_DRO		10.0	10						A3H0157	1000	
1302601-03	8015_DRO		9.9	10						A3H0157	1000	

al 8-27-13
Prepared By Date

Preparation Reviewed By Date

Extracts Received By Date 8/27/13

Printed: 8/27/2013 3:24:54PM :: bch_ATL_SVOA(2)

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PREPARATION BENCH SHEET

B3H0499

Advanced Technology Laboratories

Matrix: Soil
Date Prepared: 08/27/13 15:11
End Date/Time: 08/27/13 15:24

Prepared by: SM
IS Code:
IS Volume:

Prep Code: GCSEMI_DRO

Lab Number	Analysis	Sample pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Surrogate ID	ul Surrogate	Extraction Comments
1302610-09	8015_HCID_CUST		10.0	10						A3H0157	1000	
B3H0499-BLK1	QC		10.0	10						A3H0157	1000	
B3H0499-BS1	QC		10.0	10	A3H0156			1000		A3H0157	1000	
B3H0499-MS1	QC		10.0	10	A3H0156		1302581-22	1000		A3H0157	1000	
B3H0499-MSD1	QC		10.0	10	A3H0156		1302581-22	1000		A3H0157	1000	

Number	Reagent Name
A3F0224	Sand
A3G0432	Sodium Sulfate
A3G0433	Methylene Chloride

al 8-27-13
Prepared By Date

Preparation Reviewed By Date

rf 8/27/13
Extracts Received By Date

Printed: 8/27/2013 3:24:54PM :: bch_ATL_SVOA(2)

PREPARATION BENCH SHEET

B3I0015

Advanced Technology Laboratories

Matrix: Soil
Date Prepared: 09/03/13 10:26
End Date/Time: 09/03/13 15:05

Prepared by: AL
IS Code:
IS Volume:

Prep Code: GCSEMI_DRO

Lab Number	Analysis	Sample pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Surrogate ID	ul Surrogate	Extraction Comments
1302545-01	8015_HCID		9.9	10						A3H0157	1000	
1302545-05	8015_HCID		10.0	10						A3H0157	1000	
1302545-11	8015_HCID		10.0	10						A3H0157	1000	
1302545-17	8015_HCID		10.0	10						A3H0157	1000	
1302547-05	8015_HCID		10.0	10						A3H0157	1000	
1302547-11	8015_HCID		10.0	10						A3H0157	1000	
1302547-12	8015_HCID		10.0	10						A3H0157	1000	
1302547-12	8015_HCID_CUST		10.0	10						A3H0157	1000	Added for BatchQC in: B3I0015
1302661-01	8015_HCID_CUST		10.0	10						A3H0157	1000	
1302661-02	8015_HCID_CUST		10.0	10						A3H0157	1000	
1302661-03	8015_HCID_CUST		10.0	10						A3H0157	1000	
1302661-04	8015_HCID_CUST		10.0	10						A3H0157	1000	
B3I0015-BLK1	QC		10.0	10						A3H0157	1000	
B3I0015-BS1	QC		10.0	10	A3H0286			1000		A3H0157	1000	
B3I0015-MS1	QC		10.0	10	A3H0286		1302547-12	1000		A3H0157	1000	
B3I0015-MSD1	QC		10.0	10	A3H0286		1302547-12	1000		A3H0157	1000	

AL 9-3-13
Prepared By — Date

Preparation Reviewed By — 9/4/13 Date

Extracts Received By — 9/3/13 Date

Printed: 9/3/2013 3:06:27PM :: bch_ATL_SVOA(2)

PREPARATION BENCH SHEET

B3I0015

Advanced Technology Laboratories

Matrix: Soil
Date Prepared: 09/03/13 10:26
End Date/Time: 09/03/13 15:05

Prepared by: AL
IS Code:
IS Volume:

Prep Code: GCSEMI_DRO

Lab Number	Analysis	Sample pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Surrogate ID	ul Surrogate	Extraction Comments

Number	Reagent Name
A3F0224	Sand
A3G0432	Sodium Sulfate
A3G0433	Methylene Chloride

Prepared By	Date	Preparation Reviewed By	Date	Extracts Received By	Date
al	9-3-13	m	9/4/13		9/3/13

Printed: 9/3/2013 3:06:27PM :: bch_ATL_SVOA(2)

INITIAL CALIBRATION DATA SUMMARY

TotalChrom Method File d:\gc-21\method\o020813.mth
Printed by : gc on: 2/11/2013 8:42:31 AM
Created by : gc on: 2/8/2013 1:32:13 PM
Edited by : gc on: 2/11/2013 8:42:19 AM
Number of Times Edited : 31

Number of Times Calibrated : 85

Description: O20813

Instrument Conditions

Instrument Control Method
Instrument Name : GC-21
Instrument Type : HP6890 GC with HP7673A Autosampler

Channel Parameters
Data will be collected from channel A
Delay Time : 0.00 min
Run Time : 9.36 min
Sampling Rate : 10.0000 pts/s

	Channel A	Channel B
Signal Source	DetA	TestSignal
Attenuation	0	0
Offset	0.0 mV	0.0 mV

Autosampler Method
Syringe Capacity : 10 µL
Injection Speed : Normal
Viscosity Delay : 0
Pre-injection Sample Washes : 1
Post-injection Solvent Washes (B) : 2

Injection Volume : 1.0 µL
Sample Pumps : 2
Wash/Waste Vial Set : 2
Post-injection Solvent Washes (A) : 2

Carriers Parameters
Carrier A control : PFlow - He
Column A length : 15.00 m
Vacuum Compensation : OFF
Split Ratio : 1.0 : 1
Initial Setpoint : 6.0 ML/MIN

Diameter : 320 µm

Initial Hold : 999.00 min

Valve configuration and settings
Valve 1 : NONE
Valve 3 : NONE
Valve 5 : NONE

Valve 2 : NONE
Valve 4 : NONE
Valve 6 : NONE

Detector Parameters

	Detector A	Detector B
Detector	FID	NONE
Range	100	
Autozero	OFF	OFF

Heated Zones
Injector A: CAP
Setpoint : 280 °C

Injector B: NONE
Setpoint : OFF

Detector A : °C
Detector B : °C
Auxiliary (NONE) : 0°C

Oven Program

Cryogenics : Off
Initial Temp : 40°C
Initial Hold : 0.50 min
Ramp 1 : 75.0 0/min to 70°, hold for 0.00 min
Ramp 2 : 40.0 0/min to 175°, hold for 0.00 min
Ramp 3 : 30.0 0/min to 320°, hold for 1.00 min

Total Run Time : 9.36 min
Maximum Temp : 400°C
Equilibration Time : 0.50 min

Timed Events

There are no timed events in the method

Real Time Plot Parameters

	Pages	Offset (mV)	Scale (mV)
Channel A	1	0.000	500.000

Processing Parameters

Bunch Factor : 1 points
Noise Threshold : 1 µV
Area Threshold : 50.00 µV

Peak Separation Criteria

Width Ratio : 0.200
Valley-to-Peak Ratio : 0.010

Exponential Skim Criteria

Peak Height Ratio : 5.000
Adjusted Height Ratio : 4.000
Valley Height Ratio : 3.000

Baseline Timed Events

Event #1 - Disable Peak Detection at 0.025
Event #2 - Forward Baseline On at 0.314
Event #3 - Enable Peak Detection at 0.843
Event #4 - Force Tangential Skim at 5.020

Optional Reports

No report format files given

Optional Report Plot Parameters

Plot Number	1	2	3	4	5
Generate this plot	No	No	No	No	No
Start plot at end of delay time	Yes	Yes	Yes	Yes	Yes
Start Time					
End Time					
Scale Type	Vertical Scaling	Vertical Scaling	Vertical Scaling	Vertical Scaling	Vertical Scaling
Scale Factor	1.000	1.000	1.000	1.000	1.000
Full Scale					
Offset					

Annotated Replot Parameters

Offset & Scale set to absolute values
Draw baselines
Include timed event annotations
Automatically set plot start and end times to data limits

Plot Offset : 0.000 µV
Plot Scale : 50.000 µV
Number of Pages : 1
Plot Title : Chromatogram
X-Axis Label : Time [min]
Y-Axis Label : Response [mV]
Orientation : Portrait
Retention Labels : Top of Plot
Component Labels : Actual Time

User Programs

No user programs will be executed

Global Sample Information

Default Sample Volume : 1.000 ul
Quantitation Units : ng
Void Time : 0.000 min
Correct amounts during calibration : No
Convert unknowns to concentration units : Yes
Reject outliers during calibration : No

An External Standard calibration will be used
Unknown peaks will be quantitated using a response factor of 1.000000e+06
First peak will be relative retention reference

Component Information

C8-C10

Component Type : Timed Group
Start Time : 0.843
End Time : 1.404
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

C12-C14

Component Type : Timed Group
Start Time : 2.089
End Time : 2.940
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

C10-C18

Component Type : Timed Group
Start Time : 1.404
End Time : 3.909
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

C9-C25

Component Type : Timed Group
Start Time : 1.100
End Time : 6.005
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

C13-C22
Component Type : Timed Group
Start Time : 2.421
End Time : 5.181
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

Diesel
Component Type : Timed Group
Start Time : 1.418
End Time : 6.690
Include only unidentified peaks : Yes
Reference Component :
Calibrating Area versus Amount using a 1st Order Fit
Curve will be forced through the origin
Amounts will not be scaled prior to the regression
Weighting factor for the regression: 1
Component standard purity percentage : 100.0000%

User Values
Label :
Value 1 : 0.000000
Value 2 : 500.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

Calibration Level

Level Name	Amount	Area	Height	ISTD Amt.	ISTD Resp.	# Replicates
D1	10.0000	46442.60	16846.41	----------	----------	1
D2	100.0000	85496.34	47621.20	----------	----------	1
D3	500.0000	270172.67	205763.67	----------	----------	1
D4	1000.0000	494306.21	392208.65	----------	----------	1
D5	5000.0000	2483366.20	1.93e+06	----------	----------	1

Calibration Curve : y = (0.000000) + (497.151101)x + (0.000000)x^2 + (0.000000)x^3
R-squared : 0.999173

C13-C23
Component Type : Timed Group
Start Time : 2.421
End Time : 5.500
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

C10-C28
Component Type : Timed Group
Start Time : 1.418
End Time : 6.690
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

C13-C25
Component Type : Timed Group
Start Time : 2.421
End Time : 5.971
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

C8-C40
Component Type : Timed Group
Start Time : 0.843
End Time : 9.140
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

p-Terphenyl
Component Type : Single Peak Component
Retention Time : 5.064 min
Search Window : 5.02 s, 5.11 %
Reference Component :
Find peak closest to expected RT in window
Use Average Calibration Factor (Area / Amount)
Component standard purity percentage : 100.0000%

User Values
Label :
Value 1 : 80.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

Calibration Level

Level Name	Amount	Area	Height	ISTD Amt.	ISTD Resp.	# Replicates
S1	8.0000	5900.70	6279.58	----------	----------	1
S2	40.0000	25770.60	26966.09	----------	----------	1
S3	80.0000	43677.90	46145.63	----------	----------	1
S4	100.0000	59120.35	61131.29	----------	----------	1
S5	120.0000	71883.40	69932.86	----------	----------	1

Average Calibration Factor = 623.611617 (%RSD = 11.65)

C18-C28
Component Type : Timed Group
Start Time : 3.909
End Time : 6.545
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

C10-C40
Component Type : Timed Group
Start Time : 1.418
End Time : 9.140
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

Motor Oil
Component Type : Timed Group
Start Time : 3.874
End Time : 8.323
Include only unidentified peaks : Yes
Reference Component :
Calibrating Area versus Amount using a 1st Order Fit
Curve will be forced through the origin
Amounts will not be scaled prior to the regression
Weighting factor for the regression: 1
Component standard purity percentage : 100.0000%

User Values
Label :
Value 1 : 0.000000
Value 2 : 500.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

Calibration Level

Level Name	Amount	Area	Height	ISTD Amt.	ISTD Resp.	# Replicates
M1	10.0000	23809.45	7368.55	----------	----------	1
M2	100.0000	62266.76	24969.82	----------	----------	1
M3	500.0000	262265.89	138662.87	----------	----------	1
M4	1000.0000	536940.34	317210.27	----------	----------	1
M5	5000.0000	2554942.43	1.79e+06	----------	----------	1

Calibration Curve : y = (0.000000) + (512.155331)x + (0.000000)x^2 + (0.000000)x^3
R-squared : 0.999744

C18-C36
Component Type : Timed Group
Start Time : 3.874
End Time : 8.323
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

C23-C32
Component Type : Timed Group
Start Time : 5.292
End Time : 7.548
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

C23-C36
Component Type : Timed Group
Start Time : 5.292
End Time : 8.323
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

Hydraulic Oil
Component Type : Timed Group
Start Time : 4.455
End Time : 8.690
Include only unidentified peaks : Yes
Reference Component :
Calibrating Area versus Amount using a 1st Order Fit
Curve will be forced through the origin
Amounts will not be scaled prior to the regression
Weighting factor for the regression: 1
Component standard purity percentage : 100.0000%

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

Calibration Level

Level Name	Amount	Area	Height	ISTD Amt.	ISTD Resp.	# Replicates
H1	10.0000	57069.33	19130.19	----------	----------	1
H2	100.0000	62066.68	23624.00	----------	----------	1
H3	500.0000	252089.90	135633.35	----------	----------	1
H4	1000.0000	462682.78	306307.82	----------	----------	1
H5	5000.0000	2386932.88	1.92e+06	----------	----------	1

Calibration Curve : y = (0.000000) + (477.156198)x + (0.000000)x^2 + (0.000000)x^3
R-squared : 0.999147

C23-C40
Component Type : Timed Group
Start Time : 5.292
End Time : 9.140
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

>C23
Component Type : Timed Group
Start Time : 5.292
End Time : 9.140
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

C24-C40
Component Type : Timed Group
Start Time : 5.569
End Time : 9.140
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

C28-C36
Component Type : Timed Group
Start Time : 6.545
End Time : 8.164
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

C26-C40
Component Type : Timed Group
Start Time : 6.068
End Time : 9.140
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

>C32
Component Type : Timed Group
Start Time : 7.548
End Time : 9.140
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

C36-C40
Component Type : Timed Group
Start Time : 8.164
End Time : 9.140
Include only unidentified peaks : Yes
Reference Component :
Quantitation will use calibration reference : Diesel
Reference calibration correction factor : 1.0000

User Values
Label :
Value 1 : 0.000000
Value 2 : 0.000000
Value 3 : 0.000000
Value 4 : 0.000000
Value 5 : 0.000000

Calibration Replicate Lists
Component : C8-C10
This component has no calibration levels

Component : C12-C14
This component has no calibration levels

Component : C10-C18
This component has no calibration levels

Component : C9-C25
This component has no calibration levels

Component : C13-C22
This component has no calibration levels

Component : Diesel
Level : D1

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
46442.60	16846.41	10.0000	--------	--------	2/8/2013	2:26:18 PM	D:\GC-21\Data\O020813\o0208_004.rst

Level : D2

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
85496.34	47621.20	100.0000	--------	--------	2/8/2013	2:26:19 PM	D:\GC-21\Data\O020813\o0208_005.rst

Level : D3

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
270172.67	205763.67	500.0000	-------	-------	2/8/2013	2:26:19 PM	D:\GC-21\Data\O020813\o0208_006.rst

Level : D4

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
494306.21	392208.65	1000.0000	-------	-------	2/8/2013	2:26:19 PM	D:\GC-21\Data\O020813\o0208_007.rst

Level : D5

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
2483366.20	1.92527e+006	5000.0000	-------	-------	2/8/2013	2:26:19 PM	D:\GC-21\Data\O020813\o0208_008.rst

Component : C13-C23
This component has no calibration levels

Component : C10-C28
This component has no calibration levels

Component : C13-C25
This component has no calibration levels

Component : C8-C40
This component has no calibration levels

Component : p-Terphenyl
Level : S1

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
5900.70	6279.58	8.0000	-------	-------	2/8/2013	2:29:52 PM	D:\GC-21\Data\O020813\o0208_004.rst

Level : S2

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
25770.60	26966.09	40.0000	-------	-------	2/8/2013	2:29:52 PM	D:\GC-21\Data\O020813\o0208_005.rst

Level : S3

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
43677.90	46145.63	80.0000	-------	-------	2/8/2013	2:29:52 PM	D:\GC-21\Data\O020813\o0208_006.rst

Level : S4

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
59120.35	61131.29	100.0000	-------	-------	2/8/2013	2:29:52 PM	D:\GC-21\Data\O020813\o0208_007.rst

Level : S5

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
71883.40	69932.86	120.0000	-------	-------	2/8/2013	2:29:52 PM	D:\GC-21\Data\O020813\o0208_008.rst

Component : C18-C28
This component has no calibration levels

Component : C10-C40
This component has no calibration levels

Component : Motor Oil
Level : M1

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
23809.45	7368.55	10.0000	--------	--------	2/8/2013	4:13:13 PM	D:\GC-21\Data\O020813\o0208_010.rst

Level : M2

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
62266.76	24969.82	100.0000	--------	--------	2/8/2013	4:13:13 PM	D:\GC-21\Data\O020813\o0208_011.rst

Level : M3

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
262265.89	138662.87	500.0000	--------	--------	2/8/2013	4:13:13 PM	D:\GC-21\Data\O020813\o0208_012.rst

Level : M4

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
536940.34	317210.27	1000.0000	--------	--------	2/8/2013	4:13:13 PM	D:\GC-21\Data\O020813\o0208_013.rst

Level : M5

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
2554942.43	1.79491e+006	5000.0000	--------	--------	2/8/2013	4:13:13 PM	D:\GC-21\Data\O020813\o0208_014.rst

Component : C18-C36
This component has no calibration levels

Component : C23-C32
This component has no calibration levels

Component : C23-C36
This component has no calibration levels

Component : Hydraulic Oil
Level : H1

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
57069.33	19130.19	10.0000	--------	--------	2/11/2013	8:01:20 AM	D:\GC-21\Data\O020813\o0208_015.rst

Level : H2

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
62066.68	23624.00	100.0000	--------	--------	2/11/2013	8:01:20 AM	D:\GC-21\Data\O020813\o0208_016.rst

Level : H3

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
252089.90	135633.35	500.0000	--------	--------	2/11/2013	8:01:20 AM	D:\GC-21\Data\O020813\o0208_017.rst

Level : H4

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
462682.78	306307.82	1000.0000	--------	--------	2/11/2013	8:01:20 AM	D:\GC-21\Data\O020813\o0208_018.rst

Level : H5

Area	Height	Vol Adj Amt	ISTD Response	ISTD Amount	Date	Time	File
2386932.88	1.91723e+006	5000.0000	———	———	2/11/2013	8:01:20 AM	D:\GC-21\Data\O020813\o0208_019.rst

Component : C23-C40
This component has no calibration levels

Component : >C23
This component has no calibration levels

Component : C24-C40
This component has no calibration levels

Component : C28-C36
This component has no calibration levels

Component : C26-C40
This component has no calibration levels

Component : >C32
This component has no calibration levels

Component : C36-C40
This component has no calibration levels

INITIAL CALIBRATION AND CONTINUING CALIBRATION VERIFICATION SUMMARY

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Software Version : 6.3.1.0504
Sample Name : 500/80ppm,ICV
Instrument Name : GC-21
Rack/Vial : 1/98
Sample Amount : 1.000000
Cycle : 1

Date : 6/18/2013 2:15:59 PM
Data Acquisition Time : 2/8/2013 6:16:47 PM
Channel : A
Operator : gc
Dilution Factor : 1.000000

Result File : D:\GC-21\Data\O020813\o0208_022.rst
Sequence File : C:\PenExe\TcWS\Ver6.3.1\Temp\o0208_022-1788777084-20130617-154252.idx
Sample Notes:
O20813

Instrument Run Log
547,"Not ready:","F inl pres 12.7 psi"," at runtime 0.14"
547,"Not ready:","F inl pres 13.5 psi"," at runtime 0.76"
614,"Not ready:","Host system"," at runtime 0.95"
0,"","","",""

Continuing Calibration Report

Component Name	Time [min]	Area [µV·s]	Final Conc PPM	Surrogate % Recovery	Avg RF	CCRF Hydrocarbons	%D Hydrocarbons	CCRF Surrogate	%D Surrogate
C8-C10	1.045	43524.95	87.55	———	497.2	———	———	———	———
Jet Fuel	2.220	206933.93	493.08	———	419.7	———	———	———	———
C12-C14	2.464	68815.25	138.42	———	497.2	———	———	———	———
C10-C18	2.528	176003.36	354.02	———	497.2	———	———	———	———
C9-C25	3.466	260471.38	523.93	———	497.2	———	———	———	———
C12-C22	3.567	209541.21	421.48	———	497.2	———	———	———	———
C13-C22	3.728	191029.83	384.25	———	497.2	———	———	———	———
C13-C23	3.854	194711.66	391.65	———	497.2	———	———	———	———
Diesel	3.966	247110.66	497.05	———	497.2	494.22	-0.59	———	———
C10-C28	3.966	247110.66	497.05	———	497.2	———	———	———	———
C13-C25	4.116	197720.90	397.71	———	497.2	———	———	———	———
C8-C40	4.846	301444.19	606.34	———	497.2	———	———	———	———
C18-C28	5.064	70680.48	142.17	———	497.2	———	———	———	———
p-Terphenyl	5.068	43513.43	69.78	87.22	623.6	———	———	543.92	-12.78
C10-C40	5.119	257919.24	518.79	———	497.2	———	———	———	———
C18-C36	5.963	81623.83	164.18	———	497.2	———	———	———	———
Motor Oil	5.963	81623.83	159.37	———	512.2	163.25	-68.13	———	———
C23-C32	6.286	11115.11	22.36	———	497.2	———	———	———	———
Hydraulic Oil	6.397	50857.75	106.59	———	477.2	———	———	———	———
C23-C36	6.671	16564.09	33.32	———	497.2	———	———	———	———
RRO	6.933	11371.51	44.74	———	254.2	———	———	———	———
C23-C40	7.027	18792.63	37.80	———	497.2	———	———	———	———
>C23	7.027	18792.63	37.80	———	497.2	———	———	———	———
C24-C40	7.152	15110.80	30.39	———	497.2	———	———	———	———
C28-C36	7.195	7741.93	15.57	———	497.2	———	———	———	———
C26-C40	7.422	12101.56	24.34	———	497.2	———	———	———	———
>C32	8.180	7677.52	15.44	———	497.2	———	———	———	———
C36-C40	8.460	3493.48	7.03	———	497.2	———	———	———	———
			6222.23						

Report stored in ASCII file: D:\GC-21\Data\O020813\o0208_022.TX0

Software Version : 6.3.1.0504
Sample Name : 500/80ppm,ICV
Instrument Name : GC-21
Rack/Vial : 1/99
Sample Amount : 1.000000
Cycle : 24

Date : 6/27/2013 9:09:40 AM
Data Acquisition Time : 2/8/2013 6:33:20 PM
Channel : A
Operator : gc
Dilution Factor : 1.000000

Result File : D:\GC-21\Data\O020813\o0208_023.rst
Sequence File : D:\GC-21\Sequence\O020813.seq

Instrument Run Log
547,"Not ready:","F inl pres 12.8 psi"," at runtime 0.13"
547,"Not ready:","F inl pres 13.5 psi"," at runtime 0.76"
614,"Not ready:","Host system"," at runtime 0.93"
0,"","","",""

Continuing Calibration Report

Component Name	Time [min]	Area [µV·s]	Final Conc PPM	Surrogate % Recovery	Avg RF	CCRF Hydrocarbons	%D Hydrocarbons	CCRF Surrogate	%D Surrogate
C8-C10	1.123	1532.50	32.21	------	47.6	------	------	------	------
Jet Fuel	2.331	2055.23	11.54	------	178.1	------	------	------	------
C12-C14	2.571	0.00	0.00	------	------	------	------	------	------
C10-C18	2.656	701.24	1.41	------	497.2	------	------	------	------
C9-C25	3.553	103014.55	207.21	------	497.2	------	------	------	------
C13-C22	3.801	26811.36	53.93	------	497.2	------	------	------	------
C13-C23	3.961	50028.88	100.63	------	497.2	------	------	------	------
Diesel	4.054	174999.69	352.01	------	497.2	350.00	-29.60	------	------
C10-C28	4.054	174999.69	352.01	------	497.2	------	------	------	------
C13-C25	4.196	92276.35	185.61	------	497.2	------	------	------	------
C8-C40	4.992	305217.97	613.93	------	497.2	------	------	------	------
p-Terphenyl	5.068	46603.60	74.73	93.41	623.6	------	------	582.55	-6.59
C18-C28	5.227	160552.03	322.94	------	497.2	------	------	------	------
C10-C40	5.279	303685.47	610.85	------	497.2	------	------	------	------
Motor Oil	6.098	294488.43	575.00	------	512.2	588.98	15.00	------	------
C18-C36	6.098	294488.43	592.35	------	497.2	------	------	------	------
C23-C32	6.420	223586.86	449.74	------	497.2	------	------	------	------
Hydraulic Oil	6.573	298221.68	1513.35	------	197.1	------	------	------	------
C23-C36	6.808	260981.55	524.95	------	497.2	------	------	------	------
C23-C40	7.216	269549.84	542.19	------	497.2	------	------	------	------
>C23	7.216	269549.84	542.19	------	497.2	------	------	------	------
C28-C36	7.354	129507.86	260.50	------	497.2	------	------	------	------
C24-C40	7.355	250528.32	503.93	------	497.2	------	------	------	------
C26-C40	7.604	197267.34	396.80	------	497.2	------	------	------	------
>C32	8.344	45962.98	92.45	------	497.2	------	------	------	------
C36-C40	8.652	12924.33	26.00	------	497.2	------	------	------	------
			8938.45						

Report stored in ASCII file: D:\GC-21\Data\O020813\o0208_023.TX0

Software Version : 6.3.1.0504
Sample Name : S3H0319-CCV1
Instrument Name : GC-21
Rack/Vial : 1/98
Sample Amount : 1.000000
Cycle : 3

Date : 8/28/2013 4:40:57 PM
Data Acquisition Time : 8/27/2013 9:19:27 AM
Channel : A
Operator : gc
Dilution Factor : 1.000000

Result File : D:\GC-21\Data\O082713\o0827_003.rst
Sequence File : D:\GC-21\Sequence\O082713.seq

Instrument Run Log
547,"Not ready:","F inl pres 12.8 psi"," at runtime 0.16"
614,"Not ready:","Host system"," at runtime 0.97"
547,"Not ready:","F inl pres 14.3 psi"," at runtime 0.99"
0,"","","",""

Continuing Calibration Report

Component Name	Time [min]	Area [µV·s]	Final Conc PPM	Surrogate % Recovery	Avg RF	CCRF Hydrocarbons	%D Hydrocarbons	CCRF Surrogate	%D Surrogate
C8-C10	1.076	20785.26	41.81	----------	497.2	----------	----------	----------	----------
Jet Fuel	2.257	187282.25	446.25	----------	419.7	----------	----------	----------	----------
C12-C14	2.464	71850.66	144.52	----------	497.2	----------	----------	----------	----------
C10-C18	2.616	174041.70	350.08	----------	497.2	----------	----------	----------	----------
C8-C22	2.953	233976.99	470.64	----------	497.2	----------	----------	----------	----------
C13-C20	3.464	167136.03	336.19	----------	497.2	----------	----------	----------	----------
C9-C25	3.466	231894.66	466.45	----------	497.2	----------	----------	----------	----------
C12-C22	3.567	191855.06	385.91	----------	497.2	----------	----------	----------	----------
C13-C22	3.615	173346.97	348.68	----------	497.2	----------	----------	----------	----------
C13-C23	3.743	175219.89	352.45	----------	497.2	----------	----------	----------	----------
Diesel	3.876	222913.14	448.38	----------	497.2	445.83	-10.32	----------	----------
C10-C28	3.876	222913.14	448.38	----------	497.2	----------	----------	----------	----------
C13-C25	4.116	177344.70	356.72	----------	497.2	----------	----------	----------	----------
C8-C40	4.755	242171.91	487.12	----------	497.2	----------	----------	----------	----------
C10-C36	4.763	224893.53	452.36	----------	497.2	----------	----------	----------	----------
p-Terphenyl	4.881	44805.85	71.85	89.81	623.6	----------	----------	560.07	-10.19
C13-C32	4.882	177344.70	356.72	----------	497.2	----------	----------	----------	----------
C18-C28	5.118	46019.32	92.57	----------	497.2	----------	----------	----------	----------
C10-C40	5.119	225008.48	452.60	----------	497.2	----------	----------	----------	----------
C13-C35	5.162	177557.97	357.15	----------	497.2	----------	----------	----------	----------
C13-C40	5.622	178670.32	359.39	----------	497.2	----------	----------	----------	----------
Motor Oil	5.876	53165.76	103.81	----------	512.2	106.33	-79.24	----------	----------
C18-C36	5.963	56332.07	113.31	----------	497.2	----------	----------	----------	----------
C23-C32	6.096	3997.73	8.04	----------	497.2	----------	----------	----------	----------
Hydraulic Oil	6.351	24330.87	50.99	----------	477.2	----------	----------	----------	----------
C23-C36	6.458	4211.00	8.47	----------	497.2	----------	----------	----------	----------
C22-C40	6.806	5323.36	10.71	----------	497.2	----------	----------	----------	----------
C23-C40	6.838	5323.36	10.71	----------	497.2	----------	----------	----------	----------
RRO	6.933	1512.30	5.95	----------	254.2	----------	----------	----------	----------
>C23	7.027	5323.36	10.71	----------	497.2	----------	----------	----------	----------
C24-C40	7.152	3068.99	6.17	----------	497.2	----------	----------	----------	----------
C28-C36	7.220	213.27	0.43	----------	497.2	----------	----------	----------	----------
C26-C40	7.422	1325.63	2.67	----------	497.2	----------	----------	----------	----------
C32-C40	8.079	1325.63	2.67	----------	497.2	----------	----------	----------	----------
>C32	8.180	1325.63	2.67	----------	497.2	----------	----------	----------	----------
C36-C40	8.398	1112.36	2.24	----------	497.2	----------	----------	----------	----------
			7565.75						

Report stored in ASCII file: D:\GC-21\Data\O082713\o0827_003.TX0

Software Version	: 6.3.1.0504	Date	: 8/28/2013 4:41:08 PM
Sample Name	: S3H0319-CCV2	Data Acquisition Time	: 8/27/2013 9:52:53 AM
Instrument Name	: GC-21	Channel	: A
Rack/Vial	: 1/99	Operator	: tcprocess
Sample Amount	: 1.000000	Dilution Factor	: 1.000000
Cycle	: 1		

Result File : D:\GC-21\Data\O082713\o0827_005.rst
Sequence File : D:\GC-21\Sequence\O082713.seq

Instrument Run Log
547,"Not ready:","F inl pres 12.8 psi"," at runtime 0.15"
547,"Not ready:","F inl pres 14.3 psi"," at runtime 0.97"
614,"Not ready:","Host system"," at runtime 0.98"
614,"Not ready:","Host system"," at runtime 3.98"
0,"","",""

Continuing Calibration Report

Component Name	Time [min]	Area [µV·s]	Final Conc PPM	Surrogate % Recovery	Avg RF	CCRF Hydrocarbons	%D Hydrocarbons	CCRF Surrogate	%D Surrogate
C8-C10	1.076	4591.50	9.24	--------	497.2	--------	--------	--------	--------
Jet Fuel	2.257	8626.35	20.55	--------	419.7	--------	--------	--------	--------
C12-C14	2.464	847.90	1.71	--------	497.2	--------	--------	--------	--------
C10-C18	2.616	4374.13	8.80	--------	497.2	--------	--------	--------	--------
C8-C22	2.953	46269.72	93.07	--------	497.2	--------	--------	--------	--------
C13-C20	3.464	10324.91	20.77	--------	497.2	--------	--------	--------	--------
C9-C25	3.466	118920.25	239.20	--------	497.2	--------	--------	--------	--------
C12-C22	3.567	39600.39	79.65	--------	497.2	--------	--------	--------	--------
C13-C22	3.615	27247.08	54.81	--------	497.2	--------	--------	--------	--------
C13-C23	3.743	44621.56	89.75	--------	497.2	--------	--------	--------	--------
Diesel	3.876	167219.34	336.36	--------	497.2	334.44	-32.73	--------	--------
C10-C28	3.876	167219.34	336.36	--------	497.2	--------	--------	--------	--------
C13-C25	4.116	112250.93	225.79	--------	497.2	--------	--------	--------	--------
C8-C40	4.755	304047.36	611.58	--------	497.2	--------	--------	--------	--------
C10-C36	4.763	290110.88	583.55	--------	497.2	--------	--------	--------	--------
p-Terphenyl	4.880	55357.85	88.77	110.96	623.6	--------	--------	691.97	10.96
C13-C32	4.882	250593.63	504.06	--------	497.2	--------	--------	--------	--------
C18-C28	5.118	162845.21	327.56	--------	497.2	--------	--------	--------	--------
C10-C40	5.119	299455.86	602.34	--------	497.2	--------	--------	--------	--------
C13-C35	5.162	281788.73	566.81	--------	497.2	--------	--------	--------	--------
C13-C40	5.622	297378.03	598.16	--------	497.2	--------	--------	--------	--------
Motor Oil	5.876	279831.71	546.38	--------	512.2	559.66	9.28	--------	--------
C18-C36	5.963	286222.09	575.72	--------	497.2	--------	--------	--------	--------
C23-C32	6.096	210577.17	423.57	--------	497.2	--------	--------	--------	--------
Hydraulic Oil	6.351	288009.46	603.60	--------	477.2	--------	--------	--------	--------
C23-C36	6.458	254541.66	512.00	--------	497.2	--------	--------	--------	--------
C22-C40	6.806	270130.96	543.36	--------	497.2	--------	--------	--------	--------
C23-C40	6.838	270130.96	543.36	--------	497.2	--------	--------	--------	--------
RRO	6.933	201275.25	791.92	--------	254.2	--------	--------	--------	--------
>C23	7.027	257777.64	518.51	--------	497.2	--------	--------	--------	--------
C24-C40	7.152	236917.52	476.55	--------	497.2	--------	--------	--------	--------
C28-C36	7.220	117445.97	236.24	--------	497.2	--------	--------	--------	--------
C26-C40	7.422	182660.38	367.41	--------	497.2	--------	--------	--------	--------
C32-C40	8.079	60495.59	121.68	--------	497.2	--------	--------	--------	--------
>C32	8.180	46784.40	94.10	--------	497.2	--------	--------	--------	--------
C36-C40	8.398	14790.55	29.75	--------	497.2	--------	--------	--------	--------
			11783.03						

Report stored in ASCII file: D:\GC-21\Data\O082713\o0827_005.TX0

Software Version : 6.3.1.0504
Sample Name : S3H0319-CCV3
Instrument Name : GC-21
Rack/Vial : 1/98
Sample Amount : 1.000000
Cycle : 1

Date : 8/28/2013 4:41:43 PM
Data Acquisition Time : 8/27/2013 1:52:02 PM
Channel : A
Operator : gc
Dilution Factor : 1.000000

Result File : D:\GC-21\Data\O082713\o0827_014.rst
Sequence File : D:\GC-21\Sequence\O082713.seq

Instrument Run Log
547,"Not ready:","F inl pres 12.8 psi"," at runtime 0.15"
547,"Not ready:","F inl pres 14.3 psi"," at runtime 0.94"
614,"Not ready:","Host system"," at runtime 0.98"
0,"","","",""

Continuing Calibration Report

Component Name	Time [min]	Area [µV·s]	Final Conc PPM	Surrogate % Recovery	Avg RF	CCRF Hydrocarbons	%D Hydrocarbons	CCRF Surrogate	%D Surrogate
C8-C10	1.076	25200.21	50.69	--------	497.2	--------	--------	--------	--------
Jet Fuel	2.257	208845.43	497.64	--------	419.7	--------	--------	--------	--------
C12-C14	2.464	78767.04	158.44	--------	497.2	--------	--------	--------	--------
C10-C18	2.616	191257.10	384.71	--------	497.2	--------	--------	--------	--------
C8-C22	2.953	263845.20	530.71	--------	497.2	--------	--------	--------	--------
C13-C20	3.464	183969.98	370.05	--------	497.2	--------	--------	--------	--------
C9-C25	3.466	259178.60	521.33	--------	497.2	--------	--------	--------	--------
C12-C22	3.567	211694.49	425.82	--------	497.2	--------	--------	--------	--------
C13-C22	3.615	191426.33	385.05	--------	497.2	--------	--------	--------	--------
C13-C23	3.743	192909.95	388.03	--------	497.2	--------	--------	--------	--------
Diesel	3.876	248039.59	498.92	--------	497.2	496.08	-0.22	--------	--------
C10-C28	3.876	248039.59	498.92	--------	497.2	--------	--------	--------	--------
C13-C25	4.116	197067.92	396.39	--------	497.2	--------	--------	--------	--------
C8-C40	4.755	271198.39	545.50	--------	497.2	--------	--------	--------	--------
C10-C36	4.763	250021.69	502.91	--------	497.2	--------	--------	--------	--------
C13-C32	4.882	197437.09	397.14	--------	497.2	--------	--------	--------	--------
p-Terphenyl	4.882	49813.60	79.88	99.85	623.6	--------	--------	622.67	-0.15
C18-C28	5.118	53351.45	107.31	--------	497.2	--------	--------	--------	--------
C10-C40	5.119	250303.48	503.48	--------	497.2	--------	--------	--------	--------
C13-C35	5.162	198271.54	398.82	--------	497.2	--------	--------	--------	--------
C13-C40	5.622	198779.53	399.84	--------	497.2	--------	--------	--------	--------
Motor Oil	5.876	61844.97	120.75	--------	512.2	123.69	-75.85	--------	--------
C18-C36	5.963	64573.15	129.89	--------	497.2	--------	--------	--------	--------
C23-C32	6.096	5963.56	12.00	--------	497.2	--------	--------	--------	--------
Hydraulic Oil	6.351	29314.80	61.44	--------	477.2	--------	--------	--------	--------
C23-C36	6.458	6845.20	13.77	--------	497.2	--------	--------	--------	--------
C22-C40	6.806	7353.19	14.79	--------	497.2	--------	--------	--------	--------
C23-C40	6.838	7353.19	14.79	--------	497.2	--------	--------	--------	--------
RRO	6.933	2145.73	8.44	--------	254.2	--------	--------	--------	--------
>C23	7.027	7353.19	14.79	--------	497.2	--------	--------	--------	--------
C24-C40	7.152	4596.90	9.25	--------	497.2	--------	--------	--------	--------
C28-C36	7.220	881.64	1.77	--------	497.2	--------	--------	--------	--------
C26-C40	7.422	1711.61	3.44	--------	497.2	--------	--------	--------	--------
C32-C40	8.079	1389.64	2.80	--------	497.2	--------	--------	--------	--------
>C32	8.180	1342.44	2.70	--------	497.2	--------	--------	--------	--------
C36-C40	8.398	507.99	1.02	--------	497.2	--------	--------	--------	--------
			8453.20						

Report stored in ASCII file: D:\GC-21\Data\O082713\o0827_014.TX0

Software Version : 6.3.1.0504
Sample Name : S3H0319-CCV4
Instrument Name : GC-21
Rack/Vial : 1/99
Sample Amount : 1.000000
Cycle : 2

Date : 8/28/2013 4:41:56 PM
Data Acquisition Time : 8/27/2013 2:08:51 PM
Channel : A
Operator : gc
Dilution Factor : 1.000000

Result File : D:\GC-21\Data\O082713\o0827_015.rst
Sequence File : D:\GC-21\Sequence\O082713.seq

Instrument Run Log
547,"Not ready:","F inl pres 12.8 psi"," at runtime 0.16"
614,"Not ready:","Host system"," at runtime 0.98"
0,"","","",""

Continuing Calibration Report

Component Name	Time [min]	Area [µV·s]	Final Conc PPM	Surrogate % Recovery	Avg RF	CCRF Hydrocarbons	%D Hydrocarbons	CCRF Surrogate	%D Surrogate
C8-C10	1.076	12336.91	24.82	--------	497.2	--------	--------	--------	--------
Jet Fuel	2.257	20403.38	48.62	--------	419.7	--------	--------	--------	--------
C12-C14	2.464	4564.69	9.18	--------	497.2	--------	--------	--------	--------
C10-C18	2.616	8851.05	17.80	--------	497.2	--------	--------	--------	--------
C8-C22	2.953	58001.26	116.67	--------	497.2	--------	--------	--------	--------
C13-C20	3.464	17224.04	34.65	--------	497.2	--------	--------	--------	--------
C9-C25	3.466	125822.21	253.09	--------	497.2	--------	--------	--------	--------
C12-C22	3.567	45664.35	91.85	--------	497.2	--------	--------	--------	--------
C13-C22	3.615	33423.78	67.23	--------	497.2	--------	--------	--------	--------
C13-C23	3.743	50329.73	101.24	--------	497.2	--------	--------	--------	--------
Diesel	3.876	162125.50	326.11	--------	497.2	324.25	-34.78	--------	--------
C10-C28	3.876	162125.50	326.11	--------	497.2	--------	--------	--------	--------
C13-C25	4.116	113053.58	227.40	--------	497.2	--------	--------	--------	--------
C8-C40	4.755	301679.42	606.82	--------	497.2	--------	--------	--------	--------
C10-C36	4.763	276340.25	555.85	--------	497.2	--------	--------	--------	--------
C13-C32	4.882	239110.32	480.96	--------	497.2	--------	--------	--------	--------
p-Terphenyl	4.882	50950.30	81.70	102.13	623.6	--------	--------	636.88	2.13
C18-C28	5.118	153274.46	308.31	--------	497.2	--------	--------	--------	--------
C10-C40	5.119	290375.66	584.08	--------	497.2	--------	--------	--------	--------
C13-C35	5.162	268872.74	540.83	--------	497.2	--------	--------	--------	--------
C13-C40	5.622	289943.95	583.21	--------	497.2	--------	--------	--------	--------
Motor Oil	5.876	261237.99	510.08	--------	512.2	522.48	2.02	--------	--------
C18-C36	5.963	268520.39	540.12	--------	497.2	--------	--------	--------	--------
C23-C32	6.096	194503.57	391.24	--------	497.2	--------	--------	--------	--------
Hydraulic Oil	6.351	269509.31	564.82	--------	477.2	--------	--------	--------	--------
C23-C36	6.458	235448.97	473.60	--------	497.2	--------	--------	--------	--------
C22-C40	6.806	255487.02	513.90	--------	497.2	--------	--------	--------	--------
C23-C40	6.838	255487.02	513.90	--------	497.2	--------	--------	--------	--------
RRO	6.933	187823.75	738.99	--------	254.2	--------	--------	--------	--------
>C23	7.027	244711.32	492.23	--------	497.2	--------	--------	--------	--------
C24-C40	7.152	225857.18	454.30	--------	497.2	--------	--------	--------	--------
C28-C36	7.220	109081.37	219.41	--------	497.2	--------	--------	--------	--------
C26-C40	7.422	174650.09	351.30	--------	497.2	--------	--------	--------	--------
C32-C40	8.079	62016.60	124.74	--------	497.2	--------	--------	--------	--------
>C32	8.180	50833.63	102.25	--------	497.2	--------	--------	--------	--------
C36-C40	8.398	18135.64	36.48	--------	497.2	--------	--------	--------	--------
			11413.87						

Report stored in ASCII file: D:\GC-21\Data\O082713\o0827_015.TX0

Software Version : 6.3.1.0504
Sample Name : S3H0319-CCV5
Instrument Name : GC-21
Rack/Vial : 1/98
Sample Amount : 1.000000
Cycle : 17

Date : 8/28/2013 4:42:15 PM
Data Acquisition Time : 8/27/2013 7:03:33 PM
Channel : A
Operator : tcprocess
Dilution Factor : 1.000000

Result File : D:\GC-21\Data\O082713\o0827_032.rst
Sequence File : D:\GC-21\Sequence\O082713.seq

Instrument Run Log
547,"Not ready:","F inl pres 12.7 psi"," at runtime 0.15"
614,"Not ready:","Host system"," at runtime 0.97"
0,"","","",""

Continuing Calibration Report

Component Name	Time [min]	Area [µV·s]	Final Conc PPM	Surrogate % Recovery	Avg RF	CCRF Hydrocarbons	%D Hydrocarbons	CCRF Surrogate	%D Surrogate
C8-C10	1.076	21808.29	43.87	--------	497.2	--------	--------	--------	--------
Jet Fuel	2.257	183415.40	437.04	--------	419.7	--------	--------	--------	--------
C12-C14	2.464	69704.94	140.21	--------	497.2	--------	--------	--------	--------
C10-C18	2.616	169465.98	340.87	--------	497.2	--------	--------	--------	--------
C8-C22	2.953	229702.90	462.04	--------	497.2	--------	--------	--------	--------
C13-C20	3.464	163463.86	328.80	--------	497.2	--------	--------	--------	--------
C9-C25	3.466	227809.90	458.23	--------	497.2	--------	--------	--------	--------
C12-C22	3.567	187482.85	377.11	--------	497.2	--------	--------	--------	--------
C13-C22	3.615	169639.23	341.22	--------	497.2	--------	--------	--------	--------
C13-C23	3.743	172087.46	346.15	--------	497.2	--------	--------	--------	--------
Diesel	3.876	218830.09	440.17	--------	497.2	437.66	-11.97	--------	--------
C10-C28	3.876	218830.09	440.17	--------	497.2	--------	--------	--------	--------
C13-C25	4.116	174397.49	350.79	--------	497.2	--------	--------	--------	--------
C8-C40	4.755	237895.46	478.52	--------	497.2	--------	--------	--------	--------
C10-C36	4.763	219583.23	441.68	--------	497.2	--------	--------	--------	--------
C13-C32	4.882	174444.68	350.89	--------	497.2	--------	--------	--------	--------
p-Terphenyl	4.884	44398.00	71.19	88.99	623.6	--------	--------	554.98	-11.01
C18-C28	5.118	46608.68	93.75	--------	497.2	--------	--------	--------	--------
C10-C40	5.119	219583.23	441.68	--------	497.2	--------	--------	--------	--------
C13-C35	5.162	174457.18	350.91	--------	497.2	--------	--------	--------	--------
C13-C40	5.622	174457.18	350.91	--------	497.2	--------	--------	--------	--------
Motor Oil	5.876	53721.06	104.89	--------	512.2	107.44	-79.02	--------	--------
C18-C36	5.963	55633.72	111.91	--------	497.2	--------	--------	--------	--------
C23-C32	6.096	4805.45	9.67	--------	497.2	--------	--------	--------	--------
Hydraulic Oil	6.351	23712.94	49.70	--------	477.2	--------	--------	--------	--------
C23-C36	6.458	4817.96	9.69	--------	497.2	--------	--------	--------	--------
C22-C40	6.806	4817.96	9.69	--------	497.2	--------	--------	--------	--------
C23-C40	6.838	4817.96	9.69	--------	497.2	--------	--------	--------	--------
RRO	6.933	561.58	2.21	--------	254.2	--------	--------	--------	--------
>C23	7.027	4817.96	9.69	--------	497.2	--------	--------	--------	--------
C24-C40	7.152	2168.90	4.36	--------	497.2	--------	--------	--------	--------
C28-C36	7.220	12.50	0.03	--------	497.2	--------	--------	--------	--------
C26-C40	7.422	59.70	0.12	--------	497.2	--------	--------	--------	--------
C32-C40	8.079	12.50	0.03	--------	497.2	--------	--------	--------	--------
>C32	8.180	12.50	0.03	--------	497.2	--------	--------	--------	--------
C36-C40	8.398	0.00	0.00	--------	--------	--------	--------	--------	--------
			7407.91						

Report stored in ASCII file: D:\GC-21\Data\O082713\o0827_032.TX0

Software Version : 6.3.1.0504
Sample Name : S3H0319-CCV6
Instrument Name : GC-21
Rack/Vial : 1/99
Sample Amount : 1.000000
Cycle : 18

Date : 8/28/2013 4:42:40 PM
Data Acquisition Time : 8/27/2013 7:20:11 PM
Channel : A
Operator : tcprocess
Dilution Factor : 1.000000

Result File : D:\GC-21\Data\O082713\o0827_033.rst
Sequence File : D:\GC-21\Sequence\O082713.seq

Instrument Run Log
547,"Not ready:","F inl pres 12.8 psi"," at runtime 0.15"
614,"Not ready:","Host system"," at runtime 0.98"
0,"","","",""

Continuing Calibration Report

Component Name	Time [min]	Area [µV·s]	Final Conc PPM	Surrogate % Recovery	Avg RF	CCRF Hydrocarbons	%D Hydrocarbons	CCRF Surrogate	%D Surrogate
C8-C10	1.076	4834.38	9.72	--------	497.2	--------	--------	--------	--------
Jet Fuel	2.257	7762.30	18.50	--------	419.7	--------	--------	--------	--------
C12-C14	2.464	585.04	1.18	--------	497.2	--------	--------	--------	--------
C10-C18	2.616	3237.07	6.51	--------	497.2	--------	--------	--------	--------
C8-C22	2.953	45826.34	92.18	--------	497.2	--------	--------	--------	--------
C13-C20	3.464	9396.77	18.90	--------	497.2	--------	--------	--------	--------
C9-C25	3.466	121121.03	243.63	--------	497.2	--------	--------	--------	--------
C12-C22	3.567	39461.76	79.38	--------	497.2	--------	--------	--------	--------
C13-C22	3.615	27950.83	56.22	--------	497.2	--------	--------	--------	--------
C13-C23	3.743	44029.56	88.56	--------	497.2	--------	--------	--------	--------
Diesel	3.876	171466.80	344.90	--------	497.2	342.93	-31.02	--------	--------
C10-C28	3.876	171466.80	344.90	--------	497.2	--------	--------	--------	--------
C13-C25	4.116	114653.44	230.62	--------	497.2	--------	--------	--------	--------
C8-C40	4.755	318203.71	640.05	--------	497.2	--------	--------	--------	--------
C10-C36	4.763	301850.72	607.16	--------	497.2	--------	--------	--------	--------
C13-C32	4.882	261020.41	525.03	--------	497.2	--------	--------	--------	--------
p-Terphenyl	4.883	59206.25	94.94	118.68	623.6	--------	--------	740.08	18.68
C18-C28	5.118	168229.74	338.39	--------	497.2	--------	--------	--------	--------
C10-C40	5.119	313794.26	631.18	--------	497.2	--------	--------	--------	--------
C13-C35	5.162	292994.21	589.35	--------	497.2	--------	--------	--------	--------
C13-C40	5.622	312161.05	627.90	--------	497.2	--------	--------	--------	--------
Motor Oil	5.876	291699.50	569.55	--------	512.2	583.40	13.91	--------	--------
C18-C36	5.963	299051.09	601.53	--------	497.2	--------	--------	--------	--------
C23-C32	6.096	218132.54	438.77	--------	497.2	--------	--------	--------	--------
Hydraulic Oil	6.351	302340.12	633.63	--------	477.2	--------	--------	--------	--------
C23-C36	6.458	265146.40	533.33	--------	497.2	--------	--------	--------	--------
C22-C40	6.806	283737.27	570.73	--------	497.2	--------	--------	--------	--------
C23-C40	6.838	283737.27	570.73	--------	497.2	--------	--------	--------	--------
RRO	6.933	212869.44	837.54	--------	254.2	--------	--------	--------	--------
>C23	7.027	272802.30	548.73	--------	497.2	--------	--------	--------	--------
C24-C40	7.152	251621.45	506.13	--------	497.2	--------	--------	--------	--------
C28-C36	7.220	124456.33	250.34	--------	497.2	--------	--------	--------	--------
C26-C40	7.422	195073.40	392.38	--------	497.2	--------	--------	--------	--------
C32-C40	8.079	66180.70	133.12	--------	497.2	--------	--------	--------	--------
>C32	8.180	51140.64	102.87	--------	497.2	--------	--------	--------	--------
C36-C40	8.398	17446.19	35.09	--------	497.2	--------	--------	--------	--------
			12313.66						

Report stored in ASCII file: D:\GC-21\Data\O082713\o0827_033.TX0

Software Version	: 6.3.1.0504	Date	: 9/4/2013 2:51:30 PM
Sample Name	: S3I0010-CCV1	Data Acquisition Time	: 9/4/2013 8:51:16 AM
Instrument Name	: GC-21	Channel	: A
Rack/Vial	: 1/98	Operator	: gc
Sample Amount	: 1.000000	Dilution Factor	: 1.000000
Cycle	: 3		

Result File : D:\GC-21\Data\O090413\o0904_003.rst
Sequence File : D:\GC-21\Sequence\O090413.seq

Instrument Run Log
547,"Not ready:","F inl pres 12.8 psi"," at runtime 0.16"
614,"Not ready:","Host system"," at runtime 0.97"
547,"Not ready:","F inl pres 14.3 psi"," at runtime 0.98"
0,"","","",""

Continuing Calibration Report

Component Name	Time [min]	Area [µV·s]	Final Conc PPM	Surrogate % Recovery	Avg RF	CCRF Hydrocarbons	%D Hydrocarbons	CCRF Surrogate	%D Surrogate
C8-C10	1.076	25823.75	51.94	--------	497.2	--------	--------	--------	--------
Jet Fuel	2.257	237640.00	566.25	--------	419.7	--------	--------	--------	--------
C12-C14	2.464	91441.02	183.93	--------	497.2	--------	--------	--------	--------
C10-C18	2.616	222194.29	446.94	--------	497.2	--------	--------	--------	--------
C8-C22	2.953	299162.54	601.75	--------	497.2	--------	--------	--------	--------
C13-C20	3.464	215453.10	433.38	--------	497.2	--------	--------	--------	--------
C9-C25	3.466	296871.19	597.14	--------	497.2	--------	--------	--------	--------
C12-C22	3.567	246406.55	495.64	--------	497.2	--------	--------	--------	--------
C13-C22	3.615	223111.43	448.78	--------	497.2	--------	--------	--------	--------
C13-C23	3.743	224885.31	452.35	--------	497.2	--------	--------	--------	--------
Diesel	3.876	285717.49	574.71	--------	497.2	571.43	14.94	--------	--------
C10-C28	3.876	285717.49	574.71	--------	497.2	--------	--------	--------	--------
C13-C25	4.116	228401.60	459.42	--------	497.2	--------	--------	--------	--------
C8-C40	4.755	311315.29	626.20	--------	497.2	--------	--------	--------	--------
C10-C36	4.763	289558.86	582.44	--------	497.2	--------	--------	--------	--------
C13-C32	4.882	228415.60	459.45	--------	497.2	--------	--------	--------	--------
p-Terphenyl	4.882	53160.30	85.25	106.56	623.6	--------	--------	664.50	6.56
C18-C28	5.118	59956.38	120.60	--------	497.2	--------	--------	--------	--------
C10-C40	5.119	290007.12	583.34	--------	497.2	--------	--------	--------	--------
C13-C35	5.162	230069.72	462.78	--------	497.2	--------	--------	--------	--------
C13-C40	5.622	231756.47	466.17	--------	497.2	--------	--------	--------	--------
Motor Oil	5.876	71181.29	138.98	--------	512.2	142.36	-72.20	--------	--------
C18-C36	5.963	74793.52	150.44	--------	497.2	--------	--------	--------	--------
C23-C32	6.096	5304.17	10.67	--------	497.2	--------	--------	--------	--------
Hydraulic Oil	6.351	32752.18	68.64	--------	477.2	--------	--------	--------	--------
C23-C36	6.458	6958.29	14.00	--------	497.2	--------	--------	--------	--------
C22-C40	6.806	8645.04	17.39	--------	497.2	--------	--------	--------	--------
C23-C40	6.838	8645.04	17.39	--------	497.2	--------	--------	--------	--------
RRO	6.933	3301.91	12.99	--------	254.2	--------	--------	--------	--------
>C23	7.027	8645.04	17.39	--------	497.2	--------	--------	--------	--------
C24-C40	7.152	5660.17	11.39	--------	497.2	--------	--------	--------	--------
C28-C36	7.220	1654.12	3.33	--------	497.2	--------	--------	--------	--------
C26-C40	7.422	3354.87	6.75	--------	497.2	--------	--------	--------	--------
C32-C40	8.079	3340.87	6.72	--------	497.2	--------	--------	--------	--------
>C32	8.180	3340.87	6.72	--------	497.2	--------	--------	--------	--------
C36-C40	8.398	1686.75	3.39	--------	497.2	--------	--------	--------	--------
			9759.33						

Report stored in ASCII file: D:\GC-21\Data\O090413\o0904_003.TX0

Software Version : 6.3.1.0504
Sample Name : S3I0010-CCV3
Instrument Name : GC-21
Rack/Vial : 1/98
Sample Amount : 1.000000
Cycle : 21

Date : 9/4/2013 2:53:39 PM
Data Acquisition Time : 9/4/2013 1:47:24 PM
Channel : A
Operator : gc
Dilution Factor : 1.000000

Result File : D:\GC-21\Data\O090413\o0904_021.rst
Sequence File : D:\GC-21\Sequence\O090413.seq

Instrument Run Log
547,"Not ready:","F inl pres 12.8 psi"," at runtime 0.15"
614,"Not ready:","Host system"," at runtime 0.98"
614,"Not ready:","Host system"," at runtime 1.33"
598,"Not ready:","Oven temp 315"," at runtime 8.27"
0,"","",""

Continuing Calibration Report

Component Name	Time [min]	Area [µV·s]	Final Conc PPM	Surrogate % Recovery	Avg RF	CCRF Hydrocarbons	%D Hydrocarbons	CCRF Surrogate	%D Surrogate
C8-C10	1.076	23388.07	47.04	--------	497.2	--------	--------	--------	--------
Jet Fuel	2.257	231042.50	550.53	--------	419.7	--------	--------	--------	--------
C12-C14	2.464	89696.46	180.42	--------	497.2	--------	--------	--------	--------
C10-C18	2.616	217247.23	436.98	--------	497.2	--------	--------	--------	--------
C8-C22	2.953	290553.29	584.44	--------	497.2	--------	--------	--------	--------
C13-C20	3.464	211283.00	424.99	--------	497.2	--------	--------	--------	--------
C9-C25	3.466	289361.72	582.04	--------	497.2	--------	--------	--------	--------
C12-C22	3.567	241003.60	484.77	--------	497.2	--------	--------	--------	--------
C13-C22	3.615	218646.87	439.80	--------	497.2	--------	--------	--------	--------
C13-C23	3.743	220216.10	442.96	--------	497.2	--------	--------	--------	--------
Diesel	3.876	279189.28	561.58	--------	497.2	558.38	12.32	--------	--------
C10-C28	3.876	279189.28	561.58	--------	497.2	--------	--------	--------	--------
C13-C25	4.116	224012.74	450.59	--------	497.2	--------	--------	--------	--------
C8-C40	4.755	309122.21	621.79	--------	497.2	--------	--------	--------	--------
C10-C36	4.763	288032.10	579.37	--------	497.2	--------	--------	--------	--------
C13-C32	4.882	226742.40	456.08	--------	497.2	--------	--------	--------	--------
p-Terphenyl	4.882	51032.50	81.83	102.29	623.6	--------	--------	637.91	2.29
C18-C28	5.118	58464.23	117.60	--------	497.2	--------	--------	--------	--------
C10-C40	5.119	290137.96	583.60	--------	497.2	--------	--------	--------	--------
C13-C35	5.162	230938.40	464.52	--------	497.2	--------	--------	--------	--------
C13-C40	5.622	234240.47	471.17	--------	497.2	--------	--------	--------	--------
Motor Oil	5.876	74120.51	144.72	--------	512.2	148.24	-71.06	--------	--------
C18-C36	5.963	78051.09	157.00	--------	497.2	--------	--------	--------	--------
C23-C32	6.096	7324.26	14.73	--------	497.2	--------	--------	--------	--------
Hydraulic Oil	6.351	38817.53	81.35	--------	477.2	--------	--------	--------	--------
C23-C36	6.458	12291.53	24.72	--------	497.2	--------	--------	--------	--------
C22-C40	6.806	15578.31	31.34	--------	497.2	--------	--------	--------	--------
C23-C40	6.838	15578.31	31.34	--------	497.2	--------	--------	--------	--------
RRO	6.933	8682.30	34.16	--------	254.2	--------	--------	--------	--------
>C23	7.027	15593.60	31.37	--------	497.2	--------	--------	--------	--------
C24-C40	7.152	12799.04	25.74	--------	497.2	--------	--------	--------	--------
C28-C36	7.220	6877.81	13.83	--------	497.2	--------	--------	--------	--------
C26-C40	7.422	10227.73	20.57	--------	497.2	--------	--------	--------	--------
C32-C40	8.079	8507.03	17.11	--------	497.2	--------	--------	--------	--------
>C32	8.180	7498.07	15.08	--------	497.2	--------	--------	--------	--------
C36-C40	8.398	3144.87	6.33	--------	497.2	--------	--------	--------	--------
			9773.07						

Report stored in ASCII file: D:\GC-21\Data\O090413\o0904_021.TX0

SUMMARY OF SURROGATE RECOVERIES

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

SYSTEM MONITORING COMPOUND SUMMARY

EPA 8015B

Client:	Ninyo & Moore - SD		
Work Order:	1302581	Matrix:	Soil
Project:	CLAIREMONT H.S., 105338071 & 105338088	Instrument:	GC-21

	p-terphenyl (55% - 153%)
1302581-15	95.4
1302581-19	107
1302581-21	106
1302581-22	91.9
B3H0499-BLK1	91.9
B3H0499-BS1	95.8
B3H0499-MS1	107
B3H0499-MSD1	110

BA 09/16/13

SYSTEM MONITORING COMPOUND SUMMARY

EPA 8015B

Client:	**Ninyo & Moore - SD**		
Work Order:	**1302545**	Matrix:	Soil
Project:	**CLAIREMONT H.S., 105338071 & 105338088**	Instrument:	GC-21

	p-terphenyl (55% - 153%)
1302545-01	139
1302545-05	118
1302545-11	100
1302545-17	104
B3I0015-BLK1	108
B3I0015-BS1	105
B3I0015-MS1	112
B3I0015-MSD1	103

BA 09/17/13

Method EPA 8081A

ANALYSIS RUN LOG

Injection Log

Data Directory: D:\13-07-30\

Line	Vial	FileName	SampleName	MiscInfo	Injected
1	95	C0730001.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	30 Jul 2013 2:37 pm
2	94	C0730002.D	,tricresyl phosphate,@A3A0074	1,PRIME	30 Jul 2013 2:50 pm
3	95	C0730003.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	30 Jul 2013 3:03 pm
4	96	C0730004.D	SEQ-PEM1@A2B0372	1,PEM (DECOMPOSITIO	30 Jul 2013 6:19 pm
5	1	C0730005.D	SEQ-ICAL1, 2/4 ppb*	1,A3E0284,	30 Jul 2013 6:32 pm
6	1	C0730006.D	SEQ-ICAL1, 2/4 ppb	1,A3E0284,	30 Jul 2013 6:46 pm
7	2	C0730007.D	SEQ-ICAL2, 5/10 ppb	1,A3E0285,	30 Jul 2013 6:59 pm
8	3	C0730008.D	SEQ-ICAL3, 20/40 ppb	1,A3E0286,	30 Jul 2013 7:12 pm
9	4	C0730009.D	SEQ-ICAL4, 50/100 ppb	1,A3E0287,	30 Jul 2013 7:25 pm
10	5	C0730010.D	SEQ-ICAL5, 100/200 ppb	1,A3E0288,	30 Jul 2013 7:38 pm
11	6	C0730011.D	SEQ-ICAL6, 150/300 ppb	1,A3E0289,	30 Jul 2013 7:51 pm
12	7	C0730012.D	SEQ-ICAL7, 200/400 ppb	1,A3E0290,	30 Jul 2013 8:04 pm
13	95	C0730013.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	30 Jul 2013 8:17 pm
14	8	C0730014.D	SEQ-ICV1, 100 ppb	1,A3E0291,	30 Jul 2013 8:31 pm
15	8	C0730015.D	SEQ-ICV1, 100 ppb } both passed	1,A3E0291,	30 Jul 2013 8:44 pm
16	97	C0730016.D	SEQ-CCV1@A3E0287,	1,PESTICIDE,	30 Jul 2013 8:57 pm
17	98	C0730017.D	SEQ-CCV2@A3B0454,CHLORDANE	1CHLORDANE,	30 Jul 2013 9:10 pm
18	99	C0730018.D	SEQ-CCV3@A3B0455,TOXAPHENE	1,TOXAPHENE,	30 Jul 2013 9:23 pm
19	95	C0730019.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	30 Jul 2013 9:36 pm
20	95	C0730020.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	30 Jul 2013 9:49 pm
21	95	C0730021.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	30 Jul 2013 10:02 pm

* not report, bad injection

INSTRUMENT ID.: GC-9
QUANT. METHOD: 8081 0730
CHLO 0730, TOX 0730
SIGNATURE: [illegible] INITIAL [illegible]

Injection Log

Data Directory: D:\13-08-28\

Line	Vial	FileName	SampleName	MiscInfo	Injected
1	95	C0828001.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	28 Aug 2013 8:37 am
2	94	C0828002.D	,tricresyl phosphate,@A3A0074	1,PRIME	28 Aug 2013 8:50 am
3	95	C0828003.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	28 Aug 2013 9:03 am
4	96	C0828004.D	SEQ-PEM1@A2B0372	1,PEM (DECOMPOSITIO	28 Aug 2013 9:16 am
5	97	C0828005.D	SEQ-CCV1@A3E0287,	1,PESTICIDE,	28 Aug 2013 9:29 am
6	98	C0828006.D	SEQ-CCV2@A3B0454,CHLORDANE	1CHLORDANE,	28 Aug 2013 9:43 am
7	99	C0828007.D	SEQ-CCV3@A3B0455,TOXAPHENE	1,TOXAPHENE,	28 Aug 2013 9:56 am
8	1	C0828008.D	B3H0508-BLK1	1,B3H0508	28 Aug 2013 10:09 am
9	2	C0828009.D	B3H0508-BS1	1,B3H0508	28 Aug 2013 10:22 am
10	3	C0828010.D	B3H0508-BSD1	1,B3H0508	28 Aug 2013 10:35 am
11	4	C0828011.D	1302559-01	1,B3H0508	28 Aug 2013 10:49 am
12	5	C0828012.D	1302573-01	1,B3H0508	28 Aug 2013 11:02 am
13	95	C0828013.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	28 Aug 2013 11:15 am
14	95	C0828014.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	28 Aug 2013 11:28 am
15	95	C0828015.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	28 Aug 2013 11:41 am
16	6	C0828016.D	B3H0528-BLK1	1,B3H0528,	28 Aug 2013 12:40 pm
17	7	C0828017.D	B3H0528-BS1	1,B3H0528,	28 Aug 2013 12:53 pm
18	8	C0828018.D	B3H0528-MS1	1,B3H0528,	28 Aug 2013 1:06 pm
19	9	C0828019.D	B3H0528-MSD1	1,B3H0528,	28 Aug 2013 1:20 pm
20	10	C0828020.D	1302581-19	1,B3H0528,	28 Aug 2013 1:33 pm
21	11	C0828021.D	1302476-07	1,B3H0528,	28 Aug 2013 1:46 pm
22	12	C0828022.D	1302617-01	1,B3H0528,	28 Aug 2013 1:59 pm
23	13	C0828023.D	1302617-02	1,B3H0528,	28 Aug 2013 2:12 pm
24	14	C0828024.D	1302581-21	1,B3H0528,	28 Aug 2013 2:26 pm
25	15	C0828025.D	1302581-22	1,B3H0528,	28 Aug 2013 2:39 pm
26	16	C0828026.D	1302581-15	1,B3H0528,	28 Aug 2013 2:52 pm
27	95	C0828027.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	28 Aug 2013 3:05 pm
28	95	C0828028.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	28 Aug 2013 3:18 pm
29	95	C0828029.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	28 Aug 2013 5:12 pm
30	17	C0828030.D	1302624-01	1,B3H0528,	28 Aug 2013 5:25 pm
31	95	C0828031.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	28 Aug 2013 5:38 pm
32	95	C0828032.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	28 Aug 2013 5:51 pm

INSTRUMENT ID.: GC-9
QUANT. METHOD: 80810820
ch100828, TOX0828
SIGNATURE: [illegible] INITIAL [illegible]

Injection Log

Data Directory: D:\13-09-04\

Line	Vial	FileName	SampleName	MiscInfo	Injected
1	95	C0904001.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	04 Sep 2013 5:39 am
2	94	C0904002.D	,tricresyl phosphate,@A3A0074	1,PRIME	04 Sep 2013 5:52 am
3	95	C0904003.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	04 Sep 2013 6:05 am
4	96	C0904004.D	SEQ-PEM1@~~A2B0372~~ A360387	1,PEM (DECOMPOSITIO	04 Sep 2013 6:18 am
5	97	C0904005.D	SEQ-CCV1@A3E0287,	1,PESTICIDE,	04 Sep 2013 6:32 am
6	98	C0904006.D	SEQ-CCV2@A3B0454, CHLORDANE	1CHLORDANE,	04 Sep 2013 6:45 am
7	99	C0904007.D	SEQ-CCV3@A3B0455,TOXAPHENE	1,TOXAPHENE,	04 Sep 2013 6:58 am
8	1	C0904008.D	B3I0018-BLK1	1,B3I0018,	04 Sep 2013 7:17 am
9	2	C0904009.D	B3I0018-BS1	1,B3I0018,	04 Sep 2013 7:43 am
10	3	C0904010.D	B3I0018-MS1	1,B3I0018,	04 Sep 2013 7:57 am
11	4	C0904011.D	B3I0018-MSD1	1,B3I0018,	04 Sep 2013 8:10 am
12	5	C0904012.D	1302547-05	1,B3I0018,	04 Sep 2013 9:07 am
13	6	C0904013.D	1302547-11	1,B3I0018,	04 Sep 2013 9:20 am
14	7	C0904014.D	1302547-12	1,B3I0018,	04 Sep 2013 9:33 am
15	8	C0904015.D	1302545-17	1,B3I0018,	04 Sep 2013 9:46 am
16	9	C0904016.D	1302545-11	1,B3I0018,	04 Sep 2013 10:00 am
17	10	C0904017.D	1302545-05	1,B3I0018,	04 Sep 2013 10:13 am
18	11	C0904018.D	1302545-01	1,B3I0018,	04 Sep 2013 10:26 am
19	95	C0904019.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	04 Sep 2013 10:39 am
20	95	C0904020.D	,SOLVENT BLANK,PESTICIDES,	1,HEXANE	04 Sep 2013 10:52 am

M 9/4/13

INSTRUMENT ID.: 0C9
QUANT. METHOD: 8081 0730, 8081 0730
0C00904, T080904
SIGNATURE: INITIAL M

ANALYSIS SEQUENCE

Sequence Comments:

S3I0024

Instrument: GC-04
Calibration ID: UNASSIGNED

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
S3I0024-PEM1	QC		1	A3H0358		
S3I0024-CCV1	QC		2	A3E0287	A3E0282	
S3I0024-CCV2	QC		3	A3H0357	A3E0282	
S3I0024-CCV3	QC		4	A3H0358	A3E0282	
B3I0018-BLK1	QC		5		A3E0282	
B3I0018-BS1	QC		6		A3E0282	
B3I0018-MS1	QC		7		A3E0282	
B3I0018-MSD1	QC		8		A3E0282	
1302547-05	8081	A	9		A3E0282	
1302547-11	8081	A	10		A3E0282	
1302547-12	8081	A	11		A3E0282	
1302545-17	8081	A	12		A3E0282	
1302545-11	8081	A	13		A3E0282	
1302545-05	8081	A	14		A3E0282	
1302545-01	8081	A	15		A3E0282	

Samples Loaded By — Date: 9/4/13

Data Processed By — Date: 9/4/13

SAMPLE PREPARATION LOG

PREPARATION BENCH SHEET

B3H0528

Advanced Technology Laboratories

Matrix: Soil
Date Prepared: 08/28/13 09:36
End Date/Time: 08/28/13 17:04

Prepared by: SM
IS Code: _____
IS Volume: 1

Prep Code: GCSEMI_PCB/PEST

Lab Number	Analysis	Sample pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Surrogate ID	ul Surrogate	Extraction Comments
1302476-07	8081		30.0	5						A3H0032	500	
1302581-15	8081		30.0	5						A3H0032	500	
1302581-19	8081		30.0	5						A3H0032	500	
1302581-19	8082		30.0	5						A3H0032	500	Added for BatchQC in: B3H0528
1302581-21	8081		30.0	5						A3H0032	500	
1302581-22	8081		30.0	5						A3H0032	500	
1302617-01	8081		30.0	5						A3H0032	500	
1302617-02	8081		30.0	5						A3H0032	500	
1302624-01	8081		30.0	5						A3H0032	500	
1302624-01	8082		30.0	5						A3H0032	500	
B3H0528-BLK1	QC		30.0	5						A3H0032	500	
B3H0528-BLK2	QC		30.0	5						A3H0032	500	
B3H0528-BS1	QC		30.0	5	A3G0340			500		A3H0032	500	
B3H0528-BS2	QC		30.0	5	A3D0057			500		A3H0032	500	
B3H0528-MS1	QC		30.0	5	A3G0340		1302581-19	500		A3H0032	500	
B3H0528-MS2	QC		30.0	5	A3D0057		1302624-01	500		A3H0032	500	
B3H0528-MSD1	QC		30.0	5	A3G0340		1302581-19	500		A3H0032	500	
B3H0528-MSD2	QC		30.0	5	A3D0057		1302624-01	500		A3H0032	500	

8-28-13
Prepared By — Date

8/29/13
Preparation Reviewed By — Date

8/28/13
Extracts Received By — Date

Printed: 8/28/2013 5:05:05PM :: bch_ATL_SVOA(2)

PREPARATION BENCH SHEET

B3H0528

Advanced Technology Laboratories

Matrix: Soil
Date Prepared: 08/28/13 15:20
End Date/Time: 08/28/13 17:04

Prepared by: SM
IS Code: _____
IS Volume: _____

Prep Code: GCSEMI_PCB/PEST

Lab Number	Analysis	Sample pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Surrogate ID	ul Surrogate	Extraction Comments

Number	Reagent Name
A3E0351	Sand
A3E0403	Acetone
A3G0434	Methylene Chloride
A3G0436	Sodium Sulfate
A3H0095	HEXANE

Prepared By: 8-28-13 Date

Preparation Reviewed By: 8/29/13 Date

Extracts Received By: 8/28/13 Date

Printed: 8/28/2013 5:05:05PM :: bch_ATL_SVOA(2)

CLEANUP BENCH SHEET

C3H2801

Advanced Technology Laboratories

Matrix: Soil | **Cleanup using: SVOA_PCB/PEST - EPA 3620B** | **Cleanup Date: 08/28/13**

Lab Number	Analysis	Cleaned By	Initial (mL)	Final (mL)	Client	Cleanup Comments
1302581-15	8081	SM	1	1	Ninyo & Moore - SD	
1302581-19	8081	SM	1	1	Ninyo & Moore - SD	
1302581-21	8081	SM	1	1	Ninyo & Moore - SD	
1302581-22	8081	SM	1	1	Ninyo & Moore - SD	
1302617-01	8081	SM	1	1	Excel Paving	
1302617-02	8081	SM	1	1	Excel Paving	
1302624-01	8081	SM	1	1	Northrop Grumman Space Technology	
B3H0528-BLK1	-	SM	1	1		
B3H0528-BS1	-	SM	1	1		
B3H0528-MS1	-	SM	1	1		
B3H0528-MSD1	-	SM	1	1		

Extracts Cleaned Up By: 8-28-13 Date

Cleanup Reviewed By: 8/29/13 Date

Printed: 8/28/2013 5:03:15PM :: cub_ATL_Default

167

PREPARATION BENCH SHEET

B3I0018

Advanced Technology Laboratories

Matrix: Soil
Date Prepared: 09/03/13 11:37
End Date/Time: 09/03/13 16:18

Prepared by: AL
IS Code:
IS Volume:

Prep Code: GCSEMI_PCB/PEST

Lab Number	Analysis	Sample pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Surrogate ID	ul Surrogate	Extraction Comments
1302545-01	8081		30.0	5						A3H0032	500	
1302545-05	8081		30.0	5						A3H0032	500	
1302545-11	8081		30.0	5						A3H0032	500	
1302545-17	8081		30.0	5						A3H0032	500	
1302547-05	8081		30.0	5						A3H0032	500	
1302547-11	8081		30.0	5						A3H0032	500	
1302547-12	8081		30.0	5						A3H0032	500	
B3I0018-BLK1	QC		30.0	5						A3H0032	500	
B3I0018-BS1	QC		30.0	5	A3G0340			500		A3H0032	500	
B3I0018-MS1	QC		30.0	5	A3G0340		1302547-12	500		A3H0032	500	
B3I0018-MSD1	QC		30.0	5	A3G0340		1302547-12	500		A3H0032	500	

Number	Reagent Name
A3E0351	Sand
A3E0403	Acetone
A3G0434	Methylene Chloride
A3G0436	Sodium Sulfate
A3H0095	HEXANE

Prepared By	Date	Preparation Reviewed By	Date	Extracts Received By	Date
AL	9-3-13	[illegible]	9/5/13	[illegible]	9/3/13

Printed: 9/3/2013 4:18:54PM :: bch_ATL_SVOA(2)

168

CLEANUP BENCH SHEET

C3I0305

Advanced Technology Laboratories

Matrix: Soil **Cleanup using: SVOA_PCB/PEST - EPA 3620B** **Cleanup Date: 09/03/13**

Lab Number	Analysis	Cleaned By	Initial (mL)	Final (mL)	Client	Cleanup Comments
1302545-01	8081	AL	1	1	Ninyo & Moore - SD	
1302545-11	8081	AL	1	1	Ninyo & Moore - SD	
1302545-17	8081	AL	1	1	Ninyo & Moore - SD	
1302547-05	8081	AL	1	1	Ninyo & Moore - SD	
B3I0018-BLK1	-	AL	1	1		
B3I0018-BS1	-	AL	1	1		

AL 9-3-13

Extracts Cleaned Up By Date

9/3/13

Cleanup Reviewed By Date

Printed: 9/3/2013 4:18:00PM :: cub_ATL_Default

SUMMARY RESULTS FOR DDT AND ENDRIN BREAKDOWN

Instrument Name	GC-09
Sample Name	SEQ-PEM1@A2B0372
Data File Name	C0730004.D
Date Acquired	7/30/2013 18:19

Signal #1

Name	Ret Time	Target Response
4,4' -DDE	6.21	28974800.18
4,4' -DDD	6.71	1792007.351
4,4' -DDT	6.96	639266564.8
	% Breakdown	**4.59**
Endrin aldehyde	7.07	3440071.961
Endrin ketone	7.70	18546897.39
Endrin	6.64	333418531.8
	% Breakdown	**6.19**

Signal #2

	Ret Time	Target Response
4,4' -DDE #2	5.58	18901199.77
4,4' -DDD #2	6.13	1113158.466
4,4' -DDT #2	6.37	401504972.7
	% Breakdown	**4.75**
Endrin aldehyde #2	6.61	1505084.35
Endrin ketone #2	7.17	13704046.62
Endrin #2	6.07	229681416.2
	% Breakdown	**6.21**

Instrument Name	GC-09
Sample Name	SEQ-PEM1@A2B0372
Data File Name	C0828004.D
Date Acquired	8/28/2013 9:16

Signal #1

Name	Ret Time	Target Response
4,4' -DDE	6.19	35251229.3
4,4' -DDD	6.69	4976770.131
4,4' -DDT	6.94	868987285.2
	% Breakdown	**4.42**
Endrin aldehyde	7.05	16298633.42
Endrin ketone	7.68	33300973.47
Endrin	6.61	422361907.8
	% Breakdown	**10.51**

Signal #2

	Ret Time	**Target Response**
4,4' -DDE #2	5.58	22527715.54
4,4' -DDD #2	6.13	3065248.992
4,4' -DDT #2	6.36	472667595.2
	% Breakdown	**5.14**
Endrin aldehyde #2	6.59	10651135.49
Endrin ketone #2	7.16	29488604.11
Endrin #2	6.05	258342500.1
	% Breakdown	**13.45**

Instrument Name	GC-09
Sample Name	SEQ-PEM1@~~A2B0372~~ A2G0387 [illegible] 9/4/13
Data File Name	C0904004.D
Date Acquired	9/4/2013 6:18

Signal #1

Name	Ret Time	Target Response
4,4' -DDE	6.19	34913527.26
4,4' -DDD	6.69	3808218.961
4,4' -DDT	6.94	804908908.2
	% Breakdown	**4.59**
Endrin aldehyde	7.05	9860636.899
Endrin ketone	7.68	25128600.71
Endrin	6.61	418075690.9
	% Breakdown	**7.72**

Signal #2

	Ret Time	Target Response
4,4' -DDE #2	5.57	22886135.88
4,4' -DDD #2	6.12	2230282.652
4,4' -DDT #2	6.36	455425119.1
	% Breakdown	**5.23**
Endrin aldehyde #2	6.59	6701057.415
Endrin ketone #2	7.16	20419276.74
Endrin #2	6.05	259840469.3
	% Breakdown	**9.45**

INITIAL CALIBRATION DATA SUMMARY

Response Factor Report GC-09

GC-9
ICAL

Method Path : C:\MSDCHEM\1\METHODS\PESTICIDES\
Method File : 80810730.M
Title : EPA 8081A Organoclorine Pesticides
Last Update : Wed Jul 31 05:49:48 2013
Response Via : Initial Calibration

Calibration Files
2 =C0730006.D 5 =C0730007.D 20 =C0730008.D
50 =C0730009.D 100 =C0730010.D 150 =C0730011.D

		Compound	2	5	20	50	100	150	Avg	%RSD
1)	I	1-Bromo-2-nitrobenzen	----------ISTD----------							
2)	S	Tetrachloro-m-xy	1.201	1.152	1.141	1.040	1.131	1.127	1.133	4.22
3)	T	alpha-BHC	1.441	1.495	1.534	1.582	1.808	1.876	1.665	11.87
4)	T	gamma-BHC	1.348	1.392	1.438	1.453	1.643	1.703	1.531	10.44
5)	T	beta-BHC	0.788	0.748	0.736	0.703	0.753	0.758	0.751	3.55
6)	T	Heptachlor	0.980	1.025	1.087	1.135	1.315	1.423	1.205	16.33
7)	T	delta-BHC	1.473	1.482	1.520	1.577	1.802	1.863	1.661	11.46
8)	T	Aldrin	1.555	1.566	1.540	1.553	1.707	1.781	1.645	7.23
9)	T	Heptachlor Epoxi	1.579	1.586	1.514	1.491	1.607	1.657	1.587	4.31
10)	T	gamma-Chlordane	1.611	1.635	1.576	1.568	1.704	1.760	1.663	5.29
11)	T	alpha-Chlordane	1.775	1.686	1.599	1.559	1.673	1.724	1.680	4.65
12)	T	Endosulfan I	1.564	1.558	1.481	1.452	1.567	1.613	1.552	4.19
13)	T	4,4' -DDE	1.548	1.545	1.577	1.579	1.708	1.755	1.642	6.20
14)	T	Dieldrin	1.663	1.629	1.619	1.624	1.750	1.793	1.699	4.95
15)	T	Endrin	1.357	1.396	1.387	1.357	1.412	1.450	1.403	2.98
16)	T	4,4' -DDD	1.406	1.328	1.363	1.313	1.375	1.433	1.384	4.08
17)	T	Endosulfan II	1.539	1.566	1.583	1.472	1.566	1.593	1.571	3.90
18)	T	4,4' -DDT	0.954	1.019	1.206	1.305	1.442	1.555	1.290	18.83
19)	T	Endrin aldehyde	1.241	1.168	1.109	1.060	1.096	1.175	1.148	5.46
20)	T	Endosulfan sulfa	1.335	1.398	1.334	1.315	1.388	1.454	1.385	4.38
21)	T	Methoxychlor	0.647	0.674	0.677	0.674	0.732	0.746	0.702	6.32
22)	T	Endrin ketone	1.611	1.643	1.580	1.525	1.662	1.651	1.623	3.41
23)	S	Decachlorobiphen	2.117	1.968	1.735	1.592	1.680	1.644	1.775	10.86

Signal #2 Calibration Files
2 =C0730006.D 5 =C0730007.D 20 =C0730008.D
50 =C0730009.D 100 =C0730010.D 150 =C0730011.D

		Compound	2	5	20	50	100	150	Avg	%RSD
1)	I	1-Bromo-2-nitrobenzen	----------ISTD----------							
2)	S	Tetrachloro-m-xy	1.261	1.258	1.199	1.041	1.089	1.084	1.146	7.96
3)	T	alpha-BHC	1.687	1.707	1.677	1.584	1.705	1.734	1.693	3.23
4)	T	gamma-BHC	1.564	1.574	1.541	1.437	1.527	1.556	1.538	3.10
5)	T	beta-BHC	0.729	0.719	0.697	0.750	0.760	0.745	0.734	2.88
6)	T	Heptachlor	0.960	0.987	1.038	1.050	1.179	1.262	1.110	12.05
7)	T	delta-BHC	1.527	1.621	1.604	1.636	1.749	1.775	1.672	5.97
8)	T	Aldrin	2.020	1.935	1.723	1.582	1.632	1.663	1.747	9.45
9)	T	Heptachlor Epoxi	2.006	1.903	1.666	1.522	1.550	1.563	1.682	11.55
10)	T	gamma-Chlordane	1.996	1.928	1.710	1.584	1.631	1.653	1.737	9.19
11)	T	alpha-Chlordane	2.081	1.999	1.724	1.569	1.603	1.619	1.745	11.95
12)	T	Endosulfan I	1.469	1.430	2.226	2.054	1.959	1.856	1.830	16.01
13)	T	4,4' -DDE	1.376	1.254	1.235	1.275	1.406	1.475	1.360	7.89
14)	T	Dieldrin	2.197	1.971	1.752	1.632	1.697	1.715	1.811	11.08
15)	T	Endrin	1.893	1.752	1.543	1.409	1.437	1.447	1.560	12.09
16)	T	4,4' -DDD	1.569	1.437	1.288	1.232	1.288	1.321	1.353	8.43
17)	T	Endosulfan II	1.960	1.862	1.529	1.412	1.485	1.582	1.630	12.44
18)	T	4,4' -DDT	1.251	1.156	1.178	1.175	1.274	1.335	1.246	6.42
19)	T	Endrin aldehyde	1.528	1.454	1.228	1.100	1.136	1.221	1.271	12.55
20)	T	Endosulfan sulfa	1.772	1.677	1.469	1.304	1.398	1.396	1.487	11.53
21)	T	Methoxychlor	0.770	0.730	0.691	0.642	0.709	0.689	0.708	5.63
22)	T	Endrin ketone	1.799	1.954	1.692	1.549	1.625	1.622	1.695	8.16

Response Factor Report GC-09

Method Path : C:\MSDCHEM\1\METHODS\PESTICIDES\
Method File : 80810730.M
Title : EPA 8081A Organoclorine Pesticides
Last Update : Wed Jul 31 05:49:48 2013
Response Via : Initial Calibration

Calibration Files

2	=C0730006.D	5	=C0730007.D	20	=C0730008.D
50	=C0730009.D	100	=C0730010.D	150	=C0730011.D

	Compound	2	5	20	50	100	150	Avg	%RSD
23) S	Decachlorobiphen	1.949	1.801	1.636	1.436	1.513	1.490	1.621	11.62

(#) = Out of Range ### Number of calibration levels exceeded format ###

Compound List Report GC-09

Method Path : C:\MSDCHEM\1\METHODS\PESTICIDES\
Method File : 80810730.M
Title : EPA 8081A Organoclorine Pesticides
Last Update : Wed Jul 31 05:49:48 2013
Response Via : Initial Calibration

Total Cpnds : 47

PK#		Compound Name	Exp_RT	Rel_RT	Cal	A/H	ID
1	I	1-Bromo-2-nitrobenzene	2.62	1.000	A	A	B
2	S	Tetrachloro-m-xylene	3.34	1.276	A	A	B
3	T	alpha-BHC	3.92	1.496	A	A	B
4	T	gamma-BHC	4.30	1.642	A	A	B
5	T	beta-BHC	4.39	1.676	A	A	B
6	T	Heptachlor	4.81	1.836	A	A	B
7	T	delta-BHC	4.73	1.807	A	A	B
8	T	Aldrin	5.17	1.976	A	A	B
9	T	Heptachlor Epoxide	5.75	2.195	A	A	B
10	T	gamma-Chlordane	5.93	2.265	A	A	B
11	T	alpha-Chlordane	6.06	2.316	A	A	B
12	T	Endosulfan I	6.12	2.338	A	A	B
13	T	4,4' -DDE	6.20	2.370	A	A	B
14	T	Dieldrin	6.36	2.431	A	A	B
15	T	Endrin	6.63	2.532	A	A	B
16	T	4,4' -DDD	6.70	2.559	A	A	B
17	T	Endosulfan II	6.80	2.598	A	A	B
18	T	4,4' -DDT	6.95	2.656	A	A	B
19	T	Endrin aldehyde	7.06	2.699	A	A	B
20	T	Endosulfan sulfate	7.28	2.780	A	A	B
21	T	Methoxychlor	7.47	2.853	A	A	B
22	T	Endrin ketone	7.69	2.939	A	A	B
23	S	Decachlorobiphenyl	8.56	3.269	A	A	B
24		Signal #2	0.51	0.195	A	A	B
25	I	1-Bromo-2-nitrobenzene #2	2.50	1.000	A	A	B
26	S	Tetrachloro-m-xylene #2	3.07	1.226	A	A	B
27	T	alpha-BHC #2	3.52	1.407	A	A	B
28	T	gamma-BHC #2	3.81	1.523	A	A	B
29	T	beta-BHC #2	3.91	1.564	A	A	B
30	T	Heptachlor #2	4.28	1.714	A	A	B
31	T	delta-BHC #2	4.09	1.637	A	A	B
32	T	Aldrin #2	4.61	1.844	A	A	B
33	T	Heptachlor Epoxide #2	5.24	2.098	A	A	B
34	T	gamma-Chlordane #2	5.38	2.151	A	A	B
35	T	alpha-Chlordane #2	5.50	2.202	A	A	B
36	T	Endosulfan I #2	5.63	2.254	A	A	B
37	T	4,4' -DDE #2	5.59	2.237	A	A	B
38	T	Dieldrin #2	5.86	2.343	A	A	B
39	T	Endrin #2	6.07	2.427	A	A	B
40	T	4,4' -DDD #2	6.14	2.456	A	A	B
41	T	Endosulfan II #2	6.26	2.506	A	A	B
42	T	4,4' -DDT #2	6.37	2.549	A	A	B
43	T	Endrin aldehyde #2	6.61	2.643	A	A	B
44	T	Endosulfan sulfate #2	6.95	2.780	A	A	B
45	T	Methoxychlor #2	6.77	2.708	A	A	B
46	T	Endrin ketone #2	7.17	2.869	A	A	B
47	S	Decachlorobiphenyl #2	7.91	3.164	A	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

INITIAL CALIBRATION AND CONTINUING CALIBRATION VERIFICATION SUMMARY

Evaluate Continuing Calibration Report

Data Path : D:\13-07-30\
Data File : C0730014.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 Jul 2013 8:31 pm
Operator : BB
Sample : SEQ-ICV1, 100 ppb
Misc : 1,A3E0291,
ALS Vial : 8 Sample Multiplier: 1
InstName : GC-09
DataAcq Meth:17MAY13.M

Integration File signal 1: AUTOINT1.E
Integration File signal 2: AUTOINT2.E
Quant Time: Jul 31 05:55:56 2013
Quant Method : C:\MSDCHEM\1\METHODS\PESTICIDES\80810730.M
Quant Title : EPA 8081A Organoclorine Pesticides
QLast Update : Wed Jul 31 05:49:48 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL
Signal #1 Phase : Stx-CLPesticides2 Signal #2 Phase: Stx-CLPesticides
Signal #1 Info : 30mx320umx0.25um Signal #2 Info : 30mx320umx0.5um

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	I	1-Bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00
2	S	Tetrachloro-m-xylene	1.133	0.967	14.7	100	0.00
3	T	alpha-BHC	1.665	1.558	6.4	100	0.00
4	T	gamma-BHC	1.531	1.462	4.5	100	0.00
5	T	beta-BHC	0.751	0.667	11.2	100	0.00
6	T	Heptachlor	1.205	1.181	2.0	100	0.00
7	T	delta-BHC	1.661	1.521	8.4	100	0.00
8	T	Aldrin	1.645	1.539	6.4	100	0.00
9	T	Heptachlor Epoxide	1.587	1.471	7.3	100	0.00
10	T	gamma-Chlordane	1.663	1.533	7.8	100	0.00
11	T	alpha-Chlordane	1.680	1.492	11.2	100	0.00
12	T	Endosulfan I	1.552	1.403	9.6	100	0.00
13	T	4,4' -DDE	1.642	1.525	7.1	100	0.00
14	T	Dieldrin	1.699	1.507	11.3	100	0.00
15	T	Endrin	1.403	1.076	23.3#	100	0.00
16	T	4,4' -DDD	1.384	1.242	10.3	100	0.00
17	T	Endosulfan II	1.571	1.428	9.1	100	0.00
18	T	4,4' -DDT	1.290	1.166	9.6	100	0.00
19	T	Endrin aldehyde	1.148	1.133	1.3	100	0.00
20	T	Endosulfan sulfate	1.385	1.261	9.0	100	0.00
21	T	Methoxychlor	0.702	0.588	16.2#	100	0.00
22	T	Endrin ketone	1.623	1.515	6.7	100	0.00
23	S	Decachlorobiphenyl	1.775	1.575	11.3	100	0.00

Signal #2

$\bar{x}$=9.30

1	I	1-Bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00
2	S	Tetrachloro-m-xylene	1.146	0.994	13.3	100	0.00
3	T	alpha-BHC	1.693	1.499	11.5	100	0.00
4	T	gamma-BHC	1.538	1.393	9.4	100	0.00
5	T	beta-BHC	0.734	0.693	5.6	100	0.00
6	T	Heptachlor	1.110	1.060	4.5	100	0.00
7	T	delta-BHC	1.672	1.522	9.0	100	0.00
8	T	Aldrin	1.747	1.499	14.2	100	0.00
9	T	Heptachlor Epoxide	1.682	1.449	13.9	100	0.00

Evaluate Continuing Calibration Report

Data Path : D:\13-07-30\
Data File : C0730014.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 Jul 2013 8:31 pm
Operator : BB
Sample : SEQ-ICV1, 100 ppb
Misc : 1,A3E0291,
ALS Vial : 8 Sample Multiplier: 1
InstName : GC-09
DataAcq Meth:17MAY13.M

Integration File signal 1: AUTOINT1.E
Integration File signal 2: AUTOINT2.E
Quant Time: Jul 31 05:55:56 2013
Quant Method : C:\MSDCHEM\1\METHODS\PESTICIDES\80810730.M
Quant Title : EPA 8081A Organoclorine Pesticides
QLast Update : Wed Jul 31 05:49:48 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL
Signal #1 Phase : Stx-CLPesticides2 Signal #2 Phase: Stx-CLPesticides
Signal #1 Info : 30mx320umx0.25um Signal #2 Info : 30mx320umx0.5um

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
10	T	gamma-Chlordane	1.737	1.494	14.0	100	0.00
11	T	alpha-Chlordane	1.745	1.456	16.6#	100	0.00
12	T	Endosulfan I	1.830	1.721	6.0	100	0.00
13	T	4,4' -DDE	1.360	1.163	14.5	100	0.00
14	T	Dieldrin	1.811	1.515	16.3#	100	0.00
15	T	Endrin	1.560	1.144	26.7#	100	0.00
16	T	4,4' -DDD	1.353	1.248	7.8	100	0.00
17	T	Endosulfan II	1.630	1.511	7.3	100	0.00
18	T	4,4' -DDT	1.246	1.186	4.8	100	0.00
19	T	Endrin aldehyde	1.271	1.240	2.4	100	0.00
20	T	Endosulfan sulfate	1.487	1.323	11.0	100	0.00
21	T	Methoxychlor	0.708	0.670	5.4	100	0.01
22	T	Endrin ketone	1.695	1.559	8.0	100	0.00
23	S	Decachlorobiphenyl	1.621	1.442	11.0	100	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2 $\bar{x}$=10.6

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : D:\13-07-30\
Data File : C0730015.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 Jul 2013 8:44 pm
Operator : BB
Sample : SEQ-ICV1, 100 ppb
Misc : 1,A3E0291,
ALS Vial : 8 Sample Multiplier: 1
InstName : GC-09
DataAcq Meth:17MAY13.M

Integration File signal 1: AUTOINT1.E
Integration File signal 2: AUTOINT2.E
Quant Time: Jul 31 05:51:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\PESTICIDES\80810730.M
Quant Title : EPA 8081A Organoclorine Pesticides
QLast Update : Wed Jul 31 05:49:48 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL
Signal #1 Phase : Stx-CLPesticides2 Signal #2 Phase: Stx-CLPesticides
Signal #1 Info : 30mx320umx0.25um Signal #2 Info : 30mx320umx0.5um

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	I	1-Bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00
2	S	Tetrachloro-m-xylene	1.133	0.970	14.4	100	0.01
3	T	alpha-BHC	1.665	1.559	6.4	100	0.01
4	T	gamma-BHC	1.531	1.463	4.4	100	0.02
5	T	beta-BHC	0.751	0.664	11.6	100	0.02
6	T	Heptachlor	1.205	1.182	1.9	100	0.02
7	T	delta-BHC	1.661	1.516	8.7	100	0.02
8	T	Aldrin	1.645	1.530	7.0	100	0.02
9	T	Heptachlor Epoxide	1.587	1.465	7.7	100	0.02
10	T	gamma-Chlordane	1.663	1.522	8.5	100	0.02
11	T	alpha-Chlordane	1.680	1.482	11.8	100	0.02
12	T	Endosulfan I	1.552	1.395	10.1	100	0.02
13	T	4,4' -DDE	1.642	1.511	8.0	100	0.02
14	T	Dieldrin	1.699	1.495	12.0	100	0.02
15	T	Endrin	1.403	1.078	23.2#	100	0.02
16	T	4,4' -DDD	1.384	1.226	11.4	100	0.02
17	T	Endosulfan II	1.571	1.421	9.5	100	0.02
18	T	4,4' -DDT	1.290	1.158	10.2	100	0.02
19	T	Endrin aldehyde	1.148	1.118	2.6	100	0.02
20	T	Endosulfan sulfate	1.385	1.256	9.3	100	0.02
21	T	Methoxychlor	0.702	0.597	15.0	100	0.02
22	T	Endrin ketone	1.623	1.509	7.0	100	0.02
23	S	Decachlorobiphenyl	1.775	1.559	12.2	100	0.02

Signal #2 $\bar{Y}=9.68$

1	I	1-Bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.01
2	S	Tetrachloro-m-xylene	1.146	0.982	14.3	100	0.02
3	T	alpha-BHC	1.693	1.482	12.5	100	0.02
4	T	gamma-BHC	1.538	1.374	10.7	100	0.02
5	T	beta-BHC	0.734	0.685	6.7	100	0.02
6	T	Heptachlor	1.110	1.044	5.9	100	0.02
7	T	delta-BHC	1.672	1.494	10.6	100	0.03
8	T	Aldrin	1.747	1.471	15.8#	100	0.02
9	T	Heptachlor Epoxide	1.682	1.419	15.6#	100	0.02

Evaluate Continuing Calibration Report

Data Path : D:\13-07-30\
Data File : C0730015.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30 Jul 2013 8:44 pm
Operator : BB
Sample : SEQ-ICV1, 100 ppb
Misc : 1,A3E0291,
ALS Vial : 8 Sample Multiplier: 1
InstName : GC-09
DataAcq Meth:17MAY13.M

Integration File signal 1: AUTOINT1.E
Integration File signal 2: AUTOINT2.E
Quant Time: Jul 31 05:51:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\PESTICIDES\80810730.M
Quant Title : EPA 8081A Organoclorine Pesticides
QLast Update : Wed Jul 31 05:49:48 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL
Signal #1 Phase : Stx-CLPesticides2 Signal #2 Phase: Stx-CLPesticides
Signal #1 Info : 30mx320umx0.25um Signal #2 Info : 30mx320umx0.5um

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
10	T	gamma-Chlordane	1.737	1.459	16.0#	100	0.02
11	T	alpha-Chlordane	1.745	1.421	18.6#	100	0.02
12	T	Endosulfan I	1.830	1.692	7.5	100	0.02
13	T	4,4' -DDE	1.360	1.116	17.9#	100	0.03
14	T	Dieldrin	1.811	1.479	18.3#	100	0.02
15	T	Endrin	1.560	1.127	27.8#	100	0.02
16	T	4,4' -DDD	1.353	1.210	10.6	100	0.03
17	T	Endosulfan II	1.630	1.480	9.2	100	0.02
18	T	4,4' -DDT	1.246	1.157	7.1	100	0.02
19	T	Endrin aldehyde	1.271	1.201	5.5	100	0.02
20	T	Endosulfan sulfate	1.487	1.287	13.4	100	0.02
21	T	Methoxychlor	0.708	0.648	8.5	100	0.03
22	T	Endrin ketone	1.695	1.517	10.5	100	0.02
23	S	Decachlorobiphenyl	1.621	1.413	12.8	100	0.01

Evaluate Continuing Calibration Report - Not Founds

$\bar{x} = 12.54$

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data Path : D:\13-08-28\
Data File : C0828005.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Aug 2013 9:29 am
Operator : BB
Sample : SEQ-CCV1@A3E0287,
Misc : 1,PESTICIDE,
ALS Vial : 97 Sample Multiplier: 1
InstName : GC-09
DataAcq Meth:17MAY13.M

Integration File signal 1: AUTOINT1.E
Integration File signal 2: AUTOINT2.E
Quant Time: Aug 28 09:40:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\PESTICIDES\80810730.M
Quant Title : EPA 8081A Organoclorine Pesticides
QLast Update : Thu Aug 22 07:01:29 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL
Signal #1 Phase : Stx-CLPesticides2 Signal #2 Phase: Stx-CLPesticides
Signal #1 Info : 30mx320umx0.25um Signal #2 Info : 30mx320umx0.5um

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	I	1-Bromo-2-nitrobenzene	1.000	1.000	0.0	118	0.00
2	S	Tetrachloro-m-xylene	1.133	1.143	-0.9	129	0.00
3	T	alpha-BHC	1.665	1.743	-4.7	130	0.00
4	T	gamma-BHC	1.531	1.576	-2.9	128	0.00
5	T	beta-BHC	0.751	0.729	2.9	122	0.00
6	T	Heptachlor	1.205	1.256	-4.2	130	0.00
7	T	delta-BHC	1.661	1.643	1.1	123	0.00
8	T	Aldrin	1.645	1.659	-0.9	126	0.00
9	T	Heptachlor Epoxide	1.587	1.576	0.7	124	0.00
10	T	gamma-Chlordane	1.663	1.679	-1.0	126	0.00
11	T	alpha-Chlordane	1.680	1.653	1.6	125	0.00
12	T	Endosulfan I	1.552	1.571	-1.2	127	0.00
13	T	4,4' -DDE	1.642	1.709	-4.1	127	0.00
14	T	Dieldrin	1.699	1.771	-4.2	128	0.00
15	T	Endrin	1.403	1.379	1.7	120	0.00
16	T	4,4' -DDD	1.384	1.431	-3.4	128	0.00
17	T	Endosulfan II	1.571	1.591	-1.3	127	0.00
18	T	4,4' -DDT	1.290	1.424	-10.4	128	0.00
19	T	Endrin aldehyde	1.148	1.119	2.5	124	0.00
20	T	Endosulfan sulfate	1.385	1.374	0.8	123	0.00
21	T	Methoxychlor	0.702	0.715	-1.9	125	0.00
22	T	Endrin ketone	1.623	1.660	-2.3	128	0.00
23	S	Decachlorobiphenyl	1.775	1.625	8.5	120	0.00

Signal #2

1	I	1-Bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00
2	S	Tetrachloro-m-xylene	1.146	1.121	2.2	108	0.00
3	T	alpha-BHC	1.693	1.712	-1.1	108	0.00
4	T	gamma-BHC	1.538	1.546	-0.5	108	0.00
5	T	beta-BHC	0.734	0.773	-5.3	103	0.00
6	T	Heptachlor	1.110	1.230	-10.8	117	0.00
7	T	delta-BHC	1.672	1.711	-2.3	105	0.00
8	T	Aldrin	1.747	1.688	3.4	107	0.00
9	T	Heptachlor Epoxide	1.682	1.602	4.8	105	0.00

Evaluate Continuing Calibration Report

Data Path : D:\13-08-28\
Data File : C0828005.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Aug 2013 9:29 am
Operator : BB
Sample : SEQ-CCV1@A3E0287,
Misc : 1,PESTICIDE,
ALS Vial : 97 Sample Multiplier: 1
InstName : GC-09
DataAcq Meth:17MAY13.M

Integration File signal 1: AUTOINT1.E
Integration File signal 2: AUTOINT2.E
Quant Time: Aug 28 09:40:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\PESTICIDES\80810730.M
Quant Title : EPA 8081A Organoclorine Pesticides
QLast Update : Thu Aug 22 07:01:29 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL
Signal #1 Phase : Stx-CLPesticides2 Signal #2 Phase: Stx-CLPesticides
Signal #1 Info : 30mx320umx0.25um Signal #2 Info : 30mx320umx0.5um

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
10 T	gamma-Chlordane	1.737	1.668	4.0	105	0.00
11 T	alpha-Chlordane	1.745	1.606	8.0	102	0.00
12 T	Endosulfan I	1.830	1.966	-7.4	96	0.00
13 T	4,4' -DDE	1.360	1.441	-6.0	113	0.00
14 T	Dieldrin	1.811	1.711	5.5	105	0.00
15 T	Endrin	1.560	1.438	7.8	102	0.00
16 T	4,4' -DDD	1.353	1.451	-7.2	118	0.00
17 T	Endosulfan II	1.630	1.583	2.9	112	0.00
18 T	4,4' -DDT	1.246	1.449	-16.3#	123	0.00
19 T	Endrin aldehyde	1.271	1.248	1.8	114	0.00
20 T	Endosulfan sulfate	1.487	1.401	5.8	108	0.00
21 T	Methoxychlor	0.708	0.708	0.0	110	0.00
22 T	Endrin ketone	1.695	1.724	-1.7	111	0.00
23 S	Decachlorobiphenyl	1.621	1.558	3.9	109	0.00

Evaluate Continuing Calibration Report - Not Founds

$\bar{x} = 4.94$

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : D:\13-08-28\
Data File : C0828006.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Aug 2013 9:43 am
Operator : BB
Sample : SEQ-CCV2@A3B0454,CHLORDANE
Misc : 1CHLORDANE,
ALS Vial : 98 Sample Multiplier: 1
InstName : GC-09
DataAcq Meth:17MAY13.M

Integration File signal 1: autoint1.e
Integration File signal 2: AUTOINT2.E
Quant Time: Aug 28 09:54:25 2013
Quant Method : C:\MSDCHEM\1\METHODS\CHLORDANE\CHLO0828.M
Quant Title : Technical Chlordane by EPA 8081A
QLast Update : Wed Aug 28 09:54:18 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL
Signal #1 Phase : Stx-CLPesticides2 Signal #2 Phase: Stx-CLPesticides
Signal #1 Info : 30mx320umx0.25um Signal #2 Info : 30mx320umx0.25um

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	i	1-Bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00
2	S	Tetrachloro-m-xylene	0.953	0.953	0.0	100	0.00
3	L3m	CHLORDANE-1	0.042	0.042	0.0	100	0.00
4	L3m	CHLORDANE-2	0.051	0.051	0.0	100	0.00
5	L3m	CHLORDANE-3	0.161	0.161	0.0	100	0.00
6	L3m	CHLORDANE-4	0.110	0.110	0.0	100	0.00
7	L3m	CHLORDANE-5	0.140	0.140	0.0	100	0.00
8	S	Decachlorobiphenyl	1.432	1.432	0.0	100	0.00

Signal #2

1		1-Bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00
2	S	Tetrachloro-m-xylene	0.977	0.977	0.0	100	0.00
3	L3m	CHLORDANE-1	0.045	0.045	0.0	100	0.00
4	L3m	CHLORDANE-2	0.059	0.059	0.0	100	0.00
5	L3m	CHLORDANE-3	0.175	0.175	0.0	100	0.00
6	L3m	CHLORDANE-4	0.245	0.245	0.0	100	0.00
7	L3m	CHLORDANE-5	0.053	0.053	0.0	100	0.00
8	S	Decachlorobiphenyl	1.415	1.415	0.0	100	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : D:\13-08-28\
Data File : C0828007.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 28 Aug 2013 9:56 am
Operator : BB
Sample : SEQ-CCV3@A3B0455,TOXAPHENE
Misc : 1,TOXAPHENE,
ALS Vial : 99 Sample Multiplier: 1
InstName : GC-09
DataAcq Meth:17MAY13.M

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Aug 28 10:14:58 2013
Quant Method : C:\MSDCHEM\1\METHODS\TOXAPHENE\TOX0828.M
Quant Title :
QLast Update : Wed Aug 28 10:14:49 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL
Signal #1 Phase : Stx-CLPesticides2 Signal #2 Phase: Stx-CLPesticides
Signal #1 Info : 30mx320umx0.25um Signal #2 Info : 30mx320umx0.5um

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	1-Bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00
2 S	Tetrachloro-m-xylene	0.986	0.986	0.0	100	0.00
3 L1m	TOX-1	0.005	0.005	0.0	100	0.00
4 L1m	TOX-2	0.012	0.012	0.0	100	0.00
5 L1m	TOX-3	0.037	0.037	0.0	100	0.00
6 L1m	TOX-4	0.026	0.026	0.0	100	0.00
7 L1m	TOX-5	0.026	0.026	0.0	100	0.00
8 S	Decachlorobiphenyl	1.389	1.389	0.0	100	0.00

Signal #2

1	1-Bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00
2 S	Tetrachloro-m-xylene	0.965	0.965	0.0	100	0.00
3 L1m	TOX-1	0.011	0.011	0.0	100	0.00
4 L1m	TOX-2	0.014	0.014	0.0	100	0.00
5 L1m	TOX-3	0.023	0.023	0.0	100	0.00
6 L1m	TOX-4	0.024	0.024	0.0	100	0.00
7 L1m	TOX-5	0.027	0.027	0.0	100	0.00
8 S	Decachlorobiphenyl	1.362	1.362	0.0	100	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : D:\13-09-04\
Data File : C0904005.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 04 Sep 2013 6:32 am
Operator : BB
Sample : SEQ-CCV1@A3E0287,
Misc : 1,PESTICIDE,
ALS Vial : 97 Sample Multiplier: 1
InstName : GC-09
DataAcq Meth:17MAY13.M

Integration File signal 1: AUTOINT1.E
Integration File signal 2: AUTOINT2.E
Quant Time: Sep 04 13:51:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\PESTICIDES\80810730.M
Quant Title : EPA 8081A Organoclorine Pesticides
QLast Update : Wed Sep 04 13:51:39 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1uL
Signal #1 Phase : Stx-CLPesticides2 Signal #2 Phase: Stx-CLPesticides
Signal #1 Info : 30mx320umx0.25um Signal #2 Info : 30mx320umx0.5um

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	I	1-Bromo-2-nitrobenzene	1.000	1.000	0.0	108	0.00
2	S	Tetrachloro-m-xylene	1.133	1.185	-4.6	123	0.00
3	T	alpha-BHC	1.665	1.810	-8.7	124	0.00
4	T	gamma-BHC	1.531	1.635	-6.8	122	0.00
5	T	beta-BHC	0.751	0.754	-0.4	116	0.00
6	T	Heptachlor	1.205	1.287	-6.8	123	0.00
7	T	delta-BHC	1.661	1.690	-1.7	116	0.00
8	T	Aldrin	1.645	1.747	-6.2	122	0.00
9	T	Heptachlor Epoxide	1.587	1.637	-3.2	119	0.00
10	T	gamma-Chlordane	1.663	1.717	-3.2	119	0.00
11	T	alpha-Chlordane	1.680	1.693	-0.8	118	0.00
12	T	Endosulfan I	1.552	1.583	-2.0	118	0.00
13	T	4,4' -DDE	1.642	1.735	-5.7	119	0.00
14	T	Dieldrin	1.699	1.783	-4.9	119	0.00
15	T	Endrin	1.403	1.475	-5.1	118	0.00
16	T	4,4' -DDD	1.384	1.482	-7.1	122	0.00
17	T	Endosulfan II	1.571	1.684	-7.2	124	0.00
18	T	4,4' -DDT	1.290	1.474	-14.3	122	0.00
19	T	Endrin aldehyde	1.148	1.131	1.5	116	0.00
20	T	Endosulfan sulfate	1.385	1.424	-2.8	117	0.00
21	T	Methoxychlor	0.702	0.726	-3.4	117	0.00
22	T	Endrin ketone	1.623	1.659	-2.2	118	0.00
23	S	Decachlorobiphenyl	1.775	1.744	1.7	119	0.00

Signal #2

1	I	1-Bromo-2-nitrobenzene	1.000	1.000	0.0	92	0.00
2	S	Tetrachloro-m-xylene	1.146	1.176	-2.6	104	0.00
3	T	alpha-BHC	1.693	1.822	-7.6	106	0.00
4	T	gamma-BHC	1.538	1.635	-6.3	105	0.00
5	T	beta-BHC	0.734	0.809	-10.2	100	0.00
6	T	Heptachlor	1.110	1.300	-17.1#	114	0.00
7	T	delta-BHC	1.672	1.807	-8.1	102	0.00
8	T	Aldrin	1.747	1.792	-2.6	105	0.00
9	T	Heptachlor Epoxide	1.682	1.716	-2.0	104	0.00

10	T	gamma-Chlordane	1.737	1.804	-3.9	105	0.00
11	T	alpha-Chlordane	1.745	1.724	1.2	101	0.00
12	T	Endosulfan I	1.830	1.961	-7.2	88	0.00
13	T	4,4' -DDE	1.360	1.581	-16.2#	114	0.00
14	T	Dieldrin	1.811	1.848	-2.0	104	0.00
15	T	Endrin	1.560	1.584	-1.5	104	0.00
16	T	4,4' -DDD	1.353	1.549	-14.5	116	0.00
17	T	Endosulfan II	1.630	1.713	-5.1	112	0.00
18	T	4,4' -DDT	1.246	1.539	-23.5#	121	0.00
19	T	Endrin aldehyde	1.271	1.301	-2.4	109	0.00
20	T	Endosulfan sulfate	1.487	1.494	-0.5	106	0.00
21	T	Methoxychlor	0.708	0.736	-4.0	106	0.00
22	T	Endrin ketone	1.695	1.786	-5.4	106	0.00
23	S	Decachlorobiphenyl	1.621	1.699	-4.8	109	0.00

$\bar{X}$=6.76

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

80810730.M Wed Sep 04 13:51:50 2013

SUMMARY OF SURROGATE RECOVERIES

SYSTEM MONITORING COMPOUND SUMMARY

EPA 8081A

Client: Ninyo & Moore - SD
Work Order: 1302545 Matrix: Soil
Project: CLAIREMONT H.S., 105338071 & 105338088 Instrument: GC-04

	DCB (32% - 113%)	DCB[2] (32% - 113%)	TCMX (32% - 101%)	TCMX[2C] (32% - 101%)
1302545-01	65.3	74.9	83.8	81.9
1302545-05	72.6	84.4	89.8	87.3
1302545-11	80.0	93.7	90.3	86.5
1302545-17	77.7	84.9	84.9	83.0
B3I0018-BLK1	71.6	76.3	77.9	76.1
B3I0018-BS1	76.8	82.6	78.6	80.9
B3I0018-MS1	90.2	98.8	85.2	90.1
B3I0018-MSD1	86.9	96.2	85.0	90.0

DCB - Decachlorobiphenyl
TCMX - Tetrachloro-m-xylene

BA 09/17/13

SYSTEM MONITORING COMPOUND SUMMARY

EPA 8081A

Client: Ninyo & Moore - SD
Work Order: 1302547 Matrix: Soil
Project: CLAIREMONT H.S., 105338071 & 105338088 Instrument: GC-04

	DCB (32% - 113%)	DCB[2] (32% - 113%)	TCMX (32% - 101%)	TCMX[2C] (32% - 101%)
1302547-05	84.6	95.9	84.2	88.5
1302547-11	84.5	95.9	89.9	91.7
1302547-12	76.5	82.9	83.7	85.6
B3I0018-BLK1	71.6	76.3	77.9	76.1
B3I0018-BS1	76.8	82.6	78.6	80.9
B3I0018-MS1	90.2	98.8	85.2	90.1
B3I0018-MSD1	86.9	96.2	85.0	90.0

DCB - Decachlorobiphenyl
TCMX - Tetrachloro-m-xylene

BA 09/18/13

SYSTEM MONITORING COMPOUND SUMMARY

EPA 8081A

Client: Ninyo & Moore - SD
Work Order: 1302581 **Matrix:** Soil
Project: CLAIREMONT H.S., 105338071 & 105338088 **Instrument:** GC-09

	DCB (32% - 113%)	DCB[2] (32% - 113%)	TCMX (32% - 101%)	TCMX[2C] (32% - 101%)
1302581-15	67.0	74.4	93.6	92.6
1302581-19	73.4	80.7	84.0	83.4
1302581-21	58.4	66.6	82.3	83.6
1302581-22	57.1	68.9	79.6	82.9
B3H0528-BLK1	62.2	67.5	68.7	67.8
B3H0528-BS1	67.2	70.8	75.7	77.6
B3H0528-MS1	84.2	93.3	87.8	98.6
B3H0528-MSD1	75.1	85.7	85.2	86.1

DCB - Decachlorobiphenyl
TMX - Tetra-chloro-m-xylene

BA 09/23/13

INTERNAL STANDARD AREAS AND RT SUMMARY

Internal Standard Area and Retention Time Summary

GC-09
80810730.M

Calibration Level		Column 1 IS Response x10e6	RT, min		Column 2 IS Response x10e6	RT, min	
	2	451.3	2.62		295.6	2.50	
	5	451.1	2.62		300.1	2.50	
	20	451.0	2.62		298.5	2.50	
	50	467.6	2.62		309.7	2.50	
	100	460.0	2.62		305.8	2.50	
	150	474.9	2.62		314.6	2.50	
	200	450.6	2.62		299.8	2.50	
Average:		458.1	2.62		303.4	2.50	
Upper Limit		687.1			455.2		
Lower Limit		229.0			151.7		
SEQ-CCV1@A3E0287		506.3	2.61	PASS	285.8	2.49	PASS
B3I0018-BLK1		558.4	2.61	PASS	304.2	2.49	PASS
B3I0018-BS1		514.3	2.61	PASS	279.3	2.49	PASS
B3I0018-MS1		523.7	2.61	PASS	277.0	2.49	PASS
B3I00188-MSD1		535.7	2.61	PASS	283.0	2.49	PASS
1302545-01		582.0	2.61	PASS	311.2	2.49	PASS
1302545-05		585.7	2.61	PASS	322.3	2.49	PASS
1302545-11		523.6	2.61	PASS	292.1	2.49	PASS
1302545-17		524.1	2.61	PASS	284.2	2.49	PASS
1302547-08		546.4	2.62	PASS	268.1	2.49	PASS
1302547-11		563.1	2.61	PASS	283.7	2.49	PASS
1302547-12		572.1	2.61	PASS	301.9	2.49	PASS

Internal Standard Area and Retention Time Summary

GC-09
80810730.M

Calibration Level		Column 1 IS Response x10e6	RT, min		Column 2 IS Response x10e6	RT, min	
	2	451.3	2.62		295.6	2.50	
	5	451.1	2.62		300.1	2.50	
	20	451.0	2.62		298.5	2.50	
	50	467.6	2.62		309.7	2.50	
	100	460.0	2.62		305.8	2.50	
	150	474.9	2.62		314.6	2.50	
	200	450.6	2.62		299.8	2.50	
Average:		458.1	2.62		303.4	2.50	
Upper Limit		687.1			455.2		
Lower Limit		229.0			151.7		
SEQ-CCV1@A3E0287		549.9	2.61	PASS	310.0	2.50	PASS
B3H0528-BLK1		584.1	2.61	PASS	327.2	2.49	PASS
B3H0528-BS1		541.3	2.61	PASS	300.6	2.49	PASS
B3H0528-MS1		533.0	2.61	PASS	284.7	2.49	PASS
B3H0528-MSD1		603.6	2.61	PASS	320.8	2.49	PASS
1302581-15		665.6	2.61	PASS	357.0	2.49	PASS
1302581-19		608.1	2.61	PASS	320.9	2.49	PASS
1302581-21		652.3	2.61	PASS	347.4	2.49	PASS
1302581-22		678.0	2.61	PASS	349.6	2.49	PASS

Method EPA 8270/SIM

ANALYSIS RUN LOG

Injection Log

Directory: D:\Data\13-05-10b

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	96	U0510001.d	0.	SEQ-TUN1	1,TUNE,A3A0333	10 May 2013 11:47
2	1	U0510002.d	0.	SEQ-ICAL1,100ppb	1,A3E0031	10 May 2013 12:06
3	2	U0510003.d	0.	SEQ-ICAL2,500ppb	1,A3E0032	10 May 2013 12:31
4	3	U0510004.d	0.	SEQ-ICAL3,1000ppb	1,A3E0033	10 May 2013 12:57
5	4	U0510005.d	0.	SEQ-ICAL4,2000ppb	1,A3E0034	10 May 2013 13:23
6	5	U0510006.d	0.	SEQ-ICAL5,10000ppb	1,A3E0036	10 May 2013 13:49
7	6	U0510007.d	0.	SEQ-ICV1,1000ppb	1,A3E0037	10 May 2013 14:15

INSTRUMENT I.D.: MS-13
QUANT. METHOD: ICAL US1M130510
SUPR / IS CODE: 2250030 AMOUNT: 10uL
SIGNATURE: [signature] INITIAL: [initials]

Injection Log

Directory: D:\Data\13-08-27

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	100	U0827001.d	1.	SOLVENT BLANK	1,MeCl2	27 Aug 2013 13:20
2	100	U0827002.d	1.	SOLVENT BLANK	1,MeCl2	27 Aug 2013 13:46
3	96	U0827003.d	1.	SEQ-TUN1	1,TUNE,A3G0291	27 Aug 2013 14:08
4	96	U0827004.d	1.	SEQ-TUN1	1,TUNE,A3G0291	27 Aug 2013 14:25
5	97	U0827005.d	1.	SEQ-CCV1	1,A3H0029	27 Aug 2013 14:44
6	1	U0827006.d	1.	B3H0507-BLK1	1,B3H0507	27 Aug 2013 15:11
7	2	U0827007.d	1.	B3H0507-BS1	1,B3H0507	27 Aug 2013 15:37
8	3	U0827008.d	1.	B3H0507-BSD1	1,B3H0507	27 Aug 2013 16:03
9	4	U0827009.d	1.	1302553-01	1,B3H0507	27 Aug 2013 16:30
10	5	U0827010.d	1.	1302553-02	1,B3H0507	27 Aug 2013 16:56
11	6	U0827011.d	1.	1302559-01	1,B3H0507	27 Aug 2013 17:23
12	7	U0827012.d	1.	B3H0509-BLK1	1,B3H0509	27 Aug 2013 17:49
13	8	U0827013.d	1.	B3H0509-BS1	1,B3H0509	27 Aug 2013 18:16
14	9	U0827014.d	1.	B3H0509-MS1	1,B3H0509	27 Aug 2013 18:42
15	10	U0827015.d	1.	B3H0509-MSD1	1,B3H0509	27 Aug 2013 19:09
16	11	U0827016.d	1.	1302581-15	1,B3H0509	27 Aug 2013 19:35
17	12	U0827017.d	1.	1302581-19	1,B3H0509	27 Aug 2013 20:02
18	13	U0827018.d	1.	1302581-21	1,B3H0509	27 Aug 2013 20:29
19	14	U0827019.d	1.	1302581-22	1,B3H0509	27 Aug 2013 20:55
20	15	U0827020.d	1.	1302553-04	25,B3H0509,500/20...	27 Aug 2013 21:22
21	100	U0827021.d	1.	SOLVENT BLANK	1,MeCl2	27 Aug 2013 21:48
22	100	U0827022.d	1.	SOLVENT BLANK	1,MeCl2	27 Aug 2013 22:15
23	100	U0827023.d	1.	SOLVENT BLANK	1,MeCl2	27 Aug 2013 22:42

INSTRUMENT I.D.: MS-13
QUANT. METHOD: US1M130510
SURR / IS CODE: X3H094 AMOUNT: 10 ul
SIGNATURE: [signature] INITIAL: [initial]

ANALYSIS SEQUENCE

S3H0325

Sequence Comments:

Instrument: MS-13
Calibration ID: 3E14005

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
S3H0325-TUN1	QC		1	A3G0291		
S3H0325-CCV1	QC		2	A3H0029	A3E0030	
B3H0507-BLK1	QC		3		A3H0194	
B3H0507-BS1	QC		4		A3H0194	
B3H0507-BSD1	QC		5		A3H0194	
1302553-01	8270_SIM	E	6		A3H0194	
1302553-02	8270_SIM	E	7		A3H0194	
1302559-01	8270_SIM_Dioxane	B	8		A3H0194	
B3H0509-BLK1	QC		9		A3H0194	
B3H0509-BS1	QC		10		A3H0194	
B3H0509-MS1	QC		11		A3H0194	
B3H0509-MSD1	QC		12		A3H0194	
1302581-15	8270_SIM	A	13		A3H0194	
1302581-19	8270_SIM	A	14		A3H0194	
1302581-21	8270_SIM	A	15		A3H0194	
1302581-22	8270_SIM	A	16		A3H0194	
1302553-04	8270_SIM	A	17		A3H0194	

Samples Loaded By — Date: 9/25/13

Data Processed By — Date: 9/25/13

Printed: 9/25/2013 2:34:46PM :: C:\Program Files\Promium\Element\Print\seq_ATL_Default(2).rpt

Injection Log

Directory: D:\DATA\R130909A

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	96	R0909001.d	1.	SEQ-TUN1,A3G0291*	1,TUNE	9 Sep 2013 15:08
2	96	R0909002.d	1.	SEQ-TUN1,A3G0291	1,TUNE	9 Sep 2013 15:39
3	1	R0909003.d	1.	SEQ-ICAL1,100ppb*	1,SIM,A3I0365,	9 Sep 2013 16:01
4	2	R0909004.d	1.	SEQ-ICAL2,500ppb	1,SIM,A3I0366,	9 Sep 2013 16:42
5	1	R0909005.d	1.	SEQ-ICAL1,100ppb	1,SIM,A3I0365,	9 Sep 2013 17:09
6	3	R0909006.d	1.	SEQ-ICAL3,1000ppb	1,SIM,A3I0367,	9 Sep 2013 17:35
7	4	R0909007.d	1.	SEQ-ICAL4,2000ppb	1,SIM,A3I0368,	9 Sep 2013 18:02
8	5	R0909008.d	1.	SEQ-ICAL5,5000ppb	1,SIM,A3I0369,	9 Sep 2013 18:29
9	6	R0909009.d	1.	SEQ-ICAL6,10000ppb	1,SIM,A3I0370,	9 Sep 2013 18:55
10	7	R0909010.d	1.	SEQ-ICV1,1000ppb	1,SIM,A3I0371,	9 Sep 2013 19:22
11	8	R0909011.d	1.	I B3H0113-BLK1	1,B3H0113	9 Sep 2013 19:49
12	9	R0909012.d	1.	B3H0113-BS1	1,B3H0113	9 Sep 2013 20:17
13	10	R0909013.d	1.	B3H0113-BSD1	1,B3H0113	9 Sep 2013 20:43
14	11	R0909014.d	1.	1302664-04	1,B3H0113	9 Sep 2013 21:10
15	12	R0909015.d	1.	1302666-02	1,B3H0113 B3 9110113	9 Sep 2013 21:36
16	13	R0909016.d	1.	I B3H0021-BLK1	1,B3H0021 B3I0021	9 Sep 2013 22:03
17	14	R0909017.d	1.	B3H0021-BS1	1,B3H0021	9 Sep 2013 22:30
18	15	R0909018.d	1.	B3H0021-MS1	1,B3H0021	9 Sep 2013 22:58
19	16	R0909019.d	1.	B3H0021-MSD1	1,B3H0021	9 Sep 2013 23:24
20	17	R0909020.d	1.	1302547-12	1,B3H0021	9 Sep 2013 23:51
21	18	R0909021.d	1.	1302545-05	1,B3H0021	10 Sep 2013 00:17
22	19	R0909022.d	1.	1302547-11	1,B3H0021	10 Sep 2013 00:45
23	20	R0909023.d	1.	1302545-11	1,B3H0021	10 Sep 2013 01:12
24	21	R0909024.d	1.	1302545-17	1,B3H0021	10 Sep 2013 01:38
25	22	R0909025.d	1.	1302547-05	1,B3H0021	10 Sep 2013 02:05
26	23	R0909026.d	1.	1302545-01	10,B3H0021,500/50uL	10 Sep 2013 02:32
27	95	R0909027.d	1.	solvent blank	1,MeCl2	10 Sep 2013 02:59
28	95	R0909028.d	1.	solvent blank	1,MeCl2	10 Sep 2013 03:26
29	95	R0909029.d	1.	solvent blank	1,MeCl2	10 Sep 2013 03:52

* not Reported

INSTRUMENT I.D.: MS-15
QUANT. METHOD: RSIM130909
SURR / IS CODE: A3E0030 AMOUNT: 10uL
SIGNATURE: [illegible] INITIAL: RD

ANALYSIS SEQUENCE

S3I0074

Sequence Comments:

Instrument: MS-15
Calibration ID: UNASSIGNED

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
S3I0074-TUN1	QC		1	A3G0291		
S3I0074-CCV1	QC		2	A3H0029	A3E0030	
B3I0113-BLK1	QC		3		A3E0030	
B3I0113-BS1	QC		4		A3E0030	
B3I0113-BSD1	QC		5		A3E0030	
1302664-04	8270_SIM_Dioxane	A	6		A3E0030	
1302666-02	8270_SIM_Dioxane	D	7		A3E0030	
B3I0021-BLK1	QC		8		A3E0030	
B3I0021-BS1	QC		9		A3E0030	
B3I0021-MS1	QC		10		A3E0030	
B3I0021-MSD1	QC		11		A3E0030	
1302545-01	8270_SIM	A	12		A3E0030	
1302545-05	8270_SIM	A	13		A3E0030	
1302545-11	8270_SIM	A	14		A3E0030	
1302545-17	8270_SIM	A	15		A3E0030	
1302547-05	8270_SIM	A	16		A3E0030	
1302547-11	8270_SIM	A	17		A3E0030	
1302547-12	8270_SIM	A	18		A3E0030	

DGh 9/9/13
Samples Loaded By Date

DGh 9/10/13
Data Processed By Date

202

SAMPLE PREPARATION LOG

PREPARATION BENCH SHEET

B3H0509

Advanced Technology Laboratories

Matrix: Soil
Date Prepared: 08/27/13 14:00
End Date/Time: 08/27/13 15:51

Prep Code: MSSEMI_ISOTOPEDILN

Prepared by: SM
IS Code: _____
IS Volume: _____

Lab Number	Analysis	Sample pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Surrogate ID	ul Surrogate	Extraction Comments
1302553-04	8270_SIM		30	3						A3E0434	1000	dark extract/hard to filter
1302581-15	8270_SIM		30	1						A3E0434	1000	
1302581-19	8270_SIM		30	1						A3E0434	1000	
1302581-21	8270_SIM		30	1						A3E0434	1000	
1302581-22	8270_SIM		30	1						A3E0434	1000	
B3H0509-BLK1	QC		30	1						A3E0434	1000	
B3H0509-BS1	QC		30	1	A3G0320			1000		A3E0434	1000	
B3H0509-MS1	QC		30	1	A3G0320		1302581-19	1000		A3E0434	1000	
B3H0509-MSD1	QC		30	1	A3G0320		1302581-19	1000		A3E0434	1000	

BA 09/16/13

Number	Reagent Name
A1I3007	SAND
A2L0036	Sodium Sulfate
A3E0228	Methylene CHLORIDE
A3E0240	Acetone

Prepared By 8-27-13 Date

Preparation Reviewed By Date

Extracts Received By 8/27/13 Date

Printed: 8/27/2013 3:52:19PM :: bch_ATL_SVOA(2)

PREPARATION BENCH SHEET

B3I0021

Advanced Technology Laboratories

Matrix: Soil
Date Prepared: 09/03/13 11:10
End Date/Time: 08/28/13 12:24

Prep Code: MSSEMI

Prepared by: SM
IS Code: _____
IS Volume: _____

Lab Number	Analysis	Sample pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Surrogate ID	ul Surrogate	Extraction Comments
1302545-01	8270_SIM		30	1						A3E0434	1000	
1302545-05	8270_SIM		30	1						A3E0434	1000	
1302545-11	8270_SIM		30	1						A3E0434	1000	
1302545-17	8270_SIM		30	1						A3E0434	1000	
1302547-05	8270_SIM		30	1						A3E0434	1000	
1302547-11	8270_SIM		30	1						A3E0434	1000	
1302547-12	8270_SIM		30	1						A3E0434	1000	
B3I0021-BLK1	QC		30	1						A3E0434	1000	
B3I0021-BS1	QC		30	1	A3G0320			1000		A3E0434	1000	
B3I0021-MS1	QC		30	1	A3G0320		1302547-12	1000		A3E0434	1000	
B3I0021-MSD1	QC		30	1	A3G0320		1302547-12	1000		A3E0434	1000	

Number	Reagent Name
A1I3007	SAND
A2L0036	Sodium Sulfate
A3E0228	Methylene CHLORIDE
A3E0240	Acetone

BB for SM 09/10/13
Prepared By — Date

9/10/13
Preparation Reviewed By — Date

BB 9/10/13
Extracts Received By — Date

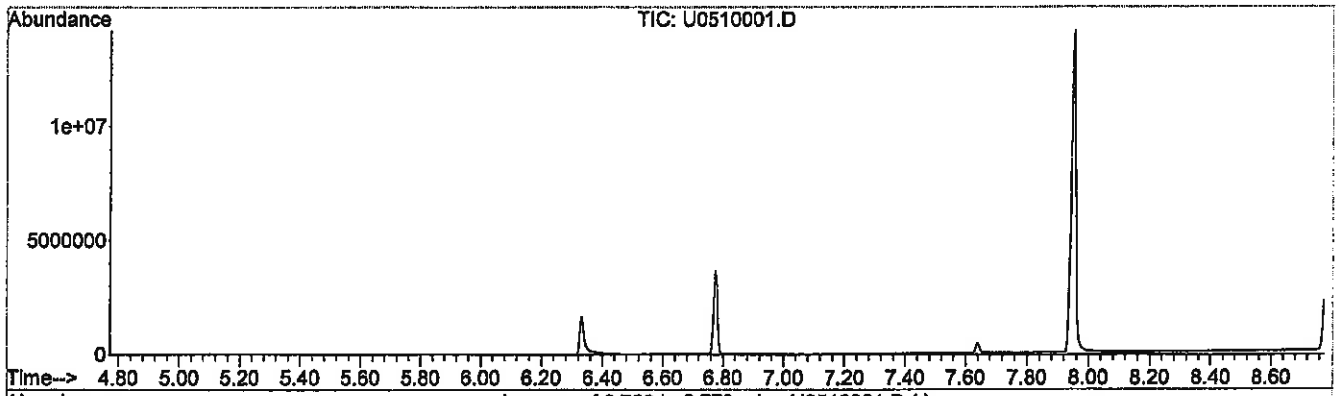
205

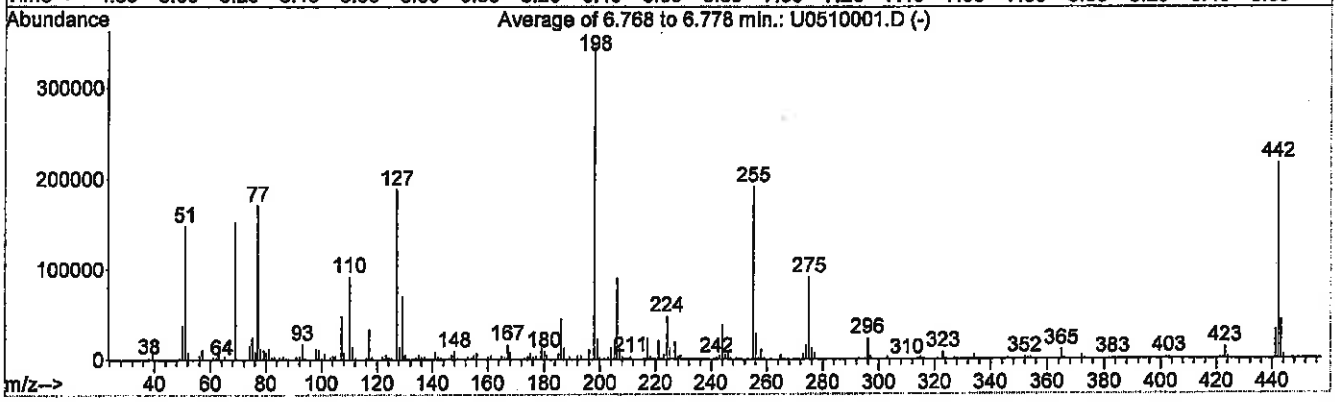
INSTRUMENT TUNING CHECK

Data Path : D:\Data\13-05-10b\
Data File : U0510001.D
Acq On : 10 May 2013 11:47 am
Operator : BB
Sample : SEQ-TUN1
Misc : 1,TUNE,A3A0333
ALS Vial : 96 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPF-8270.M
Title : EPA 8270C/625
Last Update : Thu Sep 29 10:13:58 2011





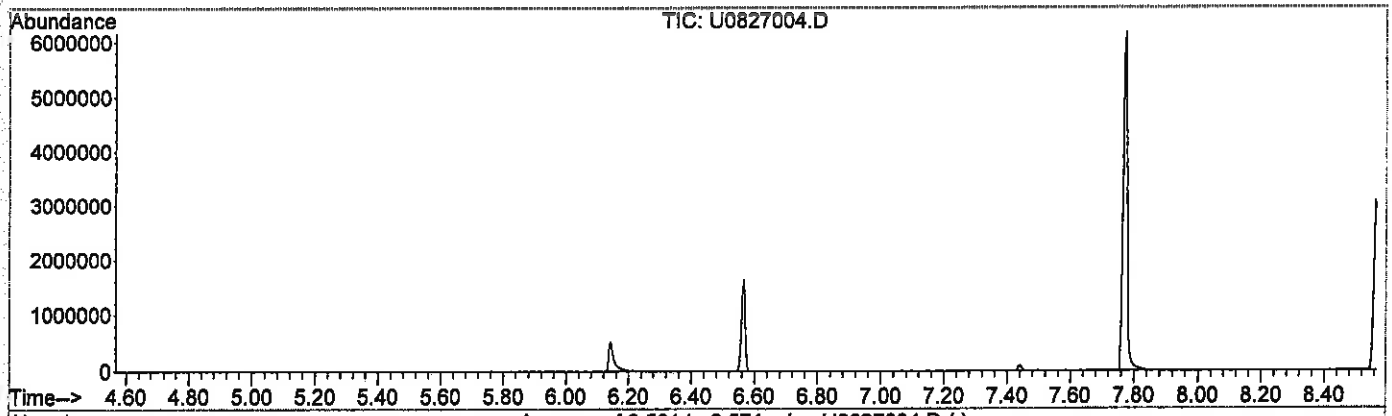
AutoFind: Scans 351, 352, 353; Background Corrected with Scan 346

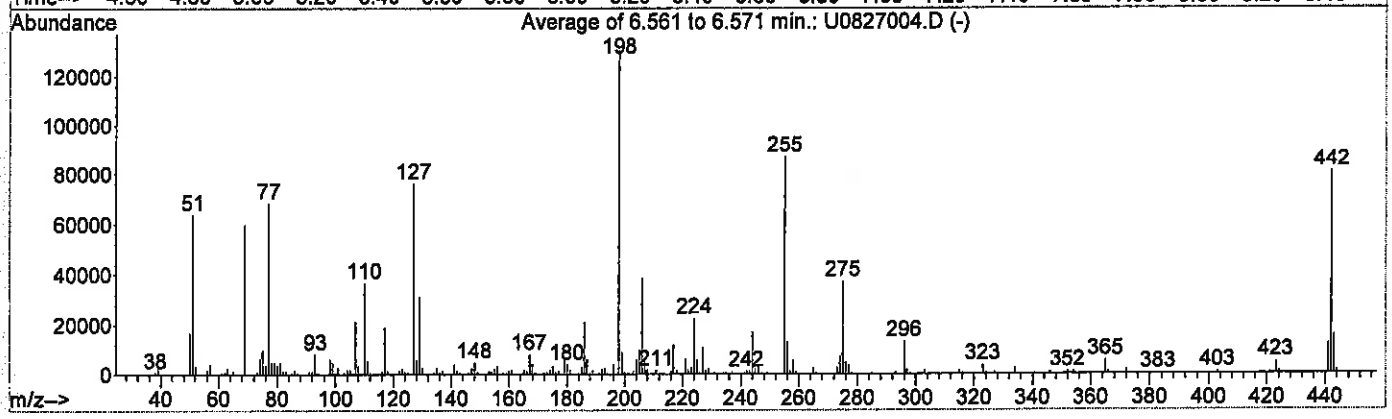
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.0	147992	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	44.3	152600	PASS
70	69	0.00	2	0.5	789	PASS
127	198	40	60	54.8	188522	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	344128	PASS
199	198	5	9	6.7	23120	PASS
275	198	10	30	26.5	91208	PASS
365	198	1	100	3.0	10454	PASS
441	443	0.01	100	74.9	32338	PASS
442	198	40	100	63.1	217005	PASS
443	442	17	23	19.9	43197	PASS

Data Path : D:\Data\13-08-27\
Data File : U0827004.D
Acq On : 27 Aug 2013 2:25 pm
Operator : MFR
Sample : SEQ-TUN1
Misc : 1,TUNE,A3G0291
ALS Vial : 96 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPF-SIM.M
Title : EPA 8270C/625
Last Update : Tue May 11 17:53:47 2010





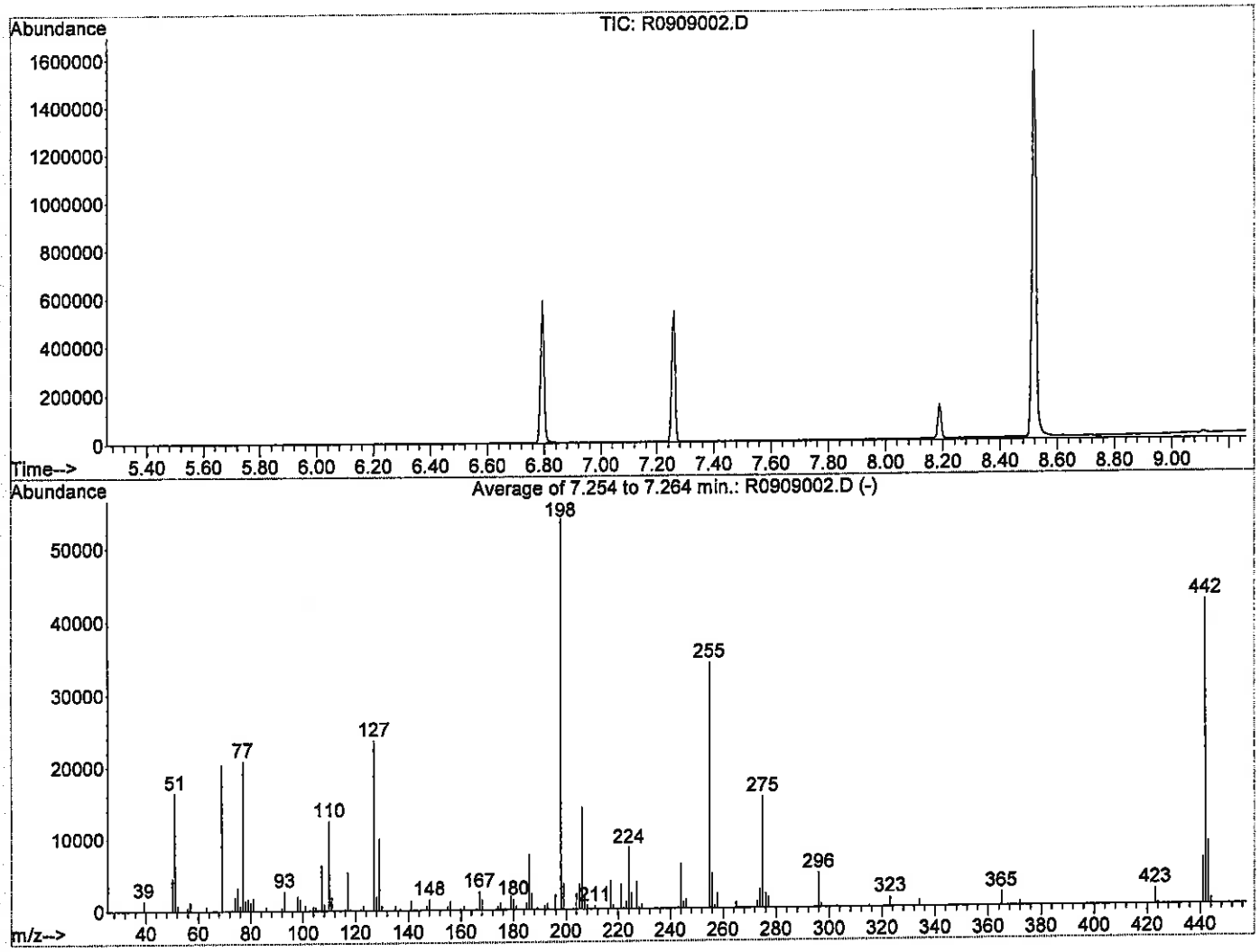
AutoFind: Scans 204, 205, 206; Background Corrected with Scan 198

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	48.6	63554	PASS
68	69	0.00	2	0.9	539	PASS
69	198	0.00	100	45.6	59696	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	58.2	76117	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	130808	PASS
199	198	5	9	6.7	8821	PASS
275	198	10	30	28.4	37130	PASS
365	198	1	100	4.1	5424	PASS
441	443	0.01	100	79.3	12359	PASS
442	198	40	100	61.8	80880	PASS
443	442	17	23	19.3	15578	PASS

DFTPP

Data File : D:\DATA\R130909A\R0909002.D
Acq On : 9 Sep 2013 3:39 pm
Sample : SEQ-TUN1,A3G0291
Misc : 1,TUNE
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\RSIM130909.M (RTE Integrator)
Title : PAHs & 1,4-Dioxane by 8270 SIM

Vial: 96
Operator: BB
Inst : ms15
Multiplr: 1.00



AutoFind: Scans 660, 661, 662; Background Corrected with Scan 654

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	30.4	16412	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	37.9	20432	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	43.8	23592	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	53901	PASS
199	198	5	9	6.6	3570	PASS
275	198	10	30	28.8	15550	PASS
365	198	1	100	3.5	1908	PASS
441	443	0.01	100	74.6	6461	PASS
442	198	40	100	78.4	42245	PASS
443	442	17	23	20.5	8657	PASS

R0909002.D RSIM130909.M Tue Sep 10 09:05:18 2013

INITIAL CALIBRATION DATA SUMMARY

Response Factor Report MS-13

Method Path : C:\MSDCHEM\1\METHODS\
Method File : USIM130510.M
Title : 8270 by SIM
Last Update : Fri May 10 14:31:39 2013
Response Via : Initial Calibration

Calibration Files
100 =U0510002.D 500 =U0510003.D 1000=U0510004.D
2000=U0510005.D 10K =U0510006.D

		Compound	100	500	1000	2000	10K	Avg	%RSD
1)	I	1,4-Dioxane-d8	----------ISTD----------						
2)	T	1,4-Dioxane	1.226	1.215	1.166	1.121	1.067	1.159	5.71
3)	I	1,4-Dichlorobenzene-d	----------ISTD----------						
4)	S	1,2-Dichlorobenzene	0.935	0.946	0.944	0.940	0.926	0.938	0.87
5)	S	Nitrobenzene-d5	0.755	0.800	0.855	0.926	1.091	0.885	14.85
6)	T	Naphthalene	3.740	3.666	3.677	3.668	3.643	3.679	0.99
7)	T	2-Methylnaphthalene	2.318	2.378	2.416	2.488	2.459	2.412	2.78
8)	I	Acenaphthene-d10	----------ISTD----------						
9)	S	2-Fluorobiphenyl	1.586	1.587	1.552	1.572	1.460	1.552	3.42
10)	T	Acenaphthylene	1.989	2.010	2.026	2.113	2.068	2.041	2.42
11)	MC	Acenaphthene	1.294	1.272	1.286	1.303	1.234	1.278	2.10
12)	T	Fluorene	1.426	1.490	1.524	1.542	1.466	1.489	3.12
13)	I	Phenanthrene-d10	----------ISTD----------						
14)	T	Phenanthrene	1.215	1.207	1.204	1.194	0.971	1.158	9.06
15)	T	Anthracene	1.023	1.071	1.089	1.112	0.961	1.051	5.73
16)	C	Fluoranthene	1.136	1.157	1.206	1.197	0.980	1.136	8.05
17)	T	Pyrene	1.162	1.181	1.184	1.204	1.019	1.150	6.51
18)	I	Chrysene-d12	----------ISTD----------						
19)	S	4-Terphenyl-d14	0.695	0.682	0.706	0.697	0.573	0.671	8.22
20)	T	Benzo[a]anthracene	1.177	1.157	1.169	1.183	1.026	1.142	5.74
21)	T	Chrysene	1.267	1.259	1.272	1.247	1.031	1.215	8.49
22)	I	Perylene-d12	----------ISTD----------						
23)	T	Benzo[b]fluoranthen	1.540	1.600	1.670	1.699	1.580	1.618	4.05
24)	T	Benzo[k]fluoranthen	1.354	1.359	1.326	1.414	1.303	1.351	3.10
25)	C	Benzo[a]pyrene	1.228	1.261	1.278	1.318	1.281	1.273	2.58
26)	T	Indeno[1,2,3-cd]pyr	1.309	1.658	1.377	1.417	1.367	1.426	9.51
27)	T	Dibenz[a,h]anthrace	1.110	1.361	1.180	1.224	1.178	1.211	7.70
28)	T	Benzo[g,h,i]perylen	1.202	1.588	1.213	1.249	1.170	1.284	13.38

(#) = Out of Range

5/14/13

Compound List Report MS-13

Method Path : C:\MSDCHEM\1\METHODS\
Method File : USIM130510.M
Title : 8270 by SIM
Last Update : Fri May 10 14:31:39 2013
Response Via : Initial Calibration

Total Cpnds : 28

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-Dioxane-d8	96	2.45	1.000	A	3	A	B
2	T	1,4-Dioxane	88	2.47	1.007	A	3	A	B
3	I	1,4-Dichlorobenzene-d4	152	4.98	1.000	A	2	A	B
4	S	1,2-Dichlorobenzene-d4	152	5.14	1.031	A	2	A	B
5	S	Nitrobenzene-d5	82	5.54	1.112	A	2	A	B
6	T	Naphthalene	128	6.33	1.271	A	2	A	B
7	T	2-Methylnaphthalene	142	7.08	1.422	A	1	A	B
8	I	Acenaphthene-d10	164	8.26	1.000	A	2	A	B
9	S	2-Fluorobiphenyl	172	7.48	0.906	A	1	A	B
10	T	Acenaphthylene	152	8.10	0.981	A	2	A	B
11	MC	Acenaphthene	154	8.29	1.004	A	2	A	B
12	T	Fluorene	166	8.87	1.074	A	2	A	B
13	I	Phenanthrene-d10	188	9.94	1.000	A	2	A	B
14	T	Phenanthrene	178	9.97	1.003	A	2	A	B
15	T	Anthracene	178	10.03	1.009	A	2	A	B
16	C	Fluoranthene	202	11.32	1.139	A	2	A	B
17	T	Pyrene	202	11.58	1.165	A	2	A	B
18	I	Chrysene-d12	240	12.93	1.000	A	2	A	B
19	S	4-Terphenyl-d14	244	11.71	0.906	A	2	A	B
20	T	Benzo[a]anthracene	228	12.91	0.999	A	2	A	B
21	T	Chrysene	228	12.96	1.002	A	2	A	B
22	I	Perylene-d12	264	14.58	1.000	A	2	A	B
23	T	Benzo[b]fluoranthene	252	14.10	0.967	A	2	A	B
24	T	Benzo[k]fluoranthene	252	14.13	0.969	A	2	A	B
25	C	Benzo[a]pyrene	252	14.51	0.995	A	2	A	B
26	T	Indeno[1,2,3-cd]pyrene	276	16.19	1.110	A	2	A	B
27	T	Dibenz[a,h]anthracene	278	16.19	1.110	A	2	A	B
28	T	Benzo[g,h,i]perylene	276	16.68	1.144	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

USIM130510.M Fri May 10 15:38:04 2013

Response Factor Report ms15

Method : C:\MSDCHEM\1\METHODS\RSIM130909.M (RTE Integrator)
Title : PAHs & 1,4-Dioxane by 8270 SIM
Last Update : Tue Sep 10 06:19:54 2013
Response via : Initial Calibration

MS-17 ICAL
8270 SIM

Calibration Files
100 =R0909005.D 500 =R0909004.D 1000 =R0909006.D
2000 =R0909007.D 5000 =R0909008.D 10K =R0909009.D

		Compound	100	500	1000	2000	5000	10K	Avg	%RSD
1)	I	1,4-Dioxane-d8	----------ISTD----------							
2)	T	1,4-Dioxane	1.102	1.060	1.381	1.162	1.159	1.219	1.181	9.52
3)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
4)	S	1,2-Dichloroben	0.963	0.928	1.107	0.967	0.948	0.963	0.979	6.55
5)	S	Nitrobenzene-d5	1.168	1.256	1.538	1.400	1.378	1.451	1.365	9.80
6)	T	Naphthalene	3.645	3.637	4.299	3.760	3.507	3.557	3.734	7.76
7)	T	2-Methylnaphtha	2.332	2.239	2.740	2.413	2.382	2.463	2.428	7.03
8)	I	Acenaphthene-d10	----------ISTD----------							
9)	S	2-Fluorobipheny	1.520	1.524	1.852	1.659	1.554	1.577	1.614	7.85
10)	T	Acenaphthylene	1.849	1.854	2.311	2.077	1.993	2.018	2.017	8.46
11)	MC	Acenaphthene	1.192	1.119	1.375	1.222	1.157	1.194	1.210	7.31
12)	T	Fluorene	1.361	1.358	1.707	1.518	1.451	1.518	1.486	8.74
13)	I	Phenanthrene-d10	----------ISTD----------							
14)	MT	Phenanthrene	0.982	1.035	1.252	1.101	1.132	1.111	1.102	8.34
15)	T	Anthracene	0.980	1.023	1.263	1.112	1.107	1.124	1.102	8.84
16)	TC	Fluoranthene	1.065	1.087	1.355	1.180	1.206	1.208	1.183	8.78
17)	MT	Pyrene	1.068	1.098	1.372	1.189	1.183	1.224	1.189	9.02
18)	I	Chrysene-d12	----------ISTD----------							
19)	S	4-Terphenyl-d14	0.857	0.816	0.945	0.841	0.866	0.859	0.864	5.03
20)	T	Benzo(a)anthrac	0.935	0.964	1.205	1.062	1.124	1.187	1.079	10.46
21)	T	Chrysene	1.369	1.228	1.396	1.215	1.177	1.209	1.265	7.30
22)	I	Perylene-d12	----------ISTD----------							
23)	T	Benzo(b)fluoran	1.382	1.319	1.740	1.405	1.542	1.683	1.512	11.36
24)	T	Benzo(k)fluoran	1.339	1.464	1.651	1.639	1.616	1.706	1.569	8.86
25)	TC	Benzo(a)pyrene	1.214	1.202	1.425	1.301	1.374	1.512	1.338	9.10
26)	T	Indeno(1,2,3-cd	1.403	1.403	1.608	1.511	1.580	1.730	1.539	8.25
27)	T	Dibenz(a,h)anth	1.111	1.144	1.298	1.232	1.292	1.418	1.249	8.99
28)	T	benzo(g,h,i)per	1.370	1.322	1.515	1.415	1.444	1.552	1.436	6.02

9/10/13

(#) = Out of Range

Compound List Report ms15

Method : C:\MSDCHEM\1\METHODS\RSIM130909.M (RTE Integrator)
Title : PAHs & 1,4-Dioxane by 8270 SIM
Last Update : Tue Sep 10 06:19:54 2013
Response via : Initial Calibration
Total Cpnds : 28

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-Dioxane-d8	96	2.59	1.000	A	3	A	B
2	T	1,4-Dioxane	88	2.62	1.009	A	3	A	B
3	I	1,4-Dichlorobenzene-d4	152	5.18	1.000	A	2	A	B
4	S	1,2-Dichlorobenzene-d4	152	5.34	1.031	A	2	A	B
5	S	Nitrobenzene-d5	82	5.73	1.106	A	2	A	B
6	T	Naphthalene	128	6.55	1.264	A	2	A	B
7	T	2-Methylnaphthalene	142	7.31	1.411	A	1	A	B
8	I	Acenaphthene-d10	164	8.50	1.000	A	2	A	B
9	S	2-Fluorobiphenyl	172	7.71	0.907	A	1	A	B
10	T	Acenaphthylene	152	8.33	0.981	A	2	A	B
11	MC	Acenaphthene	154	8.53	1.004	A	2	A	B
12	T	Fluorene	166	9.12	1.073	A	2	A	B
13	I	Phenanthrene-d10	188	10.21	1.000	A	2	A	B
14	T	Phenanthrene	178	10.25	1.003	A	2	A	B
15	T	Anthracene	178	10.30	1.009	A	2	A	B
16	T	Fluoranthene	202	11.67	1.143	A	2	A	B
17	T	Pyrene	202	11.96	1.171	A	2	A	B
18	I	Chrysene-d12	240	13.43	1.000	A	2	A	B
19	S	4-Terphenyl-d14	244	12.11	0.902	A	2	A	B
20	T	Benzo(a)anthracene	228	13.42	0.999	A	2	A	B
21	T	Chrysene	228	13.46	1.002	A	2	A	B
22	I	Perylene-d12	264	15.27	1.000	A	2	A	B
23	T	Benzo(b)fluoranthene	252	14.73	0.965	A	2	A	B
24	T	Benzo(k)fluoranthene	252	14.77	0.967	A	2	A	B
25	T	Benzo(a)pyrene	252	15.19	0.995	A	2	A	B
26	T	Indeno(1,2,3-cd)pyrene	276	17.09	1.119	A	2	A	B
27	T	Dibenz(a,h)anthracene	278	17.10	1.120	A	2	A	B
28	T	benzo(g,h,i)perylene	276	17.64	1.155	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

RSIM130909.M Tue Sep 10 08:41:04 2013

INITIAL CALIBRATION AND CONTINUING CALIBRATION VERIFICATION SUMMARY

Evaluate Continuing Calibration Report

InstName : MS-13

Data Path : D:\DATA\13-05-10B\
Data File : U0510007.D
Acq On : 10 May 2013 2:15 pm
Operator : BB
Sample : SEQ-ICV1,1000ppb
Misc : 1,A3E0037
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 10 14:55:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\USIM130510.M
Quant Title : 8270 by SIM
QLast Update : Fri May 10 14:31:39 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dioxane-d8	1.000	1.000	0.0	100	0.00
2	T	1,4-Dioxane	1.159	1.158	0.1	100	0.00
3	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
4	S	1,2-Dichlorobenzene-d4	0.938	0.933	0.5	96	0.00
5	S	Nitrobenzene-d5	0.885	0.925	-4.5	105	0.00
6	T	Naphthalene	3.679	3.776	-2.6	100	0.00
7	T	2-Methylnaphthalene	2.412	2.677	-11.0	108	0.00
8	I	Acenaphthene-d10	1.000	1.000	0.0	96	0.00
9	S	2-Fluorobiphenyl	1.552	1.603	-3.3	99	0.00
10	T	Acenaphthylene	2.041	1.984	2.8	94	0.00
11	MC	Acenaphthene	1.278	1.348	-5.5	100	0.00
12	T	Fluorene	1.489	1.548	-4.0	97	0.00
13	I	Phenanthrene-d10	1.000	1.000	0.0	92	0.00
14	T	Phenanthrene	1.158	1.339	-15.6	102	0.00
15	T	Anthracene	1.051	1.172	-11.5	99	0.00
16	C	Fluoranthene	1.136	1.273	-12.1	97	0.00
17	T	Pyrene	1.150	1.294	-12.5	100	0.00
18	I	Chrysene-d12	1.000	1.000	0.0	93	0.00
19	S	4-Terphenyl-d14	0.671	0.727	-8.3	96	0.00
20	T	Benzo[a]anthracene	1.142	1.223	-7.1	97	0.00
21	T	Chrysene	1.215	1.354	-11.4	99	0.00
22	I	Perylene-d12	1.000	1.000	0.0	91	0.00
23	T	Benzo[b]fluoranthene	1.618	1.798	-11.1	98	0.00
24	T	Benzo[k]fluoranthene	1.351	1.514	-12.1	104	0.00
25	C	Benzo[a]pyrene	1.273	1.407	-10.5	100	0.00
26	T	Indeno[1,2,3-cd]pyrene	1.426	1.521	-6.7	101	0.00
27	T	Dibenz[a,h]anthracene	1.211	1.266	-4.5	98	0.00
28	T	Benzo[g,h,i]perylene	1.284	1.322	-3.0	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

InstName : MS-13

Data Path : D:\Data\13-08-27\
Data File : U0827005.D
Acq On : 27 Aug 2013 2:44 pm
Operator : MFR
Sample : SEQ-CCV1
Misc : 1,A3H0029
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Aug 27 15:20:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\USIM130510.M
Quant Title : 8270 by SIM
QLast Update : Tue Aug 20 07:29:20 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dioxane-d8	1.000	1.000	0.0	60	0.00
2	T	1,4-Dioxane	1.159	1.170	-0.9	60	0.00
3	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	50	0.00
4	S	1,2-Dichlorobenzene-d4	0.938	0.983	-4.8	52	0.00
5	S	Nitrobenzene-d5	0.885	1.268	-43.3#	74	0.00
6	T	Naphthalene	3.679	4.671	-27.0	64	0.00
7	T	2-Methylnaphthalene	2.412	3.020	-25.2	63	0.00
8	I	Acenaphthene-d10	1.000	1.000	0.0	73	0.00
9	S	2-Fluorobiphenyl	1.552	1.419	8.6	67	0.00
10	T	Acenaphthylene	2.041	1.781	12.7	64	0.00
11	MC	Acenaphthene	1.278	1.135	11.2	64	-0.02
12	T	Fluorene	1.489	1.320	11.3	63	0.00
13	I	Phenanthrene-d10	1.000	1.000	0.0	67	0.00
14	T	Phenanthrene	1.158	1.050	9.3	59	0.00
15	T	Anthracene	1.051	1.113	-5.9	69	0.00
16	C	Fluoranthene	1.136	1.151	-1.3	64	0.00
17	T	Pyrene	1.150	1.175	-2.2	67	0.00
18	I	Chrysene-d12	1.000	1.000	0.0	81	0.00
19	S	4-Terphenyl-d14	0.671	0.748	-11.5	86	0.00
20	T	Benzo[a]anthracene	1.142	0.909	20.4	63	-0.02
21	T	Chrysene	1.215	1.260	-3.7	80	0.00
22	I	Perylene-d12	1.000	1.000	0.0	91	0.00
23	T	Benzo[b]fluoranthene	1.618	1.198	26.0	66	0.00
24	T	Benzo[k]fluoranthene	1.351	1.333	1.3	92	0.00
25	C	Benzo[a]pyrene	1.273	1.131	11.2	81	0.00
26	T	Indeno[1,2,3-cd]pyrene	1.426	1.255	12.0	83	0.00
27	T	Dibenz[a,h]anthracene	1.211	1.091	9.9	85	-0.02
28	T	Benzo[g,h,i]perylene	1.284	1.091	15.0	82	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : D:\DATA\R130909A\R0909010.D
Acq On : 9 Sep 2013 7:22 pm
Sample : SEQ-ICV1,1000ppb
Misc : 1,SIM,A3H0
MS Integration Params: rteint.p

Vial: 7
Operator: BB
Inst : ms15
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\RSIM130909.M (RTE Integrator)
Title : PAHs & 1,4-Dioxane by 8270 SIM
Last Update : Tue Sep 10 06:19:54 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dioxane-d8	1.000	1.000	0.0	104	0.00
2	T	1,4-Dioxane	1.181	1.292	-9.4	97	0.00
3	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	92	0.00
4	S	1,2-Dichlorobenzene-d4	0.979	1.022	-4.4	85	0.00
5	S	Nitrobenzene-d5	1.365	1.422	-4.2	85	0.00
6	T	Naphthalene	3.734	3.999	-7.1	85	0.00
7	T	2-Methylnaphthalene	2.428	2.457	-1.2	82	0.00
8	I	Acenaphthene-d10	1.000	1.000	0.0	91	0.00
9	S	2-Fluorobiphenyl	1.614	1.697	-5.1	83	0.00
10	T	Acenaphthylene	2.017	2.064	-2.3	81	0.00
11	MC	Acenaphthene	1.210	1.241	-2.6	82	0.00
12	T	Fluorene	1.486	1.517	-2.1	80	0.00
13	I	Phenanthrene-d10	1.000	1.000	0.0	88	0.00
14	MT	Phenanthrene	1.102	1.105	-0.3	78	0.00
15	T	Anthracene	1.102	1.075	2.5	75	0.00
16	TC	Fluoranthene	1.183	1.162	1.8	75	0.00
17	MT	Pyrene	1.189	1.147	3.5	73	0.00
18	I	Chrysene-d12	1.000	1.000	0.0	81	0.00
19	S	4-Terphenyl-d14	0.864	0.867	-0.3	74	0.00
20	T	Benzo(a)anthracene	1.079	1.004	7.0	68	0.00
21	T	Chrysene	1.265	1.252	1.0	73	0.00
22	I	Perylene-d12	1.000	1.000	0.0	80	0.00
23	T	Benzo(b)fluoranthene	1.512	1.476	2.4	68	0.00
24	T	Benzo(k)fluoranthene	1.569	1.505	4.1	73	0.00
25	TC	Benzo(a)pyrene	1.338	1.242	7.2	70	0.00
26	T	Indeno(1,2,3-cd)pyrene	1.539	1.460	5.1	73	0.00
27	T	Dibenz(a,h)anthracene	1.249	1.175	5.9	73	0.00
28	T	benzo(g,h,i)perylene	1.436	1.412	1.7	75	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
R0909010.D RSIM130909.M Tue Sep 10 09:14:00 2013

SUMMARY OF SURROGATE RECOVERIES

SYSTEM MONITORING COMPOUND SUMMARY

EPA 8270C SIM

Client: Ninyo & Moore - SD
Work Order: 1302545 **Matrix:** Soil
Project: CLAIREMONT H.S., 105338071 & 105338088 **Instrument:** MS-15

	DCB212D4 (28% - 96%)	NO2BZD5 (29% - 106%)	PHEN2F (36% - 113%)	PHENPD14 (39% - 138%)
1302545-01	56.1	42.9	63.3	67.3
1302545-05	71.2	61.9	80.9	82.8
1302545-11	66.7	57.8	79.7	81.8
1302545-17	62.6	56.9	80.6	84.5
B3I0021-BLK1	45.8	40.8	51.6	82.6
B3I0021-BS1	54.9	49.6	61.0	72.8
B3I0021-MS1	63.6	59.3	73.5	76.3
B3I0021-MSD1	65.2	59.7	74.6	72.7

DCB212D4 - 1,2-Dichlorobenzene-d4
NO2BZD5 - Nitrobenzene-d5
PHEN2F - 2-Fluorobiphenyl
PHENPD14 - 4-Terphenyl-d14

BA 09/17/13

SYSTEM MONITORING COMPOUND SUMMARY

EPA 8270C SIM

Client: Ninyo & Moore - SD
Work Order: 1302547 Matrix: Soil
Project: CLAIREMONT H.S., 105338071 & 105338088 Instrument: MS-15

	DCB212D4 (28% - 96%)	NO2B2D5 (29% - 106%)	PHEN2F (36% - 113%)	PHENPD14 (39% - 138%)
1302547-05	59.3	55.2	74.0	76.2
1302547-11	68.3	59.5	78.5	78.6
1302547-12	72.6	64.9	84.6	84.3
B3I0021-BLK1	45.8	40.8	51.6	82.6
B3I0021-BS1	54.9	49.6	61.0	72.8
B3I0021-MS1	63.6	59.3	73.5	76.3
B3I0021-MSD1	65.2	59.7	74.6	72.7

DCB212D4 - 1,2-Dichlorobenzene-d4
NO2B2D5 - Nitrobenzene-d5
PHEN2F - 2-Fluorobiphenyl
PHENPD14 - 4-Terphenyl-d14

SYSTEM MONITORING COMPOUND SUMMARY

EPA 8270C SIM

Client: Ninyo & Moore - SD
Work Order: 1302581 Matrix: Soil
Project: CLAIREMONT H.S., 105338071 & 105338088 Instrument: MS-13

	DCB2i2D4 (28% - 96%)	NO2B2D5 (29% - 106%)	PHEN2F (36% - 113%)	PHENPD14 (39% - 138%)
1302581-15	68.4	77.9	75.1	112
1302581-19	76.0	80.5	75.8	119
1302581-21	81.3	88.1	80.1	123
1302581-22	69.6	77.0	72.6	111
B3H0509-BLK1	64.4	78.5	44.8	99.8
B3H0509-BS1	68.5	76.6	69.4	98.3
B3H0509-MS1	66.7	90.2	73.8	106
B3H0509-MSD1	72.5	94.9	77.3	121

DCB2i2D4 - 1,2-Dichlorobenzene-d4
NO2B2D5 - Nitrobenzene-d5
PHEN2F - 2-Fluorobiphenyl
PHENPD14 - 4-Terphenyl-d14

BA05/16/B

INTERNAL STANDARD AREAS AND RT SUMMARY

8 - FORM VIII
INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270C SIM

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 1053380
Sequence:	S3I0074	Instrument:	MS-15
		Calibration:	UNASSIGNED

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
DRAFT: T-12-9.5 (1302545-05)			*Lab File ID: R0909021.D*			*Analyzed: 09/10/13 00:17*			
Acenaphthene-d10	5982	8.5	8684	8.5	69	50 - 200	0.0000	+/-0.50	
Chrysene-d12	10327	13.43	11976	13.43	86	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4	3341	5.17	4773	5.18	70	50 - 200	-0.0100	+/-0.50	
1,4-Dioxane-d8	870	2.59	2512	2.59	35	50 - 200	0.0000	+/-0.50	*
Perylene-d12	7602	15.27	7868	15.27	97	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	11589	10.21	15803	10.21	73	50 - 200	0.0000	+/-0.50	
DRAFT: T-13-4 (1302545-11)			*Lab File ID: R0909023.D*			*Analyzed: 09/10/13 01:12*			
Acenaphthene-d10	5964	8.5	8684	8.5	69	50 - 200	0.0000	+/-0.50	
Chrysene-d12	10482	13.43	11976	13.43	88	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4	3326	5.17	4773	5.18	70	50 - 200	-0.0100	+/-0.50	
1,4-Dioxane-d8	630	2.59	2512	2.59	25	50 - 200	0.0000	+/-0.50	*
Perylene-d12	9310	15.27	7868	15.27	118	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	11975	10.21	15803	10.21	76	50 - 200	0.0000	+/-0.50	
DRAFT: T-14-21 (1302545-17)			*Lab File ID: R0909024.D*			*Analyzed: 09/10/13 01:38*			
Acenaphthene-d10	7143	8.5	8684	8.5	82	50 - 200	0.0000	+/-0.50	
Chrysene-d12	12576	13.43	11976	13.43	105	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4	4020	5.17	4773	5.18	84	50 - 200	-0.0100	+/-0.50	
1,4-Dioxane-d8	571	2.59	2512	2.59	23	50 - 200	0.0000	+/-0.50	*
Perylene-d12	10552	15.27	7868	15.27	134	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	14111	10.21	15803	10.21	89	50 - 200	0.0000	+/-0.50	

8 - FORM VIII
INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270C SIM

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 1053380
Sequence:	S3I0074	Instrument:	MS-15
		Calibration:	UNASSIGNED

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
DRAFT: T-12-S (1302545-01)			*Lab File ID: R0909026.D*			*Analyzed: 09/10/13 02:32*			
Acenaphthene-d10	6012	8.5	8684	8.5	69	50 - 200	0.0000	+/-0.50	
Chrysene-d12	9480	13.43	11976	13.43	79	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4	3364	5.17	4773	5.18	70	50 - 200	-0.0100	+/-0.50	
1,4-Dioxane-d8	54	2.59	2512	2.59	2	50 - 200	0.0000	+/-0.50	*
Perylene-d12	8976	15.27	7868	15.27	114	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	11784	10.21	15803	10.21	75	50 - 200	0.0000	+/-0.50	

1,4-Dioxane-d8 not used BA 09/17/13

8 - FORM VIII
INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270C SIM

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 1053380
Sequence:	S3I0074	Instrument:	MS-15
		Calibration:	UNASSIGNED

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
DRAFT: T-16-12 (1302547-12)			*Lab File ID: R0909020.D*			*Analyzed: 09/09/13 23:51*			
Acenaphthene-d10	6439	8.5	8684	8.5	74	50 - 200	0.0000	+/-0.50	
Chrysene-d12	9816	13.43	11976	13.43	82	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4	3778	5.17	4773	5.18	79	50 - 200	-0.0100	+/-0.50	
1,4-Dioxane-d8	1098	2.59	2512	2.59	44	50 - 200	0.0000	+/-0.50	*
Perylene-d12	7306	15.27	7868	15.27	93	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	12311	10.21	15803	10.21	78	50 - 200	0.0000	+/-0.50	
DRAFT: T-16-9 (1302547-11)			*Lab File ID: R0909022.D*			*Analyzed: 09/10/13 00:45*			
Acenaphthene-d10	6137	8.5	8684	8.5	71	50 - 200	0.0000	+/-0.50	
Chrysene-d12	10165	13.43	11976	13.43	85	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4	3527	5.17	4773	5.18	74	50 - 200	-0.0100	+/-0.50	
1,4-Dioxane-d8	824	2.59	2512	2.59	33	50 - 200	0.0000	+/-0.50	*
Perylene-d12	7579	15.27	7868	15.27	96	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	11727	10.21	15803	10.21	74	50 - 200	0.0000	+/-0.50	
DRAFT: T-15-14 (1302547-05)			*Lab File ID: R0909025.D*			*Analyzed: 09/10/13 02:05*			
Acenaphthene-d10	7157	8.5	8684	8.5	82	50 - 200	0.0000	+/-0.50	
Chrysene-d12	13070	13.43	11976	13.43	109	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4	3879	5.17	4773	5.18	81	50 - 200	-0.0100	+/-0.50	
1,4-Dioxane-d8	515	2.59	2512	2.59	21	50 - 200	0.0000	+/-0.50	*
Perylene-d12	11062	15.26	7868	15.27	141	50 - 200	-0.0100	+/-0.50	
Phenanthrene-d10	14512	10.21	15803	10.21	92	50 - 200	0.0000	+/-0.50	

8 - FORM VIII
INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270C SIM

Laboratory:	Advanced Technology Laboratories	Work Order:	1302581
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 1053380
Sequence:	S3H0325	Instrument:	MS-13
		Calibration:	3E14005

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
DRAFT: T-22-1 (1302581-15)			*Lab File ID: U0827016.D*			*Analyzed: 08/27/13 19:35*			
Acenaphthene-d10	19423	7.91	21852	7.91	89	50 - 200	0.0000	+/-0.50	
Chrysene-d12	26536	12.57	35198	12.57	75	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4	8386	4.69	9293	4.68	90	50 - 200	0.0100	+/-0.50	
1,4-Dioxane-d8	2839	2.21	4980	2.2	57	50 - 200	0.0100	+/-0.50	
Perylene-d12	23961	14.14	28849	14.14	83	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	30200	9.59	35656	9.59	85	50 - 200	0.0000	+/-0.50	
DRAFT: T-23-3 (1302581-19)			*Lab File ID: U0827017.D*			*Analyzed: 08/27/13 20:02*			
Acenaphthene-d10	19763	7.91	21852	7.91	90	50 - 200	0.0000	+/-0.50	
Chrysene-d12	25489	12.58	35198	12.57	72	50 - 200	0.0100	+/-0.50	
1,4-Dichlorobenzene-d4	8081	4.68	9293	4.68	87	50 - 200	0.0000	+/-0.50	
1,4-Dioxane-d8	2972	2.2	4980	2.2	60	50 - 200	0.0000	+/-0.50	
Perylene-d12	22531	14.14	28849	14.14	78	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	30123	9.59	35656	9.59	84	50 - 200	0.0000	+/-0.50	
DRAFT: Dup-2 (1302581-21)			*Lab File ID: U0827018.D*			*Analyzed: 08/27/13 20:29*			
Acenaphthene-d10	17786	7.91	21852	7.91	81	50 - 200	0.0000	+/-0.50	
Chrysene-d12	23826	12.58	35198	12.57	68	50 - 200	0.0100	+/-0.50	
1,4-Dichlorobenzene-d4	7449	4.69	9293	4.68	80	50 - 200	0.0100	+/-0.50	
1,4-Dioxane-d8	3167	2.2	4980	2.2	64	50 - 200	0.0000	+/-0.50	
Perylene-d12	21321	14.14	28849	14.14	74	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	27242	9.59	35656	9.59	76	50 - 200	0.0000	+/-0.50	

8 - FORM VIII
INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270C SIM

Laboratory:	Advanced Technology Laboratories	Work Order:	1302581
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 1053380
Sequence:	S3H0325	Instrument:	MS-13
		Calibration:	3E14005

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
DRAFT: Dup-1 (1302581-22)			*Lab File ID: U0827019.D*			*Analyzed: 08/27/13 20:55*			
Acenaphthene-d10	17693	7.91	21852	7.91	81	50 - 200	0.0000	+/-0.50	
Chrysene-d12	24135	12.57	35198	12.57	69	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4	7146	4.69	9293	4.68	77	50 - 200	0.0100	+/-0.50	
1,4-Dioxane-d8	2405	2.2	4980	2.2	48	50 - 200	0.0000	+/-0.50	*
Perylene-d12	22655	14.14	28849	14.14	79	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	26819	9.59	35656	9.59	75	50 - 200	0.0000	+/-0.50	

1,4- Dioxane- d8 not used BA 09/16/13

Method EPA 6010B (Total)

ANALYSIS RUN LOG

WinLab32 - Off-Line ICP Continuous - Data Reprocessing

File Edit Tools Analysis Options Window Help

MethEd | SamInfo | Spectra | Results | Calib | Examine | Reproc | Method: 120828_A | Sample Info: Untitled

Data Reprocessing

Analysis Progress | Step: idle

Reprocess | Data Set To Reprocess: ICP8_130824-01 | Browse... | Print Log

Reprocessed Data Set | Browse... | Hide Empty Columns

	Seq	Sample ID	Date Time	Initial Sample Wt.	Initial Sample Vol.	Sample
1		IBL1	8/24/2013 9:31:25 AM			
2		CAL1	8/24/2013 9:35:11 AM			
3		CAL2	8/24/2013 9:38:58 AM			
4		CAL3	8/24/2013 9:42:09 AM			
5		ICV1	8/24/2013 9:48:22 AM			
6		ICB1	8/24/2013 9:51:35 AM			
7		IFA1	8/24/2013 9:55:22 AM			
8		IFB1	8/24/2013 9:59:40 AM			
9		CCV1	8/24/2013 10:03:21 AM			
10		CCB1	8/24/2013 10:06:31 AM			
11		B3H0462-BLK1	8/24/2013 10:17:21 AM		25	mg/L
12		B3H0462-BS1	8/24/2013 10:21:09 AM		25	mg/L
13		1302545-01	8/24/2013 10:25:03 AM		25	mg/L
14		B3H0462-MS1	8/24/2013 10:28:13 AM		25	mg/L
15		B3H0462-MSD1	8/24/2013 10:31:39 AM		25	mg/L
16		1302584-16	8/24/2013 10:35:07 AM		25	mg/L
17		1302584-22	8/24/2013 10:38:47 AM		25	mg/L
18		S3H0300-CCV2	8/24/2013 10:42:27 AM		25	
19		S3H0300-CCB2	8/24/2013 10:45:40 AM		25	
20		B3H0461-BLK1	8/24/2013 10:49:27 AM		25	
21		B3H0461-BS1	8/24/2013 10:53:14 AM		25	
22		1302584-01	8/24/2013 10:57:09 AM		25	
23		B3H0461-MS1	8/24/2013 11:00:48 AM		25	
24		B3H0462-MSD1	8/24/2013 11:04:13 AM		25	
25		1302584-04	8/24/2013 11:08:06 AM		25	
26		1302584-07	8/24/2013 11:11:45 AM		25	
27		1302584-10	8/24/2013 11:15:34 AM		25	
28		1302584-13	8/24/2013 11:19:12 AM		25	
29		1302584-19	8/24/2013 11:22:50 AM		25	
30		S3H0300-CCV3	8/24/2013 11:26:59 AM		25	
31		S3H0300-CCB3	8/24/2013 11:30:11 AM		25	
32		IFA2	8/24/2013 11:33:58 AM			
33		IFB2	8/24/2013 11:38:17 AM			
34		CCV-	8/24/2013 11:41:58 AM			
35		CCB-	8/24/2013 11:45:08 AM			
36						
37						
38						
39						
40						

*Parameters marked with an asterisk override settings in the method.

For Help, press F1

ANALYSIS SEQUENCE

Sequence Comments:

S3H0300

Instrument: ICP-08
Calibration ID: 3H26002

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
S3H0300-IBL1	QC		1		A3B0015	
S3H0300-CAL1	QC		2	A3H0196	A3B0015	
S3H0300-CAL2	QC		3	A3G0205	A3B0015	
S3H0300-CAL3	QC		4	A3G0206	A3B0015	
S3H0300-ICV1	QC		5	A3H0268	A3B0015	
S3H0300-ICB1	QC		6		A3B0015	
S3H0300-IFA1	QC		7	A3G0427	A3B0015	
S3H0300-IFB1	QC		8	A3G0444	A3B0015	
S3H0300-CCV1	QC		9	A3H0219	A3B0015	
S3H0300-CCB1	QC		10		A3B0015	
B3H0462-BLK1	QC		11		A3B0015	
B3H0462-BS1	QC		12		A3B0015	
1302545-01	6010	A	13		A3B0015	BatchQC
1302545-01	6010_CAM	A	14		A3B0015	
B3H0462-MS1	QC		15		A3B0015	
B3H0462-MSD1	QC		16		A3B0015	
1302584-16	6010	A	17		A3B0015	
1302584-22	6010	A	18		A3B0015	
S3H0300-CCV2	QC		19	A3H0268	A3B0015	
S3H0300-CCB2	QC		20		A3B0015	
B3H0461-BLK1	QC		21		A3B0015	
B3H0461-BS1	QC		22		A3B0015	
1302584-01	200.7	A	23		A3B0015	
B3H0461-MS1	QC		24		A3B0015	
B3H0461-MSD1	QC		25			
1302584-04	200.7	A	26		A3B0015	
1302584-07	200.7	A	27		A3B0015	
1302584-10	200.7	A	28		A3B0015	
1302584-13	200.7	A	29		A3B0015	
1302584-19	200.7	A	30		A3B0015	
S3H0300-CCV3	QC		31	A3H0268	A3B0015	
S3H0300-CCB3	QC		32		A3B0015	

GB 9/20/13
Samples Loaded By Date

GB 9/20/13
Data Processed By Date

ANALYSIS SEQUENCE

Sequence Comments:

S3H0300

Instrument: ICP-08
Calibration ID: 3H26002

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
S3H0300-IFA2	QC		33	A3G0427	A3B0015	
S3H0300-IFB2	QC		34	A3G0444	A3B0015	
S3H0300-CCV4	QC		35	A3H0268	A3B0015	
S3H0300-CCB4	QC		36		A3B0015	

GS 9/20/13
Samples Loaded By Date

GS 9/20/13
Data Processed By Date

WinLab32 - Off Line ICP Continuous - Data Reprocessing

File Edit Tools Analysis Options Window Help

MethEd | SamInfo | Spectra | Results | Calib | DataMan | Reproc

Method: ICP10_13082601

Sample Info: Untitled

Data Reprocessing

Analysis Progress | Step: Idle

Reprocess | Data Set To Reprocess: ICP10_13082601 | Browse | Browse

☑ Print Log

☐ Hide Empty Columns

☐ Only show samples with Universal Data

	Seq.	Sample ID	Date Time	Initial Sample Wt.	Initial Sample Vol.	Sample Units *	Weight Units	Sam Prep.
1		CALBLK,CAL0,200.7	8/26/2013 11:36:28 AM				g	
2		CAL1,CAL1,200.7	8/26/2013 11:38:40 AM				g	
3		CAL2,CAL2,200.7	8/26/2013 11:41:03 AM				g	
4		CAL3,CAL3,200.7	8/26/2013 11:42:36 AM				g	
5		ICV,ICV,200.7	8/26/2013 11:44:38 AM		25	mg/L	g	25
6		ICB,ICB,200.7	8/26/2013 11:46:11 AM		25	mg/L	g	25
7		~~ICSA,ICSA,200.7~~ NR	8/26/2013 11:48:19 AM				g	
8		ICSA,ICSA,200.7	8/26/2013 11:52:35 AM				g	
9		ICSAB,ICSAB,200.7	8/26/2013 11:55:02 AM				g	
10		CCV (0.25),CCV,200.7	8/26/2013 11:56:14 AM				g	
11		CCB,CCB,200.7	8/26/2013 11:57:46 AM		25	mg/L	g	25
12		B3H0427-BLK1	8/26/2013 11:59:54 AM		25	mg/L	g	25
13		B3H0427-BS1	8/26/2013 12:02:02 PM		25	mg/L	g	25
14		1302486-01@10	8/26/2013 12:03:36 PM		25	mg/L	g	25
15		B3H0427-DUP1@10	8/26/2013 12:05:44 PM		25	mg/L	g	25
16		B3H0427-MS1@10	8/26/2013 12:07:52 PM		25	mg/L	g	25
17		B3H0427-MSD1@10	8/26/2013 12:09:24 PM		25	mg/L	g	25
18		1302486-02@10	8/26/2013 12:10:56 PM		25	mg/L	g	25
19		1302487-01@10	8/26/2013 12:13:04 PM		25	mg/L	g	25
20		1302487-02@10	8/26/2013 12:15:13 PM		25	mg/L	g	25
21		1302487-03@10	8/26/2013 12:17:21 PM		25	mg/L	g	25
22		S3H0307-CCV2	8/26/2013 12:19:29 PM		25	mg/L	g	25
23		S3H0307-CCB2	8/26/2013 12:21:03 PM		25	mg/L	g	25
24		1302488-01@10	8/26/2013 12:23:11 PM		25	mg/L	g	25
25		1302488-02@10	8/26/2013 12:25:21 PM		25	mg/L	g	25
26		1302486-01RE1	8/26/2013 12:27:29 PM		25		g	25
27		B3H0427-DUP2	8/26/2013 12:29:07 PM		25		g	25
28		B3H0427-MS2	8/26/2013 12:30:46 PM		25		g	25
29		B3H0427-MSD2	8/26/2013 12:32:06 PM		25		g	25
30		1302486-02RE1	8/26/2013 12:33:26 PM		25		g	25
31		1302487-01RE1	8/26/2013 12:35:05 PM		25		g	25
32		1302487-02RE1	8/26/2013 12:36:45 PM		25		g	25
33		1302487-03RE1	8/26/2013 12:38:24 PM		25		g	25
34		S3H0307-CCV3	8/26/2013 12:40:04 PM		25		g	25
35		S3H0307-CCB3	8/26/2013 12:41:38 PM		25		g	25
36		1302488-01RE1@2	8/26/2013 12:43:46 PM		25		g	25
37		1302488-02RE1	8/26/2013 12:45:21 PM		25		g	25
38		ICSA,ICSA,200.7	8/26/2013 12:47:15 PM				g	
39		ICSAB,ICSAB,200.7	8/26/2013 12:49:43 PM				g	
40		CCV,CCV,200.7	8/26/2013 12:50:56 PM		25	mg/L	g	25
41		CCB,CCB,200.7	8/26/2013 12:52:30 PM		25	mg/L	g	25
42		1302545-03	8/26/2013 1:08:32 PM		25	mg/L	g	25
43		~~1302545-05~~ NR	8/26/2013 1:10:08 PM		25	mg/L	g	25
44		1302545-09	8/26/2013 1:11:30 PM		25	mg/L	g	25
45		1302545-10	8/26/2013 1:13:03 PM		25	mg/L	g	25
46		1302545-11	8/26/2013 1:14:37 PM		25	mg/L	g	25
47		1302545-13	8/26/2013 1:16:34 PM		25	mg/L	g	25
48		1302545-14	8/26/2013 1:18:07 PM		25	mg/L	g	25
49		1302545-17	8/26/2013 1:19:40 PM		25	mg/L	g	25
50		1302547-02	8/26/2013 1:20:58 PM		25	mg/L	g	25
51		1302547-05	8/26/2013 1:22:31 PM		25	mg/L	g	25

*Parameters marked with an asterisk override settings in the method.
>Samples marked with a ">" contain universal data.

For Help, press F1

Start | WinLab32 - Off Line ... | WinLab32 - Off Line ... | ESI SC Autoprep | Task Manager - Data ... | Inbox

WinLab32 Off Line ICP Continuous Data Reprocessing

File Edit Tools Analysis Options Window Help

Method: ICP10_130826-01

Sample Info: Unnamed

Data Reprocessing

Analysis Progress

Step: idle

Reprocess

Data Set To Reprocess: ICP10_130826-01 Browse

Browse

Print Log

Hide Empty Columns

Only show samples with Universal Data

	Seq	Sample ID	Date Time	Initial Sample Wt	Initial Sample Vol	Sample Units *	Weight Units	Sam Prep
30		~~1302486-02RE1~~	8/26/2013 12:33:26 PM		25		g	25
31		1302487-01RE1	8/26/2013 12:35:05 PM		25		g	25
32		1302487-02RE1	8/26/2013 12:36:45 PM		25		g	25
33		1302487-03RE1	8/26/2013 12:38:24 PM		25		g	25
34		S3H0307-CCV3	8/26/2013 12:40:04 PM		25		g	25
35		S3H0307-CCB3	8/26/2013 12:41:38 PM		25		g	25
36		1302488-01RE1@5	8/26/2013 12:43:46 PM		25		g	25
37		1302488-02RE1	8/26/2013 12:45:21 PM		25		g	25
38		ICSA,ICSA,200.7	8/26/2013 12:47:15 PM				g	
39		ICSAB,ICSAB,200.7	8/26/2013 12:49:43 PM				g	
40		CCV,CCV,200.7	8/26/2013 12:50:56 PM		25	mg/L	g	25
41		CCB,CCB,200.7	8/26/2013 12:52:30 PM		25	mg/L	g	25
42		1302545-03	8/26/2013 1:08:32 PM		25	mg/L	g	25
43		1302545-05	8/26/2013 1:10:08 PM		25	mg/L	g	25
44		1302545-09	8/26/2013 1:11:30 PM		25	mg/L	g	25
45		1302545-10	8/26/2013 1:13:03 PM		25	mg/L	g	25
46		1302545-11	8/26/2013 1:14:37 PM		25	mg/L	g	25
47		1302545-13	8/26/2013 1:16:34 PM		25	mg/L	g	25
48		1302545-14	8/26/2013 1:18:07 PM		25	mg/L	g	25
49		1302545-17	8/26/2013 1:19:40 PM		25	mg/L	g	25
50		1302547-02	8/26/2013 1:20:58 PM		25	mg/L	g	25
51		~~1302547-05~~	8/26/2013 1:22:31 PM		25	mg/L	g	25
52		~~S3H0307-CCV5~~ NR	8/26/2013 1:23:49 PM		25	mg/L	g	25
53		S3H0307-CCV5	8/26/2013 1:39:45 PM		25	mg/L	g	25
54		S3H0307-CCB5	8/26/2013 1:41:28 PM		25	mg/L	g	25
55		1302547-07	8/26/2013 1:43:37 PM		25	mg/L	g	25
56		1302547-08	8/26/2013 1:45:12 PM		25	mg/L	g	25
57		1302547-09	8/26/2013 1:46:45 PM		25	mg/L	g	25
58		1302547-11	8/26/2013 1:48:18 PM		25	mg/L	g	25
59		~~1302547-12~~ NR	8/26/2013 1:49:33 PM		25	mg/L	g	25
60		1302545-05@5	8/26/2013 1:51:06 PM		25		g	25
61		1302545-17RE1@5	8/26/2013 1:52:39 PM		25		g	25
62		1302547-05RE1@5	8/26/2013 1:54:12 PM		25		g	25
63		~~1302547-12~~ NR	8/26/2013 1:55:45 PM		25		g	25
64		1302547-12@2	8/26/2013 1:59:50 PM		25	mg/L	g	25
65		ICSA,ICSA,200.7	8/26/2013 2:01:31 PM				g	
66		ICSAB,ICSAB,200.7	8/26/2013 2:03:58 PM				g	
67		CCV,CCV,200.7	8/26/2013 2:05:11 PM		25	mg/L	g	25
68		CCB,CCB,200.7	8/26/2013 2:06:45 PM		25	mg/L	g	25
69								
70								
71								
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74								
75								
76								
77								
78								
79								
80								

*Parameters marked with an asterisk override settings in the method.
>Samples marked with a ">" contain universal data.

For Help, press F1

ANALYSIS SEQUENCE

S3H0307

Sequence Comments:

Instrument: ICP-10
Calibration ID: 3H26005

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
S3H0307-IBL1	QC		1		A3B0015	
S3H0307-CAL1	QC		2	A3H0196	A3B0015	
S3H0307-CAL2	QC		3	A3G0205	A3B0015	
S3H0307-CAL3	QC		4	A3G0206	A3B0015	
S3H0307-ICV1	QC		5	A3H0268	A3B0015	
S3H0307-ICB1	QC		6		A3B0015	
S3H0307-IFA1	QC		7	A3G0427	A3B0015	
S3H0307-IFB1	QC		8	A3G0444	A3B0015	
S3H0307-CCV1	QC		9	A3H0219	A3B0015	
S3H0307-CCB1	QC		10		A3B0015	
B3H0427-BLK1	QC		11		A3B0015	
B3H0427-BS1	QC		12		A3B0015	
1302486-01	6010	A	13		A3B0015	
B3H0427-DUP1	QC		14		A3B0015	
B3H0427-MS1	QC		15		A3B0015	
B3H0427-MSD1	QC		16		A3B0015	
1302486-02	6010	A	17		A3B0015	
1302487-01	6010	A	18		A3B0015	
1302487-02	6010	A	19		A3B0015	
1302487-03	6010	A	20		A3B0015	
S3H0307-CCV2	QC		21	A3H0268	A3B0015	
S3H0307-CCB2	QC		22		A3B0015	
1302488-01	6010	A	23		A3B0015	
1302488-02	6010	A	24		A3B0015	
1302486-01RE1	6010	A	25		A3B0015	Added 8/26/2013 by SB
B3H0427-DUP2	QC		26		A3B0015	
B3H0427-MS2	QC		27		A3B0015	
B3H0427-MSD2	QC		28		A3B0015	
1302486-02RE1	6010	A	29		A3B0015	Added 8/26/2013 by SB
1302487-01RE1	6010	A	30		A3B0015	Added 8/26/2013 by SB
1302487-02RE1	6010	A	31		A3B0015	Added 8/26/2013 by SB
1302487-03RE1	6010	A	32		A3B0015	Added 8/26/2013 by SB

SB 8-26-13
Samples Loaded By Date

SB 8-26-13
Data Processed By Date

Printed: 8/26/2013 6:27:15PM :: C:\Program Files\Promium\Element\Print\seq_ATL_Default(2).rpt

ANALYSIS SEQUENCE

S3H0307

Sequence Comments:

Instrument: ICP-10
Calibration ID: 3H26005

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
S3H0307-CCV3	QC		33	A3H0268	A3B0015	
S3H0307-CCB3	QC		34		A3B0015	
1302488-01RE1	6010	A	35		A3B0015	Added 8/26/2013 by SB
1302488-02RE1	6010	A	36		A3B0015	Added 8/26/2013 by SB
S3H0307-IFA2	QC		37	A3G0427	A3B0015	
S3H0307-IFB2	QC		38	A3G0444	A3B0015	
S3H0307-CCV4	QC		39	A3H0268	A3B0015	
S3H0307-CCB4	QC		40		A3B0015	
1302545-03	6010	A	41		A3B0015	Pb
1302545-09	6010	A	42		A3B0015	Pb
1302545-10	6010_CAM	A	43		A3B0015	
1302545-11	6010	A	44		A3B0015	Pb
1302545-13	6010_CAM	A	45		A3B0015	
1302545-14	6010	A	46		A3B0015	Pb
1302545-17	6010_CAM	A	47		A3B0015	
1302547-02	6010	A	48		A3B0015	Pb
1302547-05	6010_CAM	A	49		A3B0015	
S3H0307-CCV5	QC		50	A3H0268	A3B0015	
S3H0307-CCB5	QC		51		A3B0015	
1302547-07	6010_CAM	A	52		A3B0015	
1302547-08	6010	A	53		A3B0015	Pb
1302547-09	6010	A	54		A3B0015	Pb
1302547-11	6010_CAM	A	55		A3B0015	
1302545-05	6010	A	56		A3B0015	Pb
1302545-17RE1	6010_CAM	A	57		A3B0015	Added 8/26/2013 by SB
1302547-05RE1	6010_CAM	A	58		A3B0015	Added 8/26/2013 by SB
1302547-12	6010_CAM	A	59		A3B0015	
S3H0307-IFA3	QC		60	A3G0427	A3B0015	
S3H0307-IFB3	QC		61	A3G0444	A3B0015	
S3H0307-CCV6	QC		62	A3H0268	A3B0015	
S3H0307-CCB6	QC		63		A3B0015	

SB 8-26-13
Samples Loaded By Date

SB 8-26-13
Data Processed By Date

Printed: 8/26/2013 6:27:15PM :: C:\Program Files\Promium\Element\Print\seq_ATL_Default(2).rpt

WinLab32 - Off-Line ICP Continuous - Data Reprocessing

File Edit Tools Analysis Options Window Help

MethEd SamInfo Spectra Results Calib Examine Reproc Report

Method: ICP10_130801

Sample Info: Untitled

Data Reprocessing

Analysis Progress

Step: Idle

Reprocess

Data Set To Reprocess: ICP10_130827-01 Browse

Reprocess calibration set: Browse

Print Log

Save Reprocessed Data

Hide Empty Columns

Only show samples with Universal Data

	Seq.	Sample ID	Date Time	Initial Sample Wt	Initial Sample Vol	Sample Units *	
1		CALBLK,CAL0,200.7	8/27/2013 7:18:27 AM				g
2		~~CAL1,CAL1,200.7~~	8/27/2013 7:20:35 AM				g
3		CAL1,CAL1,200.7	8/27/2013 7:24:11 AM				g
4		CAL2,CAL2,200.7	8/27/2013 7:26:28 AM				g
5		CAL3,CAL3,200.7	8/27/2013 7:28:01 AM				g
6		ICV,ICV,200.7	8/27/2013 7:29:53 AM				g
7		ICB,ICB,200.7	8/27/2013 7:31:26 AM				g
8		ICSA,ICSA,200.7	8/27/2013 7:33:34 AM				g
9		ICSAB,ICSAB,200.7	8/27/2013 7:36:01 AM				g
10		CCV (0.25),CCV,200.7	8/27/2013 7:36:57 AM				g
11		CCB,CCB,200.7	8/27/2013 7:38:29 AM				g
12		S3H0313-CCV2	8/27/2013 9:36:35 AM		25	mg/L	g
13		S3H0313-CCB2	8/27/2013 9:38:12 AM		25	mg/L	g
14		B3H0480-BLK1	8/27/2013 9:40:20 AM		25	mg/L	g
15		B3H0480-BS1	8/27/2013 9:42:28 AM		25	mg/L	g
16		1302600-13	8/27/2013 9:44:23 AM		25	mg/L	g
17		B3H0480-MS1	8/27/2013 9:45:57 AM		25	mg/L	g
18		B3H0480-MSD1	8/27/2013 9:47:55 AM		25	mg/L	g
19		1302600-17	8/27/2013 9:49:53 AM		25	mg/L	g
20		1302600-18	8/27/2013 9:51:27 AM		25	mg/L	g
21		1302600-19	8/27/2013 9:53:01 AM		25	mg/L	g
22		1302600-20	8/27/2013 9:54:52 AM		25	mg/L	g
23		1302600-24	8/27/2013 9:56:49 AM		25	mg/L	g
24		S3H0313-CCV3	8/27/2013 9:58:24 AM		25	mg/L	g
25		S3H0313-CCB3	8/27/2013 9:59:58 AM		25	mg/L	g
26		1302600-25	8/27/2013 10:02:06 AM		25	mg/L	g
27		S3H0313-CCV4	8/27/2013 10:03:42 AM		25		g
28		S3H0313-CCB4	8/27/2013 10:09:02 AM		25		g
29		S3H0313-CCV5	8/27/2013 6:10:14 PM		25	mg/L	g
30		S3H0313-CCB5	8/27/2013 6:11:51 PM		25	mg/L	g
31		B3H0501-BLK1	8/27/2013 6:32:44 PM		25	mg/L	g
32		B3H0501-BS1	8/27/2013 6:34:56 PM		25	mg/L	g
33		1302553-04	8/27/2013 6:36:30 PM		25	mg/L	g
34		B3H0501-MS1	8/27/2013 6:38:24 PM		25	mg/L	g
35		B3H0501-MSD1	8/27/2013 6:39:43 PM		25	mg/L	g
36		1302565-01	8/27/2013 6:41:03 PM		25		g
37		1302581-01	8/27/2013 6:43:01 PM		25		g
38		1302581-02	8/27/2013 6:44:35 PM		25		g
39		1302581-03	8/27/2013 6:46:09 PM		25		g
40		1302581-04	8/27/2013 6:47:43 PM		25		g
41		S3H0313-CCV6	8/27/2013 6:49:16 PM		25		g
42		S3H0313-CCB6	8/27/2013 6:50:50 PM		25		g
43		1302581-05	8/27/2013 6:52:58 PM		25		g
44		1302581-06	8/27/2013 6:54:33 PM		25		g
45		1302581-07	8/27/2013 6:56:02 PM		25		g
46		1302581-08	8/27/2013 6:57:35 PM		25		g
47		1302581-09	8/27/2013 6:59:09 PM		25		g
48		1302581-10	8/27/2013 7:00:43 PM		25		g
49		1302581-11	8/27/2013 7:02:16 PM		25		g
50		1302581-12	8/27/2013 7:03:50 PM		25		g
51		1302581-13	8/27/2013 7:05:24 PM		25		g

WinLab32 - Off-Line ICP Continuous - Data Reprocessing

File Edit Tools Analysis Options Window Help

MethEd | SamInfo | Spectra | Results | Calib | Examine | Reproc | Print

Method: ICP10_130801

Sample Info.: Untitled

Data Reprocessing

Analysis Progress

Step: Idle

Reprocess

Data Set To Reprocess: ICP10_130827-01

Browse...

Reprocess Data Set

Browse...

☑ Print Log

☐ Save Reprocessed Data

☐ Hide Empty Columns

☐ Only show samples with Universal Data

	Seq.	Sample ID	Date Time	Initial Sample Wt.	Initial Sample Vol.	Sample Units *	
29		~~S3H0313-CCB5~~	~~8/27/2013 6:11:51 PM~~		~~25~~	~~mg/L~~	~~g~~
31		B3H0501-BLK1	8/27/2013 6:32:44 PM		25	mg/L	g
32		B3H0501-BS1	8/27/2013 6:34:56 PM		25	mg/L	g
33		1302553-04	8/27/2013 6:36:30 PM		25	mg/L	g
34		B3H0501-MS1	8/27/2013 6:38:24 PM		25	mg/L	g
35		B3H0501-MSD1	8/27/2013 6:39:43 PM		25	mg/L	g
36		1302565-01	8/27/2013 6:41:03 PM		25		g
37		1302581-01	8/27/2013 6:43:01 PM		25		g
38		1302581-02	8/27/2013 6:44:35 PM		25		g
39		1302581-03	8/27/2013 6:46:09 PM		25		g
40		1302581-04	8/27/2013 6:47:43 PM		25		g
41		S3H0313-CCV6	8/27/2013 6:49:16 PM		25		g
42		S3H0313-CCB6	8/27/2013 6:50:50 PM		25		g
43		1302581-05	8/27/2013 6:52:58 PM		25		g
44		1302581-06	8/27/2013 6:54:33 PM		25		g
45		1302581-07	8/27/2013 6:56:02 PM		25		g
46		1302581-08	8/27/2013 6:57:35 PM		25		g
47		1302581-09	8/27/2013 6:59:09 PM		25		g
48		1302581-10	8/27/2013 7:00:43 PM		25		g
49		1302581-11	8/27/2013 7:02:16 PM		25		g
50		1302581-12	8/27/2013 7:03:50 PM		25		g
51		~~1302581-13~~	~~8/27/2013 7:05:24 PM~~		~~25~~		~~g~~
52		1302581-14	8/27/2013 7:06:57 PM		25		g
53		S3H0313-CCV7	8/27/2013 7:08:26 PM		25		g
54		S3H0313-CCB7	8/27/2013 7:10:00 PM		25		g
55		1302581-15	8/27/2013 7:12:08 PM		25		g
56		1302581-16	8/27/2013 7:13:43 PM		25		g
57		1302581-17	8/27/2013 7:15:17 PM		25		g
58		1302581-18	8/27/2013 7:16:51 PM		25		g
59		B3H0502-BLK1	8/27/2013 7:18:24 PM		25		g
60		B3H0502-BS1	8/27/2013 7:20:31 PM		25		g
61		1302581-19	8/27/2013 7:22:22 PM		25		g
62		B3H0502-MS1	8/27/2013 7:23:56 PM		25		g
63		B3H0502-MSD1	8/27/2013 7:25:16 PM		25		g
64		1302581-20	8/27/2013 7:27:08 PM		25		g
65		S3H0313-CCV8	8/27/2013 7:28:43 PM		25		g
66		S3H0313-CCB8	8/27/2013 7:30:17 PM		25		g
67		1302581-21	8/27/2013 7:32:25 PM		25		g
68		1302581-22	8/27/2013 7:34:00 PM		25		g
69		ICSA,ICSA,200.7 2	8/27/2013 7:35:33 PM				g
70		ICSAB,ICSAB,200.7 2	8/27/2013 7:38:02 PM				g
71		CCV,CCV,200.7 9	8/27/2013 7:39:13 PM		25	mg/L	g
72		CCB,CCB,200.7 9	8/27/2013 7:40:47 PM		25	mg/L	g
73							
74							
75							
76							
77							
78							
79							
80							

ANALYSIS SEQUENCE

S3H0313

Sequence Comments:

Instrument: ICP-10
Calibration ID: 3H28002

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
S3H0313-IBL1	QC		1		A3B0015	
S3H0313-CAL1	QC		2	A3H0196	A3B0015	
S3H0313-CAL2	QC		3	A3G0205	A3B0015	
S3H0313-CAL3	QC		4	A3G0206	A3B0015	
S3H0313-ICV1	QC		5	A3H0268	A3B0015	
S3H0313-ICB1	QC		6		A3B0015	
S3H0313-IFA1	QC		7	A3G0427	A3B0015	
S3H0313-IFB1	QC		8	A3G0444	A3B0015	
S3H0313-CCV1	QC		9	A3H0219	A3B0015	
S3H0313-CCB1	QC		10		A3B0015	
S3H0313-CCV2	QC		11	A3H0268	A3B0015	
S3H0313-CCB2	QC		12		A3B0015	
B3H0480-BLK1	QC		13		A3B0015	
B3H0480-BS1	QC		14		A3B0015	
1302600-13	6010	A	15		A3B0015	
B3H0480-MS1	QC		16		A3B0015	
B3H0480-MSD1	QC		17		A3B0015	
1302600-17	6010	A	18		A3B0015	
1302600-18	6010	A	19		A3B0015	
1302600-19	6010	A	20		A3B0015	
1302600-20	6010	A	21		A3B0015	
1302600-24	6010	A	22		A3B0015	
S3H0313-CCV3	QC		23	A3H0268	A3B0015	
S3H0313-CCB3	QC		24		A3B0015	
1302600-25	6010	A	25		A3B0015	
S3H0313-CCV4	QC		26	A3H0268	A3B0015	
S3H0313-CCB4	QC		27		A3B0015	
S3H0313-CCV5	QC		28	A3H0268	A3B0015	
S3H0313-CCB5	QC		29		A3B0015	
B3H0501-BLK1	QC		30		A3B0015	
B3H0501-BS1	QC		31		A3B0015	
1302553-04	6010	A	32		A3B0015	BatchQC

AG 8/28/13
Samples Loaded By Date

AG 8/28/13
Data Processed By Date

ANALYSIS SEQUENCE

S3H0313

Sequence Comments:

Instrument: ICP-10
Calibration ID: 3H28002

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
1302553-04	6010_CAM	A	33		A3B0015	
B3H0501-MS1	QC		34		A3B0015	
B3H0501-MSD1	QC		35		A3B0015	
1302565-01	6010_CAM	A	36		A3B0015	
1302581-01	6010	A	37		A3B0015	
1302581-02	6010_CAM	A	38		A3B0015	
1302581-03	6010	A	39		A3B0015	
1302581-04	6010_CAM	A	40		A3B0015	
S3H0313-CCV6	QC		41	A3H0268	A3B0015	
S3H0313-CCB6	QC		42		A3B0015	
1302581-05	6010	A	43		A3B0015	
1302581-06	6010	A	44		A3B0015	
1302581-07	6010_CAM	A	45		A3B0015	
1302581-08	6010	A	46		A3B0015	
1302581-09	6010	A	47		A3B0015	
1302581-10	6010	A	48		A3B0015	
1302581-11	6010_CAM	A	49		A3B0015	
1302581-12	6010	A	50		A3B0015	
1302581-13	6010_CAM	A	51		A3B0015	
1302581-14	6010	A	52		A3B0015	
S3H0313-CCV7	QC		53	A3H0268	A3B0015	
S3H0313-CCB7	QC		54		A3B0015	
1302581-15	6010_CAM	A	55		A3B0015	
1302581-16	6010	A	56		A3B0015	
1302581-17	6010	A	57		A3B0015	
1302581-18	6010	A	58		A3B0015	
B3H0502-BLK1	QC		59		A3B0015	
B3H0502-BS1	QC		60		A3B0015	
1302581-19	6010	A	61		A3B0015	BatchQC
1302581-19	6010_CAM	A	62		A3B0015	
B3H0502-MS1	QC		63		A3B0015	
B3H0502-MSD1	QC		64		A3B0015	

AG 8/28/13
Samples Loaded By Date

AG 8/28/13
Data Processed By Date

Printed: 8/28/2013 1:48:12PM :: C:\Program Files\Promium\Element\Print\seq_ATL_Default(2).rpt

ANALYSIS SEQUENCE

S3H0313

Sequence Comments:

Instrument: ICP-10
Calibration ID: 3H28002

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
1302581-20	6010	A	65		A3B0015	
S3H0313-CCV8	QC		66	A3H0268	A3B0015	
S3H0313-CCB8	QC		67		A3B0015	
1302581-21	6010_CAM	A	68		A3B0015	
1302581-22	6010_CAM	A	69		A3B0015	
S3H0313-IFA2	QC		70	A3G0427	A3B0015	
S3H0313-IFB2	QC		71	A3G0444	A3B0015	
S3H0313-CCV9	QC		72	A3H0268	A3B0015	
S3H0313-CCB9	QC		73		A3B0015	

AG 8/28/13
Samples Loaded By Date

AG 8/28/13
Data Processed By Date

Printed: 8/28/2013 1:48:12PM :: C:\Program Files\Promium\Element\Print\seq_ATL_Default(2).rpt

Winlab32 - Off-Line ICP Continuous - Data Reprocessing

File Edit Tools Analysis Options Window Help

MethEd | SamInfo | Spectra | Results | Calib | Examine | Reproc | Print | Method: ICP10_130820 | Sample Info: Untitled

Data Reprocessing

Analysis Progress | Step: Idle

Reprocess | Data Set To Reprocess: ICP10_130828-03 | Browse... | Browse | Print Log | Hide Empty Columns | Only show samples with Universal Data

	Seq	Sample ID	Date Time	Initial Sample Wt.	Initial Sample Vol.	Sample Units *	
1		CALBLK,CAL0,200.7	8/28/2013 7:49:37 AM				g
2		~~CAL1,CAL1,200.7~~	8/28/2013 7:51:44 AM				g
3		CAL1,CAL1,200.7	8/28/2013 7:54:29 AM				g
4		CAL2,CAL2,200.7	8/28/2013 7:56:48 AM				g
5		CAL3,CAL3,200.7	8/28/2013 7:58:21 AM				g
6		ICV,ICV,200.7	8/28/2013 8:01:35 AM				g
7		ICB,ICB,200.7	8/28/2013 8:03:08 AM				g
8		ICSA,ICSA,200.7	8/28/2013 8:05:16 AM				g
9		ICSAB,ICSAB,200.7	8/28/2013 8:07:42 AM				g
10		CCV (0.25),CCV,200.7	8/28/2013 8:08:55 AM				g
11		CCB,CCB,200.7	8/28/2013 8:10:28 AM				g
12		1302565-01RE1@20	8/28/2013 8:12:36 AM		25		g
13		S3H0331-CCV2	8/28/2013 8:14:44 AM		25		g
14		S3H0331-CCB2	8/28/2013 8:16:17 AM		25		g
15		S3H0331-CCV3	8/28/2013 9:17:09 AM		25		g
16		S3H0331-CCB3	8/28/2013 9:18:42 AM		25		g
17		B3H0512-BLK1	8/28/2013 9:20:50 AM		25		g
18		B3H0512-BS1	8/28/2013 9:22:59 AM		25		g
19		1302610-09	8/28/2013 9:24:49 AM		25		g
20		B3H0512-MS1	8/28/2013 9:26:45 AM		25		g
21		B3H0512-MSD1	8/28/2013 9:28:10 AM		25		g
22		B3H0497-BLK1	8/28/2013 9:29:31 AM		25		g
23		B3H0497-BS1	8/28/2013 9:31:38 AM		25		g
24		1302502-01	8/28/2013 9:33:29 AM		25		g
25		B3H0497-DUP1	8/28/2013 9:34:30 AM		25		g
26		B3H0497-MS1	8/28/2013 9:35:31 AM		25		g
27		S3H0331-CCV4	8/28/2013 9:36:50 AM		25		g
28		S3H0331-CCB4	8/28/2013 9:38:26 AM		25		g
29		B3H0497-MSD1	8/28/2013 9:40:34 AM		25		g
30		1302502-02	8/28/2013 9:41:57 AM		25		g
31		1302502-03	8/28/2013 9:43:39 AM		25		g
32		1302502-04	8/28/2013 9:45:35 AM		25		g
33		1302537-01	8/28/2013 9:47:15 AM		25		g
34		1302537-02	8/28/2013 9:48:53 AM		25		g
35		1302537-03	8/28/2013 9:50:31 AM		25		g
36		1302537-04	8/28/2013 9:52:13 AM		25		g
37		1302537-05	8/28/2013 9:53:50 AM		25		g
38		B3H0521-BLK1	8/28/2013 9:57:34 AM		25	mg/L	g
39		S3H0331-CCV5	8/28/2013 9:59:47 AM		25	mg/L	g
40		S3H0331-CCB5	8/28/2013 10:01:21 AM		25	mg/L	g
41		B3H0521-BS1	8/28/2013 10:03:29 AM		25	mg/L	g
42		1302613-07	8/28/2013 10:05:20 AM		25	mg/L	g
43		1302613-13	8/28/2013 10:06:53 AM		25	mg/L	g
44		1302613-19	8/28/2013 10:08:26 AM		25	mg/L	g
45		B3H0521-MS1	8/28/2013 10:10:35 AM		25	mg/L	g
46		B3H0521-MSD1	8/28/2013 10:12:33 AM		25	mg/L	g
47		1302502-01RE1@20	8/28/2013 10:14:31 AM		25		g
48		1302502-02RE1@20	8/28/2013 10:16:40 AM		25		g
49		1302502-03RE1@20	8/28/2013 10:18:48 AM		25		g
50		1302502-04RE1@20	8/28/2013 10:20:20 AM		25		g
51		S3H0331-CCV6	8/28/2013 10:21:52 AM		25		g

WinLab32 - Off Line ICP Continuous - Data Reprocessing

File Edit Tools Analysis Options Window Help

MethEd | SamInfo | Spectra | Results | Calib | Estimate | Reproc | Start | Method: ICP10_130801 | Sample Info.: Untitled

Data Reprocessing

Analysis Progress | Step: Idle

Reprocess | Data Set To Reprocess: ICP10_130828-03 | Browse... | Reprocess Data Set | Browse...

☑ Print Log
☐ Save RFC Data
☐ Hide Empty Columns
☑ Only show samples with Universal Data

	Seq	Sample ID	Date Time	Initial Sample Wt	Initial Sample Vol	Sample Units *	
50		1302502-04RE1@20	8/28/2013 10:20:20 AM		25		g
51		S3H0331-CCV6	8/28/2013 10:21:52 AM		25		g
52		S3H0331-CCB6	8/28/2013 10:23:26 AM		25		g
53		1302537-01RE1@20	8/28/2013 10:25:34 AM		25		g
54		1302537-02RE1@20	8/28/2013 10:27:43 AM		25		g
55		1302537-03RE1@20	8/28/2013 10:29:51 AM		25		g
56		1302537-04RE1@20	8/28/2013 10:31:59 AM		25		g
57		1302537-05RE1@20	8/28/2013 10:34:07 AM		25		g
58		B3H0497-DUP2@20	8/28/2013 10:36:15 AM		25		g
59		B3H0497-MS2@20	8/28/2013 10:38:23 AM		25		g
60		B3H0497-MSD2@20	8/28/2013 10:40:31 AM		25		g
61		1302537-05RE2@2	8/28/2013 10:51:33 AM		25	mg/L	g
62		S3H0331-CCV7	8/28/2013 10:53:12 AM		25	mg/L	g
63		S3H0331-CCB7	8/28/2013 10:54:46 AM		25	mg/L	g
64		S3H0331-CCV8	8/28/2013 2:41:41 PM		25	mg/L	g
65		S3H0331-CCB8	8/28/2013 2:43:18 PM		25	mg/L	g
66		1302565-01@5	8/28/2013 2:45:26 PM		25	mg/L	g
67		1302581-17@5	8/28/2013 2:47:35 PM		25	mg/L	g
68		1302581-20@5	8/28/2013 2:49:43 PM		25	mg/L	g
69		~~B3H0553~~-BLK1@20 B3H0533	8/28/2013 2:51:51 PM		25	mg/L	g
70		~~B3H0553~~-BS1@20 ↓	8/28/2013 2:54:03 PM		25	mg/L	g
71		1302480-01@20	8/28/2013 2:56:15 PM		25	mg/L	g
72		~~B3H0553~~-MS1@20 B3H0533	8/28/2013 2:58:27 PM		25	mg/L	g
73		~~B3H0553~~-MSD1@20 ↓	8/28/2013 3:00:40 PM		25	mg/L	g
74		1302565-01@20	8/28/2013 3:02:53 PM		25	mg/L	g
75		S3H0331-CCV9	8/28/2013 3:05:05 PM		25		g
76		S3H0331-CCB9	8/28/2013 3:06:39 PM		25		g
77		~~B3H054~~-BLK1 B3H0549	8/28/2013 5:17:35 PM		25	mg/L	g
78		~~B3H054~~-BS1 ↓	8/28/2013 5:19:47 PM		25	mg/L	g
79		1302620-01	8/28/2013 5:21:21 PM		25		g
80		1302620-02	8/28/2013 5:23:21 PM		25		g
81		1302615-01	8/28/2013 5:25:23 PM		25		g
82		~~B3H054~~-MS1 B3H0549	8/28/2013 5:26:56 PM		25		g
83		~~B3H054~~-MSD1 ↓	8/28/2013 5:28:53 PM		25		g
84		1302615-02	8/28/2013 5:30:51 PM		25		g
85		1302615-03	8/28/2013 5:32:26 PM		25		g
86		1302617-01	8/28/2013 5:34:00 PM		25		g
87		S3H0331-CCVA	8/28/2013 5:35:55 PM		25		g
88		S3H0331-CCBA	8/28/2013 5:37:30 PM		25		g
89		1302617-02	8/28/2013 5:39:38 PM		25		g
90		ICSAJICSA,200.7 2	8/28/2013 5:41:19 PM				g
91		ICSAB,ICSAB,200.7 2	8/28/2013 5:43:47 PM				g
92		CCV,CCV,200.7 B	8/28/2013 5:45:01 PM		25	mg/L	g
93		CCB,CCB,200.7 B	8/28/2013 5:46:35 PM		25	mg/L	g
94							
95							
96							
97							
98							
99							
100							

ANALYSIS SEQUENCE

S3H0331

Sequence Comments:

Instrument: ICP-10
Calibration ID: 3H29001

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
S3H0331-IBL1	QC		1		A3B0015	
S3H0331-CAL1	QC		2	A3H0196	A3B0015	
S3H0331-CAL2	QC		3	A3G0205	A3B0015	
S3H0331-CAL3	QC		4	A3G0206	A3B0015	
S3H0331-ICV1	QC		5	A3H0268	A3B0015	
S3H0331-ICB1	QC		6		A3B0015	
S3H0331-IFA1	QC		7	A3G0427	A3B0015	
S3H0331-IFB1	QC		8	A3G0444	A3B0015	
S3H0331-CCV1	QC		9	A3H0219	A3B0015	
S3H0331-CCB1	QC		10		A3B0015	
1302565-01RE1	6010_CAM	A	11		A3B0015	Added 8/28/2013 by AG
S3H0331-CCV2	QC		12	A3H0268	A3B0015	
S3H0331-CCB2	QC		13		A3B0015	
S3H0331-CCV3	QC		14	A3H0268	A3B0015	
S3H0331-CCB3	QC		15		A3B0015	
B3H0512-BLK1	QC		16		A3B0015	
B3H0512-BS1	QC		17		A3B0015	
1302610-09	6010_CAM	A	18		A3B0015	
B3H0512-MS1	QC		19		A3B0015	
B3H0512-MSD1	QC		20		A3B0015	
B3H0497-BLK1	QC		21		A3B0015	
B3H0497-BS1	QC		22		A3B0015	
1302502-01	6010	A	23		A3B0015	
B3H0497-DUP1	QC		24		A3B0015	
B3H0497-MS1	QC		25		A3B0015	
S3H0331-CCV4	QC		26	A3H0268	A3B0015	
S3H0331-CCB4	QC		27		A3B0015	
B3H0497-MSD1	QC		28		A3B0015	
1302502-02	6010	A	29		A3B0015	
1302502-03	6010	A	30		A3B0015	
1302502-04	6010	A	31		A3B0015	
1302537-01	6010	A	32		A3B0015	

AL 8/29/13
Samples Loaded By Date

AL 8/29/13
Data Processed By Date

Printed: 8/29/2013 10:52:58AM :: C:\Program Files\Promium\Element\Print\seq_ATL_Default(2).rpt

ANALYSIS SEQUENCE

S3H0331

Sequence Comments:

Instrument: ICP-10
Calibration ID: 3H29001

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
1302537-02	6010	A	33		A3B0015	
1302537-03	6010	A	34		A3B0015	
1302537-04	6010	A	35		A3B0015	
1302537-05	6010	A	36		A3B0015	
B3H0521-BLK1	QC		37		A3B0015	
S3H0331-CCV5	QC		38	A3H0268	A3B0015	
S3H0331-CCB5	QC		39		A3B0015	
B3H0521-BS1	QC		40		A3B0015	
1302613-07	6010	A	41		A3B0015	
1302613-13	6010	A	42		A3B0015	
1302613-19	6010	A	43		A3B0015	
B3H0521-MS1	QC		44		A3B0015	
B3H0521-MSD1	QC		45		A3B0015	
1302502-01RE1	6010	A	46		A3B0015	Added 8/28/2013 by AG
1302502-02RE1	6010	A	47		A3B0015	Added 8/28/2013 by AG
1302502-03RE1	6010	A	48		A3B0015	Added 8/28/2013 by AG
1302502-04RE1	6010	A	49		A3B0015	Added 8/28/2013 by AG
S3H0331-CCV6	QC		50	A3H0268	A3B0015	
S3H0331-CCB6	QC		51		A3B0015	
1302537-01RE1	6010	A	52		A3B0015	Added 8/28/2013 by AG
1302537-02RE1	6010	A	53		A3B0015	Added 8/28/2013 by AG
1302537-03RE1	6010	A	54		A3B0015	Added 8/28/2013 by AG
1302537-04RE1	6010	A	55		A3B0015	Added 8/28/2013 by AG
1302537-05RE1	6010	A	56		A3B0015	Added 8/28/2013 by AG
B3H0497-DUP2	QC		57		A3B0015	
B3H0497-MS2	QC		58		A3B0015	
B3H0497-MSD2	QC		59		A3B0015	
1302537-05RE2	6010	A	60		A3B0015	Added 8/28/2013 by AG
S3H0331-CCV7	QC		61	A3H0268	A3B0015	
S3H0331-CCB7	QC		62		A3B0015	
S3H0331-CCV8	QC		63	A3H0268	A3B0015	
S3H0331-CCB8	QC		64		A3B0015	

AG 8/29/13
Samples Loaded By Date

AG 8/29/13
Data Processed By Date

ANALYSIS SEQUENCE

S3H0331

Sequence Comments:

Instrument: ICP-10
Calibration ID: 3H29001

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
1302565-01	6010_CAM	A	65			
1302581-17	6010	A	66			
1302581-20	6010	A	67			
B3H0533-BLK1	QC		68		A3B0015	
B3H0533-BS1	QC		69		A3B0015	
1302480-01	6010_STLC	A 01	70		A3B0015	
B3H0533-MS1	QC		71		A3B0015	
B3H0533-MSD1	QC		72		A3B0015	
S3H0331-CCV9	QC		73	A3H0268	A3B0015	
S3H0331-CCB9	QC		74		A3B0015	
B3H0549-BLK1	QC		75		A3B0015	
B3H0549-BS1	QC		76		A3B0015	
1302620-01	6010_CAM	A	77		A3B0015	
1302620-02	6010_CAM	A	78		A3B0015	
1302615-01	6010_CAM	A	79		A3B0015	
B3H0549-MS1	QC		80		A3B0015	
B3H0549-MSD1	QC		81		A3B0015	
1302615-02	6010_CAM	A	82		A3B0015	
1302615-03	6010_CAM	A	83		A3B0015	
1302617-01	6010_CAM	B	84		A3B0015	
S3H0331-CCVA	QC		85	A3H0268	A3B0015	
S3H0331-CCBA	QC		86		A3B0015	
1302617-02	6010_CAM	B	87		A3B0015	
S3H0331-IFA2	QC		88	A3G0427	A3B0015	
S3H0331-IFB2	QC		89	A3G0444	A3B0015	
S3H0331-CCVB	QC		90	A3H0268	A3B0015	
S3H0331-CCBB	QC		91		A3B0015	

AG 8/29/13
Samples Loaded By Date

AG 8/29/13
Data Processed By Date

SAMPLE PREPARATION LOG

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

PREPARATION BENCH SHEET

B3H0462

Advanced Technology Laboratories

Lab Matrix: Soil
Date Prepared: 08/24/13 08:31
End Date/Time: 08/24/13 10:03

Prepared by: MS

Prep Code: EPA 3050B

Bottle Lot No.: J142812-203 J147542-264

Lab Number	Analysis	ClientMatrix	pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Extraction Comments
1302545-01	6010	Soil		2.01	100						
1302545-01	6010_CAM	Soil		2.01	100						Added for BatchQC in: B3H0462
1302545-03	6010	Soil		2.00	100						
1302545-05	6010	Soil		2.01	100						Pb
1302545-09	6010	Soil		2.01	100						Pb
1302545-10	6010_CAM	Soil		2.01	100						Pb
1302545-11	6010	Soil		2.01	100						
1302545-13	6010_CAM	Soil		2.00	100						Pb
1302545-14	6010	Soil		2.00	100						
1302545-17	6010_CAM	Soil		2.00	100						Pb
1302547-02	6010	Soil		2.00	100						
1302547-05	6010_CAM	Soil		2.01	100						Pb
1302547-07	6010_CAM	Soil		2.00	100						
1302547-08	6010	Soil		2.00	100						
1302547-09	6010	Soil		1.99	100						Pb
1302547-11	6010_CAM	Soil		2.00	100						Pb
1302547-12	6010_CAM	Soil		2.00	100						
1302584-16	6010	Solid		2.02	100						
1302584-22	6010	Solid		2.05	100						
B3H0462-BLK1	QC			2.00	100						

MJ — Prepared By
8-24-13 — Date

GB 8/24/13 — Preparation Reviewed By — Date

GB 8/24/13 — Digestates Received By — Date

Printed: 8/24/2013 10:03:36AM bch_ATL_Metals(2)

PREPARATION BENCH SHEET

B3H0462

Advanced Technology Laboratories

Lab Matrix: Soil

Date Prepared: 08/24/13 08:31

End Date/Time: 08/24/13 10:03

Prepared by: MS

Prep Code: EPA 3050B

Bottle Lot No.: J162812-243 J147542-264

Lab Number	Analysis	ClientMatrix	pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Extraction Comments
B3H0462-BS1	QC			2.00	100	A3H0160					
B3H0462-MS1	QC			2.00	100	A3H0011	A3H0009	1302545-01			
B3H0462-MSD1	QC			2.00	100	A3H0011	A3H0009	1302545-01			

DB-04-49
TEMP 93C

Number	Reagent Name
A3E0267	HYDROGEN PEROXIDE
A3F0359	nitric acid
A3G0127	hydrochloric acid

MS 8.24.13
Prepared By Date

GB 8/24/13
Preparation Reviewed By Date

GB 8/24/13
Digestates Received By Date

Printed: 8/24/2013 10:03:36AM :: bch_ATL_Metals(2)

PREPARATION BENCH SHEET

B3H0462

Advanced Technology Laboratories

Lab Matrix: Soil

Date Prepared: 08/24/13 08:31

End Date/Time:

Prepared by: MS

Prep Code: EPA 3050B

Bottle Lot No.: T162812-263 T141592-264

Lab Number	Analysis	ClientMatrix	pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Extraction Comments
1302545-01	6010	Soil		~~2.00~~ 2.01	100						Added for BatchQC in: B3H0462
1302545-01	6010_CAM	Soil		~~2.00~~ 2.01	100						
1302545-03	6010	Soil		2.00	100						Pb
1302545-05	6010	Soil		~~2.00~~ 2.01	100						Pb
1302545-09	6010	Soil		~~2.00~~ 2.01	100						Pb
1302545-10	6010_CAM	Soil		~~2.00~~ 2.01	100						
1302545-11	6010	Soil		~~2.00~~ 2.01	100						Pb
1302545-13	6010_CAM	Soil		2.00	100						
1302545-14	6010	Soil		2.00	100						Pb
1302545-17	6010_CAM	Soil		2.00	100						
1302547-02	6010	Soil		2.00	100						Pb
1302547-05	6010_CAM	Soil		~~2.00~~ 2.01	100						
1302547-07	6010_CAM	Soil		2.00	100						
1302547-08	6010	Soil		2.00	100						Pb
1302547-09	6010	Soil		~~2.00~~ 1.49	100						Pb
1302547-11	6010_CAM	Soil		2.00	100						
1302547-12	6010_CAM	Soil		2.00	100						
1302584-16	6010	Solid		~~2.00~~ 2.02	100						
1302584-22	6010	Solid		~~2.00~~ 2.03	100						
B3H0462-BLK1	QC			2.00	100						

MS 8-24-13
Prepared By Date

BB 8/24/13
Preparation Reviewed By Date

BB 8/24/13
Digestates Received By Date

Printed: 8/24/2013 9:40:01AM :: bch_ATL_Metals(2)

PREPARATION BENCH SHEET

B3H0462

Advanced Technology Laboratories

Lab Matrix: Soil

Date Prepared: 08/24/13 08:31

End Date/Time:

Prepared by: MS

Prep Code: EPA 3050B

Bottle Lot No.: J162812-263 J147542-264

Lab Number	Analysis	ClientMatrix	pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Extraction Comments
B3H0462-BS1	QC			2.00	100	A3H0160					
B3H0462-MS1	QC			2.00	100	A3H0011	A3H0009	1302545-01			
B3H0462-MSD1	QC			2.00	100	A3H0011	A3H0009	1302545-01			

Number	Reagent Name
A3E0267	HYDROGEN PEROXIDE
A3F0359	nitric acid
A3G0127	hydrochloric acid

MS 8-24-13
Prepared By Date

BB 8/24/13
Preparation Reviewed By Date

CB 8/24/13
Digestates Received By Date

Printed: 8/24/2013 9:40:01AM :: bch_ATL_Metals(2)

PREPARATION BENCH SHEET

B3H0501

Advanced Technology Laboratories

Lab Matrix: Soil
Date Prepared: 08/27/13 10:12
End Date/Time: 08/27/13 13:35

Prepared by: MS

Prep Code: EPA 3050B

Bottle Lot No.: J147592-264 J162812-263

Lab Number	Analysis	ClientMatrix	pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Extraction Comments
1302553-04	6010	Soil		2.00	100						Added for BatchQC in: B3H0501
1302553-04	6010_CAM	Soil		2.00	100						
1302565-01	6010_CAM	Soil		2.00	100						
1302581-01	6010	Soil		2.01	100						
1302581-02	6010_CAM	Soil		2.01	100						
1302581-03	6010	Soil		2.01	100						
1302581-04	6010_CAM	Soil		2.00	100						
1302581-05	6010	Soil		2.00	100						
1302581-06	6010	Soil		2.00	100						
1302581-07	6010_CAM	Soil		2.01	100						
1302581-08	6010	Soil		2.00	100						
1302581-09	6010	Soil		2.00	100						
1302581-10	6010	Soil		2.00	100						
1302581-11	6010_CAM	Soil		2.01	100						
1302581-12	6010	Soil		2.00	100						
1302581-13	6010_CAM	Soil		2.00	100						
1302581-14	6010	Soil		2.00	100						
1302581-15	6010_CAM	Soil		2.01	100						
1302581-16	6010	Soil		2.00	100						
1302581-17	6010	Soil		2.01	100						

MS 8-27-13
Prepared By Date

SB 8.27.13
Preparation Reviewed By Date

SB 8.27.13
Digestates Received By Date

Printed: 8/27/2013 3:57:03PM :: bch_ATL_Metals(2)

PREPARATION BENCH SHEET

B3H0501

Advanced Technology Laboratories

Lab Matrix: Soil

Date Prepared: 08/27/13 10:12

End Date/Time: 08/27/13 13:35

Prep Code: EPA 3050B

Prepared by: MS

Bottle Lot No.: J162812-263 J162592-264

Lab Number	Analysis	ClientMatrix	pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Extraction Comments
1302581-18	6010	Soil		2.01	100						
B3H0501-BLK1	QC			2.00	100						
B3H0501-BS1	QC			2.00	100	A3H0323					
B3H0501-MS1	QC			1.99	100	A3H0011	A3H0009	1302553-04	5000	4000	
B3H0501-MSD1	QC			1.99	100	A3H0011	A3H0009	1302553-04	5000	4000	

DB-01-19
TEMP 94C

Number	Reagent Name
A3E0267	HYDROGEN PEROXIDE
A3F0360	nitric acid
A3G0127	hydrochloric acid

MS 8.27.13
Prepared By Date

SB 8.27.13
Preparation Reviewed By Date

SB 8.27.13
Digestates Received By Date

Printed: 8/27/2013 3:57:03PM :: bch_ATL_Metals(2)

PREPARATION BENCH SHEET

B3H0502

Advanced Technology Laboratories

Lab Matrix: Soil
Date Prepared: 08/27/13 10:13
End Date/Time: 08/27/13 13:45

Prepared by: MS
Prep Code: EPA 3050B
Bottle Lot No.: J167812-267 J1425562-264

Lab Number	Analysis	ClientMatrix	pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Extraction Comments
1302581-19	6010	Soil		2.00	100						Added for BatchQC in: B3H0502
1302581-19	6010_CAM	Soil		2.00	100						
1302581-20	6010	Soil		2.00	100						
1302581-21	6010_CAM	Soil		2.00	100						
1302581-22	6010_CAM	Soil		2.00	100						
B3H0502-BLK1	QC			2.00	100						
B3H0502-BS1	QC			2.00	100	A3H0323			1000		
B3H0502-MS1	QC			2.00	100	A3H0011	A3H0009	1302581-19	5000	4000	
B3H0502-MSD1	QC			2.00	100	A3H0011	A3H0009	1302581-19	5000	4000	

DB-01-5
TEMP 93C

Number	Reagent Name
A3E0267	HYDROGEN PEROXIDE
A3F0360	nitric acid
A3G0127	hydrochloric acid

MS 8-27-13
Prepared By Date

SB 8.27.13
Preparation Reviewed By Date

SB 8.27.13
Digestates Received By Date

Printed: 8/27/2013 3:57:12PM :: bch_ATL_Metals(2)

PREPARATION BENCH SHEET

B3H0501

Advanced Technology Laboratories

Lab Matrix: Soil

Date Prepared: 08/27/13 10:12

End Date/Time:

Prepared by: MS

Prep Code: EPA 3050B

Bottle Lot No.: J162812-263 J147592-264

Lab Number	Analysis	ClientMatrix	pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Extraction Comments
1302553-04	6010	Soil		2.00	100						Added for BatchQC in: B3H0501
1302553-04	6010_CAM	Soil		2.00	100						
1302565-01	6010_CAM	Soil		2.00	100						
1302581-01	6010	Soil		~~2.00~~ 2.01	100						
1302581-02	6010_CAM	Soil		~~2.00~~ 2.01	100						
1302581-03	6010	Soil		~~2.00~~ 2.01	100						
1302581-04	6010_CAM	Soil		2.00	100						
1302581-05	6010	Soil		2.00	100						
1302581-06	6010	Soil		2.00	100						
1302581-07	6010_CAM	Soil		~~2.00~~ 2.01	100						
1302581-08	6010	Soil		2.00	100						
1302581-09	6010	Soil		2.00	100						
1302581-10	6010	Soil		2.00	100						
1302581-11	6010_CAM	Soil		~~2.00~~ 2.01	100						
1302581-12	6010	Soil		2.00	100						
1302581-13	6010_CAM	Soil		2.00	100						
1302581-14	6010	Soil		2.00	100						
1302581-15	6010_CAM	Soil		~~2.00~~ 2.01	100						
1302581-16	6010	Soil		2.00	100						
1302581-17	6010	Soil		~~2.00~~ 2.01	100						

MS 8-27-13
Prepared By Date

SB 827.13
Preparation Reviewed By Date

SB 827.13
Digestates Received By Date

Printed: 8/27/2013 2:45:01PM :: bch_ATL_Metals(2)

PREPARATION BENCH SHEET

B3H0501

Advanced Technology Laboratories

Lab Matrix: Soil

Date Prepared: 08/27/13 10:12

End Date/Time:

Prepared by: MS

Prep Code: EPA 3050B

Bottle Lot No.: J167812-263 J147592-264

Lab Number	Analysis	ClientMatrix	pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Extraction Comments
1302581-18	6010	Soil		~~2.00~~ 3.00	100						
B3H0501-BLK1	QC			2.00	100						
B3H0501-BS1	QC			2.00	100	~~A3H0160~~ A3H0127					
B3H0501-MS1	QC			2.00	100	A3H0011	A3H0009	1302553-04	5000	4000	
B3H0501-MSD1	QC			2.00	100	A3H0011	A3H0009	1302553-04	5000	4000	

Number	Reagent Name
A3E0267	HYDROGEN PEROXIDE
A3F0360	nitric acid
A3G0127	hydrochloric acid

MS 8-27-13
Prepared By Date

SB 827.13
Preparation Reviewed By Date

SB 8.27.13
Digestates Received By Date

Printed: 8/27/2013 2:45:01PM :: bch_ATL_Metals(2)

INITIAL CALIBRATION DATA SUMMARY

ATL Number: 1302545, 1302547 BA 09/25/13

INITIAL CALIBRATION
EPA 6010B

Instrument ID: ICP8
Date(s) Analyzed: 8/24/2013

Analyte	INTENSITY			
	STD1*	STD2(0.5mg/L)	STD3(1.0mg/L)	r2
Silver	971.3605496	161126.1627	321095.1638	0.999998853
Arsenic	48.121116	2575.166537	5132.1059	0.999998834
Barium	271.2119917	49219.51916	97790.73909	0.999996464
Beryllium	733.9837189	126219.0499	248173.736	0.999976462
Cadmium	817.6641955	155784.4875	307000.3053	0.999982379
Cobalt	249.5199585	47526.84868	93377.99367	0.999974412
Chromium	462.5435083	86491.31897	171212.2464	0.999991466
Copper	1320.163723	137630.1547	273397.7139	0.999996284
Molybdenum	213.0280549	22805.88193	44953.48982	0.999982916
Nickel	380.3051602	34697.12625	68865.30236	0.999995189
Lead	67.00080826	6990.263845	13564.57331	0.999925695
Antimony	30.90270115	1625.579283	3221.649011	0.999993241
Selenium	57.60406755	2886.177065	5682.921599	0.99998031
Thallium	60.38302346	2957.147445	5783.445606	0.999959362
Vanadium	565.4245848	72671.72874	144351.5381	0.999995436
Zinc	1044.526248	47697.10031	93420.77356	0.999964093

*0.0025 mg/L: Ba, Be, Cd, Cr, Co, Ag, V 0.005 mg/L: Sb, Cu, Pb, Mo, Ni 0.01 mg/L: As, Se, Tl, Zn, Mn

0.5 mg/L: Ca, Fe, K, Na

Standard Concentration:	STD1*	0.5 mg/L	1.0 mg/L
Standard ID:	A3H0196	A3G0205	A3G0206

Calibration Acceptance Criteria: > 0.995 Correlation

ATL Number: 1302545, 1302547 BA 09/25/13

INITIAL CALIBRATION
EPA 6010B

Instrument ID: ICP10
Date(s) Analyzed: 8/26/2013

Analyte	INTENSITY			
	STD1*	STD2(0.5mg/L)	STD3(1.0mg/L)	r2
Silver	466.587476	110006.6425	218900.0453	0.99999788
Arsenic	23.44690896	1171.818334	2322.924465	0.999993661
Barium	604.3712046	107113.2673	213310.3819	0.999998483
Beryllium	12960.86432	2581070.452	5119239.439	0.9999944
Cadmium	317.7038067	59831.97489	116381.8444	0.999937075
Cobalt	142.7950129	28003.32858	55227.67047	0.999984171
Chromium	506.3275929	83044.6447	163904.7022	0.999985729
Copper	1878.292662	191921.1801	379064.5277	0.999987354
Molybdenum	76.98917101	8205.827768	16089.78836	0.999968221
Nickel	286.0316714	25146.40522	49264.80348	0.999965213
Lead	46.3761869	4922.514275	9490.922731	0.999890292
Antimony	49.13354023	1958.54873	3856.857481	0.999977694
Selenium	16.18498044	1336.54979	2669.881505	0.999993677
Thallium	21.85530764	1363.575163	2642.116298	0.999916937
Vanadium	512.9539659	100403.2596	202242.4908	0.999995955
Zinc	533.1207583	23844.35349	46120.49177	0.999907896

*0.0025 mg/L: Ba, Be, Cd, Cr, Co, Ag, V 0.005 mg/L: Sb, Cu, Pb, Mo, Ni 0.01 mg/L: As, Se, Tl, Zn, Mn

0.5 mg/L: Ca, Fe, K, Na

Standard Concentration:	STD1*	0.5 mg/L	1.0 mg/L
Standard ID:	A3H0196	A3G0205	A3G0206

Calibration Acceptance Criteria: > 0.995 Correlation

ATL Number: 1302581

INITIAL CALIBRATION
EPA 6010B

Instrument ID: ICP10
Date(s) Analyzed: 8/27/2013

Analyte	INTENSITY			
	STD1*	STD2(0.5mg/L)	STD3(1.0mg/L)	r2
Silver	463.4582899	108892.2721	215035.4767	0.999986943
Arsenic	20.77699719	1168.187509	2305.926396	0.999985715
Barium	611.4497287	107643.6524	211015.589	0.999967422
Beryllium	12777.46545	2535211.594	5033911.802	0.999995803
Cadmium	316.3398621	59249.93415	116283.0678	0.99997113
Cobalt	144.8309407	27982.24454	54455.66096	0.999939256
Chromium	482.8514092	82864.5276	161718.9726	0.99995121
Copper	1924.918499	191296.9474	375138.6272	0.999968651
Molybdenum	73.64820554	8116.74251	15828.3243	0.999948065
Nickel	281.0159689	25204.66189	48874.56109	0.999921902
Lead	57.01677316	4927.20604	9454.613449	0.99985899
Antimony	41.4993831	1929.320648	3791.27477	0.999974594
Selenium	23.56765048	1346.628892	2614.17788	0.999927252
Thallium	21.47628695	1329.172587	2581.442714	0.999928655
Vanadium	600.4331397	101495.0894	199083.9458	0.999969341
Zinc	504.7998762	23517.74806	46162.07284	0.99997126

*0.0025 mg/L: Ba, Be, Cd, Cr, Co, Ag, V 0.005 mg/L: Sb, Cu, Pb, Mo, Ni 0.01 mg/L: As, Se, Tl, Zn, Mn

0.5 mg/L: Ca, Fe, K, Na

Standard Concentration:	STD1*	0.5 mg/L	1.0 mg/L
Standard ID:	A3H0196	A3G0205	A3G0206

Calibration Acceptance Criteria: > 0.995 Correlation

ATL Number: 1302581

INITIAL CALIBRATION
EPA 6010B

Instrument ID: ICP10
Date(s) Analyzed: 8/28/2013

Analyte	INTENSITY			
	STD1*	STD2(0.5mg/L)	STD3(1.0mg/L)	r2
Silver	487.7443866	108765.6624	216143.8578	0.999996688
Arsenic	21.44522314	1142.988067	2289.741163	0.999999624
Barium	589.3028872	106730.9864	208832.6034	0.999960997
Beryllium	12886.46406	2547103.066	5053692.806	0.999994874
Cadmium	310.4333334	59635.81732	115712.8628	0.99992525
Cobalt	167.1016543	27729.35105	53764.93015	0.999921466
Chromium	475.3508993	82642.11161	162036.8419	0.999968055
Copper	1931.715078	191222.8269	374212.5096	0.999961609
Molybdenum	82.16334626	8135.548948	15936.59462	0.999965044
Nickel	279.3696269	25274.84314	48862.14081	0.999905713
Lead	55.6170513	4902.979757	9476.558926	0.999904414
Antimony	35.64940492	1903.683285	3762.362597	0.999988489
Selenium	49.08394229	1343.114531	2622.969188	0.999924196
Thallium	24.10036712	1327.487868	2590.153425	0.999950179
Vanadium	472.471932	100490.396	197407.6462	0.999973975
Zinc	525.1056773	23646.4013	45850.4637	0.999921076

*0.0025 mg/L: Ba, Be, Cd, Cr, Co, Ag, V 0.005 mg/L: Sb, Cu, Pb, Mo, Ni 0.01 mg/L: As, Se, Tl, Zn, Mn

0.5 mg/L: Ca, Fe, K, Na

Standard Concentration:	STD1*	0.5 mg/L	1.0 mg/L
Standard ID:	A3H0196	A3G0205	A3G0206

Calibration Acceptance Criteria: > 0.995 Correlation

INITIAL CALIBRATION AND CONTINUING CALIBRATION VERIFICATION SUMMARY

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-08	Calibration:	3H26002
		Sequence:	S3H0300

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3H0300-ICV1	A3H0268	Antimony	0.500000	0.505406	101	mg/L	+/- 10.00%
		Arsenic	0.500000	0.507773	102	mg/L	+/- 10.00%
		Barium	0.500000	0.509842	102	mg/L	+/- 10.00%
		Beryllium	0.500000	0.507244	101	mg/L	+/- 10.00%
		Cadmium	0.500000	0.512127	102	mg/L	+/- 10.00%
		Chromium	0.500000	0.512029	102	mg/L	+/- 10.00%
		Cobalt	0.500000	0.519068	104	mg/L	+/- 10.00%
		Copper	0.500000	0.506256	101	mg/L	+/- 10.00%
		Lead	0.500000	0.513472	103	mg/L	+/- 10.00%
		Molybdenum	0.500000	0.495374	99.1	mg/L	+/- 10.00%
		Nickel	0.500000	0.517060	103	mg/L	+/- 10.00%
		Selenium	0.500000	0.504352	101	mg/L	+/- 10.00%
		Silver	0.500000	0.503808	101	mg/L	+/- 10.00%
		Thallium	0.500000	0.517693	104	mg/L	+/- 10.00%
		Vanadium	0.500000	0.503630	101	mg/L	+/- 10.00%
		Zinc	0.500000	0.519787	104	mg/L	+/- 10.00%
S3H0300-CCV1	A3H0219	Antimony	0.250000	0.261819	105	mg/L	+/- 10.00%
		Arsenic	0.250000	0.258376	103	mg/L	+/- 10.00%
		Barium	0.250000	0.254519	102	mg/L	+/- 10.00%
		Beryllium	0.250000	0.253651	101	mg/L	+/- 10.00%
		Cadmium	0.250000	0.255336	102	mg/L	+/- 10.00%
		Chromium	0.250000	0.255731	102	mg/L	+/- 10.00%
		Cobalt	0.250000	0.266708	107	mg/L	+/- 10.00%
		Copper	0.250000	0.253961	102	mg/L	+/- 10.00%
		Lead	0.250000	0.255764	102	mg/L	+/- 10.00%
		Molybdenum	0.250000	0.247125	98.8	mg/L	+/- 10.00%
		Nickel	0.250000	0.260670	104	mg/L	+/- 10.00%
		Selenium	0.250000	0.253558	101	mg/L	+/- 10.00%
		Silver	0.250000	0.253422	101	mg/L	+/- 10.00%
		Thallium	0.250000	0.260725	104	mg/L	+/- 10.00%
		Vanadium	0.250000	0.249912	100	mg/L	+/- 10.00%
		Zinc	0.250000	0.265383	106	mg/L	+/- 10.00%
S3H0300-CCV2	A3H0268	Antimony	0.500000	0.518000	104	mg/L	+/- 10.00%
		Arsenic	0.500000	0.504555	101	mg/L	+/- 10.00%
		Barium	0.500000	0.506691	101	mg/L	+/- 10.00%
		Beryllium	0.500000	0.505743	101	mg/L	+/- 10.00%
		Cadmium	0.500000	0.503162	101	mg/L	+/- 10.00%
		Chromium	0.500000	0.507871	102	mg/L	+/- 10.00%
		Cobalt	0.500000	0.515460	103	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-08	Calibration:	3H26002
		Sequence:	S3H0300

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3H0300-CCV2	A3H0268	Copper	0.500000	0.515165	103	mg/L	+/- 10.00%
		Lead	0.500000	0.505654	101	mg/L	+/- 10.00%
		Molybdenum	0.500000	0.493050	98.6	mg/L	+/- 10.00%
		Nickel	0.500000	0.512856	103	mg/L	+/- 10.00%
		Selenium	0.500000	0.500467	100	mg/L	+/- 10.00%
		Silver	0.500000	0.509070	102	mg/L	+/- 10.00%
		Thallium	0.500000	0.517905	104	mg/L	+/- 10.00%
		Vanadium	0.500000	0.505311	101	mg/L	+/- 10.00%
		Zinc	0.500000	0.512736	103	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-10	Calibration:	3H26005
		Sequence:	S3H0307

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3H0307-ICV1	A3H0268	Antimony	0.500000	0.497721	99.5	mg/L	+/- 10.00%
		Arsenic	0.500000	0.498718	99.7	mg/L	+/- 10.00%
		Barium	0.500000	0.513132	103	mg/L	+/- 10.00%
		Beryllium	0.500000	0.506011	101	mg/L	+/- 10.00%
		Cadmium	0.500000	0.517002	103	mg/L	+/- 10.00%
		Chromium	0.500000	0.516146	103	mg/L	+/- 10.00%
		Cobalt	0.500000	0.519839	104	mg/L	+/- 10.00%
		Copper	0.500000	0.514721	103	mg/L	+/- 10.00%
		Lead	0.500000	0.506758	101	mg/L	+/- 10.00%
		Molybdenum	0.500000	0.494229	98.8	mg/L	+/- 10.00%
		Nickel	0.500000	0.517821	104	mg/L	+/- 10.00%
		Selenium	0.500000	0.495579	99.1	mg/L	+/- 10.00%
		Silver	0.500000	0.513113	103	mg/L	+/- 10.00%
		Thallium	0.500000	0.515738	103	mg/L	+/- 10.00%
		Vanadium	0.500000	0.502232	100	mg/L	+/- 10.00%
		Zinc	0.500000	0.524375	105	mg/L	+/- 10.00%
S3H0307-CCV1	A3H0219	Antimony	0.250000	0.244929	98.0	mg/L	+/- 10.00%
		Arsenic	0.250000	0.253798	102	mg/L	+/- 10.00%
		Barium	0.250000	0.253652	101	mg/L	+/- 10.00%
		Beryllium	0.250000	0.246762	98.7	mg/L	+/- 10.00%
		Cadmium	0.250000	0.260535	104	mg/L	+/- 10.00%
		Chromium	0.250000	0.256573	103	mg/L	+/- 10.00%
		Cobalt	0.250000	0.260348	104	mg/L	+/- 10.00%
		Copper	0.250000	0.255396	102	mg/L	+/- 10.00%
		Lead	0.250000	0.253486	101	mg/L	+/- 10.00%
		Molybdenum	0.250000	0.242546	97.0	mg/L	+/- 10.00%
		Nickel	0.250000	0.271782	109	mg/L	+/- 10.00%
		Selenium	0.250000	0.248462	99.4	mg/L	+/- 10.00%
		Silver	0.250000	0.253880	102	mg/L	+/- 10.00%
		Thallium	0.250000	0.264255	106	mg/L	+/- 10.00%
		Vanadium	0.250000	0.246945	98.8	mg/L	+/- 10.00%
		Zinc	0.250000	0.267437	107	mg/L	+/- 10.00%
S3H0307-CCV4	A3H0268	Antimony	0.500000	0.499156	99.8	mg/L	+/- 10.00%
		Arsenic	0.500000	0.500734	100	mg/L	+/- 10.00%
		Barium	0.500000	0.510332	102	mg/L	+/- 10.00%
		Beryllium	0.500000	0.503557	101	mg/L	+/- 10.00%
		Cadmium	0.500000	0.520868	104	mg/L	+/- 10.00%
		Chromium	0.500000	0.514778	103	mg/L	+/- 10.00%
		Cobalt	0.500000	0.515830	103	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-10	Calibration:	3H26005
		Sequence:	S3H0307

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3H0307-CCV4	A3H0268	Copper	0.500000	0.516792	103	mg/L	+/- 10.00%
		Lead	0.500000	0.510670	102	mg/L	+/- 10.00%
		Molybdenum	0.500000	0.497454	99.5	mg/L	+/- 10.00%
		Nickel	0.500000	0.514995	103	mg/L	+/- 10.00%
		Selenium	0.500000	0.502729	101	mg/L	+/- 10.00%
		Silver	0.500000	0.511489	102	mg/L	+/- 10.00%
		Thallium	0.500000	0.517328	103	mg/L	+/- 10.00%
		Vanadium	0.500000	0.497023	99.4	mg/L	+/- 10.00%
		Zinc	0.500000	0.535074	107	mg/L	+/- 10.00%
S3H0307-CCV5	A3H0268	Antimony	0.500000	0.487484	97.5	mg/L	+/- 10.00%
		Arsenic	0.500000	0.495261	99.1	mg/L	+/- 10.00%
		Barium	0.500000	0.506218	101	mg/L	+/- 10.00%
		Beryllium	0.500000	0.506312	101	mg/L	+/- 10.00%
		Cadmium	0.500000	0.515116	103	mg/L	+/- 10.00%
		Chromium	0.500000	0.508616	102	mg/L	+/- 10.00%
		Cobalt	0.500000	0.513262	103	mg/L	+/- 10.00%
		Copper	0.500000	0.510437	102	mg/L	+/- 10.00%
		Lead	0.500000	0.504800	101	mg/L	+/- 10.00%
		Molybdenum	0.500000	0.491079	98.2	mg/L	+/- 10.00%
		Nickel	0.500000	0.511036	102	mg/L	+/- 10.00%
		Selenium	0.500000	0.493652	98.7	mg/L	+/- 10.00%
		Silver	0.500000	0.501648	100	mg/L	+/- 10.00%
		Thallium	0.500000	0.512816	103	mg/L	+/- 10.00%
		Vanadium	0.500000	0.495222	99.0	mg/L	+/- 10.00%
		Zinc	0.500000	0.527484	105	mg/L	+/- 10.00%
S3H0307-CCV6	A3H0268	Antimony	0.500000	0.491851	98.4	mg/L	+/- 10.00%
		Arsenic	0.500000	0.496496	99.3	mg/L	+/- 10.00%
		Barium	0.500000	0.504640	101	mg/L	+/- 10.00%
		Beryllium	0.500000	0.505177	101	mg/L	+/- 10.00%
		Cadmium	0.500000	0.511305	102	mg/L	+/- 10.00%
		Chromium	0.500000	0.507793	102	mg/L	+/- 10.00%
		Cobalt	0.500000	0.510104	102	mg/L	+/- 10.00%
		Copper	0.500000	0.510145	102	mg/L	+/- 10.00%
		Lead	0.500000	0.504900	101	mg/L	+/- 10.00%
		Molybdenum	0.500000	0.493230	98.6	mg/L	+/- 10.00%
		Nickel	0.500000	0.507266	101	mg/L	+/- 10.00%
		Selenium	0.500000	0.497973	99.6	mg/L	+/- 10.00%
		Silver	0.500000	0.503500	101	mg/L	+/- 10.00%
		Thallium	0.500000	0.515290	103	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-10	Calibration:	3H26005
		Sequence:	S3H0307

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3H0307-CCV6	A3H0268	Vanadium	0.500000	0.496562	99.3	mg/L	+/- 10.00%
		Zinc	0.500000	0.526295	105	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-08	Calibration:	3H26002
		Sequence:	S3H0300

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3H0300-ICV1	A3H0268	Lead	0.500000	0.513472	103	mg/L	+/- 10.00%
S3H0300-CCV1	A3H0219	Lead	0.250000	0.255764	102	mg/L	+/- 10.00%
S3H0300-CCV2	A3H0268	Lead	0.500000	0.505654	101	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-10	Calibration:	3H26005
		Sequence:	S3H0307

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3H0307-ICV1	A3H0268	Lead	0.500000	0.506758	101	mg/L	+/- 10.00%
S3H0307-CCV1	A3H0219	Lead	0.250000	0.253486	101	mg/L	+/- 10.00%
S3H0307-CCV4	A3H0268	Lead	0.500000	0.510670	102	mg/L	+/- 10.00%
S3H0307-CCV5	A3H0268	Lead	0.500000	0.504800	101	mg/L	+/- 10.00%
S3H0307-CCV6	A3H0268	Lead	0.500000	0.504900	101	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-08	Calibration:	3H26002
		Sequence:	S3H0300

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3H0300-ICV1	A3H0268	Antimony	0.500000	0.505406	101	mg/L	+/- 10.00%
		Arsenic	0.500000	0.507773	102	mg/L	+/- 10.00%
		Barium	0.500000	0.509842	102	mg/L	+/- 10.00%
		Beryllium	0.500000	0.507244	101	mg/L	+/- 10.00%
		Cadmium	0.500000	0.512127	102	mg/L	+/- 10.00%
		Chromium	0.500000	0.512029	102	mg/L	+/- 10.00%
		Cobalt	0.500000	0.519068	104	mg/L	+/- 10.00%
		Copper	0.500000	0.506256	101	mg/L	+/- 10.00%
		Lead	0.500000	0.513472	103	mg/L	+/- 10.00%
		Molybdenum	0.500000	0.495374	99.1	mg/L	+/- 10.00%
		Nickel	0.500000	0.517060	103	mg/L	+/- 10.00%
		Selenium	0.500000	0.504352	101	mg/L	+/- 10.00%
		Silver	0.500000	0.503808	101	mg/L	+/- 10.00%
		Thallium	0.500000	0.517693	104	mg/L	+/- 10.00%
		Vanadium	0.500000	0.503630	101	mg/L	+/- 10.00%
		Zinc	0.500000	0.519787	104	mg/L	+/- 10.00%
S3H0300-CCV1	A3H0219	Antimony	0.250000	0.261819	105	mg/L	+/- 10.00%
		Arsenic	0.250000	0.258376	103	mg/L	+/- 10.00%
		Barium	0.250000	0.254519	102	mg/L	+/- 10.00%
		Beryllium	0.250000	0.253651	101	mg/L	+/- 10.00%
		Cadmium	0.250000	0.255336	102	mg/L	+/- 10.00%
		Chromium	0.250000	0.255731	102	mg/L	+/- 10.00%
		Cobalt	0.250000	0.266708	107	mg/L	+/- 10.00%
		Copper	0.250000	0.253961	102	mg/L	+/- 10.00%
		Lead	0.250000	0.255764	102	mg/L	+/- 10.00%
		Molybdenum	0.250000	0.247125	98.8	mg/L	+/- 10.00%
		Nickel	0.250000	0.260670	104	mg/L	+/- 10.00%
		Selenium	0.250000	0.253558	101	mg/L	+/- 10.00%
		Silver	0.250000	0.253422	101	mg/L	+/- 10.00%
		Thallium	0.250000	0.260725	104	mg/L	+/- 10.00%
		Vanadium	0.250000	0.249912	100	mg/L	+/- 10.00%
		Zinc	0.250000	0.265383	106	mg/L	+/- 10.00%
S3H0300-CCV2	A3H0268	Antimony	0.500000	0.518000	104	mg/L	+/- 10.00%
		Arsenic	0.500000	0.504555	101	mg/L	+/- 10.00%
		Barium	0.500000	0.506691	101	mg/L	+/- 10.00%
		Beryllium	0.500000	0.505743	101	mg/L	+/- 10.00%
		Cadmium	0.500000	0.503162	101	mg/L	+/- 10.00%
		Chromium	0.500000	0.507871	102	mg/L	+/- 10.00%
		Cobalt	0.500000	0.515460	103	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-08	Calibration:	3H26002
		Sequence:	S3H0300

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3H0300-CCV2	A3H0268	Copper	0.500000	0.515165	103	mg/L	+/- 10.00%
		Lead	0.500000	0.505654	101	mg/L	+/- 10.00%
		Molybdenum	0.500000	0.493050	98.6	mg/L	+/- 10.00%
		Nickel	0.500000	0.512856	103	mg/L	+/- 10.00%
		Selenium	0.500000	0.500467	100	mg/L	+/- 10.00%
		Silver	0.500000	0.509070	102	mg/L	+/- 10.00%
		Thallium	0.500000	0.517905	104	mg/L	+/- 10.00%
		Vanadium	0.500000	0.505311	101	mg/L	+/- 10.00%
		Zinc	0.500000	0.512736	103	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-10	Calibration:	3H26005
		Sequence:	S3H0307

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3H0307-ICV1	A3H0268	Antimony	0.500000	0.497721	99.5	mg/L	+/- 10.00%
		Arsenic	0.500000	0.498718	99.7	mg/L	+/- 10.00%
		Barium	0.500000	0.513132	103	mg/L	+/- 10.00%
		Beryllium	0.500000	0.506011	101	mg/L	+/- 10.00%
		Cadmium	0.500000	0.517002	103	mg/L	+/- 10.00%
		Chromium	0.500000	0.516146	103	mg/L	+/- 10.00%
		Cobalt	0.500000	0.519839	104	mg/L	+/- 10.00%
		Copper	0.500000	0.514721	103	mg/L	+/- 10.00%
		Lead	0.500000	0.506758	101	mg/L	+/- 10.00%
		Molybdenum	0.500000	0.494229	98.8	mg/L	+/- 10.00%
		Nickel	0.500000	0.517821	104	mg/L	+/- 10.00%
		Selenium	0.500000	0.495579	99.1	mg/L	+/- 10.00%
		Silver	0.500000	0.513113	103	mg/L	+/- 10.00%
		Thallium	0.500000	0.515738	103	mg/L	+/- 10.00%
		Vanadium	0.500000	0.502232	100	mg/L	+/- 10.00%
		Zinc	0.500000	0.524375	105	mg/L	+/- 10.00%
S3H0307-CCV1	A3H0219	Antimony	0.250000	0.244929	98.0	mg/L	+/- 10.00%
		Arsenic	0.250000	0.253798	102	mg/L	+/- 10.00%
		Barium	0.250000	0.253652	101	mg/L	+/- 10.00%
		Beryllium	0.250000	0.246762	98.7	mg/L	+/- 10.00%
		Cadmium	0.250000	0.260535	104	mg/L	+/- 10.00%
		Chromium	0.250000	0.256573	103	mg/L	+/- 10.00%
		Cobalt	0.250000	0.260348	104	mg/L	+/- 10.00%
		Copper	0.250000	0.255396	102	mg/L	+/- 10.00%
		Lead	0.250000	0.253486	101	mg/L	+/- 10.00%
		Molybdenum	0.250000	0.242546	97.0	mg/L	+/- 10.00%
		Nickel	0.250000	0.271782	109	mg/L	+/- 10.00%
		Selenium	0.250000	0.248462	99.4	mg/L	+/- 10.00%
		Silver	0.250000	0.253880	102	mg/L	+/- 10.00%
		Thallium	0.250000	0.264255	106	mg/L	+/- 10.00%
		Vanadium	0.250000	0.246945	98.8	mg/L	+/- 10.00%
		Zinc	0.250000	0.267437	107	mg/L	+/- 10.00%
S3H0307-CCV4	A3H0268	Antimony	0.500000	0.499156	99.8	mg/L	+/- 10.00%
		Arsenic	0.500000	0.500734	100	mg/L	+/- 10.00%
		Barium	0.500000	0.510332	102	mg/L	+/- 10.00%
		Beryllium	0.500000	0.503557	101	mg/L	+/- 10.00%
		Cadmium	0.500000	0.520868	104	mg/L	+/- 10.00%
		Chromium	0.500000	0.514778	103	mg/L	+/- 10.00%
		Cobalt	0.500000	0.515830	103	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-10	Calibration:	3H26005
		Sequence:	S3H0307

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3H0307-CCV4	A3H0268	Copper	0.500000	0.516792	103	mg/L	+/- 10.00%
		Lead	0.500000	0.510670	102	mg/L	+/- 10.00%
		Molybdenum	0.500000	0.497454	99.5	mg/L	+/- 10.00%
		Nickel	0.500000	0.514995	103	mg/L	+/- 10.00%
		Selenium	0.500000	0.502729	101	mg/L	+/- 10.00%
		Silver	0.500000	0.511489	102	mg/L	+/- 10.00%
		Thallium	0.500000	0.517328	103	mg/L	+/- 10.00%
		Vanadium	0.500000	0.497023	99.4	mg/L	+/- 10.00%
		Zinc	0.500000	0.535074	107	mg/L	+/- 10.00%
S3H0307-CCV5	A3H0268	Antimony	0.500000	0.487484	97.5	mg/L	+/- 10.00%
		Arsenic	0.500000	0.495261	99.1	mg/L	+/- 10.00%
		Barium	0.500000	0.506218	101	mg/L	+/- 10.00%
		Beryllium	0.500000	0.506312	101	mg/L	+/- 10.00%
		Cadmium	0.500000	0.515116	103	mg/L	+/- 10.00%
		Chromium	0.500000	0.508616	102	mg/L	+/- 10.00%
		Cobalt	0.500000	0.513262	103	mg/L	+/- 10.00%
		Copper	0.500000	0.510437	102	mg/L	+/- 10.00%
		Lead	0.500000	0.504800	101	mg/L	+/- 10.00%
		Molybdenum	0.500000	0.491079	98.2	mg/L	+/- 10.00%
		Nickel	0.500000	0.511036	102	mg/L	+/- 10.00%
		Selenium	0.500000	0.493652	98.7	mg/L	+/- 10.00%
		Silver	0.500000	0.501648	100	mg/L	+/- 10.00%
		Thallium	0.500000	0.512816	103	mg/L	+/- 10.00%
		Vanadium	0.500000	0.495222	99.0	mg/L	+/- 10.00%
		Zinc	0.500000	0.527484	105	mg/L	+/- 10.00%
S3H0307-CCV6	A3H0268	Antimony	0.500000	0.491851	98.4	mg/L	+/- 10.00%
		Arsenic	0.500000	0.496496	99.3	mg/L	+/- 10.00%
		Barium	0.500000	0.504640	101	mg/L	+/- 10.00%
		Beryllium	0.500000	0.505177	101	mg/L	+/- 10.00%
		Cadmium	0.500000	0.511305	102	mg/L	+/- 10.00%
		Chromium	0.500000	0.507793	102	mg/L	+/- 10.00%
		Cobalt	0.500000	0.510104	102	mg/L	+/- 10.00%
		Copper	0.500000	0.510145	102	mg/L	+/- 10.00%
		Lead	0.500000	0.504900	101	mg/L	+/- 10.00%
		Molybdenum	0.500000	0.493230	98.6	mg/L	+/- 10.00%
		Nickel	0.500000	0.507266	101	mg/L	+/- 10.00%
		Selenium	0.500000	0.497973	99.6	mg/L	+/- 10.00%
		Silver	0.500000	0.503500	101	mg/L	+/- 10.00%
		Thallium	0.500000	0.515290	103	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-10	Calibration:	3H26005
		Sequence:	S3H0307

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3H0307-CCV6	A3H0268	Vanadium	0.500000	0.496562	99.3	mg/L	+/- 10.00%
		Zinc	0.500000	0.526295	105	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-08	Calibration:	3H26002
		Sequence:	S3H0300

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3H0300-ICV1	A3H0268	Lead	0.500000	0.513472	103	mg/L	+/- 10.00%
S3H0300-CCV1	A3H0219	Lead	0.250000	0.255764	102	mg/L	+/- 10.00%
S3H0300-CCV2	A3H0268	Lead	0.500000	0.505654	101	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-10	Calibration:	3H26005
		Sequence:	S3H0307

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3H0307-ICV1	A3H0268	Lead	0.500000	0.506758	101	mg/L	+/- 10.00%
S3H0307-CCV1	A3H0219	Lead	0.250000	0.253486	101	mg/L	+/- 10.00%
S3H0307-CCV4	A3H0268	Lead	0.500000	0.510670	102	mg/L	+/- 10.00%
S3H0307-CCV5	A3H0268	Lead	0.500000	0.504800	101	mg/L	+/- 10.00%
S3H0307-CCV6	A3H0268	Lead	0.500000	0.504900	101	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302581
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-10	Calibration:	3H28002
		Sequence:	S3H0313

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3H0313-ICV1	A3H0268	Antimony	0.500000	0.495578	99.1	mg/L	+/- 10.00%
		Arsenic	0.500000	0.496846	99.4	mg/L	+/- 10.00%
		Barium	0.500000	0.506912	101	mg/L	+/- 10.00%
		Beryllium	0.500000	0.504781	101	mg/L	+/- 10.00%
		Cadmium	0.500000	0.506626	101	mg/L	+/- 10.00%
		Chromium	0.500000	0.510385	102	mg/L	+/- 10.00%
		Cobalt	0.500000	0.512860	103	mg/L	+/- 10.00%
		Copper	0.500000	0.509524	102	mg/L	+/- 10.00%
		Lead	0.500000	0.505261	101	mg/L	+/- 10.00%
		Molybdenum	0.500000	0.491310	98.3	mg/L	+/- 10.00%
		Nickel	0.500000	0.510371	102	mg/L	+/- 10.00%
		Selenium	0.500000	0.500372	100	mg/L	+/- 10.00%
		Silver	0.500000	0.512795	103	mg/L	+/- 10.00%
		Thallium	0.500000	0.514600	103	mg/L	+/- 10.00%
		Vanadium	0.500000	0.505301	101	mg/L	+/- 10.00%
		Zinc	0.500000	0.509764	102	mg/L	+/- 10.00%
S3H0313-CCV1	A3H0219	Antimony	0.250000	0.246862	98.7	mg/L	+/- 10.00%
		Arsenic	0.250000	0.251637	101	mg/L	+/- 10.00%
		Barium	0.250000	0.253223	101	mg/L	+/- 10.00%
		Beryllium	0.250000	0.249158	99.7	mg/L	+/- 10.00%
		Cadmium	0.250000	0.253390	101	mg/L	+/- 10.00%
		Chromium	0.250000	0.257431	103	mg/L	+/- 10.00%
		Cobalt	0.250000	0.260148	104	mg/L	+/- 10.00%
		Copper	0.250000	0.255277	102	mg/L	+/- 10.00%
		Lead	0.250000	0.255670	102	mg/L	+/- 10.00%
		Molybdenum	0.250000	0.245046	98.0	mg/L	+/- 10.00%
		Nickel	0.250000	0.274223	110	mg/L	+/- 10.00%
		Selenium	0.250000	0.253916	102	mg/L	+/- 10.00%
		Silver	0.250000	0.255450	102	mg/L	+/- 10.00%
		Thallium	0.250000	0.264670	106	mg/L	+/- 10.00%
		Vanadium	0.250000	0.251242	100	mg/L	+/- 10.00%
		Zinc	0.250000	0.257287	103	mg/L	+/- 10.00%
S3H0313-CCV5	A3H0268	Antimony	0.500000	0.498314	99.7	mg/L	+/- 10.00%
		Arsenic	0.500000	0.492215	98.4	mg/L	+/- 10.00%
		Barium	0.500000	0.504251	101	mg/L	+/- 10.00%
		Beryllium	0.500000	0.509633	102	mg/L	+/- 10.00%
		Cadmium	0.500000	0.506219	101	mg/L	+/- 10.00%
		Chromium	0.500000	0.508969	102	mg/L	+/- 10.00%
		Cobalt	0.500000	0.511739	102	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302581
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-10	Calibration:	3H28002
		Sequence:	S3H0313

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3H0313-CCV5	A3H0268	Copper	0.500000	0.509244	102	mg/L	+/- 10.00%
		Lead	0.500000	0.504083	101	mg/L	+/- 10.00%
		Molybdenum	0.500000	0.498191	99.6	mg/L	+/- 10.00%
		Nickel	0.500000	0.509833	102	mg/L	+/- 10.00%
		Selenium	0.500000	0.509539	102	mg/L	+/- 10.00%
		Silver	0.500000	0.506584	101	mg/L	+/- 10.00%
		Thallium	0.500000	0.520739	104	mg/L	+/- 10.00%
		Vanadium	0.500000	0.492115	98.4	mg/L	+/- 10.00%
		Zinc	0.500000	0.514228	103	mg/L	+/- 10.00%
S3H0313-CCV6	A3H0268	Antimony	0.500000	0.489257	97.9	mg/L	+/- 10.00%
		Arsenic	0.500000	0.484496	96.9	mg/L	+/- 10.00%
		Barium	0.500000	0.500792	100	mg/L	+/- 10.00%
		Beryllium	0.500000	0.507169	101	mg/L	+/- 10.00%
		Cadmium	0.500000	0.497714	99.5	mg/L	+/- 10.00%
		Chromium	0.500000	0.504677	101	mg/L	+/- 10.00%
		Cobalt	0.500000	0.500603	100	mg/L	+/- 10.00%
		Copper	0.500000	0.511442	102	mg/L	+/- 10.00%
		Lead	0.500000	0.495000	99.0	mg/L	+/- 10.00%
		Molybdenum	0.500000	0.494791	99.0	mg/L	+/- 10.00%
		Nickel	0.500000	0.501718	100	mg/L	+/- 10.00%
		Selenium	0.500000	0.483181	96.6	mg/L	+/- 10.00%
		Silver	0.500000	0.507153	101	mg/L	+/- 10.00%
		Thallium	0.500000	0.514385	103	mg/L	+/- 10.00%
		Vanadium	0.500000	0.485918	97.2	mg/L	+/- 10.00%
		Zinc	0.500000	0.508581	102	mg/L	+/- 10.00%
S3H0313-CCV7	A3H0268	Antimony	0.500000	0.485971	97.2	mg/L	+/- 10.00%
		Arsenic	0.500000	0.483085	96.6	mg/L	+/- 10.00%
		Barium	0.500000	0.498132	99.6	mg/L	+/- 10.00%
		Beryllium	0.500000	0.503581	101	mg/L	+/- 10.00%
		Cadmium	0.500000	0.497728	99.5	mg/L	+/- 10.00%
		Chromium	0.500000	0.504950	101	mg/L	+/- 10.00%
		Cobalt	0.500000	0.501465	100	mg/L	+/- 10.00%
		Copper	0.500000	0.511082	102	mg/L	+/- 10.00%
		Lead	0.500000	0.490855	98.2	mg/L	+/- 10.00%
		Molybdenum	0.500000	0.492823	98.6	mg/L	+/- 10.00%
		Nickel	0.500000	0.503502	101	mg/L	+/- 10.00%
		Selenium	0.500000	0.487676	97.5	mg/L	+/- 10.00%
		Silver	0.500000	0.508316	102	mg/L	+/- 10.00%
		Thallium	0.500000	0.510072	102	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302581
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-10	Calibration:	3H28002
		Sequence:	S3H0313

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3H0313-CCV7	A3H0268	Vanadium	0.500000	0.487303	97.5	mg/L	+/- 10.00%
		Zinc	0.500000	0.506399	101	mg/L	+/- 10.00%
S3H0313-CCV8	A3H0268	Antimony	0.500000	0.488939	97.8	mg/L	+/- 10.00%
		Arsenic	0.500000	0.487300	97.5	mg/L	+/- 10.00%
		Barium	0.500000	0.498552	99.7	mg/L	+/- 10.00%
		Beryllium	0.500000	0.505425	101	mg/L	+/- 10.00%
		Cadmium	0.500000	0.500640	100	mg/L	+/- 10.00%
		Chromium	0.500000	0.507226	101	mg/L	+/- 10.00%
		Cobalt	0.500000	0.503985	101	mg/L	+/- 10.00%
		Copper	0.500000	0.514438	103	mg/L	+/- 10.00%
		Lead	0.500000	0.497896	99.6	mg/L	+/- 10.00%
		Molybdenum	0.500000	0.498499	99.7	mg/L	+/- 10.00%
		Nickel	0.500000	0.504211	101	mg/L	+/- 10.00%
		Selenium	0.500000	0.487792	97.6	mg/L	+/- 10.00%
		Silver	0.500000	0.510323	102	mg/L	+/- 10.00%
		Thallium	0.500000	0.519623	104	mg/L	+/- 10.00%
		Vanadium	0.500000	0.487011	97.4	mg/L	+/- 10.00%
		Zinc	0.500000	0.511168	102	mg/L	+/- 10.00%
S3H0313-CCV9	A3H0268	Antimony	0.500000	0.496758	99.4	mg/L	+/- 10.00%
		Arsenic	0.500000	0.489518	97.9	mg/L	+/- 10.00%
		Barium	0.500000	0.490458	98.1	mg/L	+/- 10.00%
		Beryllium	0.500000	0.508763	102	mg/L	+/- 10.00%
		Cadmium	0.500000	0.496177	99.2	mg/L	+/- 10.00%
		Chromium	0.500000	0.498826	99.8	mg/L	+/- 10.00%
		Cobalt	0.500000	0.496105	99.2	mg/L	+/- 10.00%
		Copper	0.500000	0.502501	101	mg/L	+/- 10.00%
		Lead	0.500000	0.495415	99.1	mg/L	+/- 10.00%
		Molybdenum	0.500000	0.498073	99.6	mg/L	+/- 10.00%
		Nickel	0.500000	0.495517	99.1	mg/L	+/- 10.00%
		Selenium	0.500000	0.498444	99.7	mg/L	+/- 10.00%
		Silver	0.500000	0.496153	99.2	mg/L	+/- 10.00%
		Thallium	0.500000	0.518916	104	mg/L	+/- 10.00%
		Vanadium	0.500000	0.475859	95.2	mg/L	+/- 10.00%
		Zinc	0.500000	0.508569	102	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302581
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-10	Calibration:	3H28002
		Sequence:	S3H0313

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3H0313-ICV1	A3H0268	Lead	0.500000	0.505261	101	mg/L	+/- 10.00%
S3H0313-CCV1	A3H0219	Lead	0.250000	0.255670	102	mg/L	+/- 10.00%
S3H0313-CCV5	A3H0268	Lead	0.500000	0.504083	101	mg/L	+/- 10.00%
S3H0313-CCV6	A3H0268	Lead	0.500000	0.495000	99.0	mg/L	+/- 10.00%
S3H0313-CCV7	A3H0268	Lead	0.500000	0.490855	98.2	mg/L	+/- 10.00%
S3H0313-CCV8	A3H0268	Lead	0.500000	0.497896	99.6	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302581
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-10	Calibration:	3H29001
		Sequence:	S3H0331

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3H0331-ICV1	A3H0268	Lead	0.500000	0.509376	102	mg/L	+/- 10.00%
S3H0331-CCV1	A3H0219	Lead	0.250000	0.253353	101	mg/L	+/- 10.00%
S3H0331-CCV8	A3H0268	Lead	0.500000	0.499550	99.9	mg/L	+/- 10.00%
S3H0331-CCV9	A3H0268	Lead	0.500000	0.501507	100	mg/L	+/- 10.00%

SUMMARY OF INSTRUMENT BLANKS

BLANKS

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-08	Calibration:	3H26002
Sequence:	S3H0300		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
S3H0300-ICB1	Beryllium	0.000179	mg/L	0.0004	0.02	U
	Copper	0.000386	mg/L	0.002	0.04	U
	Silver	0.000580	mg/L	0.001	0.02	U
	Vanadium	-0.000479	mg/L	0.003	0.02	U
	Antimony	-0.000559	mg/L	0.004	0.04	U
	Arsenic	0.000209	mg/L	0.008	0.02	U
	Barium	0.000080	mg/L	0.002	0.02	U
	Cadmium	-0.000035	mg/L	0.0004	0.02	U
	Chromium	-0.000019	mg/L	0.0007	0.02	U
	Cobalt	0.000063	mg/L	0.001	0.02	U
	Lead	-0.000062	mg/L	0.003	0.02	U
	Molybdenum	-0.000046	mg/L	0.0009	0.02	U
	Nickel	-0.000108	mg/L	0.0009	0.02	U
	Selenium	-0.000040	mg/L	0.005	0.02	U
	Thallium	0.001341	mg/L	0.006	0.02	U
	Zinc	0.000164	mg/L	0.01	0.02	U
S3H0300-CCB1	Beryllium	3.205E-4	mg/L	0.0004	0.02	U
	Copper	0.000417	mg/L	0.002	0.04	U
	Silver	0.000558	mg/L	0.001	0.02	U
	Vanadium	-0.000523	mg/L	0.003	0.02	U
	Antimony	0.000736	mg/L	0.004	0.04	U
	Arsenic	-0.001337	mg/L	0.008	0.02	U
	Barium	0.000069	mg/L	0.002	0.02	U
	Cadmium	-2.830E-5	mg/L	0.0004	0.02	U
	Chromium	-0.000177	mg/L	0.0007	0.02	U
	Cobalt	-0.000041	mg/L	0.001	0.02	U
	Lead	0.000011	mg/L	0.003	0.02	U
	Molybdenum	0.000179	mg/L	0.0009	0.02	U
	Nickel	0.000123	mg/L	0.0009	0.02	U
	Selenium	0.000748	mg/L	0.005	0.02	U
	Thallium	5.972E-4	mg/L	0.006	0.02	U
	Zinc	2.187E-4	mg/L	0.01	0.02	U
B3H0462-BLK1	Beryllium	0.022522	mg/kg	0.02	1.0	J
	Copper	0.064825	mg/kg	0.11	2.0	U
	Silver	0.027385	mg/kg	0.06	1.0	U
	Vanadium	-0.053689	mg/kg	0.17	1.0	U

BLANKS

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-08	Calibration:	3H26002
Sequence:	S3H0300		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
B3H0462-BLK1	Antimony	0.234282	mg/kg	0.22	2.0	J
	Arsenic	-0.046814	mg/kg	0.38	1.0	U
	Barium	0.072253	mg/kg	0.08	1.0	U
	Cadmium	0.000029	mg/kg	0.02	1.0	U
	Chromium	0.100361	mg/kg	0.04	1.0	J
	Cobalt	-0.023560	mg/kg	0.06	1.0	U
	Lead	0.096365	mg/kg	0.14	1.0	U
	Molybdenum	-0.000902	mg/kg	0.04	1.0	U
	Nickel	0.073123	mg/kg	0.04	1.0	J
	Selenium	0.169055	mg/kg	0.24	1.0	U
	Thallium	-0.173795	mg/kg	0.30	1.0	U
	Zinc	0.158571	mg/kg	0.51	1.0	U
S3H0300-CCB2	Beryllium	0.000321	mg/L	0.0004	0.02	U
	Copper	0.000134	mg/L	0.002	0.04	U
	Silver	0.000496	mg/L	0.001	0.02	U
	Vanadium	0.000385	mg/L	0.003	0.02	U
	Antimony	0.000077	mg/L	0.004	0.04	U
	Arsenic	-2.010E-5	mg/L	0.008	0.02	U
	Barium	0.000190	mg/L	0.002	0.02	U
	Cadmium	0.000087	mg/L	0.0004	0.02	U
	Chromium	-0.000086	mg/L	0.0007	0.02	U
	Cobalt	-0.000049	mg/L	0.001	0.02	U
	Lead	0.001376	mg/L	0.003	0.02	U
	Molybdenum	0.000003	mg/L	0.0009	0.02	U
	Nickel	0.000052	mg/L	0.0009	0.02	U
	Selenium	0.001463	mg/L	0.005	0.02	U
	Thallium	0.002113	mg/L	0.006	0.02	U
	Zinc	0.002579	mg/L	0.01	0.02	U

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EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-10	Calibration:	3H26005
Sequence:	S3H0307		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
S3H0307-ICB1	Antimony	0.004080	mg/L	0.004	0.04	J
	Arsenic	-0.000243	mg/L	0.008	0.02	U
	Barium	0.000248	mg/L	0.002	0.02	U
	Beryllium	0.000103	mg/L	0.0004	0.02	U
	Cadmium	0.000324	mg/L	0.0004	0.02	U
	Chromium	0.000610	mg/L	0.0007	0.02	U
	Cobalt	0.000222	mg/L	0.001	0.02	U
	Copper	0.000427	mg/L	0.002	0.04	U
	Lead	0.000212	mg/L	0.003	0.02	U
	Molybdenum	0.000954	mg/L	0.0009	0.02	J
	Nickel	4.388E-4	mg/L	0.0009	0.02	U
	Selenium	-0.002868	mg/L	0.005	0.02	U
	Silver	0.000122	mg/L	0.001	0.02	U
	Thallium	-1.509E-4	mg/L	0.006	0.02	U
	Vanadium	0.000024	mg/L	0.003	0.02	U
	Zinc	0.000691	mg/L	0.01	0.02	U
S3H0307-CCB1	Antimony	0.001638	mg/L	0.004	0.04	U
	Arsenic	0.001273	mg/L	0.008	0.02	U
	Barium	0.000176	mg/L	0.002	0.02	U
	Beryllium	0.000057	mg/L	0.0004	0.02	U
	Cadmium	0.000184	mg/L	0.0004	0.02	U
	Chromium	4.477E-4	mg/L	0.0007	0.02	U
	Cobalt	-0.000082	mg/L	0.001	0.02	U
	Copper	0.000633	mg/L	0.002	0.04	U
	Lead	0.000976	mg/L	0.003	0.02	U
	Molybdenum	9.197E-4	mg/L	0.0009	0.02	J
	Nickel	0.000228	mg/L	0.0009	0.02	U
	Selenium	-0.004735	mg/L	0.005	0.02	U
	Silver	0.000008	mg/L	0.001	0.02	U
	Thallium	2.733E-4	mg/L	0.006	0.02	U
	Vanadium	0.000202	mg/L	0.003	0.02	U
	Zinc	0.000802	mg/L	0.01	0.02	U
S3H0307-CCB4	Antimony	0.002898	mg/L	0.004	0.04	U
	Arsenic	-0.000348	mg/L	0.008	0.02	U
	Barium	0.000321	mg/L	0.002	0.02	U
	Beryllium	1.177E-4	mg/L	0.0004	0.02	U

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EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-10	Calibration:	3H26005
Sequence:	S3H0307		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
S3H0307-CCB4	Cadmium	0.000339	mg/L	0.0004	0.02	U
	Chromium	0.000667	mg/L	0.0007	0.02	U
	Cobalt	0.000318	mg/L	0.001	0.02	U
	Copper	0.001024	mg/L	0.002	0.04	U
	Lead	8.916E-4	mg/L	0.003	0.02	U
	Molybdenum	0.000977	mg/L	0.0009	0.02	J
	Nickel	0.000288	mg/L	0.0009	0.02	U
	Selenium	-0.006660	mg/L	0.005	0.02	J
	Silver	0.000355	mg/L	0.001	0.02	U
	Thallium	-0.000726	mg/L	0.006	0.02	U
	Vanadium	-0.000189	mg/L	0.003	0.02	U
	Zinc	0.001859	mg/L	0.01	0.02	U
S3H0307-CCB5	Antimony	0.001082	mg/L	0.004	0.04	U
	Arsenic	0.000369	mg/L	0.008	0.02	U
	Barium	0.000085	mg/L	0.002	0.02	U
	Beryllium	0.000008	mg/L	0.0004	0.02	U
	Cadmium	4.120E-5	mg/L	0.0004	0.02	U
	Chromium	0.000257	mg/L	0.0007	0.02	U
	Cobalt	-0.000104	mg/L	0.001	0.02	U
	Copper	0.001232	mg/L	0.002	0.04	U
	Lead	0.000057	mg/L	0.003	0.02	U
	Molybdenum	0.000673	mg/L	0.0009	0.02	U
	Nickel	0.000232	mg/L	0.0009	0.02	U
	Selenium	-4.3978E-3	mg/L	0.005	0.02	U
	Silver	0.000090	mg/L	0.001	0.02	U
	Thallium	-0.001154	mg/L	0.006	0.02	U
	Vanadium	-0.000220	mg/L	0.003	0.02	U
	Zinc	0.002132	mg/L	0.01	0.02	U
S3H0307-CCB6	Antimony	0.00234	mg/L	0.004	0.04	U
	Arsenic	0.000905	mg/L	0.008	0.02	U
	Barium	0.000457	mg/L	0.002	0.02	U
	Beryllium	0.000126	mg/L	0.0004	0.02	U
	Cadmium	0.000453	mg/L	0.0004	0.02	J
	Chromium	0.000830	mg/L	0.0007	0.02	J
	Cobalt	0.000194	mg/L	0.001	0.02	U
	Copper	0.001795	mg/L	0.002	0.04	U

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EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-10	Calibration:	3H26005
Sequence:	S3H0307		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
S3H0307-CCB6	Lead	0.001445	mg/L	0.003	0.02	U
	Molybdenum	0.001161	mg/L	0.0009	0.02	J
	Nickel	0.000746	mg/L	0.0009	0.02	U
	Selenium	-0.002595	mg/L	0.005	0.02	U
	Silver	0.000383	mg/L	0.001	0.02	U
	Thallium	-0.000271	mg/L	0.006	0.02	U
	Vanadium	-0.000019	mg/L	0.003	0.02	U
	Zinc	4.1904E-3	mg/L	0.01	0.02	U

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EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-08	Calibration:	3H26002
Sequence:	S3H0300		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
S3H0300-ICB1	Lead	-0.000062	mg/L	0.003	0.02	U
S3H0300-CCB1	Lead	0.000011	mg/L	0.003	0.02	U
B3H0462-BLK1	Lead	0.096365	mg/kg	0.14	1.0	U
S3H0300-CCB2	Lead	0.001376	mg/L	0.003	0.02	U

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EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-10	Calibration:	3H26005
Sequence:	S3H0307		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
S3H0307-ICB1	Lead	0.000212	mg/L	0.003	0.02	U
S3H0307-CCB1	Lead	0.000976	mg/L	0.003	0.02	U
S3H0307-CCB4	Lead	8.916E-4	mg/L	0.003	0.02	U
S3H0307-CCB5	Lead	0.000057	mg/L	0.003	0.02	U
S3H0307-CCB6	Lead	0.001445	mg/L	0.003	0.02	U

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EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-08	Calibration:	3H26002
Sequence:	S3H0300		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
S3H0300-ICB1	Beryllium	0.000179	mg/L	0.0004	0.02	U
	Copper	0.000386	mg/L	0.002	0.04	U
	Silver	0.000580	mg/L	0.001	0.02	U
	Vanadium	-0.000479	mg/L	0.003	0.02	U
	Antimony	-0.000559	mg/L	0.004	0.04	U
	Arsenic	0.000209	mg/L	0.008	0.02	U
	Barium	0.000080	mg/L	0.002	0.02	U
	Cadmium	-0.000035	mg/L	0.0004	0.02	U
	Chromium	-0.000019	mg/L	0.0007	0.02	U
	Cobalt	0.000063	mg/L	0.001	0.02	U
	Lead	-0.000062	mg/L	0.003	0.02	U
	Molybdenum	-0.000046	mg/L	0.0009	0.02	U
	Nickel	-0.000108	mg/L	0.0009	0.02	U
	Selenium	-0.000040	mg/L	0.005	0.02	U
	Thallium	0.001341	mg/L	0.006	0.02	U
	Zinc	0.000164	mg/L	0.01	0.02	U
S3H0300-CCB1	Beryllium	3.205E-4	mg/L	0.0004	0.02	U
	Copper	0.000417	mg/L	0.002	0.04	U
	Silver	0.000558	mg/L	0.001	0.02	U
	Vanadium	-0.000523	mg/L	0.003	0.02	U
	Antimony	0.000736	mg/L	0.004	0.04	U
	Arsenic	-0.001337	mg/L	0.008	0.02	U
	Barium	0.000069	mg/L	0.002	0.02	U
	Cadmium	-2.830E-5	mg/L	0.0004	0.02	U
	Chromium	-0.000177	mg/L	0.0007	0.02	U
	Cobalt	-0.000041	mg/L	0.001	0.02	U
	Lead	0.000011	mg/L	0.003	0.02	U
	Molybdenum	0.000179	mg/L	0.0009	0.02	U
	Nickel	0.000123	mg/L	0.0009	0.02	U
	Selenium	0.000748	mg/L	0.005	0.02	U
	Thallium	5.972E-4	mg/L	0.006	0.02	U
	Zinc	2.187E-4	mg/L	0.01	0.02	U
B3H0462-BLK1	Beryllium	0.022522	mg/kg	0.02	1.0	J
	Copper	0.064825	mg/kg	0.11	2.0	U
	Silver	0.027385	mg/kg	0.06	1.0	U
	Vanadium	-0.053689	mg/kg	0.17	1.0	U

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EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-08	Calibration:	3H26002
Sequence:	S3H0300		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
B3H0462-BLK1	Antimony	0.234282	mg/kg	0.22	2.0	J
	Arsenic	-0.046814	mg/kg	0.38	1.0	U
	Barium	0.072253	mg/kg	0.08	1.0	U
	Cadmium	0.000029	mg/kg	0.02	1.0	U
	Chromium	0.100361	mg/kg	0.04	1.0	J
	Cobalt	-0.023560	mg/kg	0.06	1.0	U
	Lead	0.096365	mg/kg	0.14	1.0	U
	Molybdenum	-0.000902	mg/kg	0.04	1.0	U
	Nickel	0.073123	mg/kg	0.04	1.0	J
	Selenium	0.169055	mg/kg	0.24	1.0	U
	Thallium	-0.173795	mg/kg	0.30	1.0	U
	Zinc	0.158571	mg/kg	0.51	1.0	U
S3H0300-CCB2	Beryllium	0.000321	mg/L	0.0004	0.02	U
	Copper	0.000134	mg/L	0.002	0.04	U
	Silver	0.000496	mg/L	0.001	0.02	U
	Vanadium	0.000385	mg/L	0.003	0.02	U
	Antimony	0.000077	mg/L	0.004	0.04	U
	Arsenic	-2.010E-5	mg/L	0.008	0.02	U
	Barium	0.000190	mg/L	0.002	0.02	U
	Cadmium	0.000087	mg/L	0.0004	0.02	U
	Chromium	-0.000086	mg/L	0.0007	0.02	U
	Cobalt	-0.000049	mg/L	0.001	0.02	U
	Lead	0.001376	mg/L	0.003	0.02	U
	Molybdenum	0.000003	mg/L	0.0009	0.02	U
	Nickel	0.000052	mg/L	0.0009	0.02	U
	Selenium	0.001463	mg/L	0.005	0.02	U
	Thallium	0.002113	mg/L	0.006	0.02	U
	Zinc	0.002579	mg/L	0.01	0.02	U

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EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-10	Calibration:	3H26005
Sequence:	S3H0307		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
S3H0307-ICB1	Antimony	0.004080	mg/L	0.004	0.04	J
	Arsenic	-0.000243	mg/L	0.008	0.02	U
	Barium	0.000248	mg/L	0.002	0.02	U
	Beryllium	0.000103	mg/L	0.0004	0.02	U
	Cadmium	0.000324	mg/L	0.0004	0.02	U
	Chromium	0.000610	mg/L	0.0007	0.02	U
	Cobalt	0.000222	mg/L	0.001	0.02	U
	Copper	0.000427	mg/L	0.002	0.04	U
	Lead	0.000212	mg/L	0.003	0.02	U
	Molybdenum	0.000954	mg/L	0.0009	0.02	J
	Nickel	4.388E-4	mg/L	0.0009	0.02	U
	Selenium	-0.002868	mg/L	0.005	0.02	U
	Silver	0.000122	mg/L	0.001	0.02	U
	Thallium	-1.509E-4	mg/L	0.006	0.02	U
	Vanadium	0.000024	mg/L	0.003	0.02	U
	Zinc	0.000691	mg/L	0.01	0.02	U
S3H0307-CCB1	Antimony	0.001638	mg/L	0.004	0.04	U
	Arsenic	0.001273	mg/L	0.008	0.02	U
	Barium	0.000176	mg/L	0.002	0.02	U
	Beryllium	0.000057	mg/L	0.0004	0.02	U
	Cadmium	0.000184	mg/L	0.0004	0.02	U
	Chromium	4.477E-4	mg/L	0.0007	0.02	U
	Cobalt	-0.000082	mg/L	0.001	0.02	U
	Copper	0.000633	mg/L	0.002	0.04	U
	Lead	0.000976	mg/L	0.003	0.02	U
	Molybdenum	9.197E-4	mg/L	0.0009	0.02	J
	Nickel	0.000228	mg/L	0.0009	0.02	U
	Selenium	-0.004735	mg/L	0.005	0.02	U
	Silver	0.000008	mg/L	0.001	0.02	U
	Thallium	2.733E-4	mg/L	0.006	0.02	U
	Vanadium	0.000202	mg/L	0.003	0.02	U
	Zinc	0.000802	mg/L	0.01	0.02	U
S3H0307-CCB4	Antimony	0.002898	mg/L	0.004	0.04	U
	Arsenic	-0.000348	mg/L	0.008	0.02	U
	Barium	0.000321	mg/L	0.002	0.02	U
	Beryllium	1.177E-4	mg/L	0.0004	0.02	U

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EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-10	Calibration:	3H26005
Sequence:	S3H0307		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
S3H0307-CCB4	Cadmium	0.000339	mg/L	0.0004	0.02	U
	Chromium	0.000667	mg/L	0.0007	0.02	U
	Cobalt	0.000318	mg/L	0.001	0.02	U
	Copper	0.001024	mg/L	0.002	0.04	U
	Lead	8.916E-4	mg/L	0.003	0.02	U
	Molybdenum	0.000977	mg/L	0.0009	0.02	J
	Nickel	0.000288	mg/L	0.0009	0.02	U
	Selenium	-0.006660	mg/L	0.005	0.02	J
	Silver	0.000355	mg/L	0.001	0.02	U
	Thallium	-0.000726	mg/L	0.006	0.02	U
	Vanadium	-0.000189	mg/L	0.003	0.02	U
	Zinc	0.001859	mg/L	0.01	0.02	U
S3H0307-CCB5	Antimony	0.001082	mg/L	0.004	0.04	U
	Arsenic	0.000369	mg/L	0.008	0.02	U
	Barium	0.000085	mg/L	0.002	0.02	U
	Beryllium	0.000008	mg/L	0.0004	0.02	U
	Cadmium	4.120E-5	mg/L	0.0004	0.02	U
	Chromium	0.000257	mg/L	0.0007	0.02	U
	Cobalt	-0.000104	mg/L	0.001	0.02	U
	Copper	0.001232	mg/L	0.002	0.04	U
	Lead	0.000057	mg/L	0.003	0.02	U
	Molybdenum	0.000673	mg/L	0.0009	0.02	U
	Nickel	0.000232	mg/L	0.0009	0.02	U
	Selenium	-4.3978E-3	mg/L	0.005	0.02	U
	Silver	0.000090	mg/L	0.001	0.02	U
	Thallium	-0.001154	mg/L	0.006	0.02	U
	Vanadium	-0.000220	mg/L	0.003	0.02	U
	Zinc	0.002132	mg/L	0.01	0.02	U
S3H0307-CCB6	Antimony	0.00234	mg/L	0.004	0.04	U
	Arsenic	0.000905	mg/L	0.008	0.02	U
	Barium	0.000457	mg/L	0.002	0.02	U
	Beryllium	0.000126	mg/L	0.0004	0.02	U
	Cadmium	0.000453	mg/L	0.0004	0.02	J
	Chromium	0.000830	mg/L	0.0007	0.02	J
	Cobalt	0.000194	mg/L	0.001	0.02	U
	Copper	0.001795	mg/L	0.002	0.04	U

BLANKS

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-10	Calibration:	3H26005
Sequence:	S3H0307		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
S3H0307-CCB6	Lead	0.001445	mg/L	0.003	0.02	U
	Molybdenum	0.001161	mg/L	0.0009	0.02	J
	Nickel	0.000746	mg/L	0.0009	0.02	U
	Selenium	-0.002595	mg/L	0.005	0.02	U
	Silver	0.000383	mg/L	0.001	0.02	U
	Thallium	-0.000271	mg/L	0.006	0.02	U
	Vanadium	-0.000019	mg/L	0.003	0.02	U
	Zinc	4.1904E-3	mg/L	0.01	0.02	U

BLANKS

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-08	Calibration:	3H26002
Sequence:	S3H0300		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
S3H0300-ICB1	Lead	-0.000062	mg/L	0.003	0.02	U
S3H0300-CCB1	Lead	0.000011	mg/L	0.003	0.02	U
B3H0462-BLK1	Lead	0.096365	mg/kg	0.14	1.0	U
S3H0300-CCB2	Lead	0.001376	mg/L	0.003	0.02	U

BLANKS

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-10	Calibration:	3H26005
Sequence:	S3H0307		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
S3H0307-ICB1	Lead	0.000212	mg/L	0.003	0.02	U
S3H0307-CCB1	Lead	0.000976	mg/L	0.003	0.02	U
S3H0307-CCB4	Lead	8.916E-4	mg/L	0.003	0.02	U
S3H0307-CCB5	Lead	0.000057	mg/L	0.003	0.02	U
S3H0307-CCB6	Lead	0.001445	mg/L	0.003	0.02	U

BLANKS

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302581
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-10	Calibration:	3H28002
Sequence:	S3H0313		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
S3H0313-ICB1	Antimony	0.002672	mg/L	0.004	0.04	U
	Arsenic	0.000994	mg/L	0.008	0.02	U
	Barium	0.000354	mg/L	0.002	0.02	U
	Beryllium	0.000115	mg/L	0.0004	0.02	U
	Cadmium	3.631E-4	mg/L	0.0004	0.02	U
	Chromium	0.000596	mg/L	0.0007	0.02	U
	Cobalt	0.000375	mg/L	0.001	0.02	U
	Copper	0.000563	mg/L	0.002	0.04	U
	Lead	0.001351	mg/L	0.003	0.02	U
	Molybdenum	0.000868	mg/L	0.0009	0.02	U
	Nickel	0.000483	mg/L	0.0009	0.02	U
	Selenium	0.001601	mg/L	0.005	0.02	U
	Silver	0.000169	mg/L	0.001	0.02	U
	Thallium	-0.002101	mg/L	0.006	0.02	U
	Vanadium	-0.000236	mg/L	0.003	0.02	U
	Zinc	0.000869	mg/L	0.01	0.02	U
S3H0313-CCB1	Antimony	0.001956	mg/L	0.004	0.04	U
	Arsenic	-0.000599	mg/L	0.008	0.02	U
	Barium	0.000218	mg/L	0.002	0.02	U
	Beryllium	0.000054	mg/L	0.0004	0.02	U
	Cadmium	0.000244	mg/L	0.0004	0.02	U
	Chromium	1.906E-4	mg/L	0.0007	0.02	U
	Cobalt	-0.000091	mg/L	0.001	0.02	U
	Copper	0.000317	mg/L	0.002	0.04	U
	Lead	0.000362	mg/L	0.003	0.02	U
	Molybdenum	0.000643	mg/L	0.0009	0.02	U
	Nickel	0.000296	mg/L	0.0009	0.02	U
	Selenium	0.006448	mg/L	0.005	0.02	J
	Silver	2.1760E-4	mg/L	0.001	0.02	U
	Thallium	-0.002357	mg/L	0.006	0.02	U
	Vanadium	-0.000221	mg/L	0.003	0.02	U
	Zinc	0.000968	mg/L	0.01	0.02	U
S3H0313-CCB5	Antimony	0.002497	mg/L	0.004	0.04	U
	Arsenic	0.000473	mg/L	0.008	0.02	U
	Barium	2.059E-4	mg/L	0.002	0.02	U
	Beryllium	4.821E-5	mg/L	0.0004	0.02	U

BLANKS

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302581
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-10	Calibration:	3H28002
Sequence:	S3H0313		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
S3H0313-CCB5	Cadmium	0.000179	mg/L	0.0004	0.02	U
	Chromium	0.000150	mg/L	0.0007	0.02	U
	Cobalt	-0.000113	mg/L	0.001	0.02	U
	Copper	0.000188	mg/L	0.002	0.04	U
	Lead	0.000345	mg/L	0.003	0.02	U
	Molybdenum	0.000442	mg/L	0.0009	0.02	U
	Nickel	0.000606	mg/L	0.0009	0.02	U
	Selenium	0.003990	mg/L	0.005	0.02	U
	Silver	-0.000092	mg/L	0.001	0.02	U
	Thallium	0.000115	mg/L	0.006	0.02	U
	Vanadium	-0.000473	mg/L	0.003	0.02	U
	Zinc	0.000383	mg/L	0.01	0.02	U
B3H0501-BLK1	Antimony	0.143049	mg/kg	0.22	2.0	U
	Arsenic	-0.128771	mg/kg	0.38	1.0	U
	Barium	0.022196	mg/kg	0.08	1.0	U
	Beryllium	0.007617	mg/kg	0.02	1.0	U
	Cadmium	0.006812	mg/kg	0.02	1.0	U
	Chromium	0.107857	mg/kg	0.04	1.0	J
	Cobalt	-0.001670	mg/kg	0.06	1.0	U
	Copper	0.027650	mg/kg	0.11	2.0	U
	Lead	-0.020551	mg/kg	0.14	1.0	U
	Molybdenum	0.003721	mg/kg	0.04	1.0	U
	Nickel	0.104631	mg/kg	0.04	1.0	J
	Selenium	0.030565	mg/kg	0.24	1.0	U
	Silver	-0.009182	mg/kg	0.06	1.0	U
	Thallium	-0.207990	mg/kg	0.30	1.0	U
	Vanadium	-0.019746	mg/kg	0.17	1.0	U
	Zinc	0.451173	mg/kg	0.51	1.0	U
S3H0313-CCB6	Antimony	0.001176	mg/L	0.004	0.04	U
	Arsenic	0.001613	mg/L	0.008	0.02	U
	Barium	0.000750	mg/L	0.002	0.02	U
	Beryllium	0.000057	mg/L	0.0004	0.02	U
	Cadmium	0.000200	mg/L	0.0004	0.02	U
	Chromium	0.000192	mg/L	0.0007	0.02	U
	Cobalt	-4.320E-5	mg/L	0.001	0.02	U
	Copper	0.000728	mg/L	0.002	0.04	U

BLANKS

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302581
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-10	Calibration:	3H28002
Sequence:	S3H0313		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
S3H0313-CCB6	Lead	-0.000076	mg/L	0.003	0.02	U
	Molybdenum	0.000550	mg/L	0.0009	0.02	U
	Nickel	0.000653	mg/L	0.0009	0.02	U
	Selenium	0.001871	mg/L	0.005	0.02	U
	Silver	-0.000033	mg/L	0.001	0.02	U
	Thallium	-0.001865	mg/L	0.006	0.02	U
	Vanadium	-0.000335	mg/L	0.003	0.02	U
	Zinc	0.000821	mg/L	0.01	0.02	U
S3H0313-CCB7	Antimony	0.001021	mg/L	0.004	0.04	U
	Arsenic	0.001832	mg/L	0.008	0.02	U
	Barium	0.000653	mg/L	0.002	0.02	U
	Beryllium	8.710E-5	mg/L	0.0004	0.02	U
	Cadmium	0.000238	mg/L	0.0004	0.02	U
	Chromium	0.000466	mg/L	0.0007	0.02	U
	Cobalt	0.000108	mg/L	0.001	0.02	U
	Copper	0.000503	mg/L	0.002	0.04	U
	Lead	0.000074	mg/L	0.003	0.02	U
	Molybdenum	0.000564	mg/L	0.0009	0.02	U
	Nickel	0.000344	mg/L	0.0009	0.02	U
	Selenium	-0.002290	mg/L	0.005	0.02	U
	Silver	-0.000250	mg/L	0.001	0.02	U
	Thallium	-0.001682	mg/L	0.006	0.02	U
	Vanadium	-0.000175	mg/L	0.003	0.02	U
	Zinc	0.001142	mg/L	0.01	0.02	U
B3H0502-BLK1	Antimony	0.153098	mg/kg	0.22	2.0	U
	Arsenic	0.023488	mg/kg	0.38	1.0	U
	Barium	0.077925	mg/kg	0.08	1.0	U
	Beryllium	-0.000385	mg/kg	0.02	1.0	U
	Cadmium	0.001234	mg/kg	0.02	1.0	U
	Chromium	0.133758	mg/kg	0.04	1.0	J
	Cobalt	-0.006045	mg/kg	0.06	1.0	U
	Copper	0.112276	mg/kg	0.11	2.0	J
	Lead	0.046553	mg/kg	0.14	1.0	U
	Molybdenum	0.002962	mg/kg	0.04	1.0	U
	Nickel	0.122807	mg/kg	0.04	1.0	J
	Selenium	-0.065985	mg/kg	0.24	1.0	U

BLANKS

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302581
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-10	Calibration:	3H28002
Sequence:	S3H0313		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
B3H0502-BLK1	Silver	-0.009190	mg/kg	0.06	1.0	U
	Thallium	-0.178739	mg/kg	0.30	1.0	U
	Vanadium	-0.022472	mg/kg	0.17	1.0	U
	Zinc	0.684150	mg/kg	0.51	1.0	J
S3H0313-CCB8	Antimony	0.004438	mg/L	0.004	0.04	J
	Arsenic	0.001838	mg/L	0.008	0.02	U
	Barium	0.000666	mg/L	0.002	0.02	U
	Beryllium	0.000194	mg/L	0.0004	0.02	U
	Cadmium	6.530E-4	mg/L	0.0004	0.02	J
	Chromium	0.000918	mg/L	0.0007	0.02	J
	Cobalt	0.000481	mg/L	0.001	0.02	U
	Copper	0.000841	mg/L	0.002	0.04	U
	Lead	0.000566	mg/L	0.003	0.02	U
	Molybdenum	0.000990	mg/L	0.0009	0.02	J
	Nickel	1.2484E-3	mg/L	0.0009	0.02	J
	Selenium	-0.000194	mg/L	0.005	0.02	U
	Silver	0.000656	mg/L	0.001	0.02	U
	Thallium	-0.000057	mg/L	0.006	0.02	U
	Vanadium	-0.000442	mg/L	0.003	0.02	U
	Zinc	0.001859	mg/L	0.01	0.02	U
S3H0313-CCB9	Antimony	0.002428	mg/L	0.004	0.04	U
	Arsenic	-0.000424	mg/L	0.008	0.02	U
	Barium	0.000423	mg/L	0.002	0.02	U
	Beryllium	9.040E-5	mg/L	0.0004	0.02	U
	Cadmium	0.000291	mg/L	0.0004	0.02	U
	Chromium	0.000352	mg/L	0.0007	0.02	U
	Cobalt	0.000145	mg/L	0.001	0.02	U
	Copper	0.000811	mg/L	0.002	0.04	U
	Lead	0.000721	mg/L	0.003	0.02	U
	Molybdenum	0.000844	mg/L	0.0009	0.02	U
	Nickel	5.3740E-4	mg/L	0.0009	0.02	U
	Selenium	-0.003314	mg/L	0.005	0.02	U
	Silver	0.000187	mg/L	0.001	0.02	U
	Thallium	-0.001291	mg/L	0.006	0.02	U
	Vanadium	-0.000509	mg/L	0.003	0.02	U
	Zinc	0.001166	mg/L	0.01	0.02	U

BLANKS

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302581
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-10	Calibration:	3H28002
Sequence:	S3H0313		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
S3H0313-ICB1	Lead	0.001351	mg/L	0.003	0.02	U
S3H0313-CCB1	Lead	0.000362	mg/L	0.003	0.02	U
S3H0313-CCB5	Lead	0.000345	mg/L	0.003	0.02	U
B3H0501-BLK1	Lead	-0.020551	mg/kg	0.14	1.0	U
S3H0313-CCB6	Lead	-0.000076	mg/L	0.003	0.02	U
S3H0313-CCB7	Lead	0.000074	mg/L	0.003	0.02	U
B3H0502-BLK1	Lead	0.046553	mg/kg	0.14	1.0	U
S3H0313-CCB8	Lead	0.000566	mg/L	0.003	0.02	U

BLANKS

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302581
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-10	Calibration:	3H29001
Sequence:	S3H0331		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
S3H0331-ICB1	Lead	0.000904	mg/L	0.003	0.02	U
S3H0331-CCB1	Lead	0.001159	mg/L	0.003	0.02	U
S3H0331-CCB8	Lead	0.000995	mg/L	0.003	0.02	U
S3H0331-CCB9	Lead	6.305E-4	mg/L	0.003	0.02	U

SUMMARY OF INTERFERENCE CHECK (ICSAB)

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10!
Instrument ID:	ICP-08	Calibration:	3H26002
Sequence:	S3H0300		

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3H0300-IFA1	Antimony	0.04		-0.026800		NA	mg/L
	Arsenic	0.02		-0.006896		NA	mg/L
	Barium	0.02		0.000105		NA	mg/L
	Beryllium	0.02		0.000680		NA	mg/L
	Cadmium	0.02		-0.005062		NA	mg/L
	Chromium	0.02		-0.000343		NA	mg/L
	Cobalt	0.02		-0.000866		NA	mg/L
	Copper	0.04		-0.002097		NA	mg/L
	Lead	0.02		-0.014590		NA	mg/L
	Molybdenum	0.02		0.005076		NA	mg/L
	Nickel	0.02		-0.004696		NA	mg/L
	Selenium	0.02		-0.040729		NA	mg/L
	Silver	0.02		-0.032095		NA	mg/L
	Thallium	0.02		-0.004228		NA	mg/L
	Vanadium	0.02		-0.004998		NA	mg/L
	Zinc	0.02		-0.003619		NA	mg/L
S3H0300-IFB1	Antimony	0.04	1.00000	1.029038	103	80-120	mg/L
	Arsenic	0.02	1.00000	1.020045	102	80-120	mg/L
	Barium	0.02	1.00000	1.003289	100	80-120	mg/L
	Beryllium	0.02	1.00000	0.986269	98.6	80-120	mg/L
	Cadmium	0.02	1.00000	0.901882	90.2	80-120	mg/L
	Chromium	0.02	1.00000	0.964818	96.5	80-120	mg/L
	Cobalt	0.02	1.00000	0.912205	91.2	80-120	mg/L
	Copper	0.04	1.00000	1.055099	106	80-120	mg/L
	Lead	0.02	1.00000	0.915245	91.5	80-120	mg/L
	Molybdenum	0.02	1.00000	0.986864	98.7	80-120	mg/L
	Nickel	0.02	1.00000	0.884565	88.5	80-120	mg/L
	Selenium	0.02	1.00000	0.941695	94.2	80-120	mg/L
	Silver	0.02	1.00000	1.060737	106	80-120	mg/L
	Thallium	0.02	1.00000	0.916250	91.6	80-120	mg/L
	Vanadium	0.02	1.00000	0.997595	99.8	80-120	mg/L
	Zinc	0.02	1.00000	0.919107	91.9	80-120	mg/L
S3H0300-IFA2	Antimony	0.04		-0.032504		NA	mg/L
	Arsenic	0.02		0.003703		NA	mg/L
	Barium	0.02		-0.000483		NA	mg/L
	Beryllium	0.02		0.000730		NA	mg/L
	Cadmium	0.02		-0.005084		NA	mg/L
	Chromium	0.02		-0.000200		NA	mg/L
	Cobalt	0.02		-0.000452		NA	mg/L
	Copper	0.04		-0.001890		NA	mg/L

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10!
Instrument ID:	ICP-08	Calibration:	3H26002
Sequence:	S3H0300		

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3H0300-IFA2	Lead	0.02		-0.014561		NA	mg/L
	Molybdenum	0.02		0.004902		NA	mg/L
	Nickel	0.02		-0.004611		NA	mg/L
	Selenium	0.02		-0.031407		NA	mg/L
	Silver	0.02		-0.032182		NA	mg/L
	Thallium	0.02		-0.005142		NA	mg/L
	Vanadium	0.02		-0.004654		NA	mg/L
	Zinc	0.02		-0.001897		NA	mg/L
S3H0300-IFB2	Antimony	0.04	1.00000	1.005997	101	80-120	mg/L
	Arsenic	0.02	1.00000	1.021575	102	80-120	mg/L
	Barium	0.02	1.00000	1.005909	101	80-120	mg/L
	Beryllium	0.02	1.00000	0.979598	98.0	80-120	mg/L
	Cadmium	0.02	1.00000	0.905674	90.6	80-120	mg/L
	Chromium	0.02	1.00000	0.965442	96.5	80-120	mg/L
	Cobalt	0.02	1.00000	0.918056	91.8	80-120	mg/L
	Copper	0.04	1.00000	1.063464	106	80-120	mg/L
	Lead	0.02	1.00000	0.923341	92.3	80-120	mg/L
	Molybdenum	0.02	1.00000	0.994813	99.5	80-120	mg/L
	Nickel	0.02	1.00000	0.889622	89.0	80-120	mg/L
	Selenium	0.02	1.00000	0.956256	95.6	80-120	mg/L
	Silver	0.02	1.00000	1.065959	107	80-120	mg/L
	Thallium	0.02	1.00000	0.916940	91.7	80-120	mg/L
	Vanadium	0.02	1.00000	1.002189	100	80-120	mg/L
	Zinc	0.02	1.00000	0.928953	92.9	80-120	mg/L

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10!
Instrument ID:	ICP-10	Calibration:	3H26005
Sequence:	S3H0307		

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3H0307-IFA1	Antimony	0.04		-0.001095		NA	mg/L
	Arsenic	0.02		-0.000986		NA	mg/L
	Barium	0.02		0.003508		NA	mg/L
	Beryllium	0.02		0.000499		NA	mg/L
	Cadmium	0.02		0.000167		NA	mg/L
	Chromium	0.02		0.003437		NA	mg/L
	Cobalt	0.02		-0.000079		NA	mg/L
	Copper	0.04		-0.001777		NA	mg/L
	Lead	0.02		-0.001846		NA	mg/L
	Molybdenum	0.02		-0.000530		NA	mg/L
	Nickel	0.02		-0.000267		NA	mg/L
	Selenium	0.02		-0.040616		NA	mg/L
	Silver	0.02		-0.000589		NA	mg/L
	Thallium	0.02		-0.004949		NA	mg/L
	Vanadium	0.02		-0.009330		NA	mg/L
	Zinc	0.02		-0.002659		NA	mg/L
S3H0307-IFB1	Antimony	0.04	1.00000	0.985958	98.6	80-120	mg/L
	Arsenic	0.02	1.00000	1.006571	101	80-120	mg/L
	Barium	0.02	1.00000	0.946741	94.7	80-120	mg/L
	Beryllium	0.02	1.00000	0.971485	97.1	80-120	mg/L
	Cadmium	0.02	1.00000	0.876112	87.6	80-120	mg/L
	Chromium	0.02	1.00000	0.940789	94.1	80-120	mg/L
	Cobalt	0.02	1.00000	0.910517	91.1	80-120	mg/L
	Copper	0.04	1.00000	0.973473	97.3	80-120	mg/L
	Lead	0.02	1.00000	0.881475	88.1	80-120	mg/L
	Molybdenum	0.02	1.00000	0.941560	94.2	80-120	mg/L
	Nickel	0.02	1.00000	0.895258	89.5	80-120	mg/L
	Selenium	0.02	1.00000	0.889048	88.9	80-120	mg/L
	Silver	0.02	1.00000	1.042455	104	80-120	mg/L
	Thallium	0.02	1.00000	0.901136	90.1	80-120	mg/L
	Vanadium	0.02	1.00000	0.951167	95.1	80-120	mg/L
	Zinc	0.02	1.00000	0.932002	93.2	80-120	mg/L
S3H0307-IFA2	Antimony	0.04		-0.003247		NA	mg/L
	Arsenic	0.02		0.005517		NA	mg/L
	Barium	0.02		0.003542		NA	mg/L
	Beryllium	0.02		0.000479		NA	mg/L
	Cadmium	0.02		0.000217		NA	mg/L
	Chromium	0.02		0.003492		NA	mg/L
	Cobalt	0.02		0.000177		NA	mg/L
	Copper	0.04		-0.002848		NA	mg/L

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory: Advanced Technology Laboratories
Work Order: 1302545
Client: Ninyo & Moore - SD
Project: CLAIREMONT H.S., 105338071 & 10!
Instrument ID: ICP-10
Calibration: 3H26005
Sequence: S3H0307

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3H0307-IFA2	Lead	0.02		0.001611		NA	mg/L
	Molybdenum	0.02		-0.001082		NA	mg/L
	Nickel	0.02		0.000093		NA	mg/L
	Selenium	0.02		-0.053042		NA	mg/L
	Silver	0.02		-0.000384		NA	mg/L
	Thallium	0.02		-0.003406		NA	mg/L
	Vanadium	0.02		-0.007457		NA	mg/L
	Zinc	0.02		-0.000588		NA	mg/L
S3H0307-IFB2	Antimony	0.04	1.00000	0.965441	96.5	80-120	mg/L
	Arsenic	0.02	1.00000	0.990346	99.0	80-120	mg/L
	Barium	0.02	1.00000	0.943188	94.3	80-120	mg/L
	Beryllium	0.02	1.00000	0.976860	97.7	80-120	mg/L
	Cadmium	0.02	1.00000	0.884304	88.4	80-120	mg/L
	Chromium	0.02	1.00000	0.940925	94.1	80-120	mg/L
	Cobalt	0.02	1.00000	0.901600	90.2	80-120	mg/L
	Copper	0.04	1.00000	0.975061	97.5	80-120	mg/L
	Lead	0.02	1.00000	0.890851	89.1	80-120	mg/L
	Molybdenum	0.02	1.00000	0.944036	94.4	80-120	mg/L
	Nickel	0.02	1.00000	0.893198	89.3	80-120	mg/L
	Selenium	0.02	1.00000	0.886615	88.7	80-120	mg/L
	Silver	0.02	1.00000	1.042831	104	80-120	mg/L
	Thallium	0.02	1.00000	0.890031	89.0	80-120	mg/L
	Vanadium	0.02	1.00000	0.943299	94.3	80-120	mg/L
	Zinc	0.02	1.00000	0.931545	93.2	80-120	mg/L
S3H0307-IFA3	Antimony	0.04		0.005415		NA	mg/L
	Arsenic	0.02		0.000494		NA	mg/L
	Barium	0.02		0.003658		NA	mg/L
	Beryllium	0.02		0.000475		NA	mg/L
	Cadmium	0.02		0.000179		NA	mg/L
	Chromium	0.02		0.003464		NA	mg/L
	Cobalt	0.02		0.000301		NA	mg/L
	Copper	0.04		0.001075		NA	mg/L
	Lead	0.02		-0.000772		NA	mg/L
	Molybdenum	0.02		-0.000832		NA	mg/L
	Nickel	0.02		-0.000222		NA	mg/L
	Selenium	0.02		-0.044683		NA	mg/L
	Silver	0.02		-0.000763		NA	mg/L
	Thallium	0.02		-0.004154		NA	mg/L
	Vanadium	0.02		-0.007974		NA	mg/L
	Zinc	0.02		0.002899		NA	mg/L

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10!
Instrument ID:	ICP-10	Calibration:	3H26005
Sequence:	S3H0307		

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3H0307-IFB3	Antimony	0.04	1.00000	0.967537	96.8	80-120	mg/L
	Arsenic	0.02	1.00000	0.981332	98.1	80-120	mg/L
	Barium	0.02	1.00000	0.943977	94.4	80-120	mg/L
	Beryllium	0.02	1.00000	0.973821	97.4	80-120	mg/L
	Cadmium	0.02	1.00000	0.884639	88.5	80-120	mg/L
	Chromium	0.02	1.00000	0.938988	93.9	80-120	mg/L
	Cobalt	0.02	1.00000	0.901057	90.1	80-120	mg/L
	Copper	0.04	1.00000	0.977326	97.7	80-120	mg/L
	Lead	0.02	1.00000	0.891005	89.1	80-120	mg/L
	Molybdenum	0.02	1.00000	0.944175	94.4	80-120	mg/L
	Nickel	0.02	1.00000	0.894601	89.5	80-120	mg/L
	Selenium	0.02	1.00000	0.916207	91.6	80-120	mg/L
	Silver	0.02	1.00000	1.034634	103	80-120	mg/L
	Thallium	0.02	1.00000	0.868662	86.9	80-120	mg/L
	Vanadium	0.02	1.00000	0.934951	93.5	80-120	mg/L
	Zinc	0.02	1.00000	0.937586	93.8	80-120	mg/L

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10!
Instrument ID:	ICP-08	Calibration:	3H26002
Sequence:	S3H0300		

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3H0300-IFA1	Lead	0.02		-0.014590		NA	mg/L
S3H0300-IFB1	Lead	0.02	1.00000	0.915245	91.5	80-120	mg/L
S3H0300-IFA2	Lead	0.02		-0.014561		NA	mg/L
S3H0300-IFB2	Lead	0.02	1.00000	0.923341	92.3	80-120	mg/L

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10!
Instrument ID:	ICP-10	Calibration:	3H26005
Sequence:	S3H0307		

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3H0307-IFA1	Lead	0.02		-0.001846		NA	mg/L
S3H0307-IFB1	Lead	0.02	1.00000	0.881475	88.1	80-120	mg/L
S3H0307-IFA2	Lead	0.02		0.001611		NA	mg/L
S3H0307-IFB2	Lead	0.02	1.00000	0.890851	89.1	80-120	mg/L
S3H0307-IFA3	Lead	0.02		-0.000772		NA	mg/L
S3H0307-IFB3	Lead	0.02	1.00000	0.891005	89.1	80-120	mg/L

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10!
Instrument ID:	ICP-08	Calibration:	3H26002
Sequence:	S3H0300		

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3H0300-IFA1	Antimony	0.04		-0.026800		NA	mg/L
	Arsenic	0.02		-0.006896		NA	mg/L
	Barium	0.02		0.000105		NA	mg/L
	Beryllium	0.02		0.000680		NA	mg/L
	Cadmium	0.02		-0.005062		NA	mg/L
	Chromium	0.02		-0.000343		NA	mg/L
	Cobalt	0.02		-0.000866		NA	mg/L
	Copper	0.04		-0.002097		NA	mg/L
	Lead	0.02		-0.014590		NA	mg/L
	Molybdenum	0.02		0.005076		NA	mg/L
	Nickel	0.02		-0.004696		NA	mg/L
	Selenium	0.02		-0.040729		NA	mg/L
	Silver	0.02		-0.032095		NA	mg/L
	Thallium	0.02		-0.004228		NA	mg/L
	Vanadium	0.02		-0.004998		NA	mg/L
	Zinc	0.02		-0.003619		NA	mg/L
S3H0300-IFB1	Antimony	0.04	1.00000	1.029038	103	80-120	mg/L
	Arsenic	0.02	1.00000	1.020045	102	80-120	mg/L
	Barium	0.02	1.00000	1.003289	100	80-120	mg/L
	Beryllium	0.02	1.00000	0.986269	98.6	80-120	mg/L
	Cadmium	0.02	1.00000	0.901882	90.2	80-120	mg/L
	Chromium	0.02	1.00000	0.964818	96.5	80-120	mg/L
	Cobalt	0.02	1.00000	0.912205	91.2	80-120	mg/L
	Copper	0.04	1.00000	1.055099	106	80-120	mg/L
	Lead	0.02	1.00000	0.915245	91.5	80-120	mg/L
	Molybdenum	0.02	1.00000	0.986864	98.7	80-120	mg/L
	Nickel	0.02	1.00000	0.884565	88.5	80-120	mg/L
	Selenium	0.02	1.00000	0.941695	94.2	80-120	mg/L
	Silver	0.02	1.00000	1.060737	106	80-120	mg/L
	Thallium	0.02	1.00000	0.916250	91.6	80-120	mg/L
	Vanadium	0.02	1.00000	0.997595	99.8	80-120	mg/L
	Zinc	0.02	1.00000	0.919107	91.9	80-120	mg/L
S3H0300-IFA2	Antimony	0.04		-0.032504		NA	mg/L
	Arsenic	0.02		0.003703		NA	mg/L
	Barium	0.02		-0.000483		NA	mg/L
	Beryllium	0.02		0.000730		NA	mg/L
	Cadmium	0.02		-0.005084		NA	mg/L
	Chromium	0.02		-0.000200		NA	mg/L
	Cobalt	0.02		-0.000452		NA	mg/L
	Copper	0.04		-0.001890		NA	mg/L

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10!
Instrument ID:	ICP-08	Calibration:	3H26002
Sequence:	S3H0300		

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3H0300-IFA2	Lead	0.02		-0.014561		NA	mg/L
	Molybdenum	0.02		0.004902		NA	mg/L
	Nickel	0.02		-0.004611		NA	mg/L
	Selenium	0.02		-0.031407		NA	mg/L
	Silver	0.02		-0.032182		NA	mg/L
	Thallium	0.02		-0.005142		NA	mg/L
	Vanadium	0.02		-0.004654		NA	mg/L
	Zinc	0.02		-0.001897		NA	mg/L
S3H0300-IFB2	Antimony	0.04	1.00000	1.005997	101	80-120	mg/L
	Arsenic	0.02	1.00000	1.021575	102	80-120	mg/L
	Barium	0.02	1.00000	1.005909	101	80-120	mg/L
	Beryllium	0.02	1.00000	0.979598	98.0	80-120	mg/L
	Cadmium	0.02	1.00000	0.905674	90.6	80-120	mg/L
	Chromium	0.02	1.00000	0.965442	96.5	80-120	mg/L
	Cobalt	0.02	1.00000	0.918056	91.8	80-120	mg/L
	Copper	0.04	1.00000	1.063464	106	80-120	mg/L
	Lead	0.02	1.00000	0.923341	92.3	80-120	mg/L
	Molybdenum	0.02	1.00000	0.994813	99.5	80-120	mg/L
	Nickel	0.02	1.00000	0.889622	89.0	80-120	mg/L
	Selenium	0.02	1.00000	0.956256	95.6	80-120	mg/L
	Silver	0.02	1.00000	1.065959	107	80-120	mg/L
	Thallium	0.02	1.00000	0.916940	91.7	80-120	mg/L
	Vanadium	0.02	1.00000	1.002189	100	80-120	mg/L
	Zinc	0.02	1.00000	0.928953	92.9	80-120	mg/L

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10!
Instrument ID:	ICP-10	Calibration:	3H26005
Sequence:	S3H0307		

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3H0307-IFA1	Antimony	0.04		-0.001095		NA	mg/L
	Arsenic	0.02		-0.000986		NA	mg/L
	Barium	0.02		0.003508		NA	mg/L
	Beryllium	0.02		0.000499		NA	mg/L
	Cadmium	0.02		0.000167		NA	mg/L
	Chromium	0.02		0.003437		NA	mg/L
	Cobalt	0.02		-0.000079		NA	mg/L
	Copper	0.04		-0.001777		NA	mg/L
	Lead	0.02		-0.001846		NA	mg/L
	Molybdenum	0.02		-0.000530		NA	mg/L
	Nickel	0.02		-0.000267		NA	mg/L
	Selenium	0.02		-0.040616		NA	mg/L
	Silver	0.02		-0.000589		NA	mg/L
	Thallium	0.02		-0.004949		NA	mg/L
	Vanadium	0.02		-0.009330		NA	mg/L
	Zinc	0.02		-0.002659		NA	mg/L
S3H0307-IFB1	Antimony	0.04	1.00000	0.985958	98.6	80-120	mg/L
	Arsenic	0.02	1.00000	1.006571	101	80-120	mg/L
	Barium	0.02	1.00000	0.946741	94.7	80-120	mg/L
	Beryllium	0.02	1.00000	0.971485	97.1	80-120	mg/L
	Cadmium	0.02	1.00000	0.876112	87.6	80-120	mg/L
	Chromium	0.02	1.00000	0.940789	94.1	80-120	mg/L
	Cobalt	0.02	1.00000	0.910517	91.1	80-120	mg/L
	Copper	0.04	1.00000	0.973473	97.3	80-120	mg/L
	Lead	0.02	1.00000	0.881475	88.1	80-120	mg/L
	Molybdenum	0.02	1.00000	0.941560	94.2	80-120	mg/L
	Nickel	0.02	1.00000	0.895258	89.5	80-120	mg/L
	Selenium	0.02	1.00000	0.889048	88.9	80-120	mg/L
	Silver	0.02	1.00000	1.042455	104	80-120	mg/L
	Thallium	0.02	1.00000	0.901136	90.1	80-120	mg/L
	Vanadium	0.02	1.00000	0.951167	95.1	80-120	mg/L
	Zinc	0.02	1.00000	0.932002	93.2	80-120	mg/L
S3H0307-IFA2	Antimony	0.04		-0.003247		NA	mg/L
	Arsenic	0.02		0.005517		NA	mg/L
	Barium	0.02		0.003542		NA	mg/L
	Beryllium	0.02		0.000479		NA	mg/L
	Cadmium	0.02		0.000217		NA	mg/L
	Chromium	0.02		0.003492		NA	mg/L
	Cobalt	0.02		0.000177		NA	mg/L
	Copper	0.04		-0.002848		NA	mg/L

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10!
Instrument ID:	ICP-10	Calibration:	3H26005
Sequence:	S3H0307		

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3H0307-IFA2	Lead	0.02		0.001611		NA	mg/L
	Molybdenum	0.02		-0.001082		NA	mg/L
	Nickel	0.02		0.000093		NA	mg/L
	Selenium	0.02		-0.053042		NA	mg/L
	Silver	0.02		-0.000384		NA	mg/L
	Thallium	0.02		-0.003406		NA	mg/L
	Vanadium	0.02		-0.007457		NA	mg/L
	Zinc	0.02		-0.000588		NA	mg/L
S3H0307-IFB2	Antimony	0.04	1.00000	0.965441	96.5	80-120	mg/L
	Arsenic	0.02	1.00000	0.990346	99.0	80-120	mg/L
	Barium	0.02	1.00000	0.943188	94.3	80-120	mg/L
	Beryllium	0.02	1.00000	0.976860	97.7	80-120	mg/L
	Cadmium	0.02	1.00000	0.884304	88.4	80-120	mg/L
	Chromium	0.02	1.00000	0.940925	94.1	80-120	mg/L
	Cobalt	0.02	1.00000	0.901600	90.2	80-120	mg/L
	Copper	0.04	1.00000	0.975061	97.5	80-120	mg/L
	Lead	0.02	1.00000	0.890851	89.1	80-120	mg/L
	Molybdenum	0.02	1.00000	0.944036	94.4	80-120	mg/L
	Nickel	0.02	1.00000	0.893198	89.3	80-120	mg/L
	Selenium	0.02	1.00000	0.886615	88.7	80-120	mg/L
	Silver	0.02	1.00000	1.042831	104	80-120	mg/L
	Thallium	0.02	1.00000	0.890031	89.0	80-120	mg/L
	Vanadium	0.02	1.00000	0.943299	94.3	80-120	mg/L
	Zinc	0.02	1.00000	0.931545	93.2	80-120	mg/L
S3H0307-IFA3	Antimony	0.04		0.005415		NA	mg/L
	Arsenic	0.02		0.000494		NA	mg/L
	Barium	0.02		0.003658		NA	mg/L
	Beryllium	0.02		0.000475		NA	mg/L
	Cadmium	0.02		0.000179		NA	mg/L
	Chromium	0.02		0.003464		NA	mg/L
	Cobalt	0.02		0.000301		NA	mg/L
	Copper	0.04		0.001075		NA	mg/L
	Lead	0.02		-0.000772		NA	mg/L
	Molybdenum	0.02		-0.000832		NA	mg/L
	Nickel	0.02		-0.000222		NA	mg/L
	Selenium	0.02		-0.044683		NA	mg/L
	Silver	0.02		-0.000763		NA	mg/L
	Thallium	0.02		-0.004154		NA	mg/L
	Vanadium	0.02		-0.007974		NA	mg/L
	Zinc	0.02		0.002899		NA	mg/L

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10!
Instrument ID:	ICP-10	Calibration:	3H26005
Sequence:	S3H0307		

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3H0307-IFB3	Antimony	0.04	1.00000	0.967537	96.8	80-120	mg/L
	Arsenic	0.02	1.00000	0.981332	98.1	80-120	mg/L
	Barium	0.02	1.00000	0.943977	94.4	80-120	mg/L
	Beryllium	0.02	1.00000	0.973821	97.4	80-120	mg/L
	Cadmium	0.02	1.00000	0.884639	88.5	80-120	mg/L
	Chromium	0.02	1.00000	0.938988	93.9	80-120	mg/L
	Cobalt	0.02	1.00000	0.901057	90.1	80-120	mg/L
	Copper	0.04	1.00000	0.977326	97.7	80-120	mg/L
	Lead	0.02	1.00000	0.891005	89.1	80-120	mg/L
	Molybdenum	0.02	1.00000	0.944175	94.4	80-120	mg/L
	Nickel	0.02	1.00000	0.894601	89.5	80-120	mg/L
	Selenium	0.02	1.00000	0.916207	91.6	80-120	mg/L
	Silver	0.02	1.00000	1.034634	103	80-120	mg/L
	Thallium	0.02	1.00000	0.868662	86.9	80-120	mg/L
	Vanadium	0.02	1.00000	0.934951	93.5	80-120	mg/L
	Zinc	0.02	1.00000	0.937586	93.8	80-120	mg/L

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10!
Instrument ID:	ICP-08	Calibration:	3H26002
Sequence:	S3H0300		

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3H0300-IFA1	Lead	0.02		-0.014590		NA	mg/L
S3H0300-IFB1	Lead	0.02	1.00000	0.915245	91.5	80-120	mg/L
S3H0300-IFA2	Lead	0.02		-0.014561		NA	mg/L
S3H0300-IFB2	Lead	0.02	1.00000	0.923341	92.3	80-120	mg/L

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10!
Instrument ID:	ICP-10	Calibration:	3H26005
Sequence:	S3H0307		

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3H0307-IFA1	Lead	0.02		-0.001846		NA	mg/L
S3H0307-IFB1	Lead	0.02	1.00000	0.881475	88.1	80-120	mg/L
S3H0307-IFA2	Lead	0.02		0.001611		NA	mg/L
S3H0307-IFB2	Lead	0.02	1.00000	0.890851	89.1	80-120	mg/L
S3H0307-IFA3	Lead	0.02		-0.000772		NA	mg/L
S3H0307-IFB3	Lead	0.02	1.00000	0.891005	89.1	80-120	mg/L

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302581
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10!
Instrument ID:	ICP-10	Calibration:	3H28002
Sequence:	S3H0313		

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3H0313-IFA1	Antimony	0.04		-0.000182		NA	mg/L
	Arsenic	0.02		0.000132		NA	mg/L
	Barium	0.02		0.004156		NA	mg/L
	Beryllium	0.02		0.000521		NA	mg/L
	Cadmium	0.02		0.000008		NA	mg/L
	Chromium	0.02		0.003334		NA	mg/L
	Cobalt	0.02		0.000024		NA	mg/L
	Copper	0.04		-0.000251		NA	mg/L
	Lead	0.02		-0.001847		NA	mg/L
	Molybdenum	0.02		-0.001100		NA	mg/L
	Nickel	0.02		0.000222		NA	mg/L
	Selenium	0.02		-0.067288		NA	mg/L
	Silver	0.02		-0.000409		NA	mg/L
	Thallium	0.02		-0.002907		NA	mg/L
	Vanadium	0.02		-0.008271		NA	mg/L
	Zinc	0.02		-0.002663		NA	mg/L
S3H0313-IFB1	Antimony	0.04	1.00000	0.976240	97.6	80-120	mg/L
	Arsenic	0.02	1.00000	1.000085	100	80-120	mg/L
	Barium	0.02	1.00000	0.945208	94.5	80-120	mg/L
	Beryllium	0.02	1.00000	0.978402	97.8	80-120	mg/L
	Cadmium	0.02	1.00000	0.876396	87.6	80-120	mg/L
	Chromium	0.02	1.00000	0.940687	94.1	80-120	mg/L
	Cobalt	0.02	1.00000	0.907489	90.7	80-120	mg/L
	Copper	0.04	1.00000	0.970798	97.1	80-120	mg/L
	Lead	0.02	1.00000	0.896569	89.7	80-120	mg/L
	Molybdenum	0.02	1.00000	0.938159	93.8	80-120	mg/L
	Nickel	0.02	1.00000	0.895648	89.6	80-120	mg/L
	Selenium	0.02	1.00000	0.902155	90.2	80-120	mg/L
	Silver	0.02	1.00000	1.044537	104	80-120	mg/L
	Thallium	0.02	1.00000	0.894079	89.4	80-120	mg/L
	Vanadium	0.02	1.00000	0.953209	95.3	80-120	mg/L
	Zinc	0.02	1.00000	0.889892	89.0	80-120	mg/L
S3H0313-IFA2	Antimony	0.04		0.004664		NA	mg/L
	Arsenic	0.02		-0.000340		NA	mg/L
	Barium	0.02		0.005697		NA	mg/L
	Beryllium	0.02		0.000490		NA	mg/L
	Cadmium	0.02		0.000134		NA	mg/L
	Chromium	0.02		0.003958		NA	mg/L
	Cobalt	0.02		0.000507		NA	mg/L
	Copper	0.04		-0.000973		NA	mg/L

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302581
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10!
Instrument ID:	ICP-10	Calibration:	3H28002
Sequence:	S3H0313		

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3H0313-IFA2	Lead	0.02		-0.002729		NA	mg/L
	Molybdenum	0.02		-0.001231		NA	mg/L
	Nickel	0.02		0.000526		NA	mg/L
	Selenium	0.02		-0.037918		NA	mg/L
	Silver	0.02		-0.000421		NA	mg/L
	Thallium	0.02		-0.005616		NA	mg/L
	Vanadium	0.02		-0.007099		NA	mg/L
	Zinc	0.02		0.000711		NA	mg/L
S3H0313-IFB2	Antimony	0.04	1.00000	0.991814	99.2	80-120	mg/L
	Arsenic	0.02	1.00000	0.988766	98.9	80-120	mg/L
	Barium	0.02	1.00000	0.934426	93.4	80-120	mg/L
	Beryllium	0.02	1.00000	0.982968	98.3	80-120	mg/L
	Cadmium	0.02	1.00000	0.866281	86.6	80-120	mg/L
	Chromium	0.02	1.00000	0.936555	93.7	80-120	mg/L
	Cobalt	0.02	1.00000	0.901598	90.2	80-120	mg/L
	Copper	0.04	1.00000	0.974235	97.4	80-120	mg/L
	Lead	0.02	1.00000	0.884981	88.5	80-120	mg/L
	Molybdenum	0.02	1.00000	0.958077	95.8	80-120	mg/L
	Nickel	0.02	1.00000	0.889506	89.0	80-120	mg/L
	Selenium	0.02	1.00000	0.937280	93.7	80-120	mg/L
	Silver	0.02	1.00000	1.047325	105	80-120	mg/L
	Thallium	0.02	1.00000	0.901136	90.1	80-120	mg/L
	Vanadium	0.02	1.00000	0.934799	93.5	80-120	mg/L
	Zinc	0.02	1.00000	0.907713	90.8	80-120	mg/L

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302581
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10!
Instrument ID:	ICP-10	Calibration:	3H28002
Sequence:	S3H0313		

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3H0313-IFA1	Lead	0.02		-0.001847		NA	mg/L
S3H0313-IFB1	Lead	0.02	1.00000	0.896569	89.7	80-120	mg/L
S3H0313-IFA2	Lead	0.02		-0.002729		NA	mg/L
S3H0313-IFB2	Lead	0.02	1.00000	0.884981	88.5	80-120	mg/L

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302581
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10!
Instrument ID:	ICP-10	Calibration:	3H29001
Sequence:	S3H0331		

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3H0331-IFA1	Lead	0.02		-0.002398		NA	mg/L
S3H0331-IFB1	Lead	0.02	1.00000	0.885274	88.5	80-120	mg/L
S3H0331-IFA2	Lead	0.02		-0.001821		NA	mg/L
S3H0331-IFB2	Lead	0.02	1.00000	0.867934	86.8	80-120	mg/L

Method EPA 6010B
(STLC DI)

ANALYSIS RUN LOG

WinLab32 - Off-Line ICP Continuous - Data Reprocessing

File Edit Tools Analysis Options Window Help

MethEd | SamInfo | Spectra | Results | Calib | Examine | Reproc

Method: Untitled

Sample Info: Untitled

Data Reprocessing

Analysis Progress

Step: Idle

Reprocess

Data Set To Reprocess: ICP8_130905-01

Browse...

Browse...

Print Log

Hide Empty Columns

	Seq	Sample ID	Date Time	Initial Sample Wt	Initial Sample Vol	Sample Un
1		IBL1	9/5/2013 7:28:37 AM			
2		CAL1	9/5/2013 7:32:14 AM			
3		CAL2	9/5/2013 7:35:39 AM			
4		CAL3	9/5/2013 7:38:48 AM			
5		ICV1	9/5/2013 7:44:51 AM		25	mg/L
6		ICB1	9/5/2013 7:48:04 AM		25	mg/L
7		IFA1	9/5/2013 7:51:51 AM			
8		IFB1	9/5/2013 7:56:09 AM			
9		CCV1	9/5/2013 7:59:50 AM			
10		CCB1	9/5/2013 8:03:00 AM		25	mg/L
11		B3I0026-BLK1	9/5/2013 8:12:49 AM		25	mg/L
12		B3I0026-BS1	9/5/2013 8:16:36 AM		25	mg/L
13		1302669-01@10	9/5/2013 8:19:29 AM		25	mg/L
14		~~1302669-02@10~~	9/5/2013 8:23:10 AM		25	mg/L
15		~~1302669-03@10~~	9/5/2013 8:26:57 AM		25	mg/L
16		1302669-04	9/5/2013 8:30:45 AM		25	mg/L
17		B3I0026-MS1	9/5/2013 8:34:24 AM		25	mg/L
18		B3I0026-MSD1	9/5/2013 8:37:17 AM		25	mg/L
19		1302669-05@10	9/5/2013 8:40:12 AM		25	mg/L
20		~~1302669-06@10~~	9/5/2013 8:43:23 AM		25	mg/L
21		S3I0027-CCV2	9/5/2013 8:47:04 AM		25	mg/L
22		S3I0027-CCB2	9/5/2013 8:50:17 AM		25	mg/L
23		~~1302669-07@10~~	9/5/2013 8:54:04 AM		25	mg/L
24		~~1302669-08@10~~	9/5/2013 8:57:45 AM		25	mg/L
25		1302669-09@10	9/5/2013 9:01:35 AM		25	mg/L
26		~~1302669-10@10~~	9/5/2013 9:05:14 AM		25	mg/L
27		1302669-02	9/5/2013 9:16:34 AM		25	
28		1302669-03	9/5/2013 9:20:14 AM		25	
29		1302669-06@2	9/5/2013 9:24:02 AM		25	
30		1302669-07@2	9/5/2013 9:27:43 AM		25	
31		1302669-08	9/5/2013 9:31:04 AM		25	
32		1302669-10@5	9/5/2013 9:34:44 AM		25	
33		IFA2	9/5/2013 9:41:16 AM			
34		IFB2	9/5/2013 9:45:34 AM			
35		CCV-3	9/5/2013 9:49:15 AM		25	mg/L
36		CCB-3	9/5/2013 9:52:28 AM		25	mg/L
37		S3I0027-CCV4	9/5/2013 1:02:53 PM		25	mg/L
38		S3I0027-CCB4	9/5/2013 1:06:06 PM		25	mg/L
39		B3I0060-BLK1@20	9/5/2013 1:09:53 PM		25	mg/L
40		B3I0060-BS1@20	9/5/2013 1:13:42 PM		25	mg/L

*Parameters marked with an asterisk override settings in the method.

For Help, press F1

WinLab32 - Off-Line ICP Continuous - Data Reprocessing

File Edit Tools Analysis Options Window Help

MethEd | SamInfo | Spectra | Results | Calib | Examine | Reproc

Method: Untitled

Sample Info: Untitled

Data Reprocessing

Analysis Progress | Step: Idle

Reprocess

Data Set To Reprocess: ICP8_130905-01 | Browse

Browse

Print Log

Hide Empty Columns

	Seq.	Sample ID	Date Time	Initial Sample Wt	Initial Sample Vol.	Sample Un
22		S3I0027-CCB2	9/5/2013 8:50:17 AM		25	mg/L
23		1302669-07@10	9/5/2013 8:54:04 AM		25	mg/L
24		1302669-08@10	9/5/2013 8:57:45 AM		25	mg/L
25		1302669-09@10	9/5/2013 9:01:35 AM		25	mg/L
26		1302669-10@10	9/5/2013 9:05:14 AM		25	mg/L
27		1302669-02	9/5/2013 9:16:34 AM		25	
28		1302669-03	9/5/2013 9:20:14 AM		25	
29		1302669-06@2	9/5/2013 9:24:02 AM		25	
30		1302669-07@2	9/5/2013 9:27:43 AM		25	
31		1302669-08	9/5/2013 9:31:04 AM		25	
32		1302669-10@5	9/5/2013 9:34:44 AM		25	
33		IFA2	9/5/2013 9:41:16 AM			
34		IFB2	9/5/2013 9:45:34 AM			
35		CCV-	9/5/2013 9:49:15 AM		25	mg/L
36		CCB-	9/5/2013 9:52:28 AM		25	mg/L
37		S3I0027-CCV4	9/5/2013 1:02:53 PM		25	mg/L
38		S3I0027-CCB4	9/5/2013 1:06:06 PM		25	mg/L
39		B3I0060-BLK1@20	9/5/2013 1:09:53 PM		25	mg/L
40		B3I0060-BS1@20	9/5/2013 1:13:42 PM		25	mg/L
41		1302545-05@20	9/5/2013 1:17:33 PM		25	mg/L
42		1302545-17@20	9/5/2013 1:21:23 PM		25	mg/L
43		1302547-05@20	9/5/2013 1:25:13 PM		25	mg/L
44		1302547-11@20	9/5/2013 1:28:53 PM		25	mg/L
45		B3I0060-DUP1@20	9/5/2013 1:32:43 PM		25	mg/L
46		B3I0060-MS1@20	9/5/2013 1:36:33 PM		25	mg/L
47		B3I0060-MSD1@20	9/5/2013 1:40:14 PM		25	mg/L
48		S3I0027-CCV5	9/5/2013 1:46:43 PM		25	
49		S3I0027-CCB5	9/5/2013 1:49:57 PM		25	
50						
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60						

*Parameters marked with an asterisk override settings in the method.

For Help, press F1

ANALYSIS SEQUENCE

S3I0027

Sequence Comments:

Instrument: ICP-08
Calibration ID: 3I06001

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
S3I0027-IBL1	QC		1		A3B0015	
S3I0027-CAL1	QC		2	A3I0023	A3B0015	
S3I0027-CAL2	QC		3	A3G0205	A3B0015	
S3I0027-CAL3	QC		4	A3G0206	A3B0015	
S3I0027-ICV1	QC		5	A3H0268	A3B0015	
S3I0027-ICB1	QC		6		A3B0015	
S3I0027-IFA1	QC		7	A3G0427	A3B0015	
S3I0027-IFB1	QC		8	A3G0444	A3B0015	
S3I0027-CCV1	QC		9	A3H0219	A3B0015	
S3I0027-CCB1	QC		10		A3B0015	
B3I0026-BLK1	QC		11		A3B0015	
B3I0026-BS1	QC		12		A3B0015	
1302669-01	200.7	A	13		A3B0015	
1302669-04	200.7	A	14		A3B0015	
B3I0026-MS1	QC		15		A3B0015	
B3I0026-MSD1	QC		16		A3B0015	
1302669-05	200.7	A	17		A3B0015	
S3I0027-CCV2	QC		18	A3H0268	A3B0015	
S3I0027-CCB2	QC		19		A3B0015	
1302669-09	200.7	A	20		A3B0015	
1302669-02	200.7	A	21		A3B0015	
1302669-03	200.7	A	22		A3B0015	
1302669-06	200.7	A	23		A3B0015	
1302669-07	200.7	A	24		A3B0015	
1302669-08	200.7	A	25		A3B0015	
1302669-10	200.7	A	26		A3B0015	
S3I0027-IFA2	QC		27	A3G0427	A3B0015	
S3I0027-IFB2	QC		28	A3G0444	A3B0015	
S3I0027-CCV3	QC		29	A3H0268	A3B0015	
S3I0027-CCB3	QC		30		A3B0015	
S3I0027-CCV4	QC		31	A3H0268	A3B0015	
S3I0027-CCB4	QC		32		A3B0015	

AG 9/6/13
Samples Loaded By Date

AG 9/6/13
Data Processed By Date

ANALYSIS SEQUENCE

S3I0027

Sequence Comments:

Instrument: ICP-08
Calibration ID: 3I06001

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
B3I0060-BLK1	QC		33		A3B0015	
B3I0060-BS1	QC		34		A3B0015	
1302545-05	6010_STDI	A 01	35		A3B0015	Pb
1302545-17	6010_STDI	A 01	36		A3B0015	Pb
1302547-05	6010_STDI	A 01	37		A3B0015	Pb
1302547-11	6010_STDI	A 01	38		A3B0015	Pb
B3I0060-DUP1	QC		39		A3B0015	
B3I0060-MS1	QC		40		A3B0015	
B3I0060-MSD1	QC		41		A3B0015	
S3I0027-CCV5	QC		42	A3H0268	A3B0015	
S3I0027-CCB5	QC		43		A3B0015	

AG 9/6/13
Samples Loaded By Date

AG 9/6/13
Data Processed By Date

SAMPLE PREPARATION LOG

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

PREPARATION BENCH SHEET

B3I0060

Advanced Technology Laboratories

Lab Matrix: Soil

Date Prepared: 09/05/13 11:48

Prepared by: MS

End Date/Time:

Prep Code: STLC DI Extraction

Bottle Lot No.: _____

Lab Number	Analysis	ClientMatrix	pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Extraction Comments
1302545-05	6010_STDI	Soil		25.00	25						Pb
1302545-17	6010_STDI	Soil		25.00	25						Pb
1302547-05	6010_STDI	Soil		25.00	25						Pb
1302547-11	6010_STDI	Soil		25.00	25						Pb
B3I0060-BLK1	QC		CS 9/30/13	~~10.00~~ 25.00	~~100~~ 25.00						
B3I0060-BS1	QC			5.00	5	A3H0322	A3H0012		200	200	
B3I0060-DUP1	QC		CS 9/2013	~~10.00~~ 25.00	~~100~~ 25.00			1302547-11			
B3I0060-MS1	QC			5.00	5	A3H0355		1302547-11	250		
B3I0060-MSD1	QC			5.00	5	A3H0355		1302547-11	250		

Number	Reagent Name

MS 9-6-13
Prepared By Date

CS 9/6/13
Preparation Reviewed By Date

AG 9/5/13
Digestates Received By Date

Printed: 9/5/2013 1:52:21PM :: bch_ATL_Metals(2)

330

PREPARATION BENCH SHEET

B3I0060

Advanced Technology Laboratories

Lab Matrix: Soil

Date Prepared: 09/05/13 11:48

Prepared by: MS

End Date/Time:

Prep Code: STLC DI Extraction

Bottle Lot No.: _____

Lab Number	Analysis	ClientMatrix	pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Extraction Comments
1302545-05	6010_STDI	Soil		25.00	25						Pb
1302545-17	6010_STDI	Soil		25.00	25						Pb
1302547-05	6010_STDI	Soil		25.00	25						Pb
1302547-11	6010_STDI	Soil		25.00	25						Pb
B3I0060-BLK1	QC		GS 9/20/13	~~10.00~~ 25.00	~~100~~ 25.00						
B3I0060-DUP1	QC		GS 9/20/13	~~10.00~~ 25.00	~~100~~ 25.00			1302547-11			

Number	Reagent Name

MS 9.5.13
Prepared By Date

GS 9/6/13
Preparation Reviewed By Date

AG 9/5/13
Digestates Received By Date

PREPARATION BENCH SHEET

B3I0010

Advanced Technology Laboratories

Lab Matrix: Soil
Start Date/Time: 09/03/13 10:28
End Date/Time: 09/05/13 11:30

Prep Code: STLC DI Extraction

Prepared by: MS
Temperature, °C: 23
Rotation Speed, rpm: 30
Bottle Lot No.: _____

Lab Number	Analysis	Client Matrix	Pre-extraction pH	Initial (g)	Final (mL)	Extract pH	Spike ID 1	Spike ID 2	Source ID	Spike 1 (uL)	Spike 2 (uL)	Extraction Comments
1302545-05	STDI_Metals	Soil		10.00	100	<2						
1302545-17	STDI_Metals	Soil		10.00	100	<2						
1302547-05	STDI_Metals	Soil		10.00	100	<2						
1302547-11	STDI_Metals	Soil		10.00	100	<2						
B3I0010-BLK1	QC			10.00	100	<2						
B3I0010-DUP1	QC			10.00	100	<2			1302547-11			

Prepared By	Date	Preparation Reviewed By	Date	Extracts Received By	Date
MS	9-5-13	GS	9/6/13	AL	9/5/13

PREPARATION BENCH SHEET

B3I0010

Advanced Technology Laboratories

Prepared by: MS

Prep Code: STLC DI Extraction

Lab Number	Estimated % Solid	Particle Size >1cm	Particle Size <1cm	Extraction Fluid Code	Fluid Type
1302545-05	100	☐	☑		
1302545-17		☐	☑		
1302547-05		☐	☑		
1302547-11		☐	☑		
B3I0010-BLK1		☐	☑		
B3I0010-DUP1		☐	☑		

Number	Reagent Name

MS — Prepared By — 9-5-13 Date

Preparation Reviewed By — 9/6/13 Date

AL — Extracts Received By — 9/5/13 Date

Printed: 9/5/2013 11:31:03AM :: bch_ATL_Metals_Leach(2)

INITIAL CALIBRATION DATA SUMMARY

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

ATL Number: 1302545 , 1302547 BA 09/25/13

INITIAL CALIBRATION
EPA 6010B

Instrument ID: ICP10
Date(s) Analyzed: 9/5/2013

Analyte	INTENSITY			
	STD1*	STD2(0.5mg/L)	STD3(1.0mg/L)	r2
Lead	68.68276026	7032.575115	13793.84342	0.999969295

*~~0.0025 mg/L: Ba, Be, Cd, Cr, Co, Ag, V~~ 0.005 mg/L: Sb, Cu, Pb, Mo, Ni ~~0.01 mg/L: As, Se, Tl, Zn, Mn~~ ~~0.5 mg/L: Ca, Fe, K, Na~~

134 09/17/13

Standard Concentration:	STD1*	0.5 mg/L	1.0 mg/L
Standard ID:	A3I0023	A3G0205	A3G0206

Calibration Acceptance Criteria: > 0.995 Correlation

INITIAL CALIBRATION AND CONTINUING CALIBRATION VERIFICATION SUMMARY

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-08	Calibration:	3I06001
		Sequence:	S3I0027

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3I0027-ICV1	A3H0268	Lead	0.500000	0.503362	101	mg/L	+/- 10.00%
S3I0027-CCV1	A3H0219	Lead	0.250000	0.254885	102	mg/L	+/- 10.00%
S3I0027-CCV4	A3H0268	Lead	0.500000	0.519150	104	mg/L	+/- 10.00%
S3I0027-CCV5	A3H0268	Lead	0.500000	0.519764	104	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10533808
Instrument ID:	ICP-08	Calibration:	3I06001
		Sequence:	S3I0027

Lab Sample ID	Standard ID	Analyte	True	Found	%R	Units	Control Limit
S3I0027-ICV1	A3H0268	Lead	0.500000	0.503362	101	mg/L	+/- 10.00%
S3I0027-CCV1	A3H0219	Lead	0.250000	0.254885	102	mg/L	+/- 10.00%
S3I0027-CCV4	A3H0268	Lead	0.500000	0.519150	104	mg/L	+/- 10.00%
S3I0027-CCV5	A3H0268	Lead	0.500000	0.519764	104	mg/L	+/- 10.00%

SUMMARY OF INSTRUMENT BLANKS

BLANKS

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-08	Calibration:	3I06001
Sequence:	S3I0027		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
S3I0027-ICB1	Lead	-0.000623	mg/L	0.0022	0.050	U
S3I0027-CCB1	Lead	-0.000343	mg/L	0.0022	0.050	U
S3I0027-CCB4	Lead	-0.000050	mg/L	0.0022	0.050	U
B3I0060-BLK1	Lead	-0.005210	mg/L	0.056	1.0	U
S3I0027-CCB5	Lead	-0.000063	mg/L	0.0022	0.050	U

BLANKS

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 105338088
Instrument ID:	ICP-08	Calibration:	3I06001
Sequence:	S3I0027		

Lab Sample ID	Analyte	Found	Units	MDL	RL	C
S3I0027-ICB1	Lead	-0.000623	mg/L	0.0022	0.050	U
S3I0027-CCB1	Lead	-0.000343	mg/L	0.0022	0.050	U
S3I0027-CCB4	Lead	-0.000050	mg/L	0.0022	0.050	U
B3I0060-BLK1	Lead	-0.005210	mg/L	0.056	1.0	U
S3I0027-CCB5	Lead	-0.000063	mg/L	0.0022	0.050	U

SUMMARY OF INTERFERENCE CHECK (ICSAB)

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302545
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10!
Instrument ID:	ICP-08	Calibration:	3I06001
Sequence:	S3I0027		

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3I0027-IFA1	Lead	0.050		-0.015611		NA	mg/L
S3I0027-IFB1	Lead	0.050	1.00000	0.925458	92.5	80-120	mg/L
S3I0027-IFA2	Lead	0.050		-0.015030		NA	mg/L
S3I0027-IFB2	Lead	0.050	1.00000	0.918323	91.8	80-120	mg/L

INTERFERENCE CHECK SAMPLE

EPA 6010B

Laboratory:	Advanced Technology Laboratories	Work Order:	1302547
Client:	Ninyo & Moore - SD	Project:	CLAIREMONT H.S., 105338071 & 10!
Instrument ID:	ICP-08	Calibration:	3I06001
Sequence:	S3I0027		

Lab Sample ID	Analyte	RL	True	Found	%R	%R Criteria	Units
S3I0027-IFA1	Lead	0.050		-0.015611		NA	mg/L
S3I0027-IFB1	Lead	0.050	1.00000	0.925458	92.5	80-120	mg/L
S3I0027-IFA2	Lead	0.050		-0.015030		NA	mg/L
S3I0027-IFB2	Lead	0.050	1.00000	0.918323	91.8	80-120	mg/L

Method EPA 7471A

ANALYSIS RUN LOG

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

WinLab32 - Off-Line AA FIMS-MHS - Data Reprocessing

File Edit Tools Analysis Options Window Help AA5 VV 8-26-13

MethEd SamInfo Peaks Results Calib Examine Reproc Method: Untitled Sample Info: Untitled

Data Reprocessing

Analysis Progress Step: Idle

Reprocess Data Set To Reprocess: AA5Hg130826S4 Browse... Print Log

Browse... Hide Empty Colu

	Seq.	Sample ID	Omit Repli	
1		IBL1 AJ40039		8/26/2013 12:13:06 PM ICAL A340037
2		CAL1 40		8/26/2013 12:15:02 PM ICV/CCV A340038
3		CAL2 41		8/26/2013 12:17:00 PM
4		CAL3 42		8/26/2013 12:19:00 PM
5		CAL4 43		8/26/2013 12:21:00 PM
6		CAL5 44		8/26/2013 12:23:01 PM
7		ICV1 45		8/26/2013 12:31:20 PM
8		ICB1		8/26/2013 12:33:22 PM
9		B3H0471-BLK1		8/26/2013 12:35:19 PM
10		B3H0471-BS1		8/26/2013 12:37:16 PM
11		1302514-01		8/26/2013 12:39:15 PM
12		B3H0471-PS1		8/26/2013 12:41:14 PM
13		B3H0471-MS1		8/26/2013 12:43:14 PM
14		B3H0471-MSD1		8/26/2013 12:45:15 PM
15		1302514-02		8/26/2013 12:47:17 PM
16		1302514-03		8/26/2013 12:49:20 PM
17		1302514-04		8/26/2013 12:51:23 PM
18		1302514-05		8/26/2013 12:53:20 PM
19		CCV1		8/26/2013 12:55:16 PM
20		CCB1		8/26/2013 12:57:19 PM
21		1302514-06		8/26/2013 12:59:17 PM
22		1302514-07		8/26/2013 1:01:14 PM
23		1302514-08		8/26/2013 1:03:12 PM
24		1302514-09		8/26/2013 1:05:10 PM
25		1302514-10		8/26/2013 1:07:09 PM
26		1302545-01		8/26/2013 1:09:07 PM
27		1302545-10		8/26/2013 1:11:08 PM
28		1302545-13		8/26/2013 1:13:08 PM
29		~~1302545-17~~ NR VV 8-26-13		8/26/2013 1:15:09 PM
30		1302547-05		8/26/2013 1:17:27 PM
31		CCV1		8/26/2013 1:19:28 PM
32		CCB1		8/26/2013 1:21:32 PM
33		~~1302545-17@20~~ NR VV 8-26-13		8/26/2013 1:23:28 PM
34		1302547-07		8/26/2013 1:25:29 PM
35		1302545-17@40		8/26/2013 1:27:33 PM
36		1302547-11		8/26/2013 1:29:34 PM
37		1302547-12		8/26/2013 1:31:37 PM
38		CCV1		8/26/2013 1:33:39 PM
39		CCB1		8/26/2013 1:35:43 PM
40				

ANALYSIS SEQUENCE

Sequence Comments:

S3H0308

Instrument: AA-05
Calibration ID: 3H26001

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
S3H0308-IBL1	QC		1	A3H0039		
S3H0308-CAL1	QC		2	A3H0040		
S3H0308-CAL2	QC		3	A3H0041		
S3H0308-CAL3	QC		4	A3H0042		
S3H0308-CAL4	QC		5	A3H0043		
S3H0308-CAL5	QC		6	A3H0044		
S3H0308-ICV1	QC		7	A3H0045		
S3H0308-ICB1	QC		8			
B3H0471-BLK1	QC		9			
B3H0471-BS1	QC		10			
1302514-01	7471	A	11			
B3H0471-PS1	QC		12			
B3H0471-MS1	QC		13			
B3H0471-MSD1	QC		14			
1302514-02	7471	A	15			
1302514-03	7471	A	16			
1302514-04	7471	A	17			
1302514-05	7471	A	18			
S3H0308-CCV1	QC		19	A3H0045		
S3H0308-CCB1	QC		20			
1302514-06	7471	A	21			
1302514-07	7471	A	22			
1302514-08	7471	A	23			
1302514-09	7471	A	24			
1302514-10	7471	A	25			
1302545-01	7471	A	26			
1302545-10	7471	A	27			
1302545-13	7471	A	28			
1302547-05	7471	A	29			
S3H0308-CCV2	QC		30	A3H0045		
S3H0308-CCB2	QC		31			
1302547-07	7471	A	32			

VV 8-26-13
Samples Loaded By Date

VV 8-26-13
Data Processed By Date

Printed: 8/26/2013 3:27:33PM :: C:\Program Files\Promium\Element\Print\seq_ATL_Default(2).rpt

ANALYSIS SEQUENCE

Sequence Comments:

S3H0308

Instrument: AA-05
Calibration ID: 3H26001

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
1302545-17	7471	A	33			
1302547-11	7471	A	34			
1302547-12	7471	A	35			
S3H0308-CCV3	QC		36	A3H0045		
S3H0308-CCB3	QC		37			

VV 8-26-13
Samples Loaded By Date

VV 8-26-13
Data Processed By Date

Printed: 8/26/2013 3:27:33PM :: C:\Program Files\Promium\Element\Print\seq_ATL_Default(2).rpt

WinLab32 - Off-Line AA FIMS-MHS - Data Reprocessing

File Edit Tools Analysis Options Window Help AA5 VV 8-28-13

MethEd SamInfo Peaks Results Calib Examine Reproc Method: Untitled Sample Info: Untitled

Data Reprocessing

Analysis Progress Step: Idle

Reprocess Data Set To Reprocess: AA5Hg130828S1 Browse... ✔ Print Log

Browse... Hide Empty Colu

	Seq.	Sample ID	Omit Repli	
1		IBL1 AJ H0039		8/28/2013 4:57:54 PM CAL AJ H0037
2		CAL1 40		8/28/2013 4:59:50 PM CCV/CCV AJ H0038
3		CAL2 41		8/28/2013 5:01:48 PM
4		CAL3 42		8/28/2013 5:03:47 PM
5		CAL4 43		8/28/2013 5:05:48 PM
6		CAL5 44		8/28/2013 5:07:49 PM
7		ICV1 45		8/28/2013 5:13:04 PM
8		ICB1		8/28/2013 5:15:07 PM
9		B3H0553-BLK1		8/28/2013 5:17:04 PM
10		B3H0553-BS1		8/28/2013 5:19:00 PM
11		1302581-02		8/28/2013 5:20:59 PM
12		B3H0553-PS1		8/28/2013 5:22:59 PM
13		B3H0553-MS1		8/28/2013 5:24:59 PM
14		B3H0553-MSD1		8/28/2013 5:27:00 PM
15		1302620-01		8/28/2013 5:29:02 PM
16		1302620-02		8/28/2013 5:31:05 PM
17		1302625-01		8/28/2013 5:33:07 PM
18		1302625-02		8/28/2013 5:35:03 PM
19		CCV1		8/28/2013 5:36:59 PM
20		CCB1		8/28/2013 5:39:02 PM
21		1302581-04		8/28/2013 5:40:59 PM
22		1302581-07		8/28/2013 5:42:55 PM
23		1302581-11		8/28/2013 5:44:51 PM
24		1302581-13		8/28/2013 5:46:49 PM
25		1302581-15		8/28/2013 5:48:47 PM
26		1302581-19		8/28/2013 5:50:45 PM
27		1302581-21		8/28/2013 5:52:44 PM
28		1302581-22		8/28/2013 5:54:43 PM
29		1302615-01		8/28/2013 5:56:42 PM
30		1302615-02		8/28/2013 5:58:43 PM
31		CCV1		8/28/2013 6:00:45 PM
32		CCB1		8/28/2013 6:02:47 PM
33		1302615-03		8/28/2013 6:04:44 PM
34		1302617-01		8/28/2013 6:06:46 PM
35		1302617-02		8/28/2013 6:08:48 PM
36		1302623-01		8/28/2013 6:10:49 PM
37		1302624-01		8/28/2013 6:12:52 PM
38		CCV1		8/28/2013 6:14:55 PM
39		CCB1		8/28/2013 6:16:59 PM
40				

ANALYSIS SEQUENCE

Sequence Comments:

S3H0354

Instrument: AA-05
Calibration ID: 3H29002

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
S3H0354-IBL1	QC		1	A3H0039		
S3H0354-CAL1	QC		2	A3H0040		
S3H0354-CAL2	QC		3	A3H0041		
S3H0354-CAL3	QC		4	A3H0042		
S3H0354-CAL4	QC		5	A3H0043		
S3H0354-CAL5	QC		6	A3H0044		
S3H0354-ICV1	QC		7	A3H0045		
S3H0354-ICB1	QC		8			
B3H0553-BLK1	QC		9			
B3H0553-BS1	QC		10			
1302581-02	7471	A	11			
B3H0553-PS1	QC		12			
B3H0553-MS1	QC		13			
B3H0553-MSD1	QC		14			
1302620-01	7471	A	15			
1302620-02	7471	A	16			
1302625-01	7471	A	17			
1302625-02	7471	A	18			
S3H0354-CCV1	QC		19	A3H0045		
S3H0354-CCB1	QC		20			
1302581-04	7471	A	21			
1302581-07	7471	A	22			
1302581-11	7471	A	23			
1302581-13	7471	A	24			
1302581-15	7471	A	25			
1302581-19	7471	A	26			
1302581-21	7471	A	27			
1302581-22	7471	A	28			
1302615-01	7471	A	29			
1302615-02	7471	A	30			
S3H0354-CCV2	QC		31	A3H0045		
S3H0354-CCB2	QC		32			

VV 8-28-13
Samples Loaded By Date

VV 8-28-13
Data Processed By Date

ANALYSIS SEQUENCE

Sequence Comments:

S3H0354

Instrument: AA-05
Calibration ID: 3H29002

Lab Number	Analysis	Container	Order	STD ID	ISTD ID	Comments
1302615-03	7471	A	33			
1302617-01	7471	B	34			
1302617-02	7471	B	35			
1302623-01	7471	A	36			
1302624-01	7471	A	37			
S3H0354-CCV3	QC		38	A3H0045		
S3H0354-CCB3	QC		39			

VV 8.28.13
Samples Loaded By Date

VV 8.28.13
Data Processed By Date

SAMPLE PREPARATION LOG

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

PREPARATION BENCH SHEET

B3H0471

Advanced Technology Laboratories

Lab Matrix: Soil

Date Prepared: 08/26/13 10:18

End Date/Time: 08/26/13 10:48

Prep Code: EPA 7471

Prepared by: VV

Bottle Lot No.: 158370-265

Lab Number	Analysis	ClientMatrix	pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Extraction Comments
1302514-01	7471	Soil		0.61	50						
1302514-02	7471	Soil		0.60	50						
1302514-03	7471	Soil		0.60	50						
1302514-04	7471	Soil		0.60	50						
1302514-05	7471	Soil		0.60	50						
1302514-06	7471	Soil		0.60	50						
1302514-07	7471	Soil		0.60	50						
1302514-08	7471	Soil		0.59	50						
1302514-09	7471	Soil		0.61	50						
1302514-10	7471	Soil		0.60	50						
1302545-01	7471	Soil		0.60	50						
1302545-10	7471	Soil		0.61	50						
1302545-13	7471	Soil		0.60	50						
1302545-17	7471	Soil		0.60	50						
1302547-05	7471	Soil		0.60	50						
1302547-07	7471	Soil		0.60	50						
1302547-11	7471	Soil		0.59	50						
1302547-12	7471	Soil		0.59	50						
B3H0471-BLK1	QC			0.60	50						
B3H0471-BS1	QC			0.60	50	A3H0036			500		

VV 8-26-13
Prepared By Date

CS 8/27/13
Preparation Reviewed By Date

Digestates Received By Date

PREPARATION BENCH SHEET

B3H0471

Advanced Technology Laboratories

Lab Matrix: Soil

Date Prepared: 08/26/13 10:18

End Date/Time: 08/26/13 10:48

Prepared by: VV

Prep Code: EPA 7471

Bottle Lot No.: 158370-263

Lab Number	Analysis	ClientMatrix	pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Extraction Comments
B3H0471-MS1	QC			0.61	50	A3H0035		1302514-01	500		
B3H0471-MSD1	QC			0.61	50	A3H0035		1302514-01	500		
B3H0471-PS1	QC			0.60	50	A3H0035		1302514-01	250		

DB-01-37
TEMP 95C

Number	Reagent Name
A2G0302	20% HYDROXYLAMINE HYDROCH
A3F0359	nitric acid
A3F0385	5% Potassium Permanganate
A3G0127	hydrochloric acid

VV 8-26-13
Prepared By Date

8/27/13
Preparation Reviewed By Date

Digestates Received By Date

PREPARATION BENCH SHEET

B3H0471

Advanced Technology Laboratories

Lab Matrix: Soil

Date Prepared: 08/26/13 10:18

End Date/Time:

Prepared by: VV

Prep Code: EPA 7471

Bottle Lot No: 15P370-269

Lab Number	Analysis	ClientMatrix	pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Extraction Comments
1302514-01	7471	Soil		0.60	50						
1302514-02	7471	Soil		0.60	50						
1302514-03	7471	Soil		0.60	50						
1302514-04	7471	Soil		0.60	50						
1302514-05	7471	Soil		0.60	50						
1302514-06	7471	Soil		0.60	50						
1302514-07	7471	Soil		0.60	50						
1302514-08	7471	Soil		0.60	50						
1302514-09	7471	Soil		0.60	50						
1302514-10	7471	Soil		0.60	50						
1302545-01	7471	Soil		0.60	50						
1302545-10	7471	Soil		0.60	50						
1302545-13	7471	Soil		0.60	50						
1302545-17	7471	Soil		0.60	50						
1302547-05	7471	Soil		0.60	50						
1302547-07	7471	Soil		0.60	50						
1302547-11	7471	Soil		0.60	50						
1302547-12	7471	Soil		0.60	50						
B3H0471-BLK1	QC			0.60	50						
B3H0471-BS1	QC			0.60	50	A3H0096			500		

VV 8-26-13
Prepared By Date

CO 8/27/13
Preparation Reviewed By Date

Digestates Received By Date

PREPARATION BENCH SHEET

B3H0471

Advanced Technology Laboratories

Lab Matrix: Soil

Date Prepared: 08/26/13 10:18

End Date/Time:

Prepared by: VV

Prep Code: EPA 7471

Bottle Lot No.: 157370-263

Lab Number	Analysis	ClientMatrix	pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Extraction Comments
B3H0471-MS1	QC			~~0.60~~ 0.61	50	A3H0035		1302514-01	500		
B3H0471-MSD1	QC			~~0.60~~ 0.61	50	A3H0035		1302514-01	500		
B3H0471-PS1	QC			0.60	50	A3H0035		1302514-01	250		

Number	Reagent Name
A2G0302	20% HYDROXYLAMINE HYDROCI
A3F0359	nitric acid
A3F0385	5% Potassium Permanganate
A3G0127	hydrochloric acid

VV 8.26.13
Prepared By Date

8/27/13
Preparation Reviewed By Date

Digestates Received By Date

DIGESTION BLOCK TEMPERATURE CHECK
DIGESTION BLOCK ID- DB-01

DB-01-1 TEMP (°C): 95 BATCH: B3H0397 DATE: 8-21-13 INITIALS: VV	DB-01-2 TEMP °C): 95 BATCH: B3H0398 DATE: 8-21-13 INITIALS: VV	DB-01-3 TEMP(°C): 93 BATCH: B3H0266 DATE: 8-19-13 INITIALS: MS	DB-01-4 TEMP(°C): 94 BATCH: B3H0357 DATE: 8-20-13 INITIALS: MS	DB-01-5 TEMP(°C): 94 BATCH: B3H0365 DATE: 8-20-13 INITIALS: MS	DB-01-6 TEMP °C): 95 BATCH: B3H0511 DATE: 8-27-13 INITIALS: VV	DB-01-7 TEMP(°C): 95 BATCH: B3H0503 DATE: 8-28-13 INITIALS: VV	DB-01-8 TEMP(°C): 95 BATCH: B3H0504 DATE: 8-28-13 INITIALS: VV	DB-01-9 TEMP(°C): 95 BATCH: B3H0553 DATE: 8-28-13 INITIALS: VV
DB-01-10 TEMP (°C): 94 BATCH: B3H0444 DATE: 8-27-13 INITIALS: MS	DB-01-11 TEMP(°C): BATCH: DATE: INITIALS:	DB-01-12 TEMP(°C): 93 BATCH: B3H0292 DATE: 8-15-13 INITIALS: MS	DB-01-13 TEMP °C): 98 BATCH: B3H0352 DATE: 8-20-13 INITIALS: MS	DB-01-14 TEMP(°C): BATCH: DATE: INITIALS:	DB-01-15 TEMP °C): BATCH: DATE: INITIALS:	DB-01-16 TEMP °C): 98 BATCH: B3H0360 DATE: 8-20-13 INITIALS: MS	DB-01-17 TEMP °C): 95 BATCH: B3H0563 DATE: 8-29-13 INITIALS: VV	DB-01-18 TEMP °C): 95 BATCH: B3H0572 DATE: 8/29/13 INITIALS: VV
DB-01-19 TEMP (°C): BATCH: DATE: INITIALS:	DB-01-20 TEMP °C): 94 BATCH: B3H0264 DATE: 8-14-13 INITIALS: MS	DB-01-21 TEMP °C): 95 BATCH: B3H0590 DATE: 8-26-13 INITIALS: VV	DB-01-22 TEMP °C): 94 BATCH: B3H0349 DATE: 8-15-13 INITIALS: MS	DB-01-23 TEMP °C): 95 BATCH: B3H0366 DATE: 8-20-13 INITIALS: MS	DB-01-24 TEMP °C): 94 BATCH: B3H0291 DATE: 8-16-13 INITIALS: MS	DB-01-25 TEMP °C): 97 BATCH: B3H0272 DATE: 8-15-13 INITIALS: MS	DB-01-26 TEMP(°C): 95 BATCH: ~~B3H0411~~ B3J0011 DATE: 9-9-13 INITIALS: VV B3J0111	DB-01-27 TEMP °C): 95 BATCH: ~~B3H0412~~ B3J0112 DATE: 9-9-13 INITIALS: VV B3J0112
DB-01-28 TEMP (°C): 97 BATCH: B3H0447 DATE: 8-22-13 INITIALS: MS	DB-01-29 TEMP(°C): 97 BATCH: B3H0267 DATE: 8-19-13 INITIALS: MS	DB-01-30 TEMP °C): BATCH: DATE: INITIALS:	DB-01-31 TEMP °C): BATCH: DATE: INITIALS:	DB-01-32 TEMP °C): 94 BATCH: B3H0359 DATE: 8-21-13 INITIALS: MS	DB-01-33 TEMP °C): 95 BATCH: B3H0403 DATE: 8-22-13 INITIALS: MS	DB-01-34 TEMP °C): 94 BATCH: B3H0402 DATE: 8-22-13 INITIALS: MS	DB-01-35 TEMP °C): BATCH: DATE: INITIALS:	DB-01-36 TEMP °C): BATCH: DATE: INITIALS:
DB-01-37 TEMP (°C): 95 BATCH: B3H0471 DATE: 8-26-13 INITIALS: VV	DB-01-38 TEMP °C): BATCH: DATE: INITIALS:	DB-01-39 TEMP(°C): 96 BATCH: B3H0592 DATE: 8-27-13 INITIALS: MS	DB-01-40 TEMP °C): 94 BATCH: B3H0394 DATE: 8-21-13 INITIALS: MS	DB-01-41 TEMP °C): 97 BATCH: B3H0440 DATE: 8-22-13 INITIALS: MS	DB-01-42 TEMP °C): BATCH: DATE: INITIALS:	DB-01-43 TEMP °C): 94 BATCH: B3H0339 DATE: 8-19-13 INITIALS: MS	DB-01-44 TEMP °C): 95 BATCH: B3J0021 DATE: 9-4-13 INITIALS: VV	DB-01-45 TEMP °C): 95 BATCH: B3J0045 DATE: 9-4-13 INITIALS: VV
DB-01-46 TEMP (°C): 94 BATCH: B3H0297 DATE: 8-15-13 INITIALS: MS	DB-01-47 TEMP(°C): BATCH: DATE: INITIALS:	DB-01-48 TEMP °C): 94 BATCH: B3H0345 DATE: 8-19-13 INITIALS: MS	DB-01-49 TEMP °C): BATCH: DATE: INITIALS:	DB-01-50 TEMP °C): 96 BATCH: B3H0267 DATE: 8-19-13 INITIALS: MS	DB-01-51 TEMP °C): 95 BATCH: B3H0395 DATE: 8-21-13 INITIALS: MS	DB-01-52 TEMP °C): 93 BATCH: B3H0405 DATE: 8-22-13 INITIALS: MS	DB-01-53 TEMP °C): BATCH: DATE: INITIALS:	DB-01-54 TEMP °C): 95 BATCH: B3H0456 DATE: 8-23-13 INITIALS: VV

VV 9-9-13

Date Issued: 8-10-13 Date Returned: _____ Control No. _____

Advanced Technology Laboratories
3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562. 989.4045 Fax: 562.989.4040

PREPARATION BENCH SHEET

B3H0553

Advanced Technology Laboratories

Lab Matrix: Soil

Date Prepared: 08/28/13 15:36

End Date/Time: 08/28/13 16:06

Prep Code: EPA 7471

Prepared by: VV

Bottle Lot No.: 153860-203

Lab Number	Analysis	ClientMatrix	pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Extraction Comments
1302581-02	7471	Soil		0.60	50						
1302581-04	7471	Soil		0.60	50						
1302581-07	7471	Soil		0.60	50						
1302581-11	7471	Soil		0.60	50						
1302581-13	7471	Soil		0.60	50						
1302581-15	7471	Soil		0.60	50						
1302581-19	7471	Soil		0.60	50						
1302581-21	7471	Soil		0.60	50						
1302581-22	7471	Soil		0.60	50						
1302615-01	7471	Soil		0.60	50						
1302615-02	7471	Soil		0.61	50						
1302615-03	7471	Soil		0.60	50						
1302617-01	7471	Soil		0.60	50						
1302617-02	7471	Soil		0.60	50						
1302620-01	7471	Concrete		0.60	50						
1302620-02	7471	Concrete		0.60	50						
1302623-01	7471	Soil		0.61	50						
1302624-01	7471	Soil		0.59	50						
1302625-01	7471	CONCRETE		0.60	50						
1302625-02	7471	CONCRETE		0.60	50						

VV 8-28-13

Prepared By Date

Preparation Reviewed By Date

Digestates Received By Date

PREPARATION BENCH SHEET

B3H0553

Advanced Technology Laboratories

Lab Matrix: Soil

Date Prepared: 08/28/13 15:36

End Date/Time: 08/28/13 16:06

Prepared by: VV

Prep Code: EPA 7471

Bottle Lot No.: 1ST 860-263

Lab Number	Analysis	ClientMatrix	pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Extraction Comments
B3H0553-BLK1	QC			0.60	50						
B3H0553-BS1	QC			0.60	50	A3H0036			500		
B3H0553-MS1	QC			0.60	50	A3H0035		1302581-02	500		
B3H0553-MSD1	QC			0.60	50	A3H0035		1302581-02	500		
B3H0553-PS1	QC			0.60	50	A3H0035		1302581-02	250		

DB-01-9
TEMP 95C

Number	Reagent Name
A2G0302	20% HYDROXYLAMINE HYDROCI
A3F0359	nitric acid
A3F0385	5% Potassium Permanganate
A3G0127	hydrochloric acid

VJ 8-28-13

Prepared By Date

Preparation Reviewed By Date

Digestates Received By Date

PREPARATION BENCH SHEET

B3H0553

Advanced Technology Laboratories

Lab Matrix: Soil

Date Prepared: 08/28/13 15:36

End Date/Time:

Prepared by: VV

Prep Code: EPA 7471

Bottle Lot No.: 153680-263 TG

Lab Number	Analysis	ClientMatrix	pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Extraction Comments VV 9-28-13
1302581-02	7471	Soil		0.60	50						
1302581-04	7471	Soil		0.60	50						
1302581-07	7471	Soil		0.60	50						
1302581-11	7471	Soil		0.60	50						
1302581-13	7471	Soil		0.60	50						
1302581-15	7471	Soil		0.60	50						
1302581-19	7471	Soil		0.60	50						
1302581-21	7471	Soil		0.60	50						
1302581-22	7471	Soil		0.60	50						
1302615-01	7471	Soil		0.60	50						
1302615-02	7471	Soil		~~0.60~~ 0.61	50						
1302615-03	7471	Soil		0.60	50						
1302617-01	7471	Soil		0.60	50						
1302617-02	7471	Soil		0.60	50						
1302620-01	7471	Concrete		0.60	50						
1302620-02	7471	Concrete		0.60	50						
1302623-01	7471	Soil		~~0.60~~ 0.61	50						
1302624-01	7471	Soil		~~0.60~~ 0.61	50						
1302625-01	7471	CONCRETE		0.60	50						
1302625-02	7471	CONCRETE		0.60	50						

VV 8-28-13

Prepared By Date

Preparation Reviewed By Date

Digestates Received By Date

Printed: 8/28/2013 3:40:19PM bch_ATL_Metals(2)

PREPARATION BENCH SHEET

B3H0553

Advanced Technology Laboratories

Lab Matrix: Soil

Date Prepared: 08/28/13 15:36

End Date/Time:

Prepared by: VV

Prep Code: EPA 7471

Bottle Lot No.: 153 760-263

Lab Number	Analysis	ClientMatrix	pH	Initial (g)	Final (mL)	Spike ID 1	Spike ID 2	Source ID	ul Spike 1	ul Spike 2	Extraction Comments
B3H0553-BLK1	QC			0.60	50						
B3H0553-BS1	QC			0.60	50	A3H0036			500		
B3H0553-MS1	QC			0.60	50	A3H0035		1302581-02	500		
B3H0553-MSD1	QC			0.60	50	A3H0035		1302581-02	500		
B3H0553-PS1	QC			0.60	50	A3H0035		1302581-02	250		

Number	Reagent Name
A2G0302	20% HYDROXYLAMINE HYDROCH
A3F0359	nitric acid
A3F0385	5% Potassium Permanganate
A3G0127	hydrochloric acid

VJ — Prepared By

8-28-13 — Date

Preparation Reviewed By — Date

Digestates Received By — Date

DIGESTION BLOCK TEMPERATURE CHECK
DIGESTION BLOCK ID- DB-01

DB-01-1 TEMP (°C): 95 BATCH: B3H0387 DATE: 8-21-13 INITIALS: VV	DB-01-2 TEMP °C): 95 BATCH: B3H0388 DATE: 8-21-13 INITIALS: VV	DB-01-3 TEMP(°C): 93 BATCH: B3H0266 DATE: 8-19-13 INITIALS: MS	DB-01-4 TEMP(°C): 94 BATCH: B3H0357 DATE: 8-20-13 INITIALS: MS	DB-01-5 TEMP(°C): 94 BATCH: B3H0365 DATE: 8-20-13 INITIALS: MS	DB-01-6 TEMP °C): 95 BATCH: B3H0511 DATE: 8-27-13 INITIALS: VV	DB-01-7 TEMP(°C): 95 BATCH: B3H0503 DATE: 8-28-13 INITIALS: VV	DB-01-8 TEMP(°C): 95 BATCH: B3H0504 DATE: 8-28-13 INITIALS: VV	DB-01-9 TEMP(°C): 95 BATCH: B3H0553 DATE: 8-28-13 INITIALS: VV
DB-01-10 TEMP (°C): 94 BATCH: B3H0444 DATE: 8-22-13 INITIALS: MS	DB-01-11 TEMP(°C): 95 BATCH: B3J0164 DATE: 9-11-13 INITIALS: VV	DB-01-12 TEMP(°C): 93 BATCH: B3H0242 DATE: 8-15-13 INITIALS: MS	DB-01-13 TEMP °C): 98 BATCH: B3H0352 DATE: 8-20-13 INITIALS: MS	DB-01-14 TEMP(°C): 95 BATCH: B3J0171 DATE: 9-11-13 INITIALS: VV	DB-01-15 TEMP °C): 95 BATCH: B3J0172 DATE: 9-11-13 INITIALS: VV	DB-01-16 TEMP °C): 98 BATCH: B3H0360 DATE: 8-20-13 INITIALS: MS	DB-01-17 TEMP °C): 95 BATCH: B3H0563 DATE: 8-29-13 INITIALS: VV	DB-01-18 TEMP °C): 95 BATCH: B3H0572 DATE: 8/29/13 INITIALS: VV
DB-01-19 TEMP (°C): 95 BATCH: B3J0161 DATE: 9-11-13 INITIALS: VV	DB-01-20 TEMP °C): 94 BATCH: B3H0247 DATE: 8-14-13 INITIALS: MS	DB-01-21 TEMP °C): 95 BATCH: B3H0590 DATE: 8-28-13 INITIALS: VV	DB-01-22 TEMP °C): 94 BATCH: B3H0349 DATE: 8-13-13 INITIALS: MS	DB-01-23 TEMP °C): 95 BATCH: B3H0366 DATE: 8-20-13 INITIALS: MS	DB-01-24 TEMP °C): 94 BATCH: B3H0291 DATE: 8-16-13 INITIALS: MS	DB-01-25 TEMP °C): 97 BATCH: B3H0272 DATE: 8-15-13 INITIALS: MS	DB-01-26 TEMP(°C): 95 BATCH: [illegible] DATE: 9-9-13 INITIALS: VV B3J0111	DB-01-27 TEMP °C): 95 BATCH: [illegible] DATE: 9-9-13 INITIALS: VV B3J0112
DB-01-28 TEMP (°C): 97 BATCH: B3H0447 DATE: 8-22-13 INITIALS: MS	DB-01-29 TEMP(°C): 97 BATCH: B3H0267 DATE: 8-14-13 INITIALS: MS	DB-01-30 TEMP °C): 95 BATCH: B3J0201 DATE: 9-12-13 INITIALS: VV	DB-01-31 TEMP °C): BATCH: DATE: INITIALS:	DB-01-32 TEMP °C): 94 BATCH: B3H0347 DATE: 8-21-13 INITIALS: MS	DB-01-33 TEMP °C): 95 BATCH: B3H0403 DATE: 8-22-13 INITIALS: MS	DB-01-34 TEMP °C): 94 BATCH: B3H0402 DATE: 8-22-13 INITIALS: MS	DB-01-35 TEMP °C): 95 BATCH: B3J0120 DATE: 9-10-13 INITIALS: VV	DB-01-36 TEMP °C): 95 BATCH: B3J0131 DATE: 9-10-13 INITIALS: VV
DB-01-37 TEMP (°C): 95 BATCH: B3H0471 DATE: 8-26-13 INITIALS: VV	DB-01-38 TEMP °C): 95 BATCH: B3J0202 DATE: 9-13-13 INITIALS: VV	DB-01-39 TEMP(°C): 96 BATCH: B3H0524 DATE: 8-27-13 INITIALS: MS	DB-01-40 TEMP °C): 94 BATCH: B3H0347 DATE: 8-21-13 INITIALS: MS	DB-01-41 TEMP °C): 97 BATCH: B3H0444 DATE: 8-22-13 INITIALS: MS	DB-01-42 TEMP °C): BATCH: DATE: INITIALS:	DB-01-43 TEMP °C): 94 BATCH: B3H0334 DATE: 8-19-13 INITIALS: MS	DB-01-44 TEMP °C): 95 BATCH: B3J0021 DATE: 9-4-13 INITIALS: VV	DB-01-45 TEMP °C): 95 BATCH: B3J0045 DATE: 9-4-13 INITIALS: VV
DB-01-46 TEMP (°C): 94 BATCH: B3H0277 DATE: 8-15-13 INITIALS: MS	DB-01-47 TEMP(°C): 95 BATCH: B3J0203 DATE: 9-13-13 INITIALS: VV	DB-01-48 TEMP °C): 94 BATCH: B3H0345 DATE: 8-19-13 INITIALS: MS	DB-01-49 TEMP °C): BATCH: DATE: INITIALS:	DB-01-50 TEMP °C): 96 BATCH: B3H0267 DATE: 8-19-13 INITIALS: MS	DB-01-51 TEMP °C): 95 BATCH: B3H0395 DATE: 8-21-13 INITIALS: MS	DB-01-52 TEMP °C): 93 BATCH: B3H0405 DATE: 8-22-13 INITIALS: MS	DB-01-53 TEMP °C): BATCH: DATE: INITIALS:	DB-01-54 TEMP °C): 95 BATCH: B3H0456 DATE: 8-23-13 INITIALS: VV

Date Issued: _____ Date Returned: _____ Control No. _____

Advanced Technology Laboratories
3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562. 989.4045 Fax: 562.989.4040

INITIAL CALIBRATION DATA SUMMARY

Advanced Technology Laboratories 2275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

ATL Number: 1302545 , 1302547 BA 09/25/13

(EPA 7471A) - INITIAL CALIBRATION

Instrument ID: AA5

Date(s) Analyzed: 08/26/13

Initial Calibration:

ANALYTE	ABSORBANCE					
	STD1(0.5 ug/L)	STD2(2 ug/L)	STD3(5 ug/L)	STD4(10 ug/L)	STD5(25 ug/L)	r2
Standanrd ID.	A3H0040	A3H0041	A3H0042	A3H0043	A3H0044	
Mercury	0.0033	0.0133	0.0333	0.0666	0.1648	0.999984

Standard Concentration:	1 mg/L
Standard ID:	A3H0037

Calibration Acceptance Criteria: > 0.995 Correlation

ATL Number: 1302581

(EPA 7471A) - INITIAL CALIBRATION

Instrument ID: AA5

Date(s) Analyzed: 08/28/13

Initial Calibration:

ANALYTE	ABSORBANCE					
	STD1(0.5 ug/L)	STD2(2 ug/L)	STD3(5 ug/L)	STD4(10 ug/L)	STD5(25 ug/L)	r2
Standanrd ID.	A3H0040	A3H0041	A3H0042	A3H0043	A3H0044	
Mercury	0.0044	0.0178	0.0428	0.0841	0.2051	0.999851

Standard Concentration:	1 mg/L
Standard ID:	A3H0037

Calibration Acceptance Criteria: > 0.995 Correlation

INITIAL CALIBRATION AND CONTINUING CALIBRATION VERIFICATION SUMMARY

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

ATL Number: 1302547. / 1302545 BA 09/25/13

(EPA 7471A) INITIAL AND CONTINUING CALIBRATION VERFICATION

Instrument ID: AA5
Date Analyzed: 8/26/2013

	Source:	Standard Code:
Initial Calibration Verification:	High Purity	A3H0038
Continuing Calibration Verification:	High Purity	A3H0038

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found ICV	Initial Calibration %R(1)	True	True	Continuing Calibration Found CCV1	%R	Found CCV2	%R	Found CCV3	%R	Found CCV4	%R	Found CCV5	%R	Found CCV6	%R	Found CCV7	%R	Found CCV8	%R
Mercury	20	19.580	98	10	20	18.330	92	20.440	102	21.100	105										

BA 09/19/13

ICV/CCV Limits: 90 -110%

ATL Number: 1302581

(EPA 7471A) INITIAL AND CONTINUING CALIBRATION VERFICATION

Instrument ID: AA5
Date Analyzed: 8/28/2013

	Source:	Standard Code:
Initial Calibration Verification:	High Purity	A3H0038
Continuing Calibration Verification:	High Purity	A3H0038

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found ICV	Initial Calibration %R(1)	True	True	Continuing Calibration Found CCV1	%R	Found CCV2	%R	Found CCV3	%R	Found CCV4	%R	Found CCV5	%R	Found CCV6	%R	Found CCV7	%R	Found CCV8	%R
Mercury	20	18.730	94	10	20	18.770	94	18.730 4	94	18.820	94										

ICV/CCV Limits: 90 -110%

BA 09/20/13

SUMMARY OF INSTRUMENT BLANKS

Advanced Technology Laboratory 3275 Walnut avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

ATL Number: 1302545, 1302547 BA09/25/13

(EPA 7471A) BLANK

Instrument ID: AA5
Date Digested: 8/26/2013
Digestion Method: EPA 7471A
QC Batch Number: B3H0471

Dilution: 1
Matrix: SOIL
Date Analyzed: 8/26/2013

Analyte	PQL (ug/L)	Initial Calib. Blank (ug/L)	Q	Continuing Calibration Blank (ug/L) 1	Q	2	Q	3	Q	4	Q	5	Q	6	Q	7	Q	8	Q	PQL (ug/L)	Method Blank (ug/L)	Q
Mercury	1.2	0.000		0.010		0.030		0.020												1.2	0.000	

Note: Q = Qualifier

ATL Number: 1302581.

(EPA 7471A) BLANK

Instrument ID: AA5
Date Digested: 8/28/2013
Digestion Method: EPA 7471A
QC Batch Number: B3H0553.

Dilution: 1
Matrix: SOIL
Date Analyzed: 8/28/2013

Analyte	PQL (ug/L)	Initial Calib. Blank (ug/L)	Q	Continuing Calibration Blank (ug/L) 1	Q	2	Q	3	Q	4	Q	5	Q	6	Q	7	Q	8	Q	PQL (ug/L)	Method Blank (ug/L)	Q
Mercury	1.2	0.030		0.050		0.060		0.060												1.2	0.000	

Note: Q = Qualifier

Method EPA 8290

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Report Prepared for:

Rachelle Arada
Advanced Technology Labs
3275 Walnut Street
Signal Hill CA 90807

REPORT OF LABORATORY ANALYSIS FOR PCDD/PCDF

Report Information:

Pace Project #: 10240751
Sample Receipt Date: 09/04/2013
Client Project #: 1302545
Client Sub PO #: SC08167
State Cert #: 01155CA

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 4 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Brittany Hansen, your Pace Project Manager.

This report has been reviewed by:

Brittany J. Hansen

September 25, 2013

Brittany Hansen, Project Manager
(612) 607-6429
(612) 607-6444 (fax)
brittany.hansen@pacelabs.com

ACCREDITED IN ACCORDANCE WITH nelac

Report Prepared Date:

September 25, 2013

Report of Laboratory Analysis

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analysis performed on one sample submitted by a representative of Advanced Technology Laboratories. The sample was analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using a modified version of USEPA Method 8290. The reporting limits were set to correspond to the lowest calibration points and a nominal 10-gram sample amount.

Second column confirmation analyses of 2,3,7,8-TCDF values obtained from the primary (DB5-MS) column are performed only when specifically requested for a project and only when the values are above the concentration of the lowest calibration standard. Typical resolution for this isomer using the DB5-MS column ranges from 25-30%.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extract ranged from 42-89%. All of the labeled standard recoveries obtained for this project were within the 40-135% target range specified in Method 8290. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for variation in recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank to be free of PCDDs and PCDFs at the reporting limits. These results indicate that the sample processing steps did not significantly impact the results of the field sample determinations.

Laboratory spike samples were also prepared with the sample batch using clean sand that had been fortified with native standard materials. The results show that the spiked native compounds were recovered at 94-119% with relative percent differences of 0.0-3.9%. These results indicate high degrees of accuracy and precision for these determinations. Matrix spikes were not prepared with the sample batch.

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
Alabama	40770	Mississippi	MN00064
Alaska	MN00064	Montana	92
Arizona	AZ0014	Nebraska	
Arkansas	88-0680	Nevada	MN_00064_200
California	01155CA	New Jersey (NE	MN002
Colorado	MN00064	New Mexico	MN00064
Connecticut	PH-0256	New York (NEL	11647
EPA Region 5	WD-15J	North Carolina	27700
EPA Region 8	8TMS-Q	North Dakota	R-036
Florida (NELAP	E87605	Ohio	4150
Georgia (DNR)	959	Oklahoma	D9922
Guam	959	Oregon (ELAP)	MN200001-005
Hawaii	SLD	Oregon (OREL	MN300001-001
Idaho	MN00064	Pennsylvania	68-00563
Illinois	200012	Saipan	MP0003
Indiana	C-MN-01	South Carolina	74003001
Indiana	C-MN-01	Tennesee	2818
Iowa	368	Tennessee	02818
Kansas	E-10167	Texas	T104704192-08
Kentucky	90062	Utah (NELAP)	PAM
Louisiana	03086	Virginia	00251
Maine	2007029	Washington	C755
Maryland	322	West Virginia	9952C
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-Q

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Reporting Flags

A = Reporting Limit based on signal to noise

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

I = Interference present

J = Estimated value

Nn = Value obtained from additional analysis

P = PCDE Interference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

* = See Discussion

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

2,3,7,8-TCDD Equivalency Factors (TEFs) for the Polychlorinated Dibenzo-p-dioxins and Dibenzofurans

89-ITE-Factors

Compound	TEF
2,3,7,8-TCDD	1.000000
1,2,3,7,8-PeCDD	0.500000
1,2,3,4,7,8-HxCDD	0.100000
1,2,3,6,7,8-HxCDD	0.100000
1,2,3,7,8,9-HxCDD	0.100000
1,2,3,4,6,7,8-HpCDD	0.010000
OCDD	0.001000
Total TCDD	0.000000
Total PeCDD	0.000000
Total HxCDD	0.000000
Total HpCDD	0.000000
2,3,7,8-TCDF	0.100000
1,2,3,7,8-PeCDF	0.050000
2,3,4,7,8-PeCDF	0.500000
1,2,3,4,7,8-HxCDF	0.100000
1,2,3,6,7,8-HxCDF	0.100000
2,3,4,6,7,8-HxCDF	0.100000
1,2,3,7,8,9-HxCDF	0.100000
1,2,3,4,6,7,8-HpCDF	0.010000
1,2,3,4,7,8,9-HpCDF	0.010000
OCDF	0.001000
Total TCDF	0.000000
Total PeCDF	0.000000
Total HxCDF	0.000000
Total HpCDF	0.000000

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Appendix A

Sample Management

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Sample ID Cross Reference

Client Sample ID	Pace Sample ID	Date Received	Sample Type
1302545-05 / T-12-9.5	10240751001-R	09/04/2013	Soil

REPORT OF LABORATORY ANALYSIS

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10240751

ADVANCED TECHNOLOGY LABORATORIES

1132

SUBCONTRACT ORDER

Work Order: 1302545

SENDING LABORATORY:

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Phone: 562.989.4045
Fax: 562.989.6348
Project Manager: Rachelle Arada (Rachelle@atlglobal.com)

RECEIVING LABORATORY:

Pace Analytical Services, Inc.
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone :(612) 607-1700
Fax: (612) 607-6444
PO#: SC08167- STANDARD TAT

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires		Sampled
ATL Lab#: 1302545-05 / T-12-9.5			**Soil**	**08/20/13 00:00**
8290 [Dioxins and Dibenzofurans]	**09/19/13 17:00**	09/19/13 00:00		
1-Glass Jar - 4 oz				

Comments: NEED LEVEL III DATA PACKAGE

T= 0.7°C

Released By	Date	Received By	Date
		CSL/PACE	9/13 950
Released By	Date	Received By	Date

Pace Analytical	Document Name: **Sample Condition Upon Receipt Form**	Document Revised: 28Jan2013 Page 1 of 1
	Document No.: **F-MN-L-213-rev.06**	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Advanced

Project #: WO#: 10240751

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 7966 0142 8929

Custody Seal on Cooler/Box Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other: **Temp Blank?** ☐ Yes ☑ No

Thermom. Used: ☑ 88A912167504 ☐ 80512447 ☐ 72337080 **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 0.2 **Cooler Temp Corrected (°C):** 0.7 **Biological Tissue Frozen?** ☐ Yes ☐ No

Temp should be above freezing to 6°C **Correction Factor:** +0.5 **Date and Initials of Person Examining Contents:** CS 9.4.13

Comments:

Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☐ Yes	☑ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☐ Yes	☑ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	12.
-Includes Date/Time/ID/Analysis Matrix: SL				
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	☐ Yes	☐ No	☑ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH>12)	☐ Yes	☐ No	☑ N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☐ Yes	☑ No		Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☑ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: BH2 **Date:** 9/4/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

DIOXIN EXTRACTION WORKSHEET

Pace Analytical Services, Inc.

Non Aqueous

EB-13874

Extraction Batch : EB-13874

Method 8290 1613B TO9 M23

Matrix PUF XAD Solid Oil

Tissue Other _____

Spiked By _____

Spike Witness _____

Time of Spiking _____

Extraction On (Date/Time):
9/12/2013 5:05:00 PM

Extraction Off (Date/Time):
9/13/2013 9:05:00 AM

Standards:

Internal Std FS-I-9966-028
Native FS-N-9966-024
Cl-37 Std DWCL4-9966-029
Recovery Std FS-R-9966-027
Tridecane
Mineral Oil
Others

☐ **Silica:**
Date 9/13/2013
Initials PED
Hexane Lot # 130152
Dispenser ID
Neutral Batch # 242N
Basic Batch # 325B
Acid Batch # 489A

☐ **Carbon:**
Date 9/16/2013
Initials MF
Toluene Lot # 131926
Dispenser ID
75% Batch # 314
Dispenser ID
50% Batch # 430
Dispenser ID
Hexane Lot # 130152
Dispenser ID

☐ **Alumina:**
Date 9/14/2000
Initials TDP
Hexane Lot # 130152
Dispenser ID
60% Batch # 1542
Dispenser ID
Alumina Lot

Extract Solvents:
Toluene Lot #
Hexane Lot #
MeCl Lot #

☐ **Acid Base:**
H2SO4 Lot #
Buffer Soln #

QC Matrix Lot/Batch# _____

	Sample #	Internal Stds	Native Stds	Extracted mL or g	#AcidRinse	Buffer Soln	Glassware Set	Location	Comments
1	BLANK-37723			21.70					
2	LCS-37724			20.20					
3	LCSD-37725			20.40					
4	10239780009-R			16.50				Rcving	1613 T-O,prescreen,NO MAEI
5	10239780010-R			16.90				Rcving	1613 T-O,prescreen,NO MAEI
6	10239780012-R			12.20				Rcving	1613 T-O,prescreen,NO MAEI
7	10239780013-R			16.80				Rcving	1613 T-O,prescreen,NO MAEI
8	10239780014-R			15.70				Rcving	1613 T-O,prescreen,NO MAEI
9	10239780015-R			16.10				Rcving	1613 T-O,prescreen,NO MAEI
10	10239780016-R			16.40				Rcving	1613 T-O,prescreen,NO MAEI
11	10239780017-R			16.80				Rcving	1613 T-O,prescreen,NO MAEI
12	10239780018-R			16.10				Rcving	1613 T-O,prescreen,NO MAEI
13	10239780019-R			14.30				Rcving	1613 T-O,prescreen,NO MAEI
14	10239780020-R			15.20				Rcving	1613 T-O,prescreen,NO MAEI
15	10239780021-R			16.20				Rcving	1613 T-O,prescreen,NO MAEI
16	10239780022-R			5.60				Rcving	1613 T-O,prescreen,NO MAEI
17	10240776001-R			43.30				1 0904 08	1613,T-O,chromerge,ext by 9/12
18	10241247001			20.30				Rcving	1613,T-O,EU Req
19	10241247002			20.10				Rcving	1613,T-O,EU Req
20	10241247003			20.60				Rcving	1613,T-O,EU Req
21	35104661009-R2			13.00				10 0820 04	8290,T-O;prescreen
22	35104661011-R2			16.90				10 0820 04	8290,T-O;prescreen
23	10240751001-R			11.60				Rcving	prescreen, 8290 T-O

Extracts Relinquished By: _____ **Received By:** _____ **Date:** _____

FH025Rev.01, 05Jan2009

Report No.....10240751_8290

Extraction Notes

FT/KH

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Solid Sample Moisture Log

Sample ID	Container Weight	Adjusted Wet Weight	Adjusted Dry Weight	% Moisture	% Solids	Amount Extracted	Assayed
BLANK-37723	0.00	0.00	0.00	0.00	100.00	21.70	12/30/99
LCS-37724	0.00	0.00	0.00	0.00	100.00	20.20	12/30/99
LCSD-37725	0.00	0.00	0.00	0.00	100.00	20.40	12/30/99
10239780009-R	0.00	0.00	0.00	17.00	83.00	16.50	8/31/13 JDL
10239780010-R	0.00	0.00	0.00	10.80	89.20	16.90	8/31/13 JDL
10239780012-R	0.00	0.00	0.00	3.80	96.20	12.20	8/31/13 JDL
10239780013-R	0.00	0.00	0.00	11.70	88.30	16.80	8/31/13 JDL
10239780014-R	0.00	0.00	0.00	1.30	98.70	15.70	8/31/13 JDL
10239780015-R	0.00	0.00	0.00	5.60	94.40	16.10	8/31/13 JDL
10239780016-R	0.00	0.00	0.00	0.70	99.30	16.40	8/31/13 JDL
10239780017-R	0.00	0.00	0.00	35.00	65.00	16.80	8/31/13 JDL
10239780018-R	0.00	0.00	0.00	2.80	97.20	16.10	8/31/13 JDL
10239780019-R	0.00	0.00	0.00	4.60	95.40	14.30	8/31/13 JDL
10239780020-R	0.00	0.00	0.00	1.20	98.80	15.20	8/31/13 JDL
10239780021-R	0.00	0.00	0.00	1.30	98.70	16.20	8/31/13 JDL
10239780022-R	0.00	0.00	0.00	1.10	98.90	5.60	8/31/13 JDL
10240776001-R	0.00	0.00	0.00	56.20	100.00	43.30	12/30/99
10241247001	0.00	0.00	0.00	0.00	100.00	20.30	12/30/99
10241247002	0.00	0.00	0.00	0.00	100.00	20.10	12/30/99
10241247003	0.00	0.00	0.00	0.00	100.00	20.60	12/30/99
35104661009-R2	0.00	0.00	0.00	25.30	100.00	13.00	8/21/13 IR00
35104661011-R2	0.00	0.00	0.00	11.00	100.00	16.90	8/21/13 IR00
10240751001-R	0.00	0.00	0.00	6.80	~~100.00~~	11.60	12/30/99

① SWA 9/25/13

REPORT OF LABORATORY ANALYSIS

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Client names have been blacked out on notebook pages in order to preserve client confidentiality

Analysis Key Code List

- = Not used

✔ = Worked up

= See comment # below

Li = Liner, replace or clean

Ba = Baseplate, change

SyB = Syringe, replace – bent

SyP = Syringe, replace – plugged

SyO = Syringe, replace – other

IS = Injector Septum, replace

BS = Batch Septum, replace

Fi = Filament, replace

Co = Contacts, adjust

Ca = re-Calibrate

Tu = Tune

TC = Tune and Calibrate

CC () = Cut Column (length cut)

CO = Carry-Over possible

RRM = ReRun - Matrix

RRLM = ReRun – Lock Mass

RRBI = ReRun – Bad Injection

RRRT = ReRun – Retention Time shift

RR>S = Rerun – need better Sensitivity

Re = Re-extract

AS = Adjust Slits

LC = Leak Check

RB = Re-Boot system

CiS = Cleaned inner Source

CoS = Cleaned outer Source

AiS = Alternate inner Source

AoS = Alternate outer Source

<Y = Adjust Y focus down

>Y = Adjust Y focus up

Di () = Dilution needed (amount needed)

FE = Front End – liner, baseplate and septum

Sample List Report **MassLynx 4.1 SCN 881** 10MSH-206 7/29/13

Sample List: C:\MassLynx\Default.pro\Sampledb\U130729B.SPL

Last Modified: Monday, July 29, 2013 16:57:48 Central Daylight Time

Printed: Monday, July 29, 2013 16:58:11 Central Daylight Time

Page Position (1, 1)

	File Name	File Text	Method	MS File	Inlet File	Vial	Inj
1	U130729B_01	CAL CS3/CPM-7604-274 - SMT TC	8290	dioxfur	dioxfur	Tray1:1	1.000000
2	U130729B_02	LCS STD-37216 - SMT	HOUSE	dioxfur	dioxfur	Tray1:4	1.000000
3	U130729B_03	BLANK NONANE - SMT	HOUSE	dioxfur	dioxfur	Tray1:2	1.000000
4	U130729B_04	BLANK 8515-142-10X - SMT	HOUSE	dioxfur	dioxfur	Tray1:3	1.000000
5	U130729B_05	SAMP 10231732012 - SMT [redacted] co check	8290	dioxfur	dioxfur	Tray1:5	1.000000
6	U130729B_06	SAMP 10231732014 - SMT [redacted] co check	8290	dioxfur	dioxfur	Tray1:6	1.000000
7	U130729B_07	SAMP 3598370001-R - SMT [redacted]	8290	dioxfur	dioxfur	Tray1:7	1.000000
8	U130729B_08	SAMP 3598370002-R - SMT [redacted]	8290	dioxfur	dioxfur	Tray1:8	1.000000
9	U130729B_09	CAL CS3/CPM-7604-274 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000
10	U130729B_10	CAL CS2-7604-276 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:9	1.000000
11	U130729B_11	CAL CS1-7604-273 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:10	1.000000
12	U130729B_12	CAL CS5-7604-278 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:11	1.000000
13	U130729B_13	CAL CS4-7604-277 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:12	1.000000
14	U130729B_14	BLANK NONANE - SMT	HOUSE	dioxfur	dioxfur	Tray1:2	1.000000
15	U130729B_15	CAL STD-37024 - SMT 2nd	8290/1613B	dioxfur	dioxfur	Tray1:13	1.000000
16	U130729B_16	BLANK NONANE - SMT	HOUSE	dioxfur	dioxfur	Tray1:2	1.000000
17	U130729B_17	BLANK NONANE - SMT	HOUSE	dioxfur	dioxfur	Tray1:2	1.000000
18	U130729B_18	SAMP 60149402001 - SMT [redacted]	1613B-TD	dioxfur	dioxfur	Tray1:14	1.000000
19	U130729B_19	SAMP 201107262 - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:15	1.000000
20	U130729B_20	SAMP 1222806001 - SMT [redacted]	1613B-TD/F	dioxfur	dioxfur	Tray1:16	1.000000
21	U130729B_21	SAMP 10236297001 - SMT [redacted]	1613B-TD	dioxfur	dioxfur	Tray1:17	1.000000
22	U130729B_22	SAMP 10236295001 - SMT [redacted]	1613B-TD	dioxfur	dioxfur	Tray1:18	1.000000
23	U130729B_23	BLANK BLANK-37138 - SMT	1613B	dioxfur	dioxfur	Tray1:19	1.000000
24	U130729B_24	CAL CS3/CPM-7604-274 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000

Sum 8/2/13

Sample List Report **MassLynx 4.1 SCN 881** 10MSHR06 9/17/13

Sample List: C:\MassLynx\Default.pro\Sampledb\U130917A.SPL

Last Modified: Wednesday, September 18, 2013 07:15:09 Central Daylight Time

Printed: Wednesday, September 18, 2013 07:15:13 Central Daylight Time Page Position (1, 1)

	File Name	File Text	Method	MS File	Inlet File	Vial	Inj
1	U130917A_01	CAL CS3/CPM-7604-279 - SMT FE AS TC	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000
2	U130917A_02	SAMP 35106542001-MS - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:4	1.000000
3	U130917A_03	SAMP 35106542001-MSD - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:5	1.000000
4	U130917A_04	BLANK BLANK-8515-142-10X - SMT	HOUSE	dioxfur	dioxfur	Tray1:3	1.000000
5	U130917A_05	LCS LCS-37732 - SMT	8290	dioxfur	dioxfur	Tray1:6	1.000000
6	U130917A_06	CAL CS3/CPM-7604-279 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000
7	U130917A_07	LCS LCS-37724 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:4	1.000000
8	U130917A_08	LCS LCSD-37725 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:5	1.000000
9	U130917A_09	BLANK BLANK-8515-142-10X - SMT	HOUSE	dioxfur	dioxfur	Tray1:3	1.000000
10	U130917A_10	BLANK BLANK-37723 - SMT	8290	dioxfur	dioxfur	Tray1:7	1.000000
11	U130917A_11	SAMP 35106542001 - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:8	1.000000
12	U130917A_12	SAMP 35104661009-R2 - SMT [redacted]	8290	dioxfur	dioxfur	Tray1:9	1.000000
13	U130917A_13	SAMP 35104661011-R2 - SMT [redacted] dec	8290	dioxfur	dioxfur	Tray1:10	1.000000
14	U130917A_14	SAMP 35106543001 - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:11	1.000000
15	U130917A_15	SAMP 35106543002 - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:12	1.000000
16	U130917A_16	SAMP 35106543003 - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:13	1.000000
17	U130917A_17	SAMP 35106543004 - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:14	1.000000
18	U130917A_18	SAMP 35106543005 - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:15	1.000000
19	U130917A_19	SAMP 35106543006 - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:16	1.000000
20	U130917A_20	SAMP 10240757001 - BAL [redacted] xclp	1613B-TD	dioxfur	dioxfur	Tray1:17	1.000000
21	U130917A_21	BLANK NONANE - SMT yellow samps	HOUSE	dioxfur	dioxfur	Tray1:2	1.000000
22	U130917A_22	CAL CS3/CPM-7604-279 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000

pat ab

SWH 9/18/13

	File Name	File Text	Method	MS File	Inlet File	Vial	Inject
1	F130918B_01	CAL CS3/CPM-7604-279 - SMT TC	8290/1613B	dioxfur	dioxfur	1	1.000000
2	F130918B_02	CAL CS3/CPM-7604-279 - SMT FE 4"	8290/1613B	dioxfur	dioxfur	1	1.000000
3	F130918B_03	CAL CS2-7604-276 - SMT	8290/1613B	dioxfur	dioxfur	20	1.000000
4	F130918B_04	CAL CS1-7604-273 - SMT	8290/1613B	dioxfur	dioxfur	21	1.000000
5	F130918B_05	CAL CS5-7604-278 - SMT	8290/1613B	dioxfur	dioxfur	22	1.000000
6	F130918B_06	CAL CS4-7604-277 - SMT	8290/1613B	dioxfur	dioxfur	23	1.000000
7	F130918B_07	BLANK NONANE - SMT	HOUSE	dioxfur	dioxfur	2	1.000000
8	F130918B_08	CAL LCS-37562 - SMT 2nd	8290/1613B	dioxfur	dioxfur	24	1.000000
9	F130918B_09	LCS LCS-37608 - SMT [redacted] x-cln	1613B	dioxfur	dioxfur	17	1.000000
10	F130918B_10	SAMP 10240642007-MS - SMT [redacted] x-cln	1613B	dioxfur	dioxfur	18	1.000000
11	F130918B_11	SAMP 10240642007-MSD - SMT [redacted] x-cln	1613B	dioxfur	dioxfur	19	1.000000

9/20/13

Sample List Report **MassLynx 4.0 SCN480 SCN533** 10MSHROS 9/21/13

Sample List: C:\MassLynx\Default.pro\Sampledb\F130921A.SPL

Last Modified: Friday, September 20, 2013 6:16:31 PM Central Daylight Time

Printed: Friday, September 20, 2013 6:18:33 PM Central Daylight Time

Page Position (1, 1)

	File Name	File Text	Method	MS File	Inlet File	Vial	Inject
1	F130921A_01	LCS LCS-37801 - BAL	8290/1613T	dioxfur	dioxfur	18	1.000000
2	F130921A_02	LCS LCSD-37802 - BAL	8290/1613T	dioxfur	dioxfur	19	1.000000
3	F130921A_03	BLANK NONANE - BAL	HOUSE	dioxfur	dioxfur	2	1.000000
4	F130921A_04	SAMP 201122364 - BAL [redacted]	8290-TD	dioxfur	dioxfur	20	1.000000
5	F130921A_05	BLANK BLANK-37800 - BAL	8290/1613T	dioxfur	dioxfur	21	1.000000
6	F130921A_06	SAMP 10241495019 - BAL [redacted]	8290	dioxfur	dioxfur	22	1.000000
7	F130921A_07	SAMP 10241526013 - BAL [redacted]	8290	dioxfur	dioxfur	23	1.000000
8	F130921A_08	SAMP 35107374001 - BAL [redacted]	8290	dioxfur	dioxfur	24	1.000000
9	F130921A_09	SAMP 35107374002 - BAL [redacted]	8290	dioxfur	dioxfur	25	1.000000
10	F130921A_10	SAMP 35107374003 - BAL [redacted]	8290	dioxfur	dioxfur	26	1.000000
11	F130921A_11	SAMP 35107374004 - BAL [redacted]	8290	dioxfur	dioxfur	27	1.000000
12	F130921A_12	SAMP 35107374005 - BAL [redacted]	8290	dioxfur	dioxfur	28	1.000000
13	F130921A_13	SAMP 35107374006 - BAL [redacted]	8290	dioxfur	dioxfur	29	1.000000
14	F130921A_14	SAMP 35107374007 - BAL [redacted]	8290	dioxfur	dioxfur	30	1.000000
15	F130921A_15	SAMP 35107374008 - BAL [redacted]	8290	dioxfur	dioxfur	31	1.000000
16	F130921A_16	CAL CS3/CPM-7604-279 - BAL BAL	8290/1613B	dioxfur	dioxfur	1	1.000000

pass 8290 + 1613T

JM 9/25/13

Sample List Report **MassLynx 4.0 SCN480 SCN533** 10 MS HR.05 9/21/13

Sample List: C:\MassLynx\Default.pro\Sampledb\F130921B.SPL

Last Modified: Saturday, September 21, 2013 3:22:23 PM Central Daylight Time

Printed: Saturday, September 21, 2013 3:22:43 PM Central Daylight Time

Page Position (1, 1)

	File Name	File Text	Method	MS File	Inlet File	Vial	Inject
1	F130921B_01	BLANK NONANE - BAL	HOUSE	dioxfur	dioxfur	2	1.000000
2	F130921B_02	SAMP 10241785001 - BAL [redacted]	1613B-TD	dioxfur	dioxfur	4	1.000000
3	F130921B_03	BLANK BLANK-37757 - BAL	8290/1613T	dioxfur	dioxfur	5	1.000000
4	F130921B_04	SAMP 10242402001 - BAL [redacted]	8290	dioxfur	dioxfur	6	1.000000
5	F130921B_05	SAMP 10241526001 - BAL [redacted]	8290	dioxfur	dioxfur	7	1.000000
6	F130921B_06	SAMP 10241526005 - BAL [redacted]	8290	dioxfur	dioxfur	8	1.000000
7	F130921B_07	SAMP 10241526006 - BAL [redacted]	8290	dioxfur	dioxfur	9	1.000000
8	F130921B_08	SAMP 10241670001 - BAL [redacted]	1613B-TD	dioxfur	dioxfur	10	1.000000
9	F130921B_09	SAMP 4083352001 - BAL [redacted]	8290	dioxfur	dioxfur	11	1.000000
10	F130921B_10	SAMP 10240751001-R - BAL ADV	8290	dioxfur	dioxfur	12	1.000000
11	F130921B_11	SAMP 10240751002-R - BAL ADV (1)	8290	dioxfur	dioxfur	13	1.000000
12	F130921B_12	SAMP 10240910001 - BAL [redacted]	8290	dioxfur	dioxfur	14	1.000000
13	F130921B_13	SAMP 10240910002 - BAL [redacted]	8290	dioxfur	dioxfur	15	1.000000
14	F130921B_14	LCS LCS-37758 - BAL	8290/1613T	dioxfur	dioxfur	16	1.000000
15	F130921B_15	LCS LCSD-37759 - BAL	8290/1613T	dioxfur	dioxfur	17	1.000000
16	F130921B_16	CAL CS3/CPM-7604-279 - BAL BAL	8290/1613B	dioxfur	dioxfur	1	1.000000

Passed 8290 & 1613 but not 1613 tetra CAL 9/22/13

(1) 754001 9/21/13

Jiss 9/25/13

Appendix B

Sample Analysis Summary

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Advanced Technology Labs

Client's Sample ID	1302545-05 / T-12-9.5		
Lab Sample ID	10240751001-R		
Filename	F130921B_10		
Injected By	BAL		
Total Amount Extracted	11.6 g	Matrix	Soil
% Moisture	6.8	Dilution	NA
Dry Weight Extracted	10.8 g	Collected	08/20/2013 08:00
ICAL ID	F130918	Received	09/04/2013 09:50
CCal Filename(s)	F130921A_16 & F130921B_16	Extracted	09/12/2013 17:05
Method Blank ID	BLANK-37723	Analyzed	09/21/2013 21:25

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	3.4	-----	1.0	2,3,7,8-TCDF-13C	2.00	75
Total TCDF	100.0	-----	1.0	2,3,7,8-TCDD-13C	2.00	87
				1,2,3,7,8-PeCDF-13C	2.00	76
2,3,7,8-TCDD	ND	-----	1.0	2,3,4,7,8-PeCDF-13C	2.00	74
Total TCDD	6.6	-----	1.0	1,2,3,7,8-PeCDD-13C	2.00	89
				1,2,3,4,7,8-HxCDF-13C	2.00	75
1,2,3,7,8-PeCDF	ND	-----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	80
2,3,4,7,8-PeCDF	11.0	-----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	79
Total PeCDF	85.0	-----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	63
				1,2,3,4,7,8-HxCDD-13C	2.00	79
1,2,3,7,8-PeCDD	ND	-----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	73
Total PeCDD	ND	-----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	74
				1,2,3,4,7,8,9-HpCDF-13C	2.00	68
1,2,3,4,7,8-HxCDF	11.0	-----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	74
1,2,3,6,7,8-HxCDF	16.0	-----	5.0	OCDD-13C	4.00	42
2,3,4,6,7,8-HxCDF	27.0	-----	5.0			
1,2,3,7,8,9-HxCDF	5.3	-----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	120.0	-----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	5.0	2,3,7,8-TCDD-37Cl4	0.20	89
1,2,3,6,7,8-HxCDD	5.8	-----	5.0			
1,2,3,7,8,9-HxCDD	ND	-----	5.0			
Total HxCDD	40.0	-----	5.0			
1,2,3,4,6,7,8-HpCDF	77.0	-----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	15.0	-----	5.0	Equivalence: 14 ng/Kg		
Total HpCDF	130.0	-----	5.0	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	60.0	-----	5.0			
Total HpCDD	110.0	-----	5.0			
OCDF	36.0	-----	10.0			
OCDD	130.0	-----	10.0			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

and are valid to no more than 2 significant figures.

REPORT OF LABORATORY ANALYSIS

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Appendix C

QC and Calibration Results Summary

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Pace Analytical™

Method 8290 Blank Analysis Results

Lab Sample ID	BLANK-37723	Matrix	Solid
Filename	U130917A_10	Dilution	NA
Total Amount Extracted	21.7 g	Extracted	09/12/2013 17:05
ICAL ID	U130729	Analyzed	09/17/2013 16:38
CCal Filename(s)	U130917A_06 & U130917A_22	Injected By	SMT

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.0	2,3,7,8-TCDF-13C	2.00	76
Total TCDF	ND	----	1.0	2,3,7,8-TCDD-13C	2.00	84
				1,2,3,7,8-PeCDF-13C	2.00	77
2,3,7,8-TCDD	ND	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	80
Total TCDD	ND	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	87
				1,2,3,4,7,8-HxCDF-13C	2.00	77
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	86
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	92
Total PeCDF	ND	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	77
				1,2,3,4,7,8-HxCDD-13C	2.00	84
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	79
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	80
				1,2,3,4,7,8,9-HpCDF-13C	2.00	80
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	78
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	76
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	82
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	ND	----	5.0			
1,2,3,4,6,7,8-HpCDF	ND	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 0.00 ng/Kg		
Total HpCDF	ND	----	5.0	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	5.0			
Total HpCDD	ND	----	5.0			
OCDF	ND	----	10.0			
OCDD	ND	----	10.0			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

Results reported on a dry weight basis and are valid to no more than 2 significant figures.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Pace Analytical™

Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCS-37724		
Filename	U130917A_07	Matrix	Solid
Total Amount Extracted	20.2 g	Dilution	NA
ICAL ID	U130729	Extracted	09/12/2013 17:05
CCal Filename(s)	U130917A_06 & U130917A_22	Analyzed	09/17/2013 14:00
Method Blank ID	BLANK-37723	Injected By	SMT

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.21	104	2,3,7,8-TCDF-13C	2.0	74
Total TCDF				2,3,7,8-TCDD-13C	2.0	81
				1,2,3,7,8-PeCDF-13C	2.0	73
2,3,7,8-TCDD	0.20	0.20	102	2,3,4,7,8-PeCDF-13C	2.0	75
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	83
				1,2,3,4,7,8-HxCDF-13C	2.0	75
1,2,3,7,8-PeCDF	1.0	1.0	104	1,2,3,6,7,8-HxCDF-13C	2.0	81
2,3,4,7,8-PeCDF	1.0	1.0	102	2,3,4,6,7,8-HxCDF-13C	2.0	90
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	76
				1,2,3,4,7,8-HxCDD-13C	2.0	83
1,2,3,7,8-PeCDD	1.0	0.96	96	1,2,3,6,7,8-HxCDD-13C	2.0	78
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	81
				1,2,3,4,7,8,9-HpCDF-13C	2.0	76
1,2,3,4,7,8-HxCDF	1.0	1.1	106	1,2,3,4,6,7,8-HpCDD-13C	2.0	75
1,2,3,6,7,8-HxCDF	1.0	1.0	105	OCDD-13C	4.0	73
2,3,4,6,7,8-HxCDF	1.0	1.0	101			
1,2,3,7,8,9-HxCDF	1.0	1.1	106	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.1	107	2,3,7,8-TCDD-37Cl4	0.20	84
1,2,3,6,7,8-HxCDD	1.0	1.2	119			
1,2,3,7,8,9-HxCDD	1.0	1.1	107			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.1	111			
1,2,3,4,7,8,9-HpCDF	1.0	1.0	105			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	1.1	107			
Total HpCDD						
OCDF	2.0	2.2	111			
OCDD	2.0	2.3	113			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
R = Recovery outside of target range

Y = RF averaging used in calculations
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Pace Analytical™

Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCSD-37725		
Filename	U130917A_08	Matrix	Solid
Total Amount Extracted	20.4 g	Dilution	NA
ICAL ID	U130729	Extracted	09/12/2013 17:05
CCal Filename(s)	U130917A_06 & U130917A_22	Analyzed	09/17/2013 14:45
Method Blank ID	BLANK-37723	Injected By	SMT

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.20	102	2,3,7,8-TCDF-13C	2.0	72
Total TCDF				2,3,7,8-TCDD-13C	2.0	79
				1,2,3,7,8-PeCDF-13C	2.0	71
2,3,7,8-TCDD	0.20	0.21	104	2,3,4,7,8-PeCDF-13C	2.0	75
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	84
				1,2,3,4,7,8-HxCDF-13C	2.0	73
1,2,3,7,8-PeCDF	1.0	1.0	105	1,2,3,6,7,8-HxCDF-13C	2.0	80
2,3,4,7,8-PeCDF	1.0	1.0	101	2,3,4,6,7,8-HxCDF-13C	2.0	87
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	72
				1,2,3,4,7,8-HxCDD-13C	2.0	79
1,2,3,7,8-PeCDD	1.0	0.94	94	1,2,3,6,7,8-HxCDD-13C	2.0	77
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	77
				1,2,3,4,7,8,9-HpCDF-13C	2.0	73
1,2,3,4,7,8-HxCDF	1.0	1.0	104	1,2,3,4,6,7,8-HpCDD-13C	2.0	72
1,2,3,6,7,8-HxCDF	1.0	1.0	101	OCDD-13C	4.0	71
2,3,4,6,7,8-HxCDF	1.0	0.98	98			
1,2,3,7,8,9-HxCDF	1.0	1.1	109	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.1	107	2,3,7,8-TCDD-37Cl4	0.20	81
1,2,3,6,7,8-HxCDD	1.0	1.1	115			
1,2,3,7,8,9-HxCDD	1.0	1.1	106			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.1	110			
1,2,3,4,7,8,9-HpCDF	1.0	1.0	102			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	1.0	104			
Total HpCDD						
OCDF	2.0	2.2	110			
OCDD	2.0	2.2	110			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
R = Recovery outside of target range

Y = RF averaging used in calculations
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
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Method 8290

Spike Recovery Relative Percent Difference (RPD) Results

Client	Advanced Technology Labs		
Spike 1 ID	LCS-37724	Spike 2 ID	LCSD-37725
Spike 1 Filename	U130917A_07	Spike 2 Filename	U130917A_08

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDF	104	102	1.9
2,3,7,8-TCDD	102	104	1.9
1,2,3,7,8-PeCDF	104	105	1.0
2,3,4,7,8-PeCDF	102	101	1.0
1,2,3,7,8-PeCDD	96	94	2.1
1,2,3,4,7,8-HxCDF	106	104	1.9
1,2,3,6,7,8-HxCDF	105	101	3.9
2,3,4,6,7,8-HxCDF	101	98	3.0
1,2,3,7,8,9-HxCDF	106	109	2.8
1,2,3,4,7,8-HxCDD	107	107	0.0
1,2,3,6,7,8-HxCDD	119	115	3.4
1,2,3,7,8,9-HxCDD	107	106	0.9
1,2,3,4,6,7,8-HpCDF	111	110	0.9
1,2,3,4,7,8,9-HpCDF	105	102	2.9
1,2,3,4,6,7,8-HpCDD	107	104	2.8
OCDF	111	110	0.9
OCDD	113	110	2.7

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value

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Method 8290/1613
Initial Calibration (ICAL) - Response Factor Summary

ICAL ID	F130918	Data Files:		Time	Injected
Calibration Date	09/18/2013	CS-1	F130918B_04	18:22	SMT
Instrument	10MSHR05 (F)	CS-2	F130918B_03	17:38	SMT
Column Phase	DB-5MS 0.25mm	CS-3	F130918B_02	16:50	SMT
Column ID No.	USD174324H	CS-4	F130918B_06	19:54	SMT
		CS-5	F130918B_05	19:08	SMT

Isomer	CS-1	CS-2	CS-3	CS-4	CS-5	Ave RF	%RSD
2,3,7,8-TCDF	1.0056	1.0674	1.1267	1.1435	1.1410	1.0968	5.43
2,3,7,8-TCDD	1.1272	1.0525	1.1558	1.1616	1.1665	1.1327	4.18
1,2,3,7,8-PeCDF	1.0831	1.1328	1.1318	1.1577	1.1649	1.1340	2.83
2,3,4,7,8-PeCDF	1.1251	1.1557	1.1618	1.2091	1.2023	1.1708	2.98
1,2,3,7,8-PeCDD	1.0941	1.1224	1.1458	1.1499	1.1508	1.1326	2.16
1,2,3,4,7,8-HxCDF	1.2706	1.2612	1.2627	1.3010	1.3317	1.2855	2.37
1,2,3,6,7,8-HxCDF	1.2834	1.2327	1.2533	1.2605	1.2831	1.2626	1.70
2,3,4,6,7,8-HxCDF	1.2082	1.3573	1.3273	1.3706	1.3544	1.3236	5.02
1,2,3,7,8,9-HxCDF	1.1508	1.1661	1.1842	1.2378	1.2037	1.1885	2.86
1,2,3,4,7,8-HxCDD	1.1578	1.1292	1.1763	1.1857	1.1840	1.1666	2.03
1,2,3,6,7,8-HxCDD	1.0592	1.0951	1.0775	1.0667	1.0624	1.0722	1.36
1,2,3,7,8,9-HxCDD	1.0642	1.0902	1.1631	1.1315	1.1180	1.1134	3.41
1,2,3,4,6,7,8-HpCDF	1.3326	1.4411	1.3298	1.3610	1.4254	1.3780	3.79
1,2,3,4,7,8,9-HpCDF	1.3392	1.3268	1.4124	1.3688	1.4889	1.3872	4.73
1,2,3,4,6,7,8-HpCDD	1.1301	1.1383	1.1786	1.2130	1.2203	1.1761	3.52
OCDF	1.3867	1.3738	1.4585	1.5364	1.5611	1.4633	5.80
OCDD	1.0231	1.0533	1.0806	1.1352	1.1108	1.0806	4.12
Total PeCDF	1.1041	1.1443	1.1468	1.1834	1.1836	1.1524	2.87
Total HxCDF	1.2282	1.2543	1.2569	1.2925	1.2932	1.2650	2.20
Total HxCDD	1.0937	1.1048	1.1390	1.1280	1.1215	1.1174	1.62
Total HpCDF	1.3359	1.3839	1.3711	1.3649	1.4571	1.3826	3.27
2,3,7,8-TCDF-13C	1.5962	1.5358	1.6981	1.5974	1.6444	1.6144	3.76
2,3,7,8-TCDD-13C	0.9072	0.9137	1.0205	0.9423	0.9846	0.9536	5.06
2,3,7,8-TCDD-37Cl4	0.9052	1.0111	1.1580	1.1020	1.1462	1.0645	9.97
1,2,3,7,8-PeCDF-13C	1.3665	1.3891	1.6039	1.4704	1.5398	1.4740	6.78
2,3,4,7,8-PeCDF-13C	1.3514	1.3617	1.6640	1.4181	1.5070	1.4604	8.86
1,2,3,7,8-PeCDD-13C	0.7487	0.7585	0.9429	0.8067	0.8660	0.8245	9.81
1,2,3,4,7,8-HxCDF-13C	1.4266	1.4118	1.3881	1.4751	1.4248	1.4253	2.23
1,2,3,6,7,8-HxCDF-13C	1.5667	1.5976	1.5163	1.6657	1.6059	1.5904	3.45
2,3,4,6,7,8-HxCDF-13C	1.5190	1.4179	1.4313	1.4574	1.4271	1.4505	2.82
1,2,3,7,8,9-HxCDF-13C	1.3579	1.3812	1.4571	1.4213	1.4473	1.4130	3.01
1,2,3,4,7,8-HxCDD-13C	0.9031	0.9502	0.9065	0.9408	0.9440	0.9289	2.40
1,2,3,6,7,8-HxCDD-13C	1.0218	1.0547	1.0601	1.1025	1.0744	1.0627	2.77
1,2,3,4,6,7,8-HpCDF-13C	0.8307	0.8000	0.8218	0.8286	0.8037	0.8170	1.75
1,2,3,4,7,8,9-HpCDF-13C	0.6477	0.6629	0.6302	0.7068	0.6797	0.6654	4.43
1,2,3,4,6,7,8-HpCDD-13C	0.5574	0.5867	0.5737	0.6335	0.6077	0.5918	5.02
OCDD-13C	0.7252	0.7876	0.7685	0.7903	0.8569	0.7857	6.05

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Method 8290/1613
Initial Calibration (ICAL) - Isotope Ratio Summary

ICAL ID	**F130918**	Data Files:		Time	Injected
Calibration Date	09/18/2013	CS-1	F130918B_04	18:22	SMT
Instrument	10MSHR05 (F)	CS-2	F130918B_03	17:38	SMT
Column Phase	DB-5MS 0.25mm	CS-3	F130918B_02	16:50	SMT
Column ID No.	USD174324H	CS-4	F130918B_06	19:54	SMT
		CS-5	F130918B_05	19:08	SMT

Isomer	CS-1	CS-2	CS-3	CS-4	CS-5	Limits
2,3,7,8-TCDF	0.84	0.78	0.81	0.79	0.80	0.65 - 0.89
2,3,7,8-TCDD	0.86	0.73	0.79	0.78	0.79	0.65 - 0.89
1,2,3,7,8-PeCDF	1.57	1.62	1.57	1.61	1.61	1.32 - 1.78
2,3,4,7,8-PeCDF	1.51	1.63	1.62	1.59	1.61	1.32 - 1.78
1,2,3,7,8-PeCDD	0.66	0.64	0.64	0.64	0.65	0.52 - 0.70
1,2,3,4,7,8-HxCDF	1.30	1.27	1.31	1.29	1.27	1.05 - 1.43
1,2,3,6,7,8-HxCDF	1.29	1.24	1.27	1.30	1.28	1.05 - 1.43
2,3,4,6,7,8-HxCDF	1.26	1.27	1.28	1.31	1.26	1.05 - 1.43
1,2,3,7,8,9-HxCDF	1.18	1.26	1.30	1.31	1.31	1.05 - 1.43
1,2,3,4,7,8-HxCDD	1.27	1.28	1.30	1.38	1.29	1.05 - 1.43
1,2,3,6,7,8-HxCDD	1.21	1.31	1.28	1.23	1.29	1.05 - 1.43
1,2,3,7,8,9-HxCDD	1.23	1.24	1.26	1.30	1.28	1.05 - 1.43
1,2,3,4,6,7,8-HpCDF	1.09	0.99	1.02	1.02	0.97	0.88 - 1.20
1,2,3,4,7,8,9-HpCDF	0.93	1.07	0.98	1.09	1.07	0.88 - 1.20
1,2,3,4,6,7,8-HpCDD	1.08	0.98	1.02	1.05	1.06	0.88 - 1.20
OCDF	0.91	0.94	0.94	0.93	0.95	0.76 - 1.02
OCDD	0.92	0.89	0.90	0.89	0.91	0.76 - 1.02
1,2,3,4-TCDD-13C	0.81	0.80	0.82	0.79	0.80	0.65 - 0.89
1,2,3,7,8,9-HxCDD-13C	1.24	1.26	1.28	1.26	1.27	1.05 - 1.43
2,3,7,8-TCDF-13C	0.81	0.80	0.80	0.80	0.79	0.65 - 0.89
2,3,7,8-TCDD-13C	0.81	0.81	0.81	0.80	0.80	0.65 - 0.89
1,2,3,7,8-PeCDF-13C	1.62	1.64	1.62	1.62	1.61	1.32 - 1.78
2,3,4,7,8-PeCDF-13C	1.63	1.60	1.65	1.65	1.62	1.32 - 1.78
1,2,3,7,8-PeCDD-13C	1.59	1.58	1.62	1.57	1.61	1.32 - 1.78
1,2,3,4,7,8-HxCDF-13C	0.53	0.53	0.53	0.52	0.54	0.43 - 0.59
1,2,3,6,7,8-HxCDF-13C	0.54	0.56	0.53	0.53	0.55	0.43 - 0.59
2,3,4,6,7,8-HxCDF-13C	0.53	0.55	0.54	0.55	0.53	0.43 - 0.59
1,2,3,7,8,9-HxCDF-13C	0.54	0.53	0.54	0.54	0.54	0.43 - 0.59
1,2,3,4,7,8-HxCDD-13C	1.32	1.28	1.28	1.33	1.29	1.05 - 1.43
1,2,3,6,7,8-HxCDD-13C	1.26	1.25	1.25	1.23	1.28	1.05 - 1.43
1,2,3,4,6,7,8-HpCDF-13C	0.44	0.47	0.46	0.45	0.46	0.37 - 0.51
1,2,3,4,7,8,9-HpCDF-13C	0.42	0.47	0.46	0.45	0.44	0.37 - 0.51
1,2,3,4,6,7,8-HpCDD-13C	1.14	1.01	1.08	1.11	1.11	0.88 - 1.20
OCDD-13C	0.91	0.91	0.90	0.93	0.91	0.76 - 1.02

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Method 8290/1613
Initial Calibration (ICAL) - Response Factor Summary

ICAL ID	U130729	Data Files:		Time	Injected
Calibration Date	07/29/2013	CS-1	U130729B_11	23:48	SMT
Instrument	10MSHR06 (U)	CS-2	U130729B_10	23:00	SMT
Column Phase	DB-5MS 0.25mm	CS-3	U130729B_09	22:12	SMT
Column ID No.	USD227224H	CS-4	U130729B_13	01:25	SMT
		CS-5	U130729B_12	00:36	SMT

Isomer	CS-1	CS-2	CS-3	CS-4	CS-5	Ave RF	%RSD
2,3,7,8-TCDF	0.9356	0.9238	0.8824	0.8940	0.8840	0.9040	2.69
2,3,7,8-TCDD	1.1618	1.0345	1.0720	1.0288	1.0360	1.0666	5.24
1,2,3,7,8-PeCDF	0.8534	0.8707	0.8673	0.8846	0.8996	0.8751	2.01
2,3,4,7,8-PeCDF	0.9395	0.9176	0.8908	0.9162	0.9166	0.9162	1.88
1,2,3,7,8-PeCDD	1.0781	1.0114	0.9619	1.0014	0.9919	1.0090	4.25
1,2,3,4,7,8-HxCDF	1.1070	1.0856	1.0239	1.0667	1.0596	1.0686	2.90
1,2,3,6,7,8-HxCDF	1.0026	0.9946	1.0113	1.0330	1.0420	1.0167	1.98
2,3,4,6,7,8-HxCDF	1.0042	1.1256	1.0588	1.1135	1.1345	1.0873	5.06
1,2,3,7,8,9-HxCDF	0.9501	0.9693	0.9282	0.9549	0.9921	0.9589	2.47
1,2,3,4,7,8-HxCDD	1.0731	1.0471	0.9893	1.0280	1.0187	1.0313	3.04
1,2,3,6,7,8-HxCDD	0.9783	0.9579	0.9208	0.9102	0.9122	0.9359	3.26
1,2,3,7,8,9-HxCDD	1.0505	1.0345	1.0728	0.9951	1.0170	1.0340	2.89
1,2,3,4,6,7,8-HpCDF	1.3629	1.3723	1.3154	1.3595	1.3500	1.3520	1.62
1,2,3,4,7,8,9-HpCDF	1.4255	1.3742	1.3364	1.3544	1.3668	1.3715	2.44
1,2,3,4,6,7,8-HpCDD	1.1726	1.0583	1.0544	1.0378	1.0599	1.0766	5.05
OCDF	1.1991	1.1875	1.1027	1.2415	1.2886	1.2039	5.74
OCDD	1.0715	1.0501	0.9799	1.0275	1.0555	1.0369	3.43
Total PeCDF	0.8965	0.8942	0.8791	0.9004	0.9081	0.8956	1.19
Total HxCDF	1.0160	1.0438	1.0055	1.0420	1.0570	1.0329	2.06
Total HxCDD	1.0340	1.0132	0.9943	0.9777	0.9827	1.0004	2.32
Total HpCDF	1.3942	1.3733	1.3259	1.3569	1.3584	1.3617	1.84
2,3,7,8-TCDF-13C	1.5722	1.4945	1.5171	1.5002	1.5232	1.5215	2.02
2,3,7,8-TCDD-13C	1.0108	0.9945	1.0257	1.0010	1.0313	1.0126	1.55
2,3,7,8-TCDD-37Cl4	1.1240	1.1311	1.1109	1.1123	1.1464	1.1249	1.30
1,2,3,7,8-PeCDF-13C	1.1720	1.1505	1.2095	1.1519	1.2113	1.1790	2.53
2,3,4,7,8-PeCDF-13C	1.1514	1.1779	1.2366	1.1325	1.2172	1.1831	3.69
1,2,3,7,8-PeCDD-13C	0.7286	0.7509	0.8225	0.7297	0.7919	0.7647	5.39
1,2,3,4,7,8-HxCDF-13C	1.0769	1.0883	1.0277	1.1142	1.0998	1.0814	3.06
1,2,3,6,7,8-HxCDF-13C	1.3124	1.2845	1.2177	1.3118	1.3026	1.2858	3.09
2,3,4,6,7,8-HxCDF-13C	1.2210	1.1491	0.7454	1.1672	1.1285	1.0822	17.69
1,2,3,7,8,9-HxCDF-13C	1.0715	1.1004	1.0367	1.1133	1.1119	1.0867	3.00
1,2,3,4,7,8-HxCDD-13C	0.8595	0.8802	0.7619	0.8596	0.8736	0.8470	5.71
1,2,3,6,7,8-HxCDD-13C	1.0600	1.0804	0.9858	1.0934	1.0826	1.0604	4.10
1,2,3,4,6,7,8-HpCDF-13C	1.0545	1.0485	1.0068	1.0394	1.0437	1.0386	1.80
1,2,3,4,7,8,9-HpCDF-13C	0.8501	0.8420	0.7920	0.8264	0.8510	0.8323	2.96
1,2,3,4,6,7,8-HpCDD-13C	0.8427	0.8580	0.8264	0.8247	0.8321	0.8368	1.65
OCDD-13C	0.7304	0.7454	0.7215	0.7278	0.7778	0.7406	3.05

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Method 8290/1613
Initial Calibration (ICAL) - Isotope Ratio Summary

ICAL ID	**U130729**	Data Files:		Time	Injected
Calibration Date	07/29/2013	CS-1	U130729B_11	23:48	SMT
Instrument	10MSHR06 (U)	CS-2	U130729B_10	23:00	SMT
Column Phase	DB-5MS 0.25mm	CS-3	U130729B_09	22:12	SMT
Column ID No.	USD227224H	CS-4	U130729B_13	01:25	SMT
		CS-5	U130729B_12	00:36	SMT

Isomer	CS-1	CS-2	CS-3	CS-4	CS-5	Limits
2,3,7,8-TCDF	0.89	0.73	0.76	0.75	0.75	0.65 - 0.89
2,3,7,8-TCDD	0.74	0.79	0.74	0.77	0.78	0.65 - 0.89
1,2,3,7,8-PeCDF	1.46	1.53	1.53	1.53	1.54	1.32 - 1.78
2,3,4,7,8-PeCDF	1.43	1.52	1.52	1.55	1.48	1.32 - 1.78
1,2,3,7,8-PeCDD	0.62	0.60	0.60	0.61	0.61	0.52 - 0.70
1,2,3,4,7,8-HxCDF	1.15	1.24	1.22	1.21	1.22	1.05 - 1.43
1,2,3,6,7,8-HxCDF	1.25	1.23	1.25	1.20	1.23	1.05 - 1.43
2,3,4,6,7,8-HxCDF	1.21	1.25	1.21	1.25	1.28	1.05 - 1.43
1,2,3,7,8,9-HxCDF	1.16	1.28	1.22	1.27	1.23	1.05 - 1.43
1,2,3,4,7,8-HxCDD	1.15	1.19	1.24	1.27	1.23	1.05 - 1.43
1,2,3,6,7,8-HxCDD	1.14	1.17	1.24	1.20	1.23	1.05 - 1.43
1,2,3,7,8,9-HxCDD	1.18	1.18	1.28	1.23	1.21	1.05 - 1.43
1,2,3,4,6,7,8-HpCDF	1.03	1.02	1.01	1.08	1.04	0.88 - 1.20
1,2,3,4,7,8,9-HpCDF	1.06	1.13	1.05	1.06	1.04	0.88 - 1.20
1,2,3,4,6,7,8-HpCDD	0.99	1.04	1.02	1.04	1.05	0.88 - 1.20
OCDF	0.94	0.90	0.89	0.89	0.90	0.76 - 1.02
OCDD	0.79	0.88	0.89	0.87	0.88	0.76 - 1.02
1,2,3,4-TCDD-13C	0.80	0.80	0.79	0.80	0.80	0.65 - 0.89
1,2,3,7,8,9-HxCDD-13C	1.26	1.27	1.23	1.26	1.24	1.05 - 1.43
2,3,7,8-TCDF-13C	0.78	0.76	0.78	0.78	0.77	0.65 - 0.89
2,3,7,8-TCDD-13C	0.78	0.78	0.77	0.78	0.79	0.65 - 0.89
1,2,3,7,8-PeCDF-13C	1.56	1.53	1.57	1.58	1.59	1.32 - 1.78
2,3,4,7,8-PeCDF-13C	1.58	1.58	1.53	1.55	1.52	1.32 - 1.78
1,2,3,7,8-PeCDD-13C	1.58	1.59	1.58	1.59	1.59	1.32 - 1.78
1,2,3,4,7,8-HxCDF-13C	0.52	0.52	0.52	0.52	0.52	0.43 - 0.59
1,2,3,6,7,8-HxCDF-13C	0.52	0.51	0.53	0.53	0.52	0.43 - 0.59
2,3,4,6,7,8-HxCDF-13C	0.52	0.52	0.50	0.52	0.52	0.43 - 0.59
1,2,3,7,8,9-HxCDF-13C	0.53	0.52	0.52	0.50	0.53	0.43 - 0.59
1,2,3,4,7,8-HxCDD-13C	1.27	1.31	1.25	1.27	1.30	1.05 - 1.43
1,2,3,6,7,8-HxCDD-13C	1.27	1.21	1.26	1.25	1.22	1.05 - 1.43
1,2,3,4,6,7,8-HpCDF-13C	0.45	0.46	0.45	0.45	0.45	0.37 - 0.51
1,2,3,4,7,8,9-HpCDF-13C	0.45	0.45	0.46	0.46	0.46	0.37 - 0.51
1,2,3,4,6,7,8-HpCDD-13C	1.08	1.07	1.06	1.07	1.09	0.88 - 1.20
OCDD-13C	0.91	0.90	0.90	0.89	0.89	0.76 - 1.02

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Method 8290
PCDD/PCDF Calibration Verification

Run Name:	U130917A_06	Instrument ID	10MSHR06 (U)
Standard	CS3/CPM-7604-279	GC Column ID	USD227224H
Analyzed	09/17/2013 13:13	ICAL ID	U130729

Compound	Known Conc.	Conc Found	Ion Abund. Ratio	Average RF	Daily RF	Deviation (%)
2,3,7,8-TCDF	10	9.5	0.74	0.9040	0.8612	-4.7
2,3,7,8-TCDD	10	10.5	0.76	1.0666	1.1180	4.8
1,2,3,7,8-PeCDF	50	48.1	1.53	0.8751	0.8420	-3.8
2,3,4,7,8-PeCDF	50	47.4	1.50	0.9162	0.8679	-5.3
1,2,3,7,8-PeCDD	50	48.7	0.63	1.0090	0.9824	-2.6
1,2,3,4,7,8-HxCDF	50	47.2	1.20	1.0686	1.0079	-5.7
1,2,3,6,7,8-HxCDF	50	47.2	1.16	1.0167	0.9599	-5.6
2,3,4,6,7,8-HxCDF	50	46.7	1.21	1.0873	1.0159	-6.6
1,2,3,7,8,9-HxCDF	50	47.6	1.20	0.9589	0.9130	-4.8
1,2,3,4,7,8-HxCDD	50	48.2	1.25	1.0313	0.9943	-3.6
1,2,3,6,7,8-HxCDD	50	48.4	1.22	0.9359	0.9061	-3.2
1,2,3,7,8,9-HxCDD	50	45.5	1.20	1.0340	0.9412	-9.0
1,2,3,4,6,7,8-HpCDF	50	50.0	1.04	1.3520	1.3527	0.1
1,2,3,4,7,8,9-HpCDF	50	48.7	1.02	1.3715	1.3353	-2.6
1,2,3,4,6,7,8-HpCDD	50	50.8	1.07	1.0766	1.0940	1.6
OCDF	100	98.3	0.86	1.2039	1.1831	-1.7
OCDD	100	97.1	0.89	1.0369	1.0068	-2.9
Total PeCDF	100	95.5	NA	0.8956	0.8549	-4.5
Total HxCDF	200	188.7	NA	1.0329	0.9742	-5.7
Total HxCDD	150	142.1	NA	1.0004	0.9472	-5.3
Total HpCDF	100	98.7	NA	1.3617	1.3440	-1.3
2,3,7,8-TCDF-13C	100	97.6	0.79	1.5215	1.4842	-2.4
2,3,7,8-TCDD-13C	100	94.7	0.78	1.0126	0.9594	-5.3
2,3,7,8-TCDD-37Cl4	10	9.7	NA	1.1249	1.0863	-3.4
1,2,3,7,8-PeCDF-13C	100	89.7	1.53	1.1790	1.0570	-10.3
2,3,4,7,8-PeCDF-13C	100	90.7	1.53	1.1831	1.0733	-9.3
1,2,3,7,8-PeCDD-13C	100	91.1	1.60	0.7647	0.6966	-8.9
1,2,3,4,7,8-HxCDF-13C	100	102.4	0.51	1.0814	1.1068	2.4
1,2,3,6,7,8-HxCDF-13C	100	103.5	0.51	1.2858	1.3303	3.5
2,3,4,6,7,8-HxCDF-13C	100	108.4	0.53	1.0822	1.1735	8.4
1,2,3,7,8,9-HxCDF-13C	100	92.8	0.52	1.0867	1.0081	-7.2
1,2,3,4,7,8-HxCDD-13C	100	107.7	1.25	0.8470	0.9121	7.7
1,2,3,6,7,8-HxCDD-13C	100	108.4	1.28	1.0604	1.1497	8.4
1,2,3,4,6,7,8-HpCDF-13C	100	104.0	0.45	1.0386	1.0796	4.0
1,2,3,4,7,8,9-HpCDF-13C	100	95.1	0.45	0.8323	0.7912	-4.9
1,2,3,4,6,7,8-HpCDD-13C	100	93.0	1.08	0.8368	0.7783	-7.0
OCDD-13C	200	200.5	0.91	0.7406	0.7424	0.2
1,2,3,4-TCDD-13C	100	NA	0.79	NA	NA	NA
1,2,3,7,8,9-HxCDD-13C	100	NA	1.25	NA	NA	NA

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Method 8290
PCDD/PCDF Calibration Verification

Run Name:	U130917A_22	Instrument ID	10MSHR06 (U)
Standard	CS3/CPM-7604-279	GC Column ID	USD227224H
Analyzed	09/18/2013 02:01	ICAL ID	U130729

Compound	Known Conc.	Conc Found	Ion Abund. Ratio	Average RF	Daily RF	Deviation (%)
2,3,7,8-TCDF	10	9.5	0.77	0.9040	0.8611	-4.7
2,3,7,8-TCDD	10	10.5	0.78	1.0666	1.1147	4.5
1,2,3,7,8-PeCDF	50	49.4	1.53	0.8751	0.8638	-1.3
2,3,4,7,8-PeCDF	50	47.1	1.49	0.9162	0.8623	-5.9
1,2,3,7,8-PeCDD	50	49.8	0.61	1.0090	1.0040	-0.5
1,2,3,4,7,8-HxCDF	50	46.8	1.20	1.0686	1.0012	-6.3
1,2,3,6,7,8-HxCDF	50	48.1	1.21	1.0167	0.9785	-3.8
2,3,4,6,7,8-HxCDF	50	48.0	1.18	1.0873	1.0437	-4.0
1,2,3,7,8,9-HxCDF	50	47.4	1.20	0.9589	0.9084	-5.3
1,2,3,4,7,8-HxCDD	50	49.1	1.24	1.0313	1.0117	-1.9
1,2,3,6,7,8-HxCDD	50	48.3	1.20	0.9359	0.9042	-3.4
1,2,3,7,8,9-HxCDD	50	45.4	1.22	1.0340	0.9387	-9.2
1,2,3,4,6,7,8-HpCDF	50	49.9	1.05	1.3520	1.3505	-0.1
1,2,3,4,7,8,9-HpCDF	50	48.9	1.02	1.3715	1.3411	-2.2
1,2,3,4,6,7,8-HpCDD	50	51.0	1.05	1.0766	1.0980	2.0
OCDF	100	98.6	0.89	1.2039	1.1866	-1.4
OCDD	100	96.1	0.89	1.0369	0.9964	-3.9
Total PeCDF	100	96.4	NA	0.8956	0.8631	-3.6
Total HxCDF	200	190.3	NA	1.0329	0.9829	-4.8
Total HxCDD	150	142.8	NA	1.0004	0.9515	-4.9
Total HpCDF	100	98.8	NA	1.3617	1.3458	-1.2
2,3,7,8-TCDF-13C	100	100.7	0.78	1.5215	1.5320	0.7
2,3,7,8-TCDD-13C	100	97.2	0.78	1.0126	0.9847	-2.8
2,3,7,8-TCDD-37Cl4	10	9.8	NA	1.1249	1.1016	-2.1
1,2,3,7,8-PeCDF-13C	100	94.7	1.55	1.1790	1.1161	-5.3
2,3,4,7,8-PeCDF-13C	100	96.3	1.56	1.1831	1.1392	-3.7
1,2,3,7,8-PeCDD-13C	100	94.9	1.58	0.7647	0.7261	-5.1
1,2,3,4,7,8-HxCDF-13C	100	103.8	0.52	1.0814	1.1224	3.8
1,2,3,6,7,8-HxCDF-13C	100	102.4	0.52	1.2858	1.3163	2.4
2,3,4,6,7,8-HxCDF-13C	100	109.2	0.51	1.0822	1.1817	9.2
1,2,3,7,8,9-HxCDF-13C	100	96.5	0.52	1.0867	1.0485	-3.5
1,2,3,4,7,8-HxCDD-13C	100	107.4	1.24	0.8470	0.9097	7.4
1,2,3,6,7,8-HxCDD-13C	100	107.5	1.26	1.0604	1.1396	7.5
1,2,3,4,6,7,8-HpCDF-13C	100	106.5	0.46	1.0386	1.1061	6.5
1,2,3,4,7,8,9-HpCDF-13C	100	100.9	0.45	0.8323	0.8398	0.9
1,2,3,4,6,7,8-HpCDD-13C	100	95.1	1.06	0.8368	0.7954	-4.9
OCDD-13C	200	218.6	0.89	0.7406	0.8095	9.3
1,2,3,4-TCDD-13C	100	NA	0.79	NA	NA	NA
1,2,3,7,8,9-HxCDD-13C	100	NA	1.26	NA	NA	NA

Concentrations expressed as pg/ul NA = Not Applicable * = Outside target range

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
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Method 8290
PCDD/PCDF Calibration Verification

Run Name:	F130921A_16	Instrument ID	10MSHR05 (F)
Standard	CS3/CPM-7604-279	GC Column ID	USD174324H
Analyzed	09/21/2013 13:44	ICAL ID	F130918

Compound	Known Conc.	Conc Found	Ion Abund. Ratio	Average RF	Daily RF	Deviation (%)
2,3,7,8-TCDF	10	10.3	0.79	1.0968	1.1279	2.8
2,3,7,8-TCDD	10	10.8	0.81	1.1327	1.2196	7.7
1,2,3,7,8-PeCDF	50	51.5	1.62	1.1340	1.1690	3.1
2,3,4,7,8-PeCDF	50	50.7	1.59	1.1708	1.1875	1.4
1,2,3,7,8-PeCDD	50	53.6	0.62	1.1326	1.2131	7.1
1,2,3,4,7,8-HxCDF	50	51.2	1.31	1.2855	1.3175	2.5
1,2,3,6,7,8-HxCDF	50	49.5	1.31	1.2626	1.2495	-1.0
2,3,4,6,7,8-HxCDF	50	50.3	1.31	1.3236	1.3319	0.6
1,2,3,7,8,9-HxCDF	50	51.0	1.28	1.1885	1.2132	2.1
1,2,3,4,7,8-HxCDD	50	49.7	1.32	1.1666	1.1587	-0.7
1,2,3,6,7,8-HxCDD	50	50.5	1.28	1.0722	1.0833	1.0
1,2,3,7,8,9-HxCDD	50	49.8	1.29	1.1134	1.1086	-0.4
1,2,3,4,6,7,8-HpCDF	50	55.5	1.04	1.3780	1.5308	11.1
1,2,3,4,7,8,9-HpCDF	50	52.6	1.01	1.3872	1.4582	5.1
1,2,3,4,6,7,8-HpCDD	50	51.9	1.06	1.1761	1.2196	3.7
OCDF	100	102.3	0.95	1.4633	1.4970	2.3
OCDD	100	106.7	0.90	1.0806	1.1534	6.7
Total PeCDF	100	102.3	NA	1.1524	1.1782	2.2
Total HxCDF	200	202.1	NA	1.2650	1.2780	1.0
Total HxCDD	150	150.0	NA	1.1174	1.1169	0.0
Total HpCDF	100	108.1	NA	1.3826	1.4945	8.1
2,3,7,8-TCDF-13C	100	116.3	0.81	1.6144	1.8774	16.3
2,3,7,8-TCDD-13C	100	106.1	0.79	0.9536	1.0118	6.1
2,3,7,8-TCDD-37Cl4	10	11.3	NA	1.0645	1.2019	12.9
1,2,3,7,8-PeCDF-13C	100	119.3	1.62	1.4740	1.7591	19.3
2,3,4,7,8-PeCDF-13C	100	125.1	1.62	1.4604	1.8277	25.1
1,2,3,7,8-PeCDD-13C	100	122.1	1.56	0.8245	1.0064	22.1
1,2,3,4,7,8-HxCDF-13C	100	100.3	0.54	1.4253	1.4291	0.3
1,2,3,6,7,8-HxCDF-13C	100	103.1	0.55	1.5904	1.6391	3.1
2,3,4,6,7,8-HxCDF-13C	100	100.2	0.54	1.4505	1.4539	0.2
1,2,3,7,8,9-HxCDF-13C	100	97.9	0.55	1.4130	1.3833	-2.1
1,2,3,4,7,8-HxCDD-13C	100	103.6	1.28	0.9289	0.9626	3.6
1,2,3,6,7,8-HxCDD-13C	100	102.8	1.29	1.0627	1.0929	2.8
1,2,3,4,6,7,8-HpCDF-13C	100	99.9	0.46	0.8170	0.8164	-0.1
1,2,3,4,7,8,9-HpCDF-13C	100	98.9	0.47	0.6654	0.6579	-1.1
1,2,3,4,6,7,8-HpCDD-13C	100	94.7	1.12	0.5918	0.5602	-5.3
OCDD-13C	200	147.9	0.95	0.7857	0.5811	-26.0
1,2,3,4-TCDD-13C	100	NA	0.81	NA	NA	NA
1,2,3,7,8,9-HxCDD-13C	100	NA	1.30	NA	NA	NA

Concentrations expressed as pg/ul NA = Not Applicable * = Outside target range

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Pace Analytical Services, Inc.
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Minneapolis, MN 55414

Tel: 612-607-1700
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Method 8290
PCDD/PCDF Calibration Verification

Run Name:	F130921B_16	Instrument ID	10MSHR05 (F)
Standard	CS3/CPM-7604-279	GC Column ID	USD174324H
Analyzed	09/22/2013 01:59	ICAL ID	F130918

Compound	Known Conc.	Conc Found	Ion Abund. Ratio	Average RF	Daily RF	Deviation (%)
2,3,7,8-TCDF	10	8.4	0.74	1.0968	0.9238	-15.8
2,3,7,8-TCDD	10	9.9	0.84	1.1327	1.1220	-0.9
1,2,3,7,8-PeCDF	50	43.7	1.58	1.1340	0.9916	-12.6
2,3,4,7,8-PeCDF	50	42.7	1.57	1.1708	0.9998	-14.6
1,2,3,7,8-PeCDD	50	47.2	0.61	1.1326	1.0690	-5.6
1,2,3,4,7,8-HxCDF	50	45.0	1.27	1.2855	1.1567	-10.0
1,2,3,6,7,8-HxCDF	50	45.8	1.26	1.2626	1.1562	-8.4
2,3,4,6,7,8-HxCDF	50	46.2	1.22	1.3236	1.2237	-7.5
1,2,3,7,8,9-HxCDF	50	45.2	1.26	1.1885	1.0748	-9.6
1,2,3,4,7,8-HxCDD	50	45.4	1.26	1.1666	1.0584	-9.3
1,2,3,6,7,8-HxCDD	50	45.8	1.23	1.0722	0.9815	-8.5
1,2,3,7,8,9-HxCDD	50	45.3	1.30	1.1134	1.0085	-9.4
1,2,3,4,6,7,8-HpCDF	50	49.4	1.05	1.3780	1.3604	-1.3
1,2,3,4,7,8,9-HpCDF	50	50.8	1.03	1.3872	1.4085	1.5
1,2,3,4,6,7,8-HpCDD	50	51.1	1.09	1.1761	1.2019	2.2
OCDF	100	84.9	0.91	1.4633	1.2422	-15.1
OCDD	100	95.8	0.93	1.0806	1.0354	-4.2
Total PeCDF	100	86.4	NA	1.1524	0.9957	-13.6
Total HxCDF	200	182.2	NA	1.2650	1.1528	-8.9
Total HxCDD	150	136.4	NA	1.1174	1.0162	-9.1
Total HpCDF	100	100.1	NA	1.3826	1.3845	0.1
2,3,7,8-TCDF-13C	100	97.8	0.80	1.6144	1.5786	-2.2
2,3,7,8-TCDD-13C	100	106.1	0.82	0.9536	1.0115	6.1
2,3,7,8-TCDD-37Cl4	10	10.7	NA	1.0645	1.1369	6.8
1,2,3,7,8-PeCDF-13C	100	96.2	1.60	1.4740	1.4184	-3.8
2,3,4,7,8-PeCDF-13C	100	100.5	1.59	1.4604	1.4673	0.5
1,2,3,7,8-PeCDD-13C	100	114.7	1.58	0.8245	0.9455	14.7
1,2,3,4,7,8-HxCDF-13C	100	86.6	0.53	1.4253	1.2348	-13.4
1,2,3,6,7,8-HxCDF-13C	100	85.1	0.53	1.5904	1.3531	-14.9
2,3,4,6,7,8-HxCDF-13C	100	83.2	0.53	1.4505	1.2063	-16.8
1,2,3,7,8,9-HxCDF-13C	100	83.1	0.53	1.4130	1.1742	-16.9
1,2,3,4,7,8-HxCDD-13C	100	101.8	1.27	0.9289	0.9453	1.8
1,2,3,6,7,8-HxCDD-13C	100	99.9	1.24	1.0627	1.0620	-0.1
1,2,3,4,6,7,8-HpCDF-13C	100	113.4	0.46	0.8170	0.9263	13.4
1,2,3,4,7,8,9-HpCDF-13C	100	106.8	0.48	0.6654	0.7106	6.8
1,2,3,4,6,7,8-HpCDD-13C	100	109.2	1.14	0.5918	0.6463	9.2
OCDD-13C	200	173.8	0.93	0.7857	0.6828	-13.1
1,2,3,4-TCDD-13C	100	NA	0.82	NA	NA	NA
1,2,3,7,8,9-HxCDD-13C	100	NA	1.24	NA	NA	NA

Concentrations expressed as pg/ul NA = Not Applicable * = Outside target range

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Appendix D

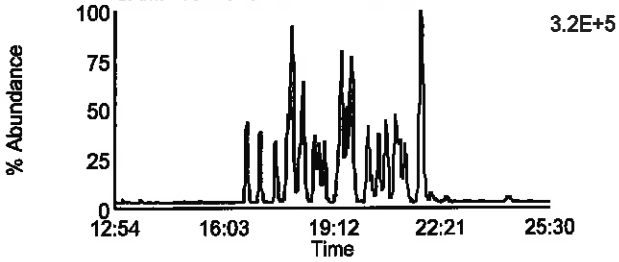
Sample Raw Data

Homologue Group: Tetras

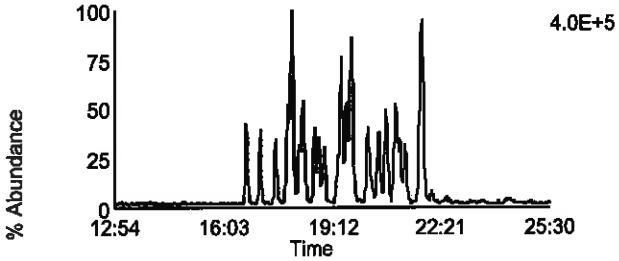
Data File Name: F130921B_10
Date Acquired: 9/21/2013
Sample Description: SAMP 10240751001-R - BAL ADV

Lab Sample ID: 10240751001-R
Client Sample ID: 1302545-05 / T-12-9.5
Instrument: 10MSHR05 (F)

Data File: F130921B_10 G1 C1 - 303.9016
SAMP 10240751001-R - BAL ADV



Data File: F130921B_10 G1 C2 - 305.8987
SAMP 10240751001-R - BAL ADV



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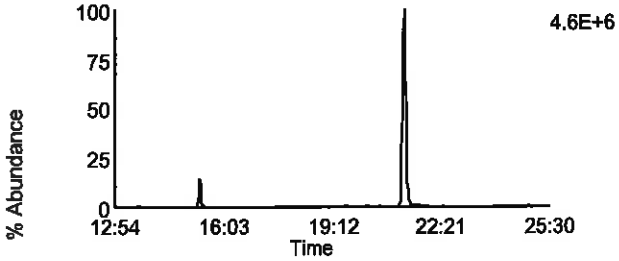
SAMP 10240751001-R - BAL ADV



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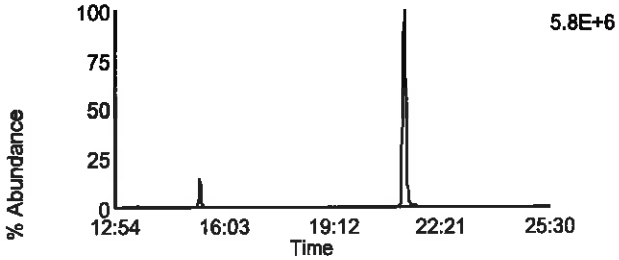
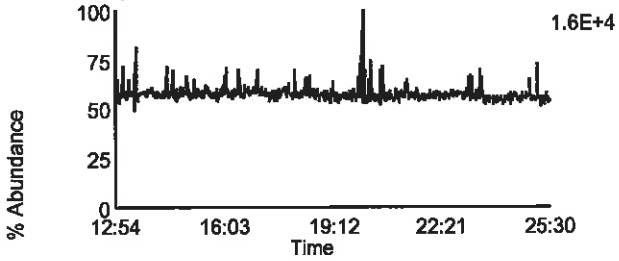
SAMP 10240751001-R - BAL ADV



Data File: F130921B_10 G1 C14 - 375.8364
SAMP 10240751001-R - BAL ADV



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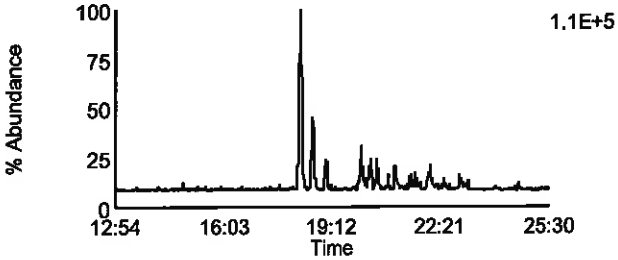
SAMP 10240751001-R - BAL ADV



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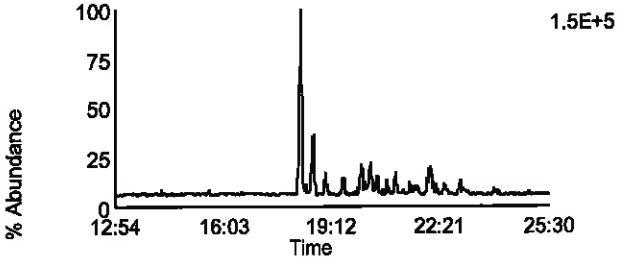
SAMP 10240751001-R - BAL ADV



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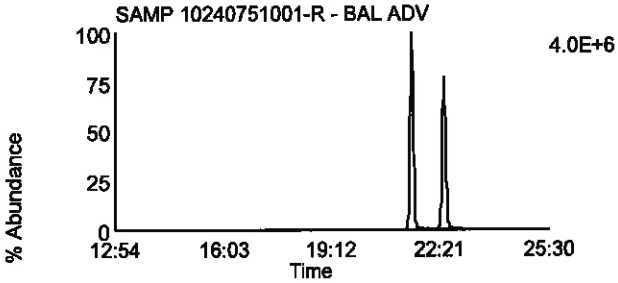
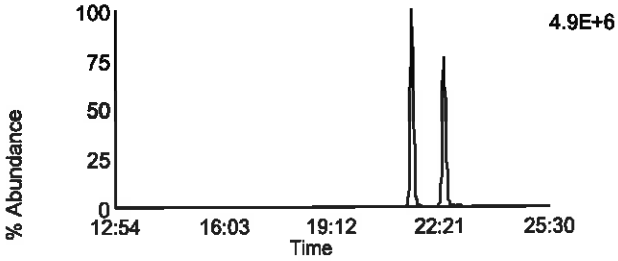
SAMP 10240751001-R - BAL ADV



Data File: F130921B_10 G1 C11 - 333.9338
SAMP 10240751001-R - BAL ADV



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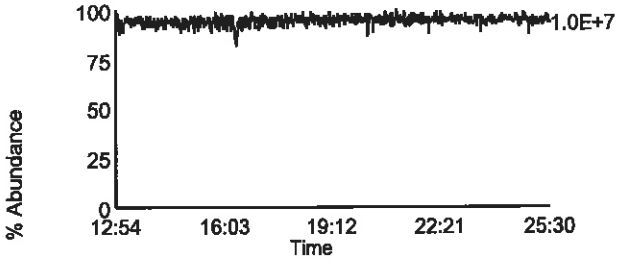
SAMP 10240751001-R - BAL ADV

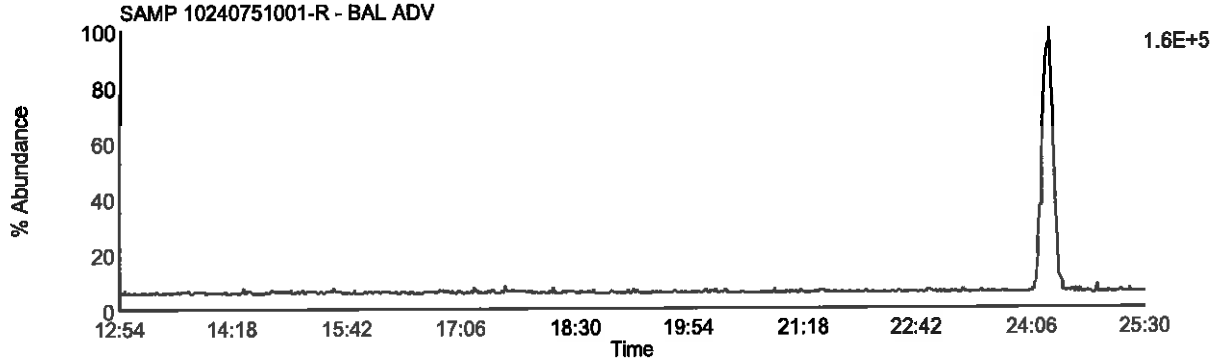


Homologue Group: Penta & Cleanup

Data File Name: F130921B_10
Date Acquired: 9/21/2013
Sample Description: SAMP 10240751001-R - BAL ADV

Lab Sample ID: 10240751001-R
Client Sample ID: 1302545-05 / T-12-9.5
Instrument: 10MSHR05 (F)

Data File: F130921B_10 G1 C12 - 339.8597
SAMP 10240751001-R - BAL ADV



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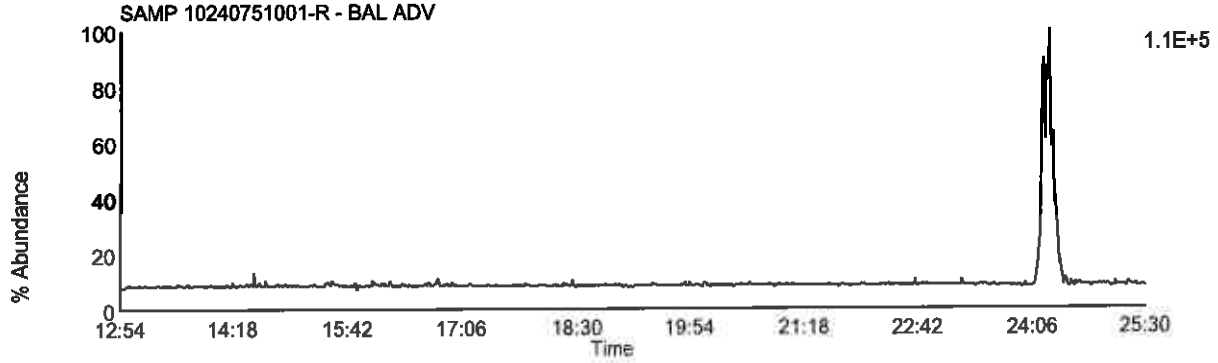
SAMP 10240751001-R - BAL ADV



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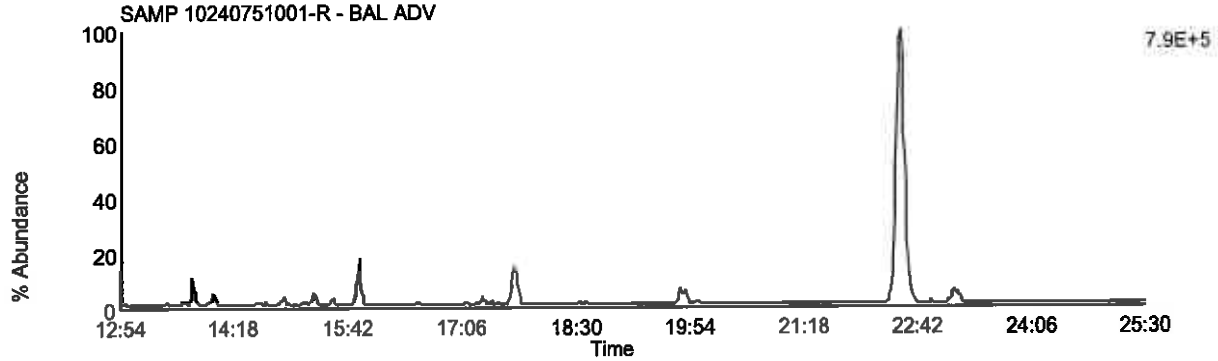
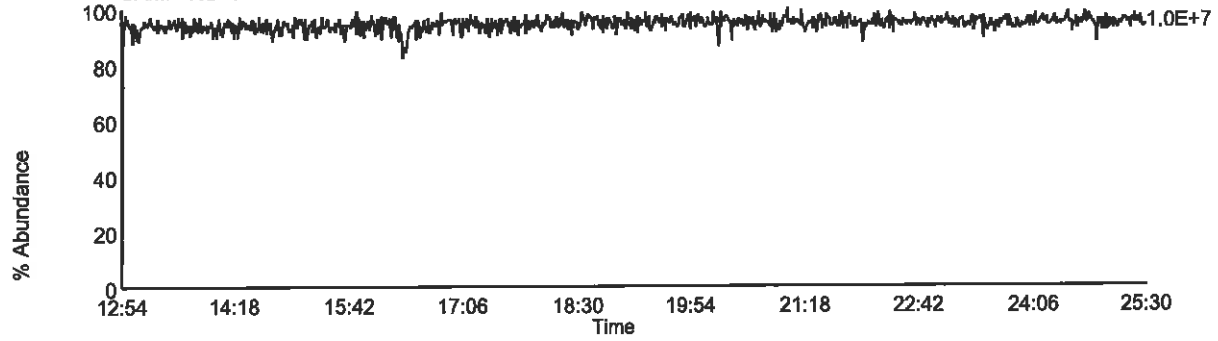
SAMP 10240751001-R - BAL ADV



Data File: F130921B_10 G1 C5 - 318.9792
SAMP 10240751001-R - BAL ADV

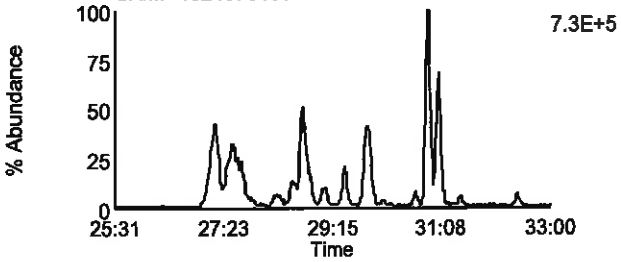


Homologue Group: Pentas

Data File Name: F130921B_10
Date Acquired: 9/21/2013
Sample Description: SAMP 10240751001-R - BAL ADV

Lab Sample ID: 10240751001-R
Client Sample ID: 1302545-05 / T-12-9.5
Instrument: 10MSHR05 (F)

Data File: F130921B_10 G2 C1 - 339.8597
SAMP 10240751001-R - BAL ADV



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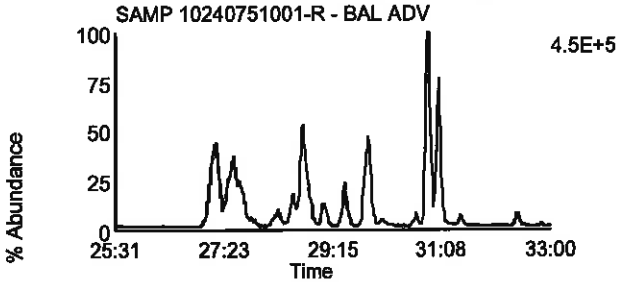
SAMP 10240751001-R - BAL ADV



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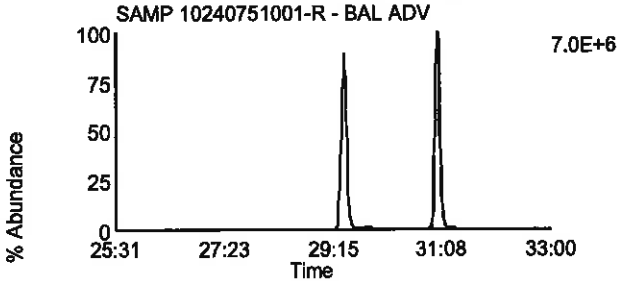
SAMP 10240751001-R - BAL ADV



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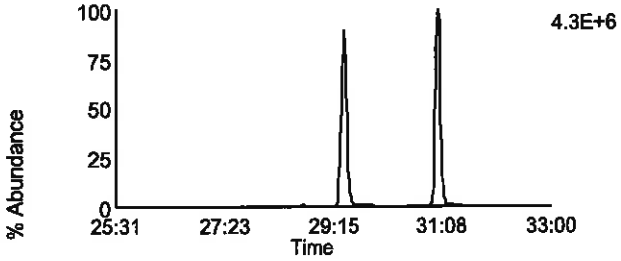
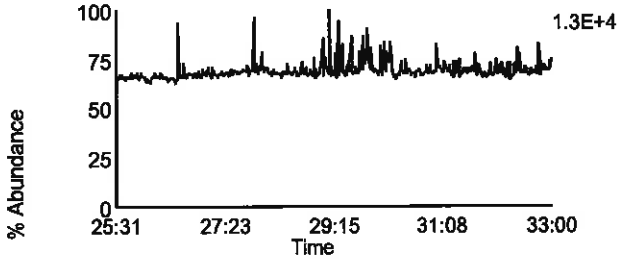
SAMP 10240751001-R - BAL ADV



Data File: F130921B_10 G2 C12 - 409.7974
SAMP 10240751001-R - BAL ADV



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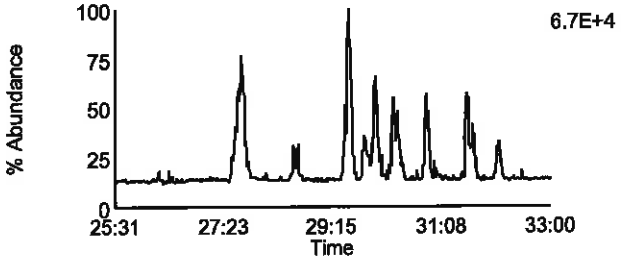
SAMP 10240751001-R - BAL ADV



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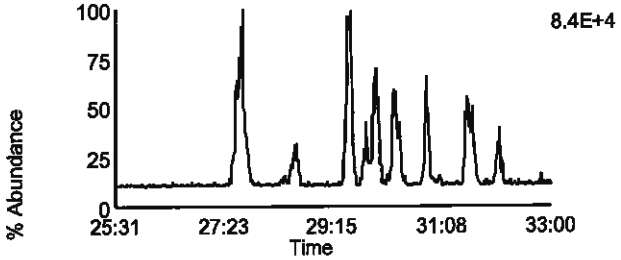
SAMP 10240751001-R - BAL ADV



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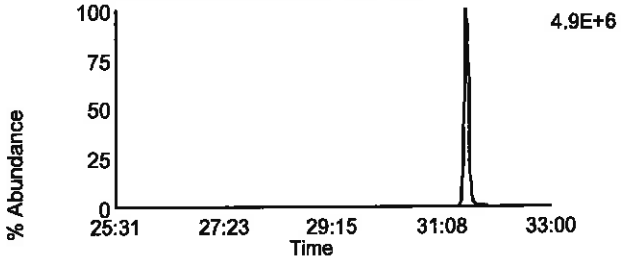
SAMP 10240751001-R - BAL ADV



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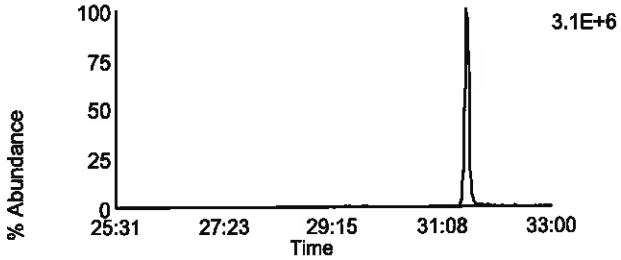
SAMP 10240751001-R - BAL ADV



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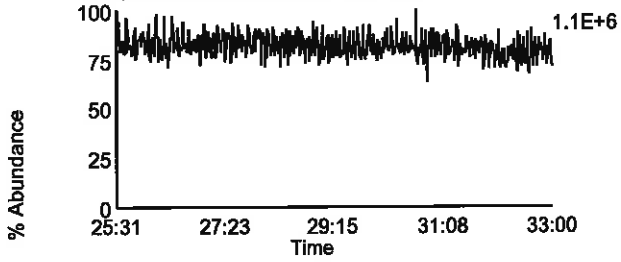
SAMP 10240751001-R - BAL ADV

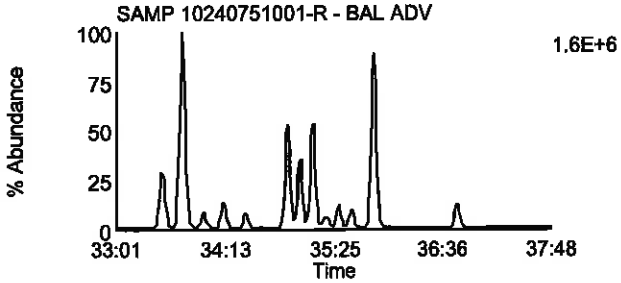


Homologue Group: Hexas

Data File Name: F130921B_10
Date Acquired: 9/21/2013
Sample Description: SAMP 10240751001-R - BAL ADV

Lab Sample ID: 10240751001-R
Client Sample ID: 1302545-05 / T-12-9.5
Instrument: 10MSHR05 (F)

Data File: F130921B_10 G3 C1 - 373.8207
SAMP 10240751001-R - BAL ADV



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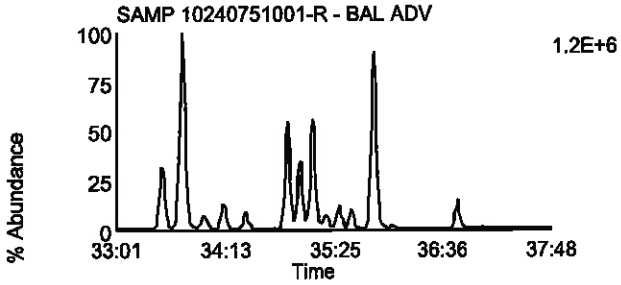
SAMP 10240751001-R - BAL ADV



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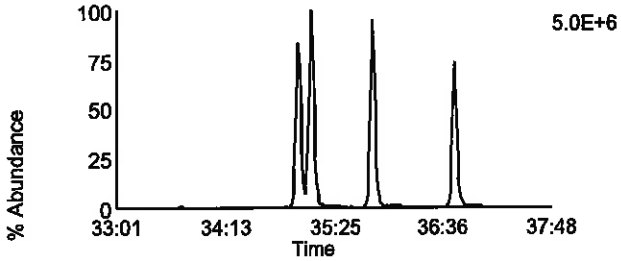
SAMP 10240751001-R - BAL ADV



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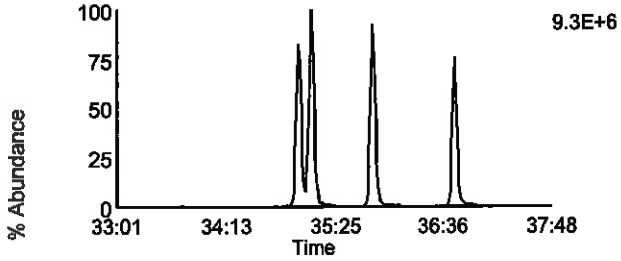
SAMP 10240751001-R - BAL ADV



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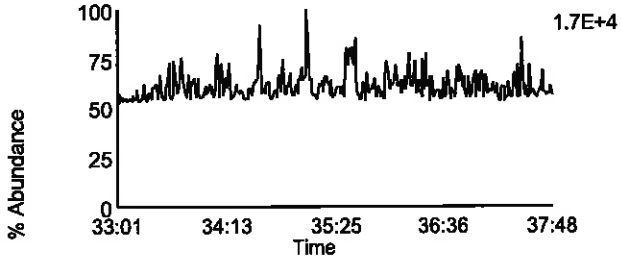
SAMP 10240751001-R - BAL ADV



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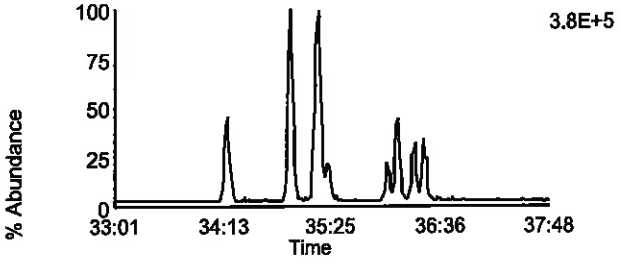
SAMP 10240751001-R - BAL ADV



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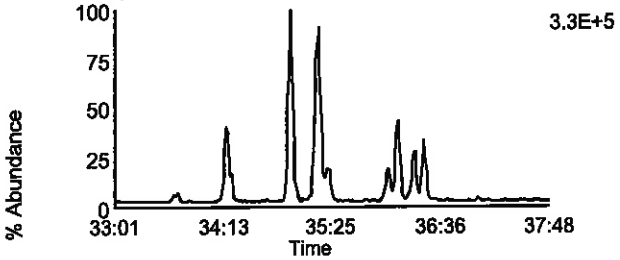
SAMP 10240751001-R - BAL ADV



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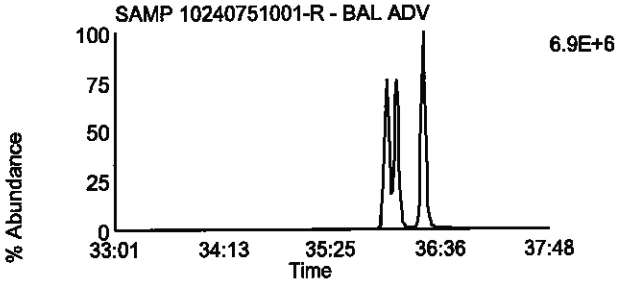

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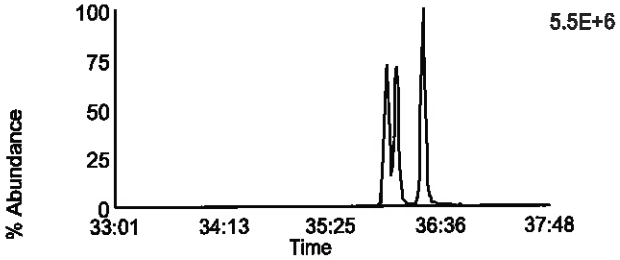
SAMP 10240751001-R - BAL ADV



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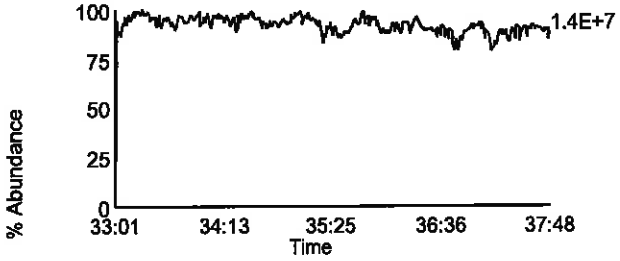
SAMP 10240751001-R - BAL ADV

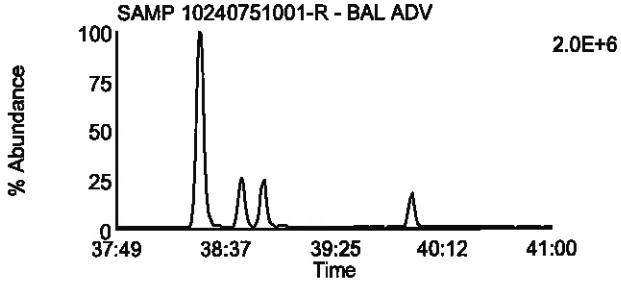


Homologue Group: Heptas

Data File Name: F130921B_10
Date Acquired: 9/21/2013
Sample Description: SAMP 10240751001-R - BAL ADV

Lab Sample ID: 10240751001-R
Client Sample ID: 1302545-05 / T-12-9.5
Instrument: 10MSHR05 (F)

Data File: F130921B_10 G4 C3 - 407.7818
SAMP 10240751001-R - BAL ADV



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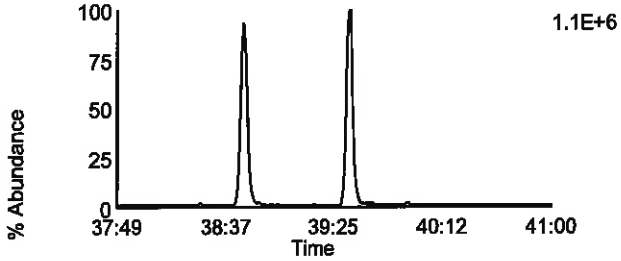
SAMP 10240751001-R - BAL ADV



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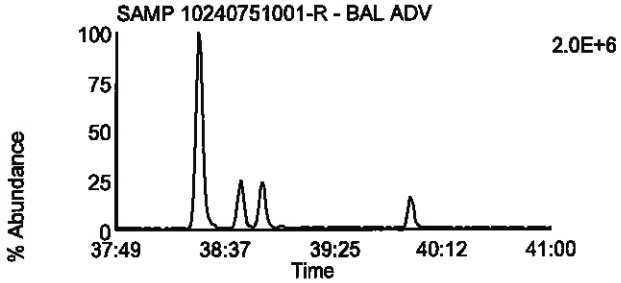
SAMP 10240751001-R - BAL ADV



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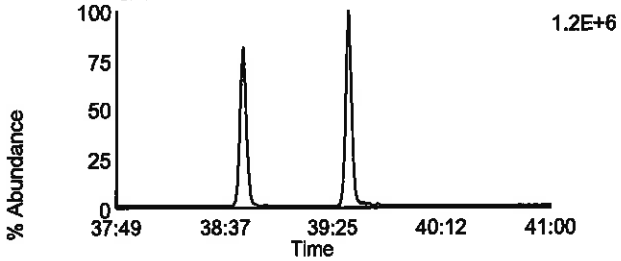
SAMP 10240751001-R - BAL ADV



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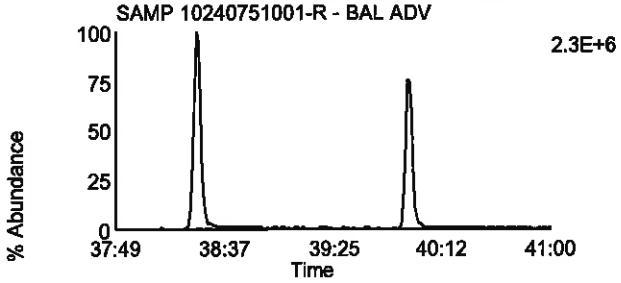

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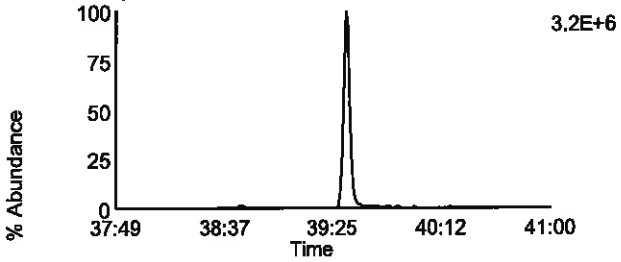
SAMP 10240751001-R - BAL ADV



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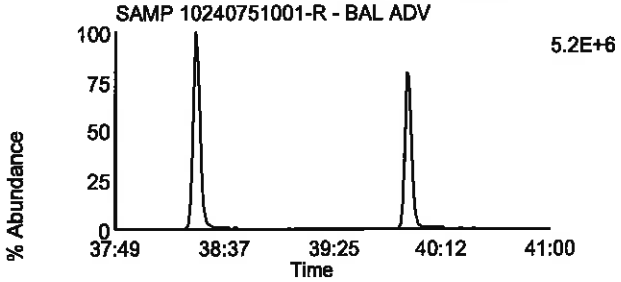
SAMP 10240751001-R - BAL ADV



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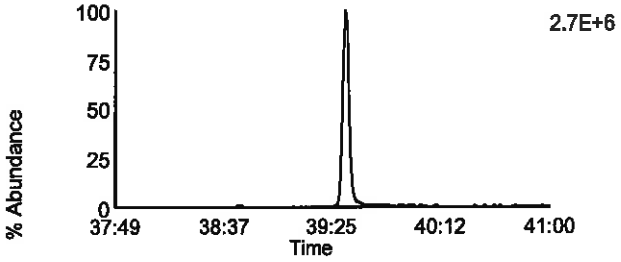

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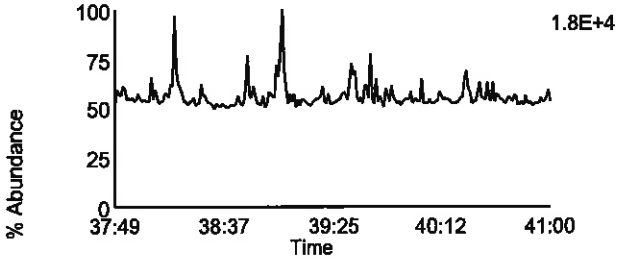

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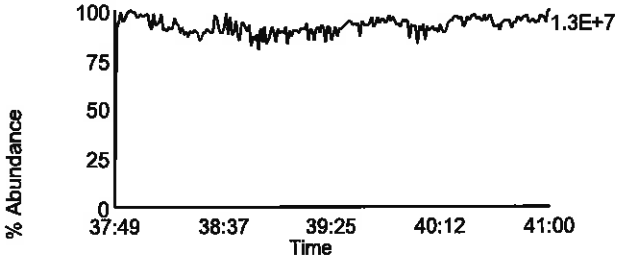
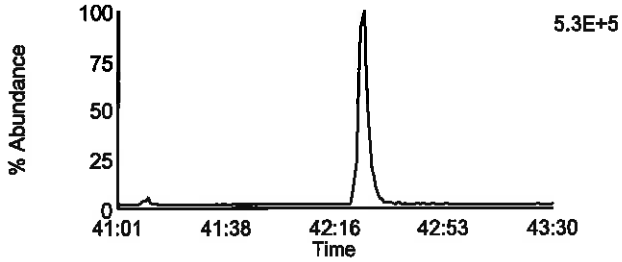


Homologue Group: Octas

Data File Name: F130921B_10
Date Acquired: 9/21/2013
Sample Description: SAMP 10240751001-R - BAL ADV

Lab Sample ID: 10240751001-R
Client Sample ID: 1302545-05 / T-12-9.5
Instrument: 10MSHR05 (F)

Data File: F130921B_10 G5 C4 - 441.7428
SAMP 10240751001-R - BAL ADV



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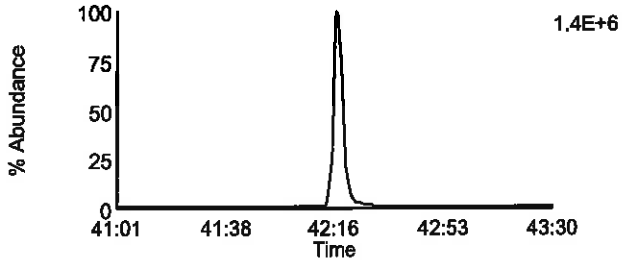

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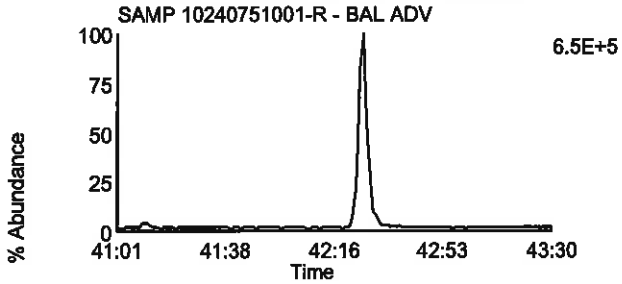

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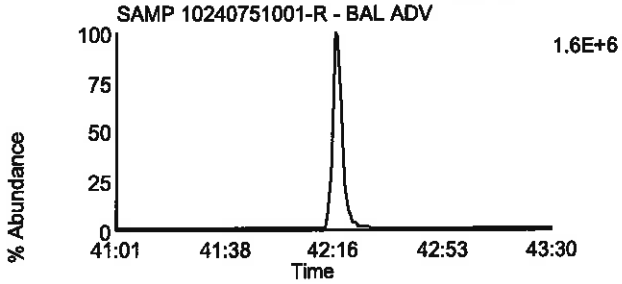

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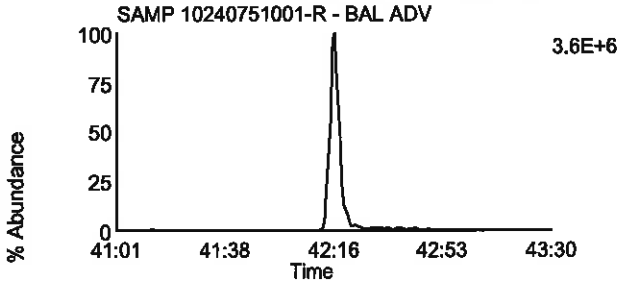

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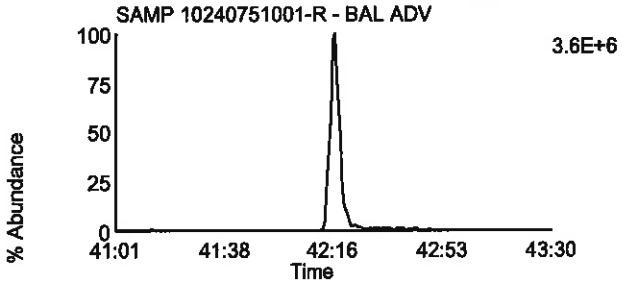
SAMP 10240751001-R - BAL ADV



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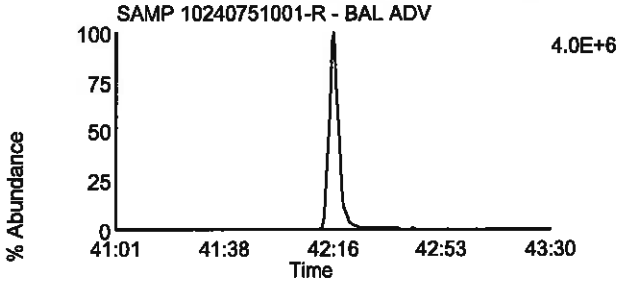
SAMP 10240751001-R - BAL ADV



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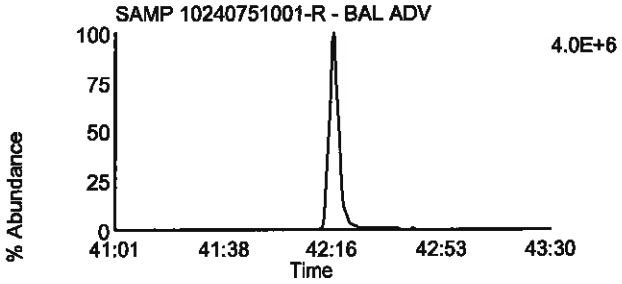
SAMP 10240751001-R - BAL ADV



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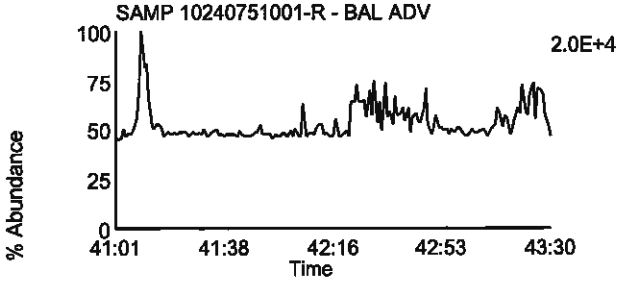
SAMP 10240751001-R - BAL ADV



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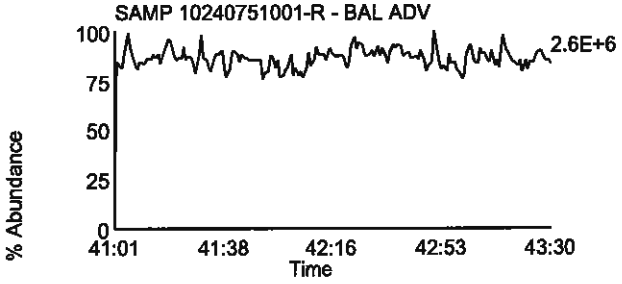

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

PCDD/PCDF Detected Peak List

Prepared By _____ Date _____
Reviewed By _____ Date _____

Client Name	Advanced Technology Labs		
Client ID	1302545-05 / T-12-9.5	Injected By	BAL
Lab ID	10240751001-R	Instrument ID	10MSHR05 (F)
Filename	F130921B_10	GC Column ID	USD174324H
Analyzed	09/21/2013 21:25	ICAL ID	F130918

Tetra-Furans:		RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C		21:17	3.19e7	3.99e7	4.62e6	5.81e6	8.142e3	5.216e3	0.80	
2,3,7,8-TCDF		21:18	6.03e5	8.35e5	9.52e4	1.17e5	1.406e3	1.171e3	0.72	
Other TCDF	1	16:43	6.10e5	7.37e5					0.83	
	2	17:07	5.05e5	6.43e5					0.79	
	3	17:33	5.11e5	6.78e5					0.75	
	4	17:50	3.53e5	4.61e5					0.76	
	5	18:01	2.37e6	3.14e6					0.75	
	6	18:20	1.53e6	1.97e6					0.78	
	7	18:40	6.82e5	8.09e5					0.84	
	8	18:49	5.04e5	7.50e5					0.67	
	9	18:57	5.24e5	7.16e5					0.73	
	10	19:27	1.74e6	2.15e6					0.81	
	11	19:44	2.70e6	3.56e6					0.76	
	12	20:14	8.61e5	1.16e6					0.74	
	13	20:32	7.11e5	9.89e5					0.72	
	14	20:45	9.73e5	1.30e6					0.75	
	15	21:01	1.56e6	2.00e6					0.78	
	16	21:45	2.31e6	2.93e6					0.79	
	17	22:04	1.10e5	1.59e5					0.69	

Tetra-Dioxins:		RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C		21:31	2.64e7	3.29e7	3.97e6	4.85e6	3.644e3	1.494e3	0.80	
2,3,7,8-TCDD-13C		22:28	2.19e7	2.70e7	3.09e6	3.68e6	4.465e3	3.366e3	0.81	
2,3,7,8-TCDD-37Cl4		22:30	5.61e6		7.79e5		1.643e3	----		
2,3,7,8-TCDD		22:29	3.79e4	4.70e4	6.45e3	8.67e3	8.948e2	8.080e2	0.81	
Other TCDD	1	23:10	2.95e4	3.73e4					0.79	
	2	22:55	3.80e4	4.73e4					0.80	
	3	22:15	1.85e4	2.72e4					0.68	
	4	21:02	7.14e4	8.71e4					0.82	
	5	20:50	2.32e4	3.12e4					0.74	
	6	18:17	5.36e5	6.64e5					0.81	
	7	18:39	2.25e5	2.54e5					0.89	
	8	20:03	1.32e5	1.71e5					0.77	
	9	20:20	1.00e5	1.42e5					0.71	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:27	4.09e7	2.56e7	6.20e6	3.82e6	1.973e4	1.030e4	1.60	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Client Name	Advanced Technology Labs		
Client ID	1302545-05 / T-12-9.5	Injected By	BAL
Lab ID	10240751001-R	Instrument ID	10MSHR05 (F)
Filename	F130921B_10	GC Column ID	USD174324H
Analyzed	09/21/2013 21:25	ICAL ID	F130918

2,3,4,7,8-PeCDF-13C		31:04	3.98e7	2.46e7	6.95e6	4.28e6	4.128e3	4.864e3	1.62
1,2,3,7,8-PeCDF		29:28	8.75e5	5.65e5	1.42e5	9.84e4	8.864e2	7.018e2	1.55
2,3,4,7,8-PeCDF		31:05	2.76e6	1.73e6	4.92e5	3.34e5	1.043e3	8.210e2	1.59
Other PeCDF	1	27:15	3.25e6	2.06e6					1.57
	2	27:31	3.81e6	2.33e6					1.63
	3	27:52	2.03e5	1.31e5					1.55
	4	28:18	3.86e5	2.83e5					1.36
	5	28:34	7.16e5	4.27e5					1.68
	6	28:44	3.22e6	2.09e6					1.55
	7	29:08	4.93e5	3.55e5					1.39
	8	29:52	2.55e6	1.55e6					1.65
	9	30:07	1.43e5	9.19e4					1.56
	10	30:54	4.27e6	2.68e6					1.59
	11	31:28	2.01e5	1.22e5					1.64
	12	32:27	2.20e5	1.48e5					1.49
	13	24:20	1.41e6	8.65e5					1.63

Penta-Dioxins:		RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C		31:32	2.66e7	1.71e7	4.90e6	3.08e6	4.216e3	3.159e3	1.55	
1,2,3,7,8-PeCDD		31:33	1.28e5	2.03e5	7.62e3	3.71e4	8.566e2	1.058e3	0.63	
Other PeCDD	1	32:08	6.98e4	1.12e5					0.62	
	2	31:40	6.80e4	1.26e5					0.54	
	3	27:42	3.79e5	5.88e5					0.65	
	4	28:40	7.73e4	1.21e5					0.64	
	5	29:32	3.27e5	4.91e5					0.67	
	6	29:49	7.44e4	1.06e5					0.70	
	7	29:60	1.95e5	3.18e5					0.61	
	8	30:18	2.03e5	3.19e5					0.64	
	9	30:52	1.23e5	1.79e5					0.69	

Hexa-Furans:		RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C		35:01	1.72e7	3.22e7	4.11e6	7.61e6	2.127e4	3.473e4	0.53	
1,2,3,6,7,8-HxCDF-13C		35:09	2.03e7	3.85e7	4.95e6	9.28e6	9.572e2	3.182e4	0.53	
2,3,4,6,7,8-HxCDF-13C		35:50	1.83e7	3.45e7	4.71e6	8.57e6	1.958e3	3.460e4	0.53	
1,2,3,7,8,9-HxCDF-13C		36:44	1.42e7	2.71e7	3.66e6	7.01e6	5.871e3	6.822e3	0.53	
1,2,3,4,7,8-HxCDF		35:03	2.22e6	1.73e6	5.50e5	4.26e5	3.176e3	1.739e3	1.28	
1,2,3,6,7,8-HxCDF		35:11	3.51e6	2.79e6	8.22e5	6.79e5	4.147e3	3.611e3	1.26	
2,3,4,6,7,8-HxCDF		35:51	5.64e6	4.57e6	1.38e6	1.10e6	3.607e3	5.388e3	1.24	
1,2,3,7,8,9-HxCDF		36:46	8.11e5	6.05e5	1.84e5	1.84e5	4.260e3	5.506e3	1.34	
Other HxCDF	1	33:31	2.15e6	1.77e6					1.21	
	2	33:45	6.57e6	5.07e6					1.29	
	3	33:59	5.37e5	4.59e5					1.17	

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Client Name	Advanced Technology Labs		
Client ID	1302545-05 / T-12-9.5	Injected By	BAL
Lab ID	10240751001-R	Instrument ID	10MSHR05 (F)
Filename	F130921B_10	GC Column ID	USD174324H
Analyzed	09/21/2013 21:25	ICAL ID	F130918

	4	34:12	9.64e5	7.29e5	1.32	
	5	34:26	5.22e5	4.25e5	1.23	
	6	34:54	3.23e6	2.62e6	1.23	
	7	35:19	5.13e5	3.79e5	1.35	
	8	35:28	6.58e5	5.24e5	1.26	
Ethers	1	35:36	6.67e5	4.98e5	1.34	E

Hexa-Dioxins:		RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C		36:01	1.90e7	1.48e7	5.17e6	3.93e6	4.580e3	1.541e3	1.29	
1,2,3,6,7,8-HxCDD-13C		36:07	2.03e7	1.54e7	5.19e6	3.84e6	4.580e3	6.242e3	1.32	
1,2,3,7,8,9-HxCDD-13C		36:25	2.59e7	2.04e7	6.85e6	5.44e6	1.154e4	5.783e3	1.27	
1,2,3,4,7,8-HxCDD		36:01	2.58e5	2.10e5	7.12e4	5.22e4	2.199e3	2.087e3	1.23	
1,2,3,6,7,8-HxCDD		36:08	6.61e5	5.47e5	1.57e5	1.35e5	1.827e3	2.014e3	1.21	
1,2,3,7,8,9-HxCDD		36:26	4.55e5	3.64e5	1.17e5	1.04e5	2.397e3	1.943e3	1.25	
Other HxCDD	1	34:16	6.93e5	5.30e5					1.31	
	2	34:57	1.49e6	1.25e6					1.19	
	3	35:16	1.82e6	1.44e6					1.26	
	4	35:23	3.20e5	2.50e5					1.28	
	5	36:20	3.88e5	3.17e5					1.23	

Hepta-Furans:		RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C		38:25	8.70e6	1.92e7	2.29e6	5.18e6	5.444e3	3.691e3	0.45	
1,2,3,4,7,8,9-HpCDF-13C		39:57	6.41e6	1.46e7	1.73e6	4.13e6	2.829e3	2.737e3	0.44	
1,2,3,4,6,7,8-HpCDF		38:26	8.17e6	7.73e6	1.97e6	2.00e6	4.220e3	3.936e3	1.06	
1,2,3,4,7,8,9-HpCDF		39:59	1.19e6	1.15e6	3.58e5	3.22e5	3.364e3	3.936e3	1.03	
Other HpCDF	1	38:44	1.87e6	1.78e6					1.05	
	2	38:55	1.76e6	1.75e6					1.01	
Ethers	1	39:02	1.46e5	1.26e5					1.15	E

Hepta-Dioxins:		RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C		39:30	1.09e7	9.47e6	3.15e6	2.64e6	1.315e4	1.107e4	1.15	
1,2,3,4,6,7,8-HpCDD		39:32	3.87e6	3.86e6	1.05e6	1.16e6	3.059e3	1.771e3	1.00	
Other HpCDD	1	38:45	3.54e6	3.22e6					1.10	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code

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Client Name	Advanced Technology Labs		
Client ID	1302545-05 / T-12-9.5	Injected By	BAL
Lab ID	10240751001-R	Instrument ID	10MSHR05 (F)
Filename	F130921B_10	GC Column ID	USD174324H
Analyzed	09/21/2013 21:25	ICAL ID	F130918

OCDF	42:26	2.05e6	2.26e6	5.15e5	6.38e5	2.531e3	3.711e3	0.91	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:17	1.47e7	1.59e7	3.64e6	3.94e6	6.585e2	4.133e2	0.92	
OCDD	42:17	5.53e6	6.24e6	1.39e6	1.57e6	2.588e3	2.620e3	0.89	

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Appendix E

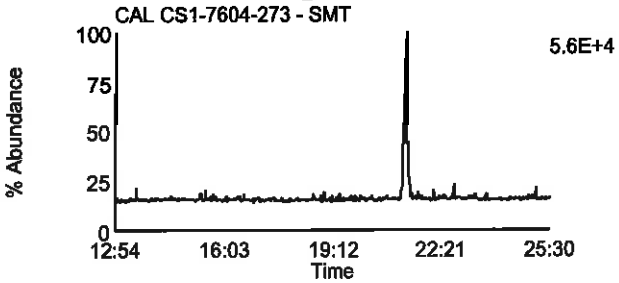
Calibration Raw Data

Homologue Group: Tetras

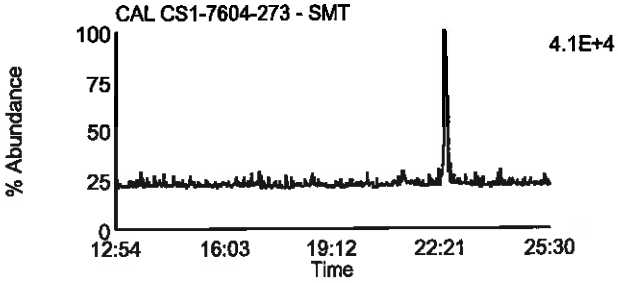
Data File Name: F130918B_04
Date Acquired: 9/18/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR05 (F)

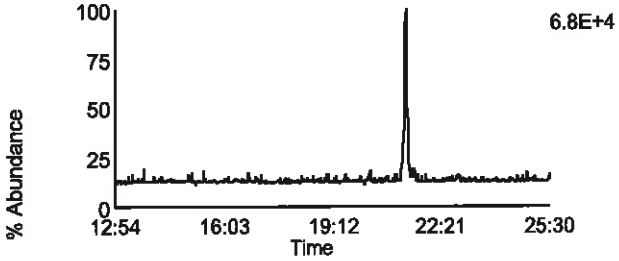
Data File: F130918B_04 G1 C1 - 303.9016
CAL CS1-7604-273 - SMT



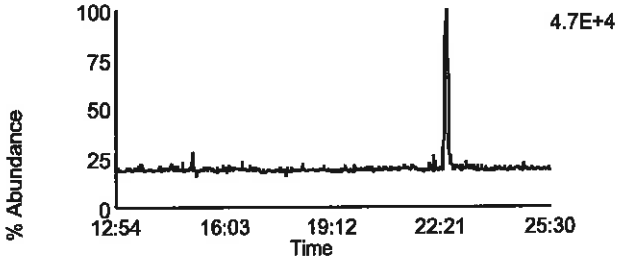
Data File: F130918B_04 G1 C7 - 319.8965
CAL CS1-7604-273 - SMT



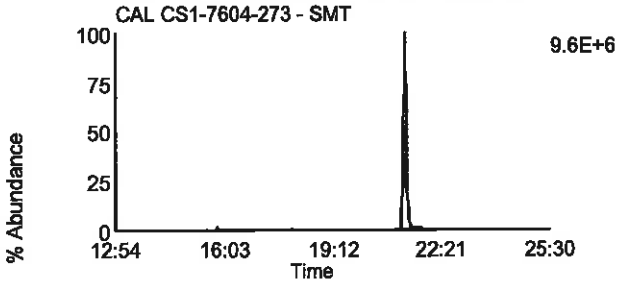
Data File: F130918B_04 G1 C2 - 305.8987
CAL CS1-7604-273 - SMT



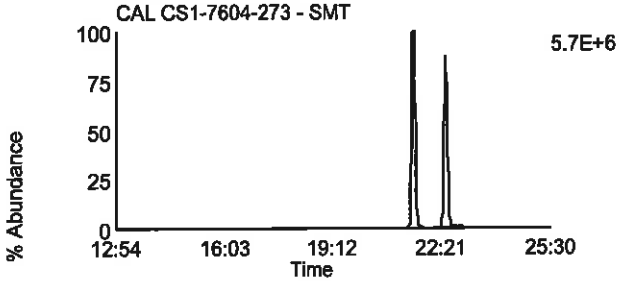
Data File: F130918B_04 G1 C8 - 321.8936
CAL CS1-7604-273 - SMT



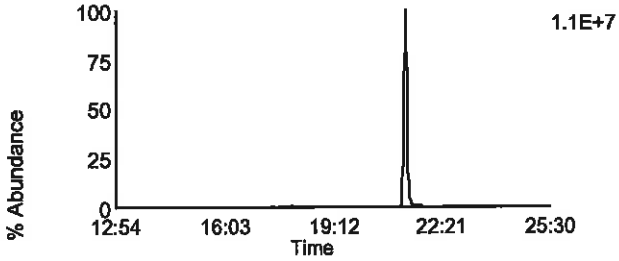
Data File: F130918B_04 G1 C3 - 315.9418
CAL CS1-7604-273 - SMT



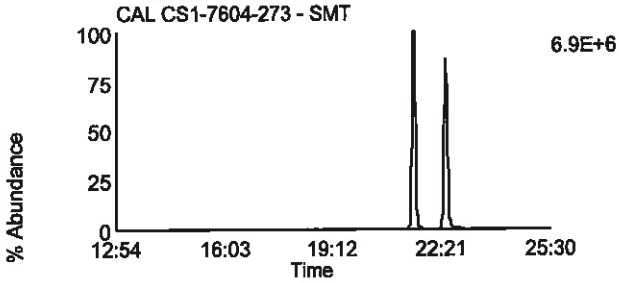
Data File: F130918B_04 G1 C10 - 331.9367
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G1 C4 - 317.9389
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G1 C11 - 333.9338
CAL CS1-7604-273 - SMT



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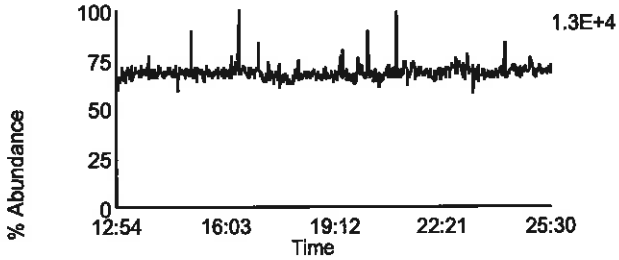
CAL CS1-7604-273 - SMT



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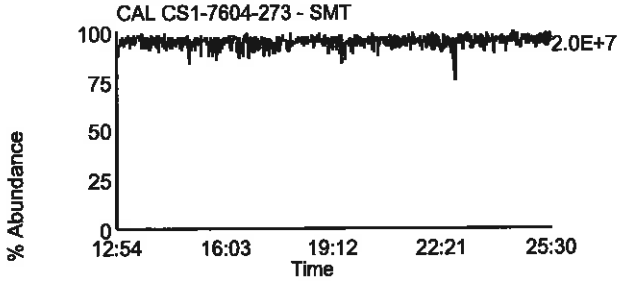
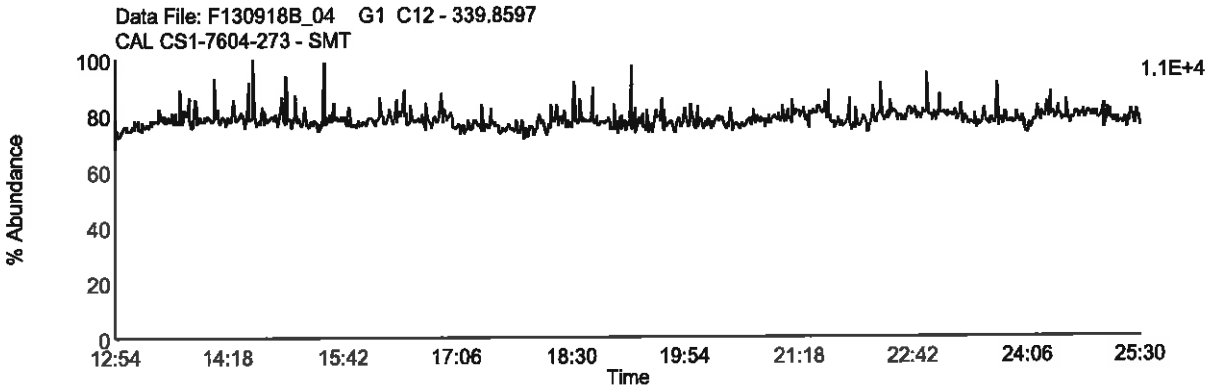
CAL CS1-7604-273 - SMT

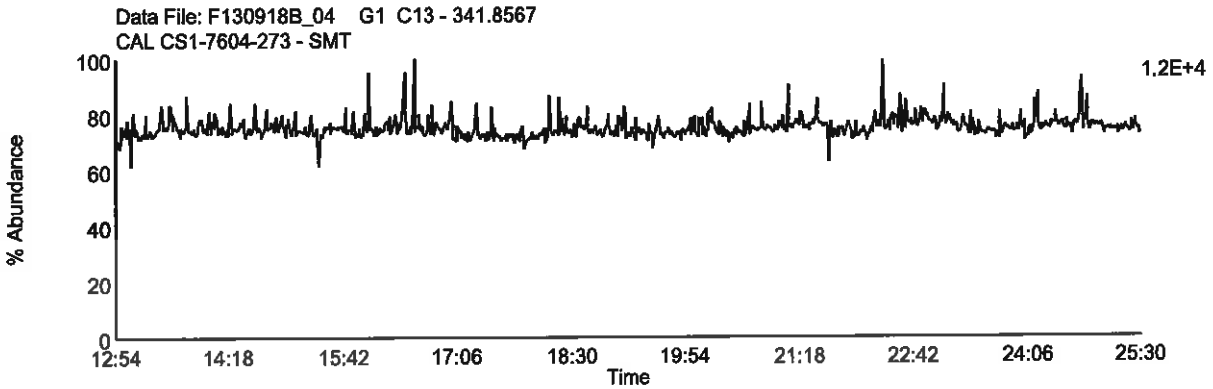


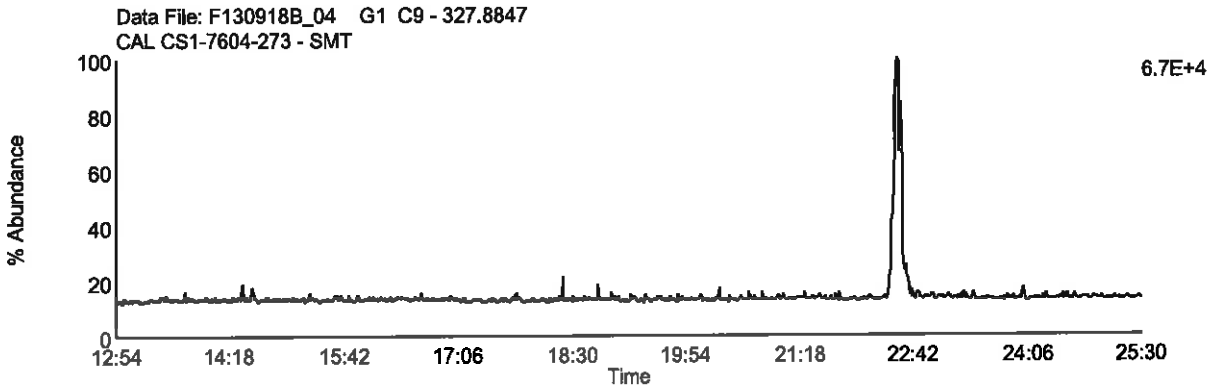
Homologue Group: Penta & Cleanup

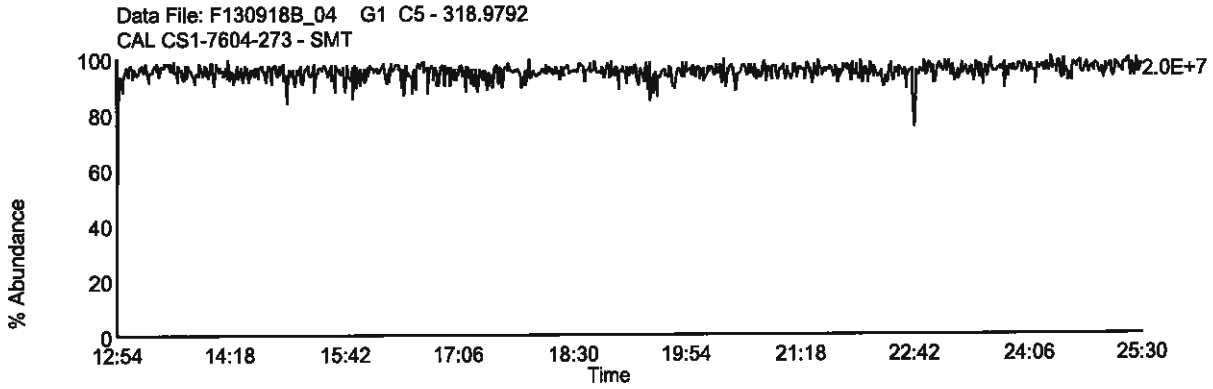
Data File Name: F130918B_04
Date Acquired: 9/18/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR05 (F)







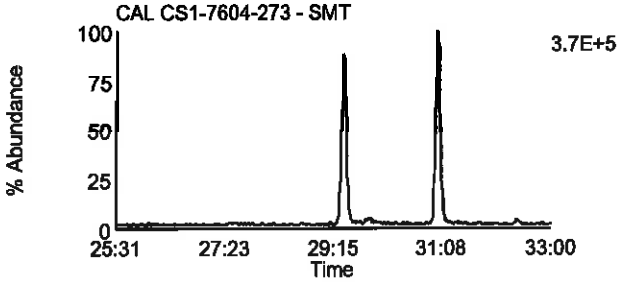


Homologue Group: Pentas

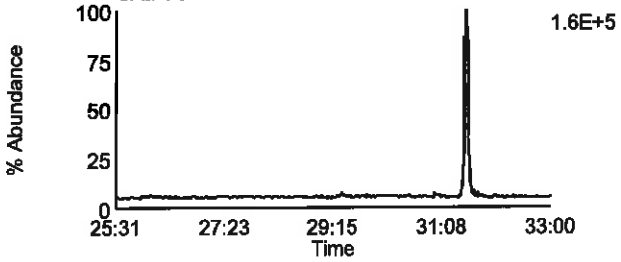
Data File Name: F130918B_04
Date Acquired: 9/18/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR05 (F)

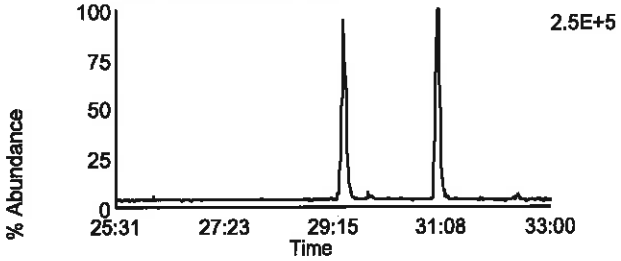
Data File: F130918B_04 G2 C1 - 339.8597
CAL CS1-7604-273 - SMT



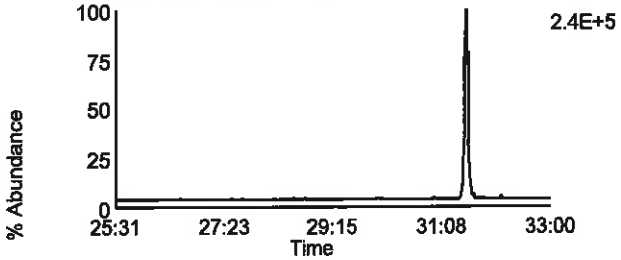
Data File: F130918B_04 G2 C4 - 353.8576
CAL CS1-7604-273 - SMT



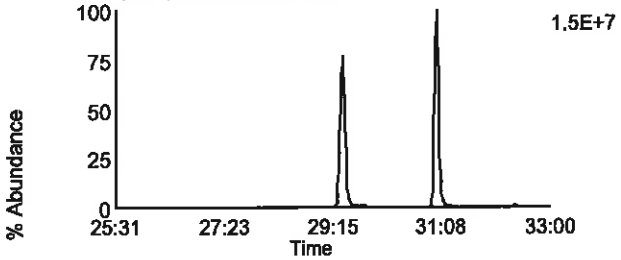
Data File: F130918B_04 G2 C2 - 341.8567
CAL CS1-7604-273 - SMT



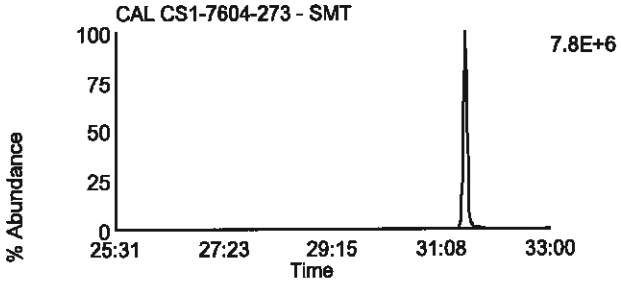
Data File: F130918B_04 G2 C8 - 355.8546
CAL CS1-7604-273 - SMT



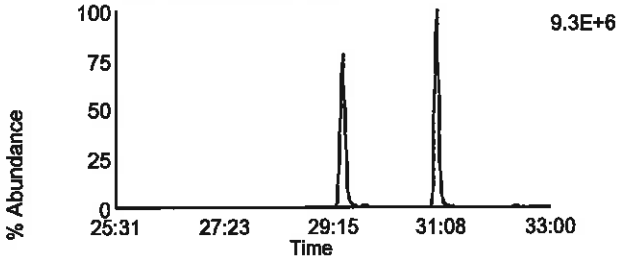
Data File: F130918B_04 G2 C3 - 351.8999
CAL CS1-7604-273 - SMT



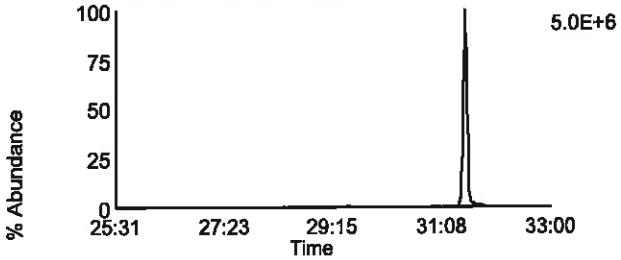
Data File: F130918B_04 G2 C10 - 367.8948
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G2 C5 - 353.8969
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G2 C11 - 369.8918
CAL CS1-7604-273 - SMT



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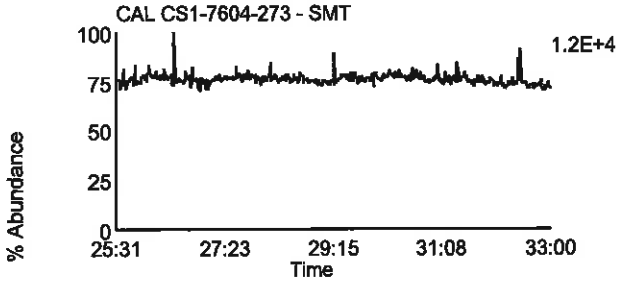
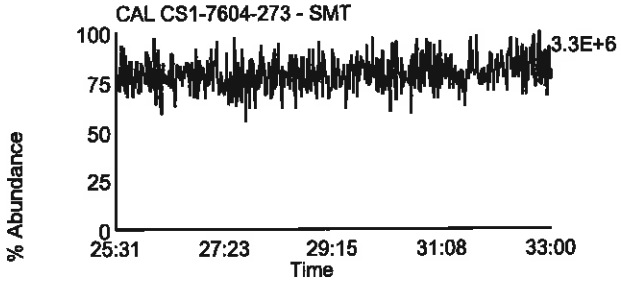
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G2 C6 - 354.9792
CAL CS1-7604-273 - SMT

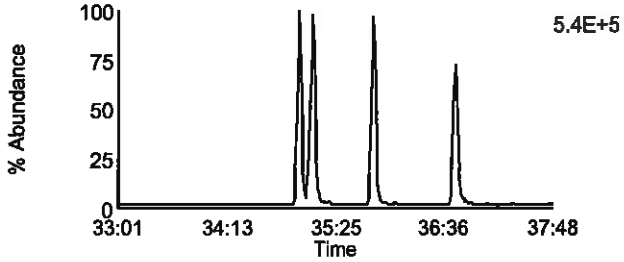


Homologue Group: Hexas

Data File Name: F130918B_04
Date Acquired: 9/18/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR05 (F)

Data File: F130918B_04 G3 C1 - 373.8207
CAL CS1-7604-273 - SMT



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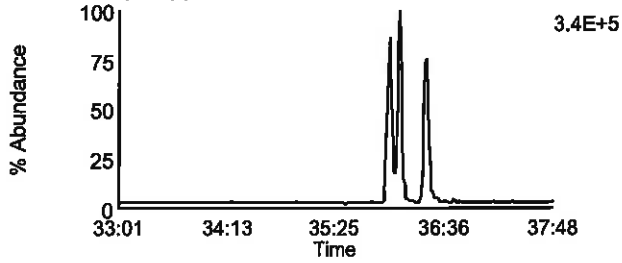
CAL CS1-7604-273 - SMT



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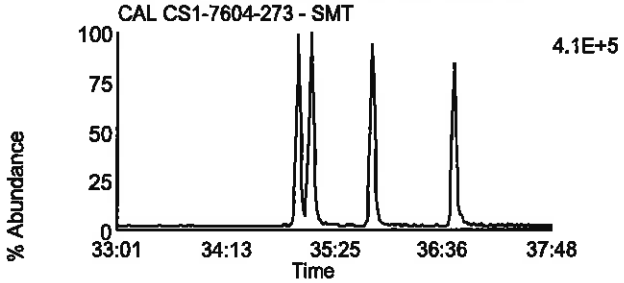
CAL CS1-7604-273 - SMT



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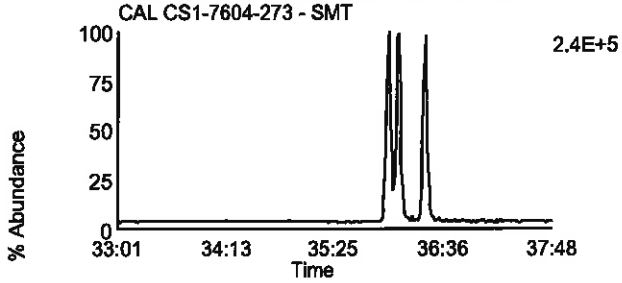
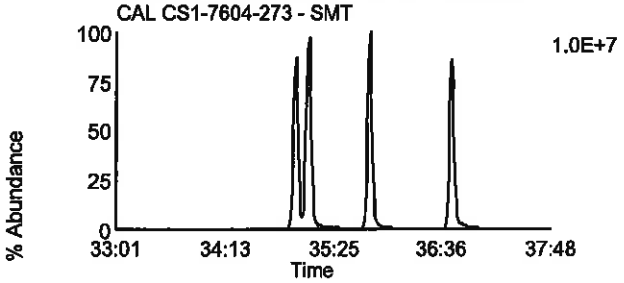
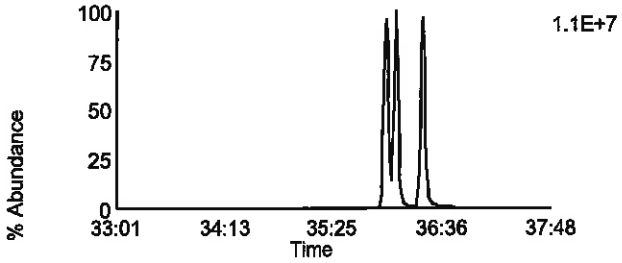
CAL CS1-7604-273 - SMT



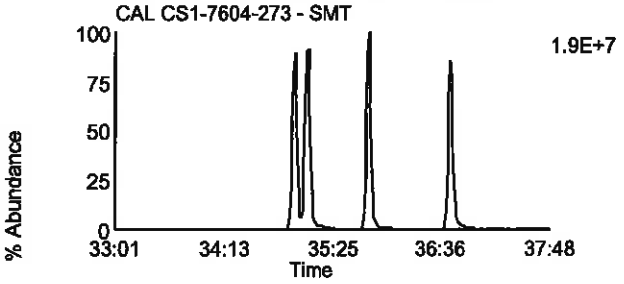
Data File: F130918B_04 G3 C5 - 383.8639
CAL CS1-7604-273 - SMT



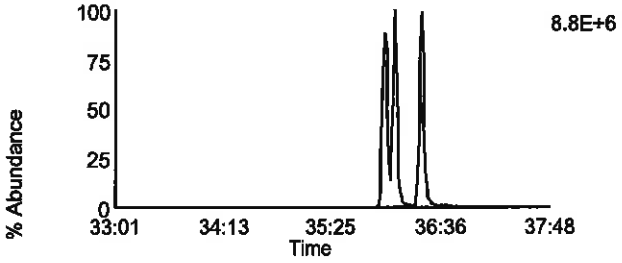
Data File: F130918B_04 G3 C9 - 401.8559
CAL CS1-7604-273 - SMT



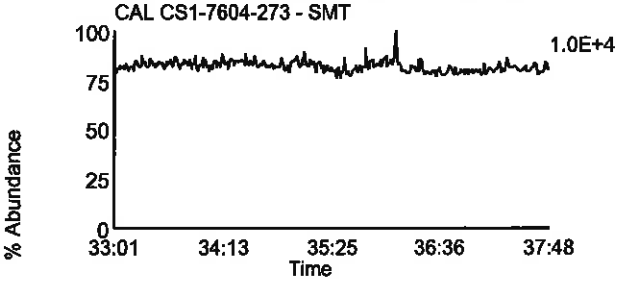
Data File: F130918B_04 G3 C6 - 385.861
CAL CS1-7604-273 - SMT



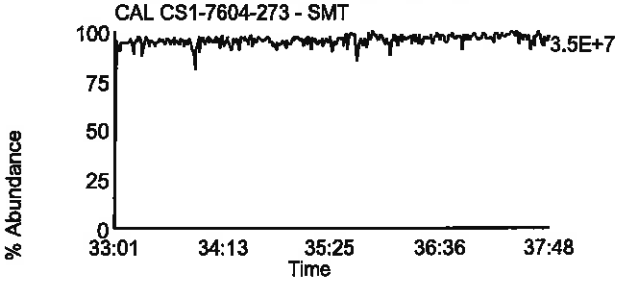
Data File: F130918B_04 G3 C10 - 403.8529
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G3 C11 - 445.7555
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G3 C3 - 380.976
CAL CS1-7604-273 - SMT

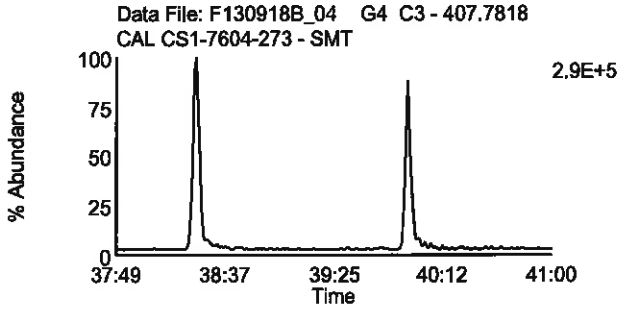


Homologue Group: Heptas

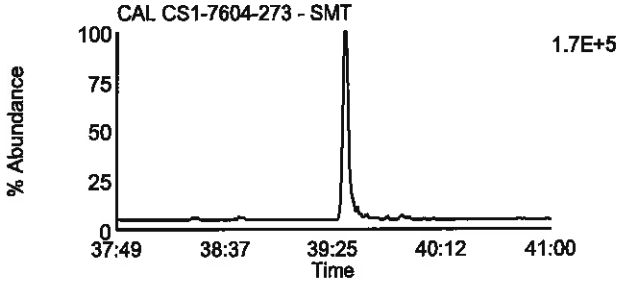
Data File Name: F130918B_04
Date Acquired: 9/18/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR05 (F)

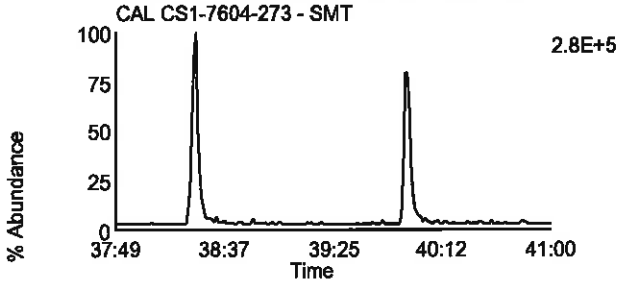
Data File: F130918B_04 G4 C3 - 407.7818
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G4 C8 - 423.7767
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G4 C4 - 409.7788
CAL CS1-7604-273 - SMT



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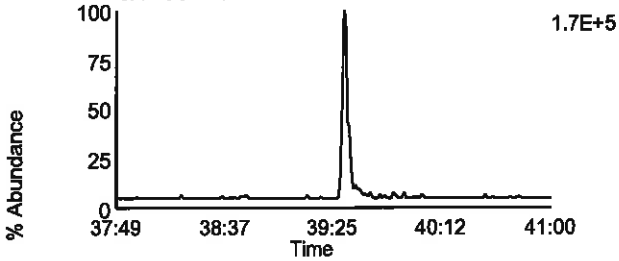
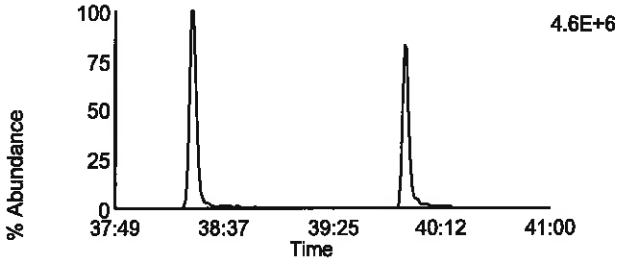
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G4 C6 - 417.825
CAL CS1-7604-273 - SMT



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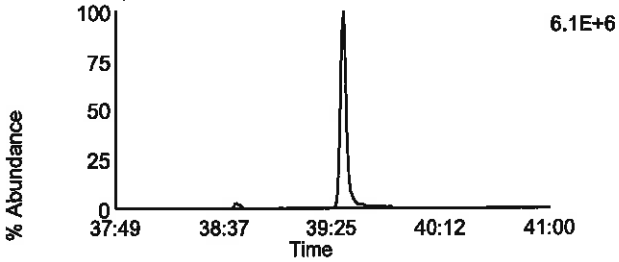
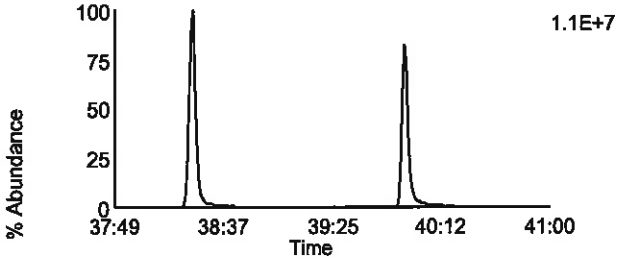
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G4 C7 - 419.822
CAL CS1-7604-273 - SMT



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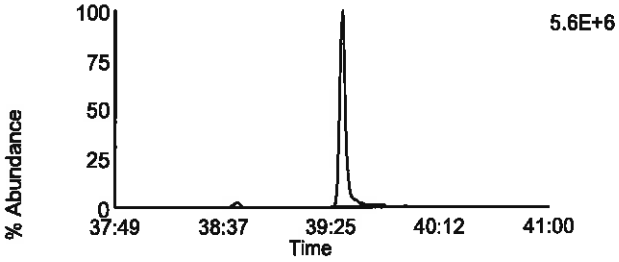
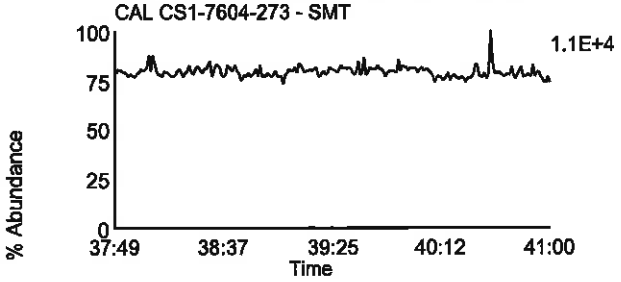
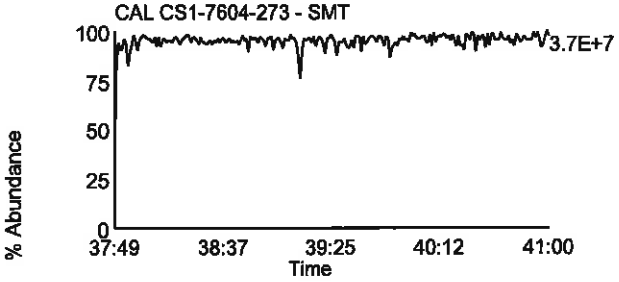


Data File: F130918B_04 G4 C13 - 479.7165
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G4 C1 - 380.976
CAL CS1-7604-273 - SMT

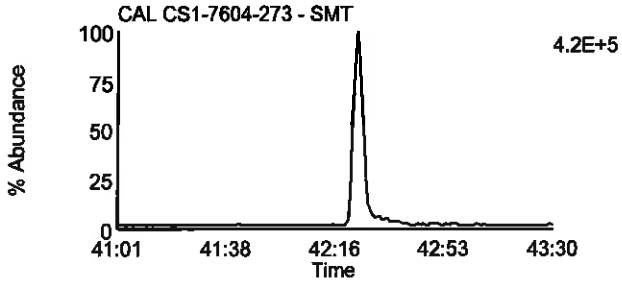


Homologue Group: Octas

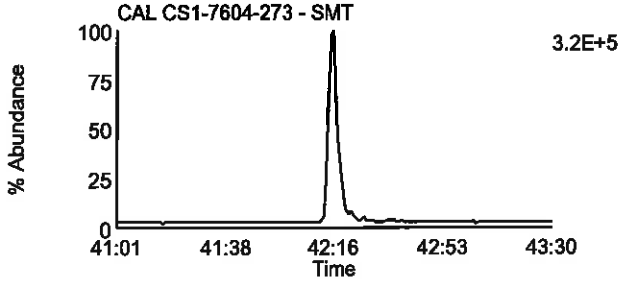
Data File Name: F130918B_04
Date Acquired: 9/18/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR05 (F)

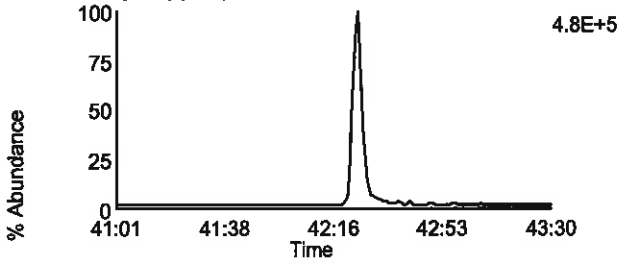
Data File: F130918B_04 G5 C4 - 441.7428
CAL CS1-7604-273 - SMT



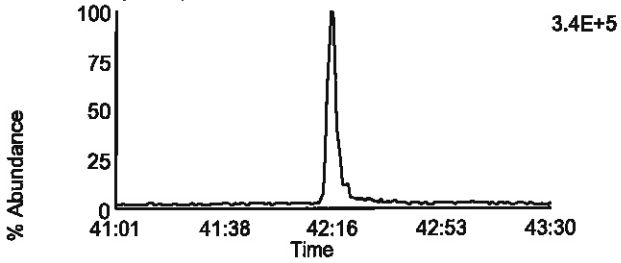
Data File: F130918B_04 G5 C8 - 457.7377
CAL CS1-7604-273 - SMT



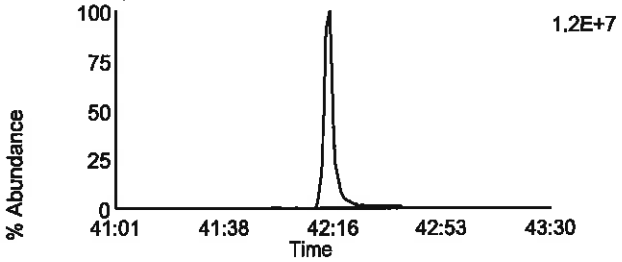
Data File: F130918B_04 G5 C5 - 443.7398
CAL CS1-7604-273 - SMT



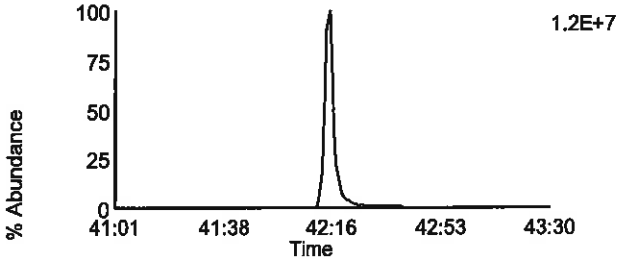
Data File: F130918B_04 G5 C9 - 459.7347
CAL CS1-7604-273 - SMT



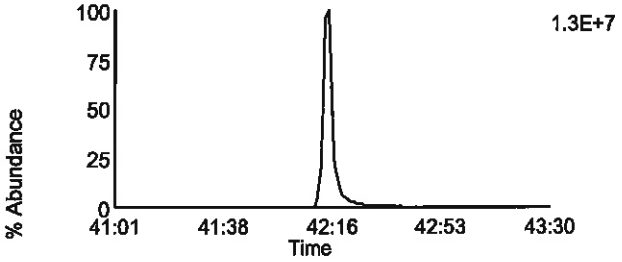
Data File: F130918B_04 G5 C11 - 469.7779
CAL CS1-7604-273 - SMT



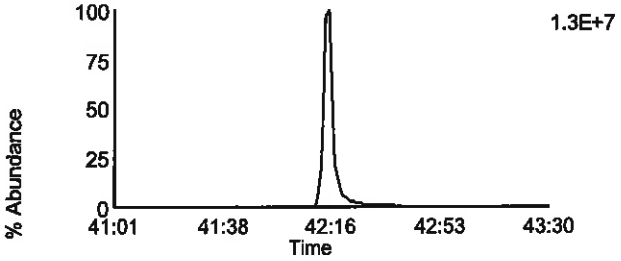
Data File: F130918B_04 G5 C11 - 469.7779
CAL CS1-7604-273 - SMT



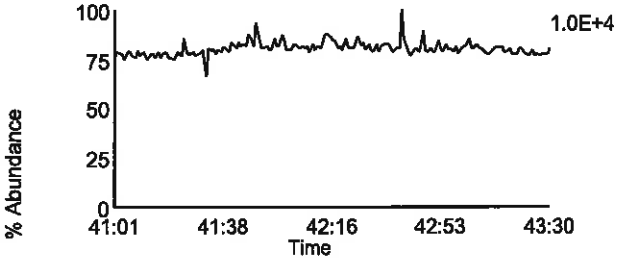
Data File: F130918B_04 G5 C12 - 471.7749
CAL CS1-7604-273 - SMT



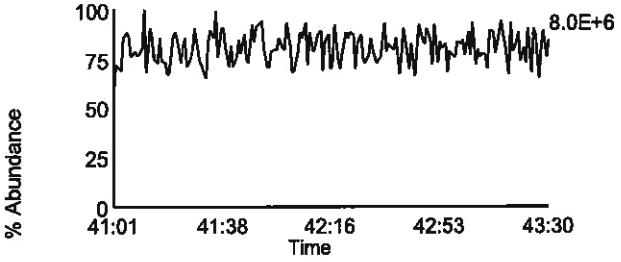
Data File: F130918B_04 G5 C12 - 471.7749
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G5 C13 - 513.6775
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G5 C2 - 430.9728
CAL CS1-7604-273 - SMT

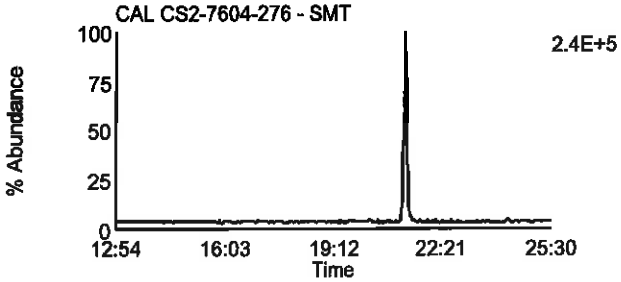


Homologue Group: Tetras

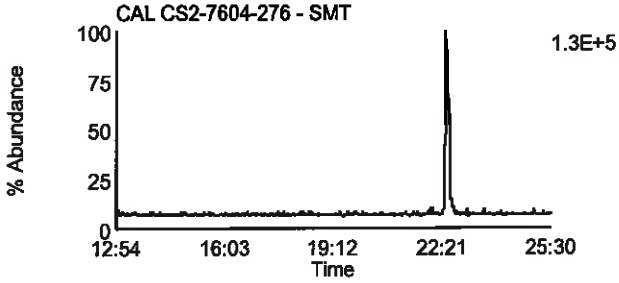
Data File Name: F130918B_03
Date Acquired: 9/18/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR05 (F)

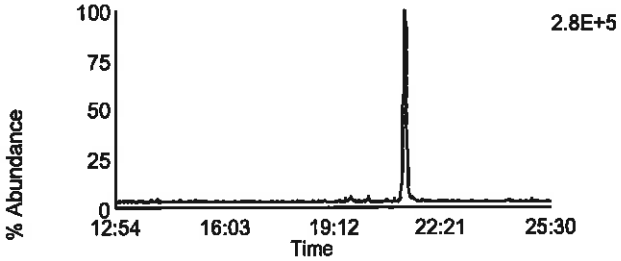
Data File: F130918B_03 G1 C1 - 303.9016
CAL CS2-7604-276 - SMT



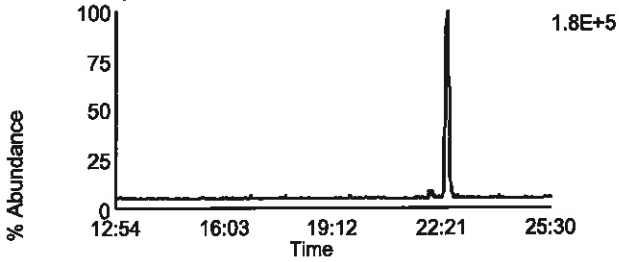
Data File: F130918B_03 G1 C7 - 319.8965
CAL CS2-7604-276 - SMT



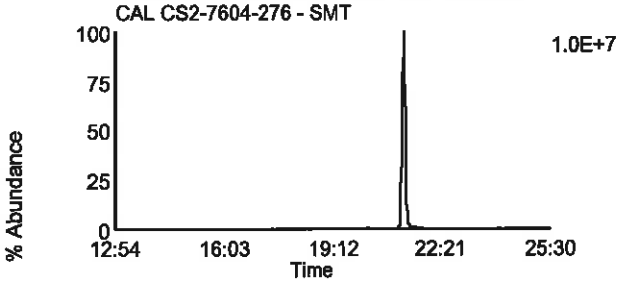
Data File: F130918B_03 G1 C2 - 305.8987
CAL CS2-7604-276 - SMT



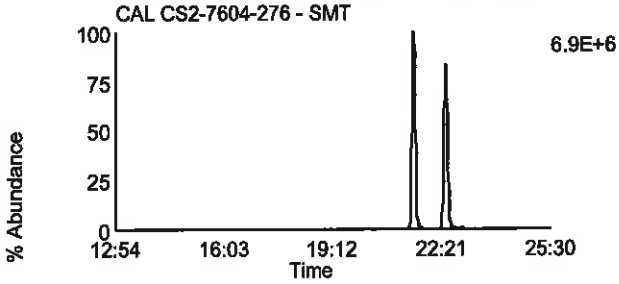
Data File: F130918B_03 G1 C8 - 321.8936
CAL CS2-7604-276 - SMT



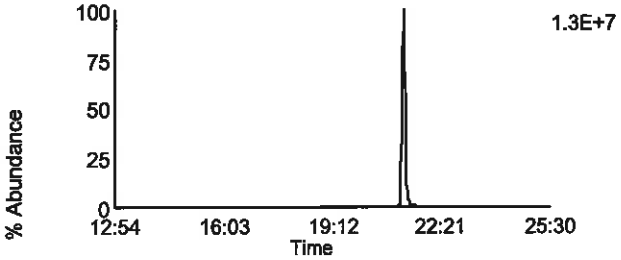
Data File: F130918B_03 G1 C3 - 315.9418
CAL CS2-7604-276 - SMT



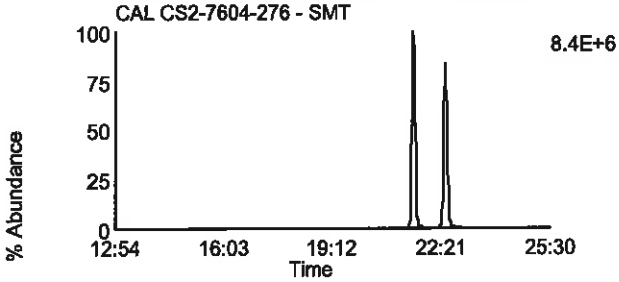
Data File: F130918B_03 G1 C10 - 331.9367
CAL CS2-7604-276 - SMT



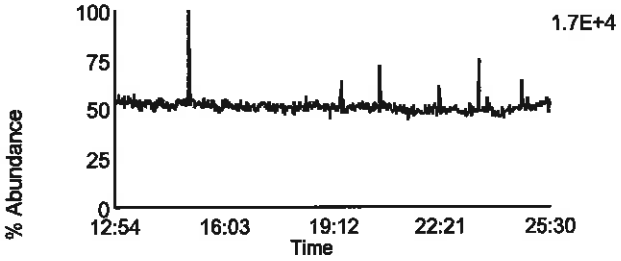
Data File: F130918B_03 G1 C4 - 317.9389
CAL CS2-7604-276 - SMT



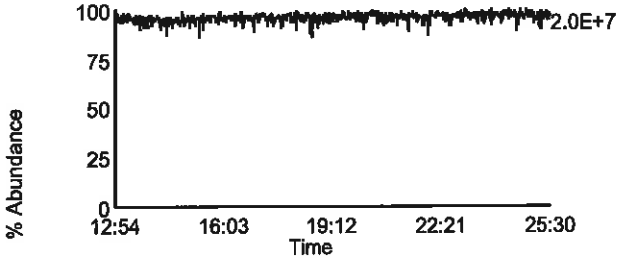
Data File: F130918B_03 G1 C11 - 333.9338
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G1 C14 - 375.8364
CAL CS2-7604-276 - SMT



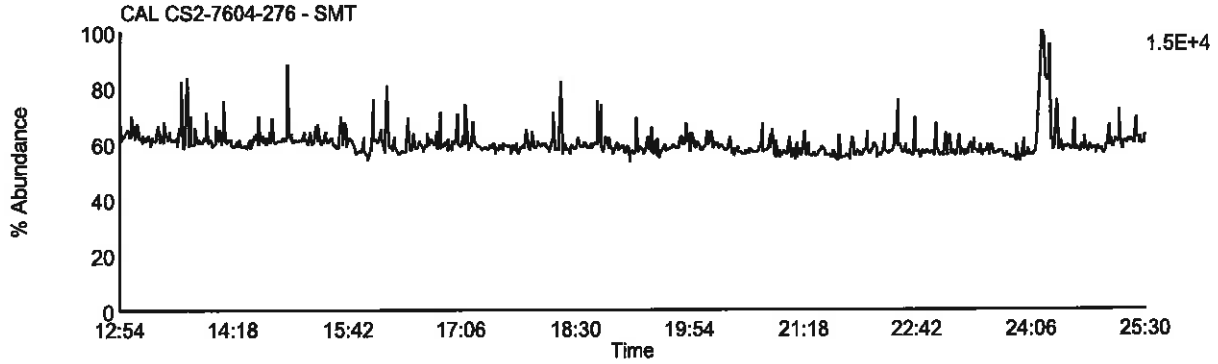
Data File: F130918B_03 G1 C5 - 318.9792
CAL CS2-7604-276 - SMT



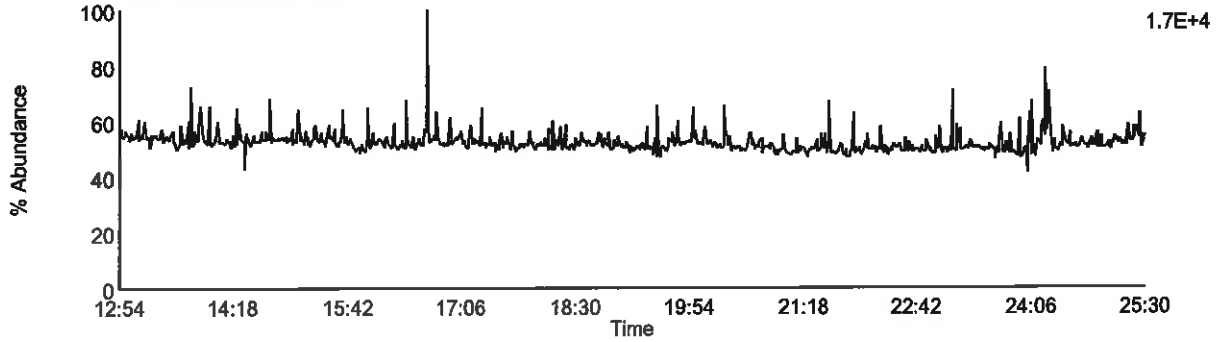
Homologue Group: Penta & Cleanup

Data File Name: F130918B_03	Lab Sample ID: CS2-7604-276
Date Acquired: 9/18/2013	Client Sample ID:
Sample Description: CAL CS2-7604-276 - SMT	Instrument: 10MSHR05 (F)

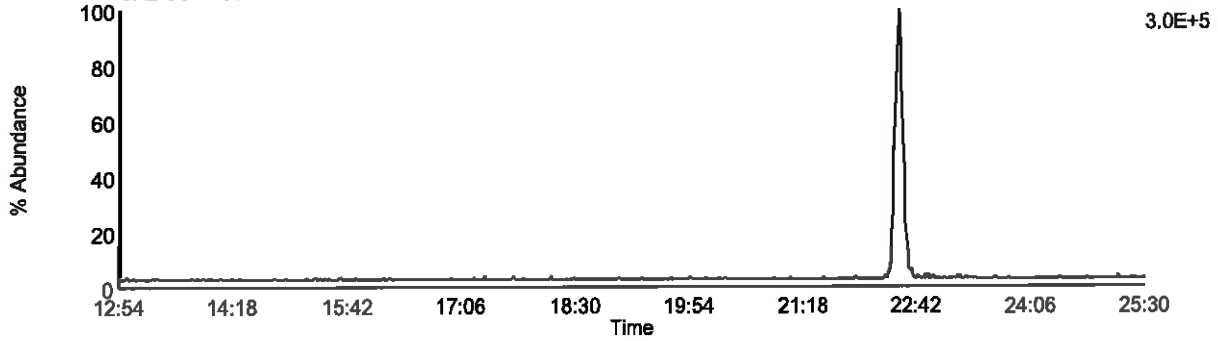
Data File: F130918B_03 G1 C12 - 339.8597
CAL CS2-7604-276 - SMT



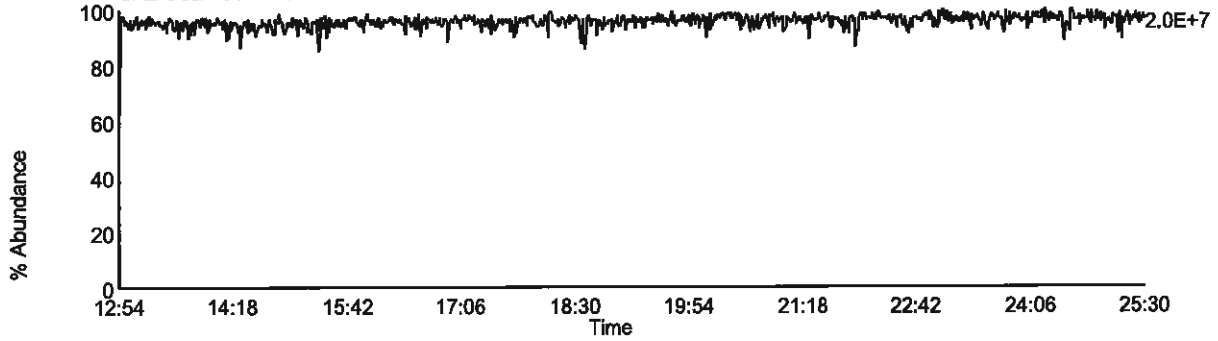
Data File: F130918B_03 G1 C13 - 341.8567
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G1 C9 - 327.8847
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G1 C5 - 318.9792
CAL CS2-7604-276 - SMT

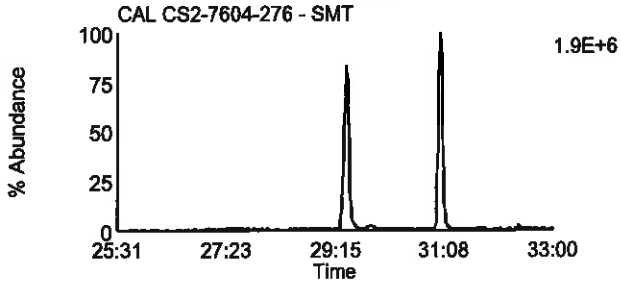


Homologue Group: Pentas

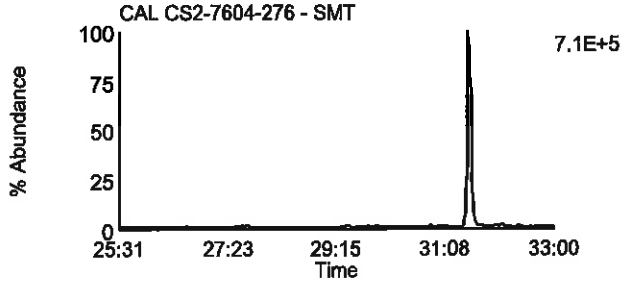
Data File Name: F130918B_03
Date Acquired: 9/18/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR05 (F)

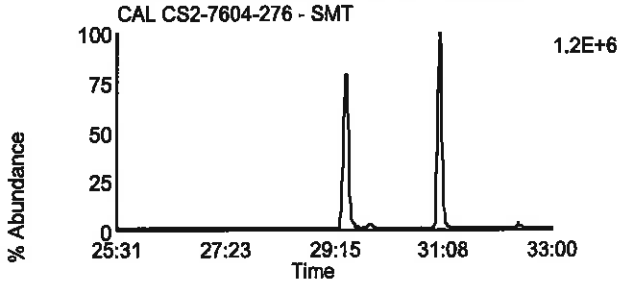
Data File: F130918B_03 G2 C1 - 339.8597
CAL CS2-7604-276 - SMT



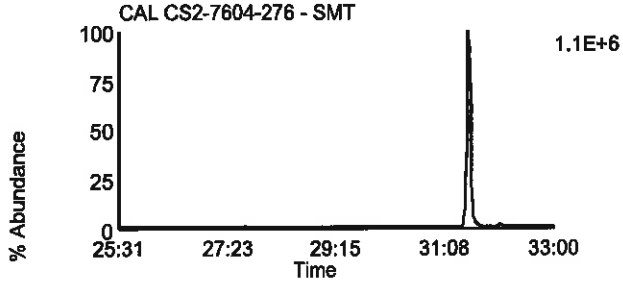
Data File: F130918B_03 G2 C4 - 353.8576
CAL CS2-7604-276 - SMT



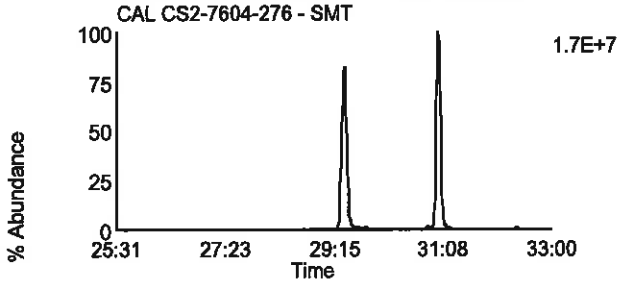
Data File: F130918B_03 G2 C2 - 341.8567
CAL CS2-7604-276 - SMT



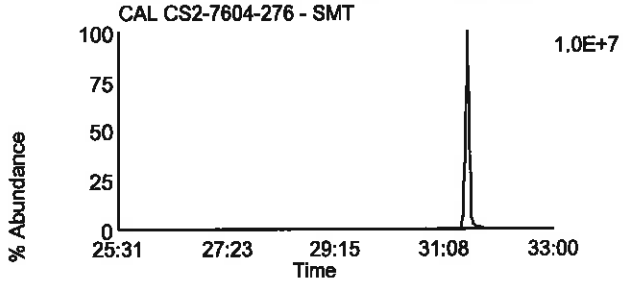
Data File: F130918B_03 G2 C8 - 355.8546
CAL CS2-7604-276 - SMT



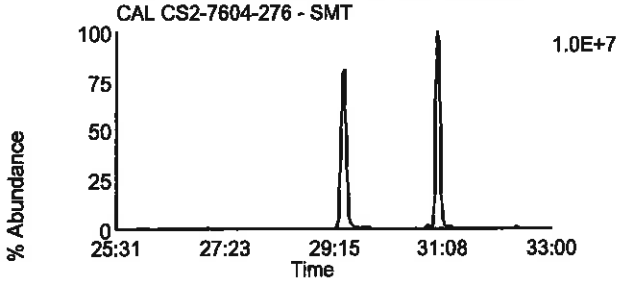
Data File: F130918B_03 G2 C3 - 351.8999
CAL CS2-7604-276 - SMT



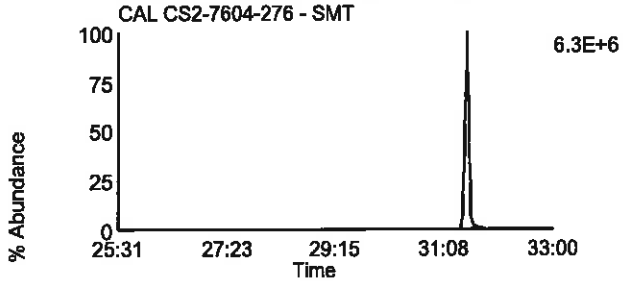
Data File: F130918B_03 G2 C10 - 367.8948
CAL CS2-7604-276 - SMT



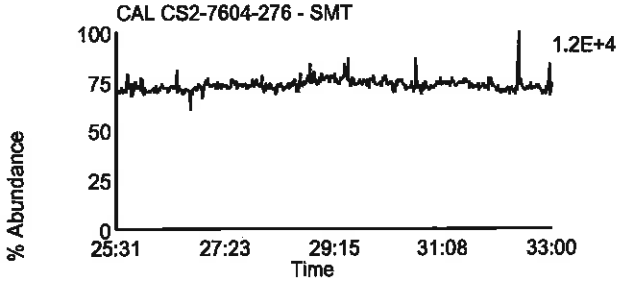
Data File: F130918B_03 G2 C5 - 353.8969
CAL CS2-7604-276 - SMT



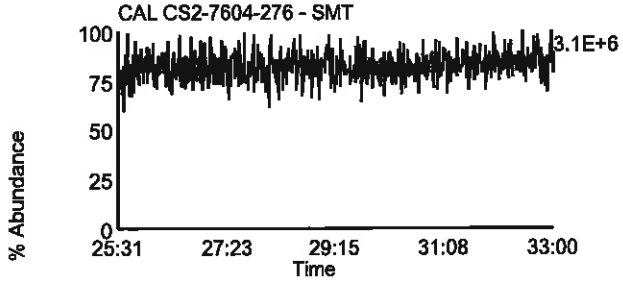
Data File: F130918B_03 G2 C11 - 369.8918
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G2 C12 - 409.7974
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G2 C6 - 354.9792
CAL CS2-7604-276 - SMT

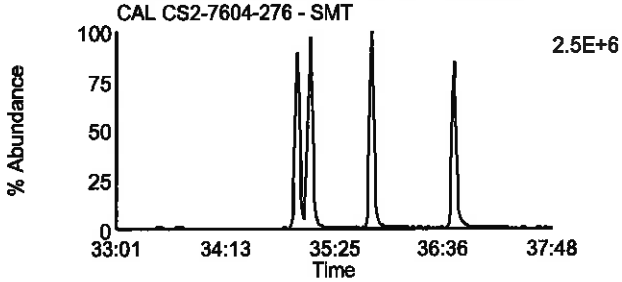


Homologue Group: Hexas

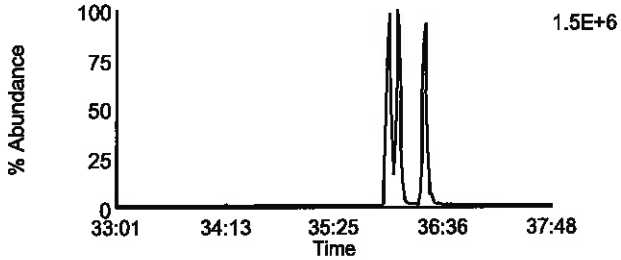
Data File Name: F130918B_03
Date Acquired: 9/18/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR05 (F)

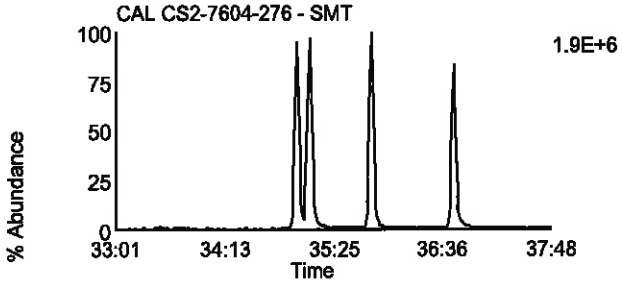
Data File: F130918B_03 G3 C1 - 373.8207
CAL CS2-7604-276 - SMT



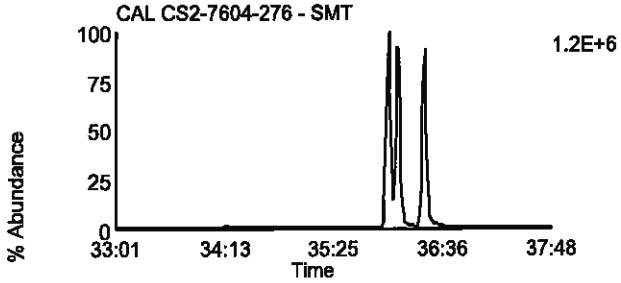
Data File: F130918B_03 G3 C7 - 389.8156
CAL CS2-7604-276 - SMT



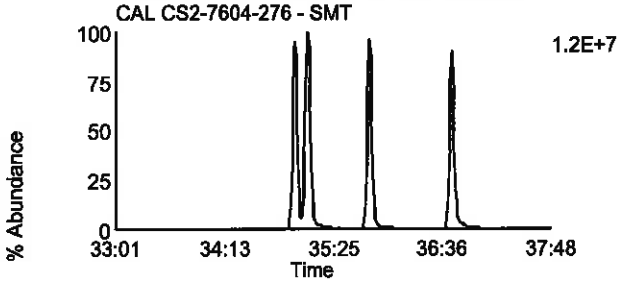
Data File: F130918B_03 G3 C2 - 375.8178
CAL CS2-7604-276 - SMT



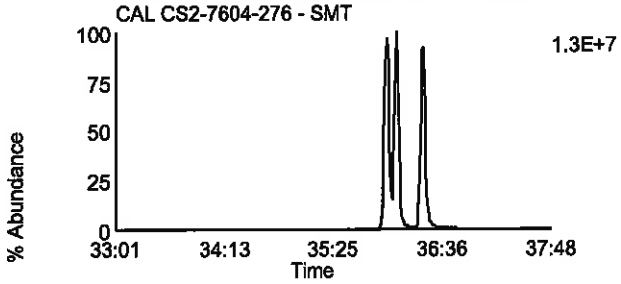
Data File: F130918B_03 G3 C8 - 391.8127
CAL CS2-7604-276 - SMT



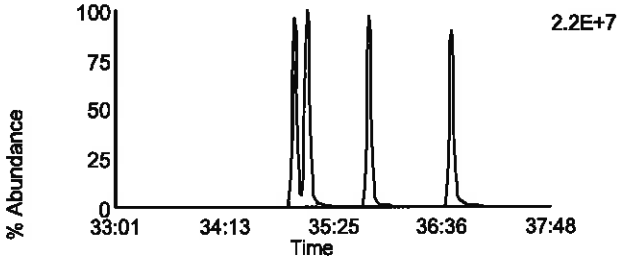
Data File: F130918B_03 G3 C5 - 383.8639
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G3 C9 - 401.8559
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G3 C6 - 385.861
CAL CS2-7604-276 - SMT



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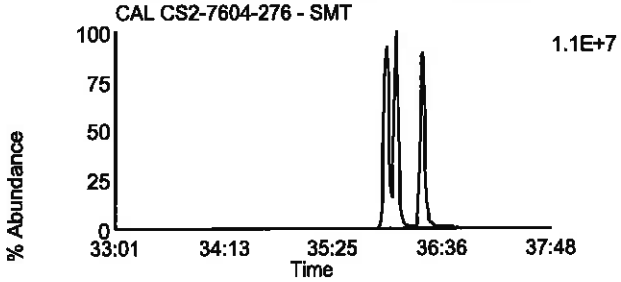
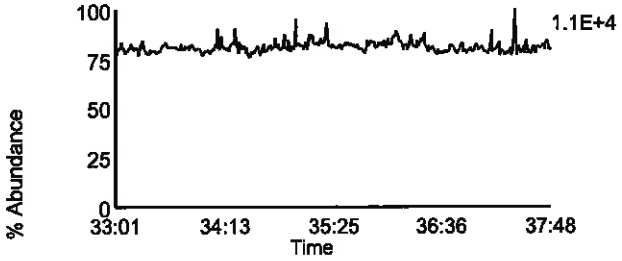
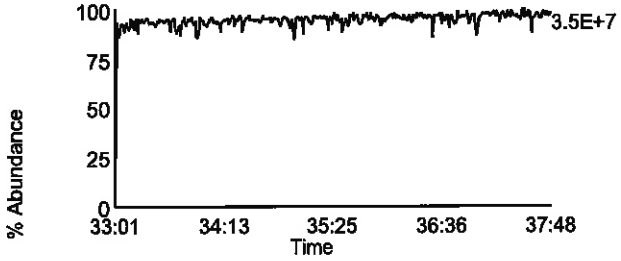
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G3 C11 - 445.7555
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G3 C3 - 380.976
CAL CS2-7604-276 - SMT

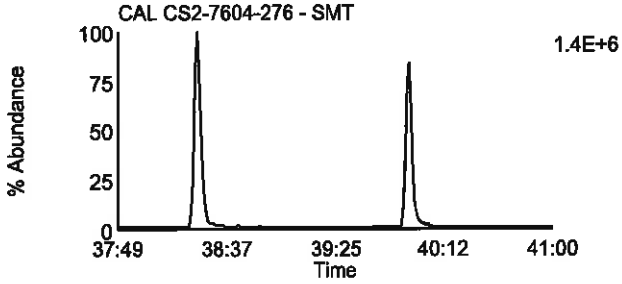


Homologue Group: Heptas

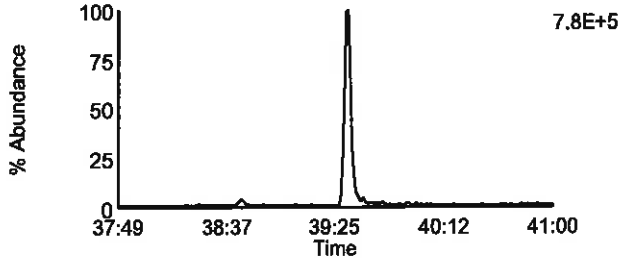
Data File Name: F130918B_03
Date Acquired: 9/18/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR05 (F)

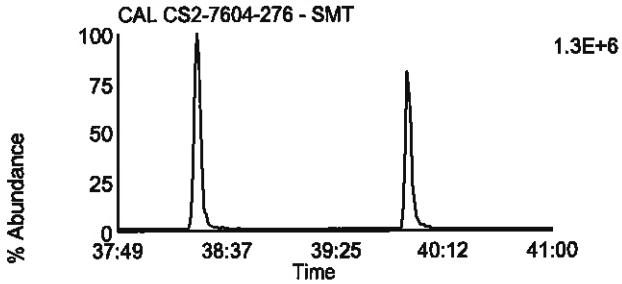
Data File: F130918B_03 G4 C3 - 407.7818
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G4 C8 - 423.7767
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G4 C4 - 409.7788
CAL CS2-7604-276 - SMT



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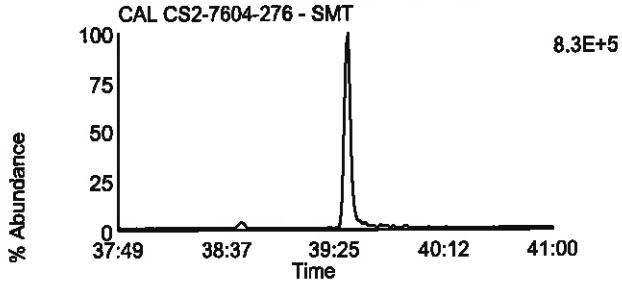
CAL CS2-7604-276 - SMT



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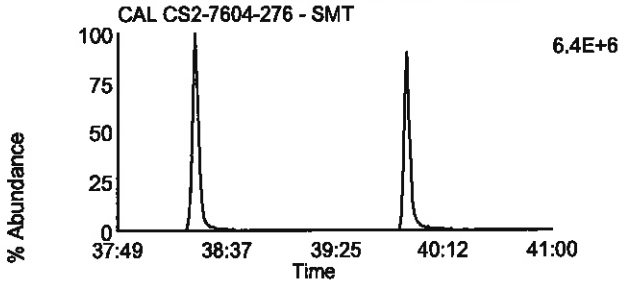
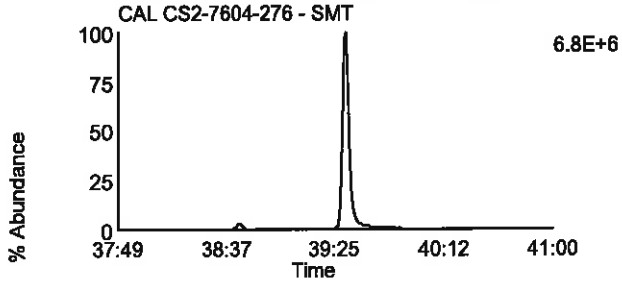
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G4 C11 - 435.8169
CAL CS2-7604-276 - SMT



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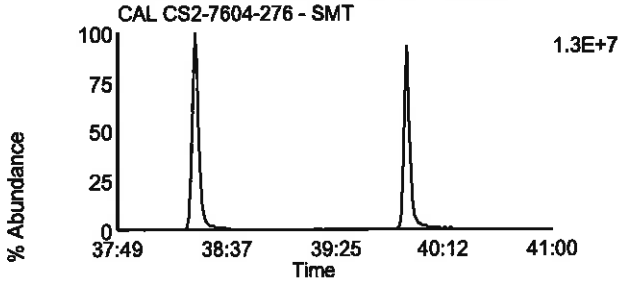
CAL CS2-7604-276 - SMT



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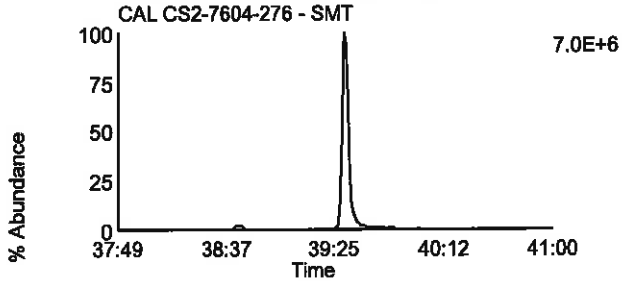
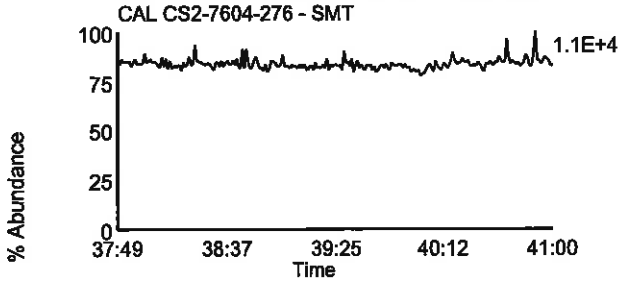
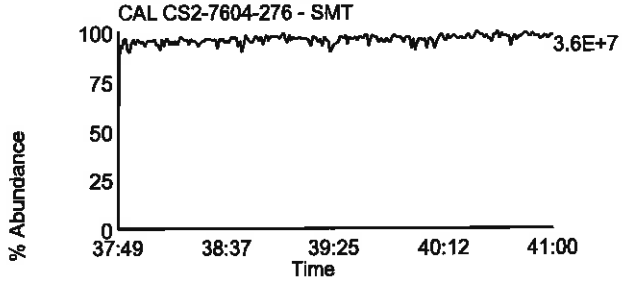
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G4 C13 - 479.7165
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G4 C1 - 380.976
CAL CS2-7604-276 - SMT

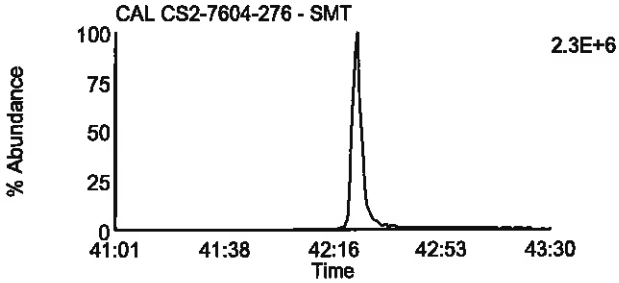


Homologue Group: Octas

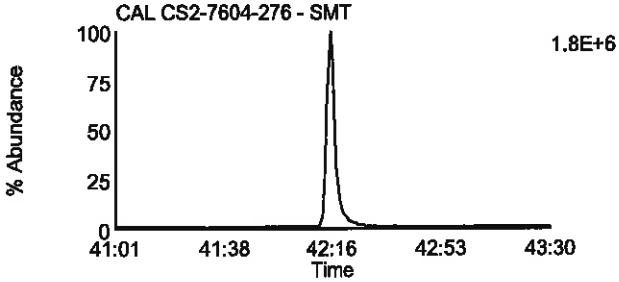
Data File Name: F130918B_03
Date Acquired: 9/18/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR05 (F)

Data File: F130918B_03 G5 C4 - 441.7428
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G5 C8 - 457.7377
CAL CS2-7604-276 - SMT



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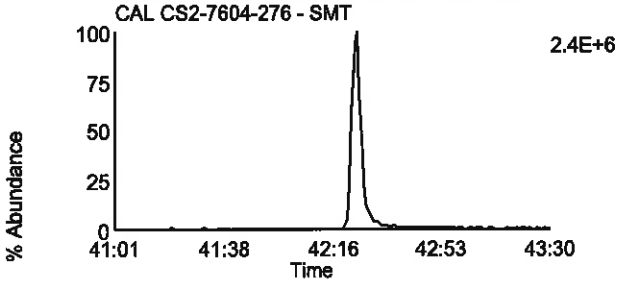
CAL CS2-7604-276 - SMT



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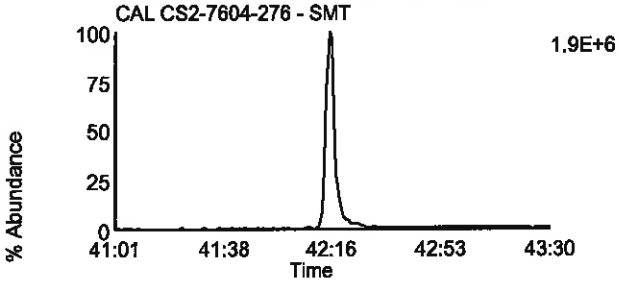
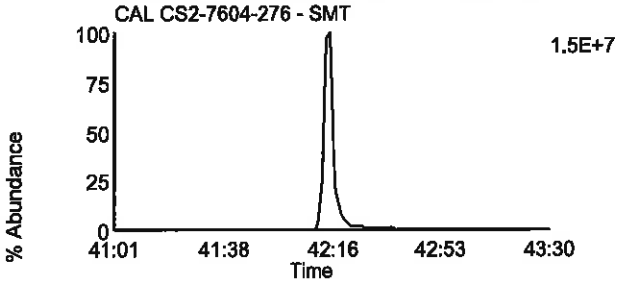
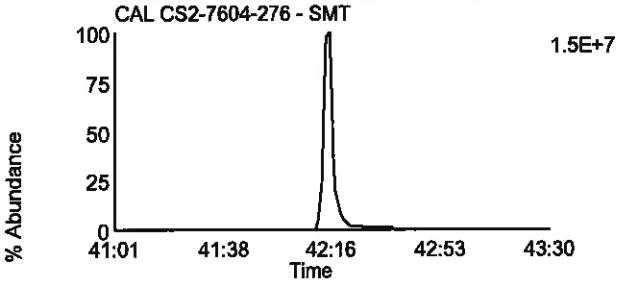
CAL CS2-7604-276 - SMT



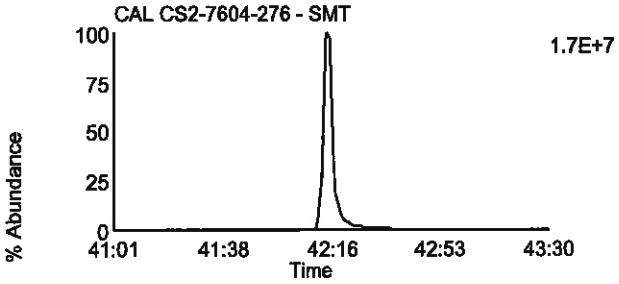
Data File: F130918B_03 G5 C11 - 469.7779
CAL CS2-7604-276 - SMT



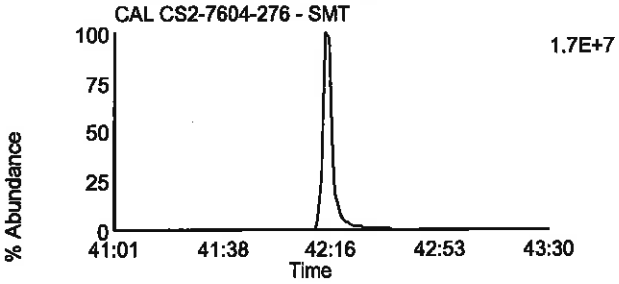
Data File: F130918B_03 G5 C11 - 469.7779
CAL CS2-7604-276 - SMT



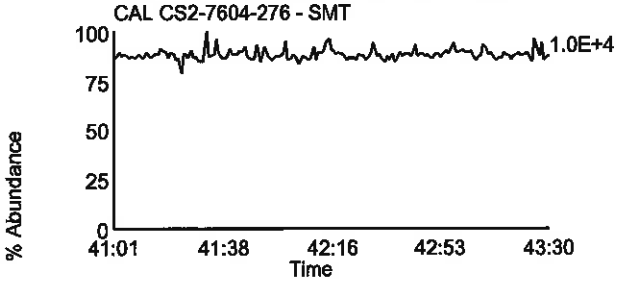
Data File: F130918B_03 G5 C12 - 471.7749
CAL CS2-7604-276 - SMT



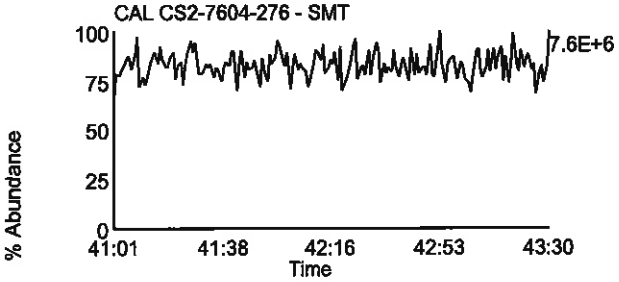
Data File: F130918B_03 G5 C12 - 471.7749
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G5 C13 - 513.6775
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G5 C2 - 430.9728
CAL CS2-7604-276 - SMT

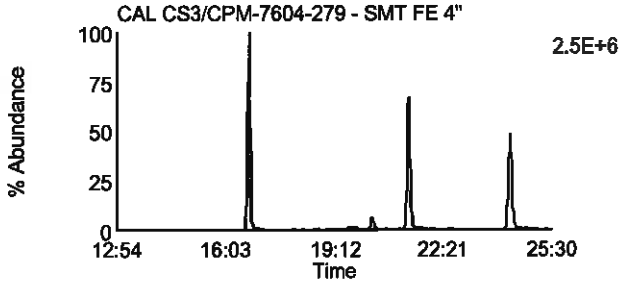


Homologue Group: Tetras

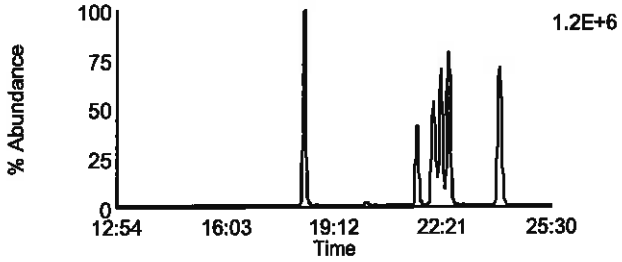
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

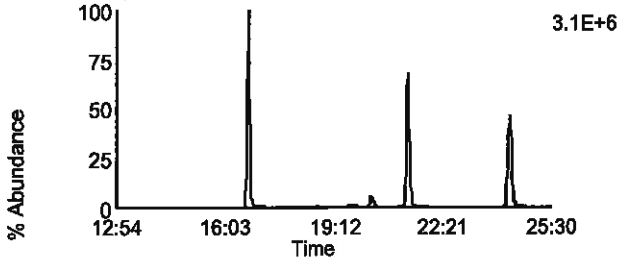
Data File: F130918B_02 G1 C1 - 303.9016
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G1 C7 - 319.8965
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G1 C2 - 305.8987
CAL CS3/CPM-7604-279 - SMT FE 4"



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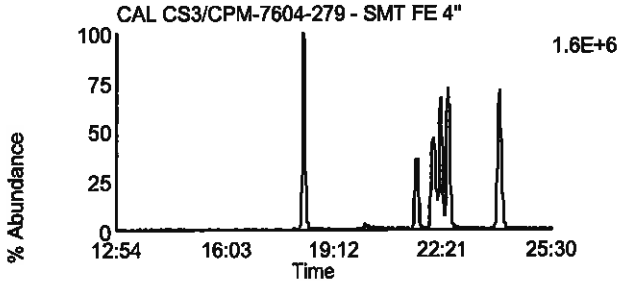
CAL CS3/CPM-7604-279 - SMT FE 4"



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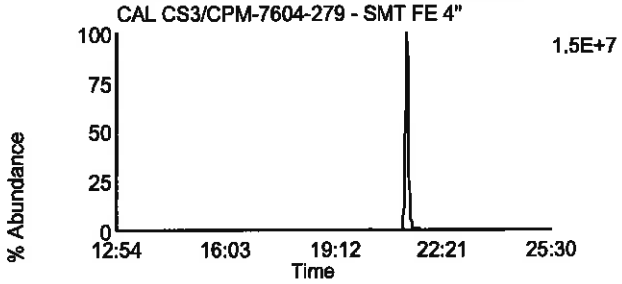
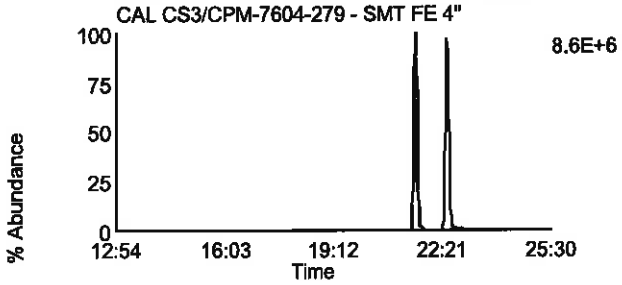
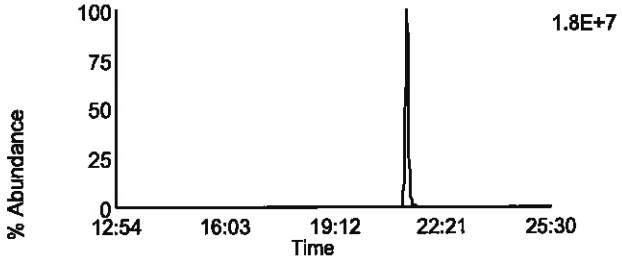
CAL CS3/CPM-7604-279 - SMT FE 4"



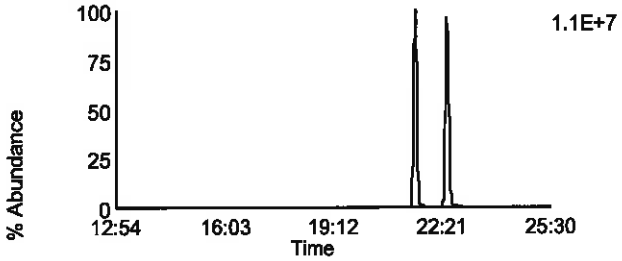
Data File: F130918B_02 G1 C10 - 331.9367
CAL CS3/CPM-7604-279 - SMT FE 4"



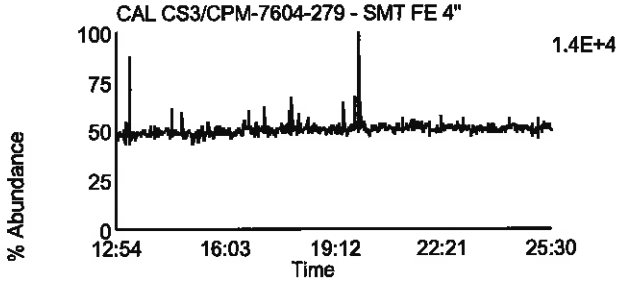
Data File: F130918B_02 G1 C4 - 317.9389
CAL CS3/CPM-7604-279 - SMT FE 4"



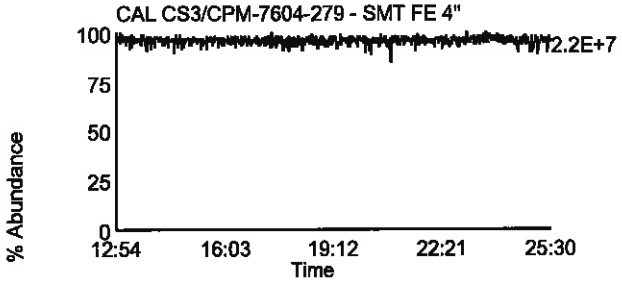
Data File: F130918B_02 G1 C11 - 333.9338
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G1 C14 - 375.8364
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - SMT FE 4"

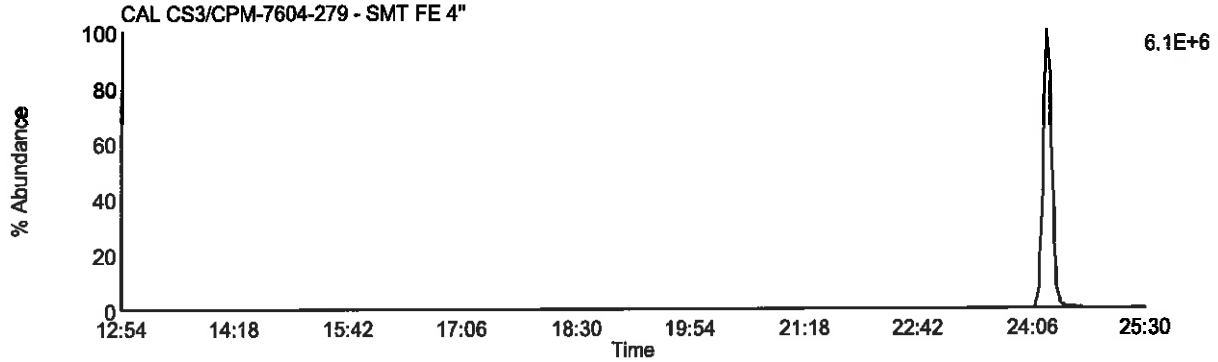


Homologue Group: Penta & Cleanup

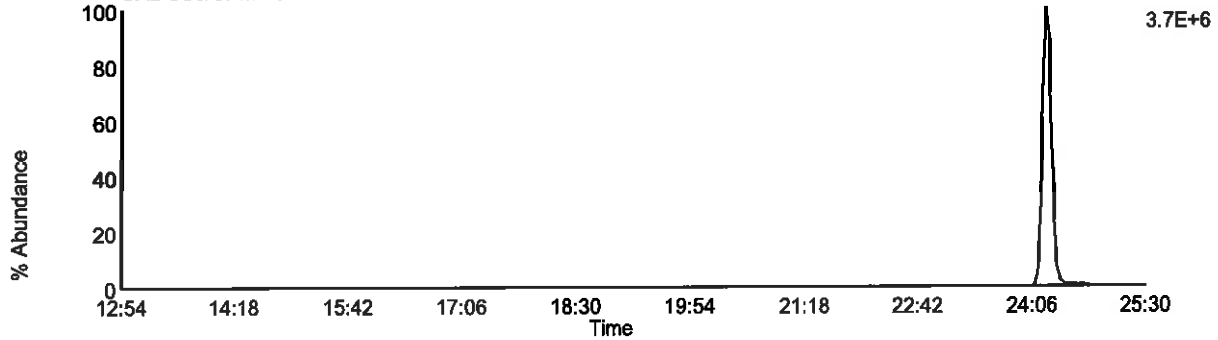
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

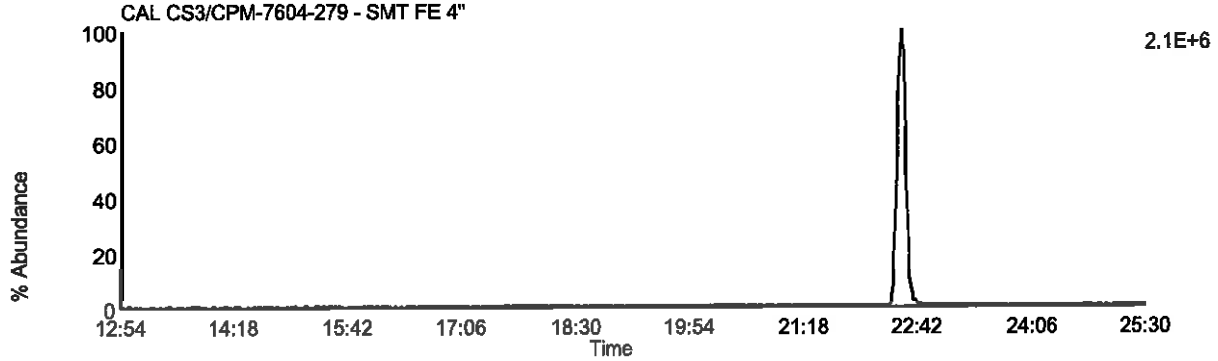
Data File: F130918B_02 G1 C12 - 339.8597
CAL CS3/CPM-7604-279 - SMT FE 4"



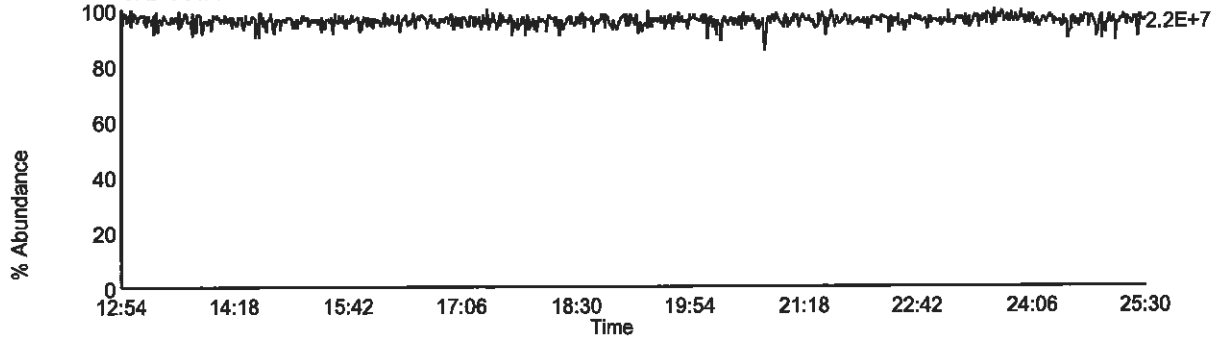
Data File: F130918B_02 G1 C13 - 341.8567
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G1 C9 - 327.8847
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - SMT FE 4"

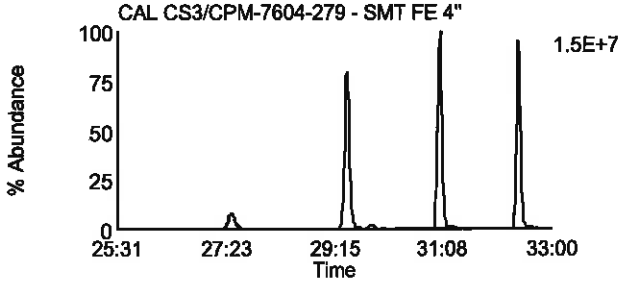


Homologue Group: Pentas

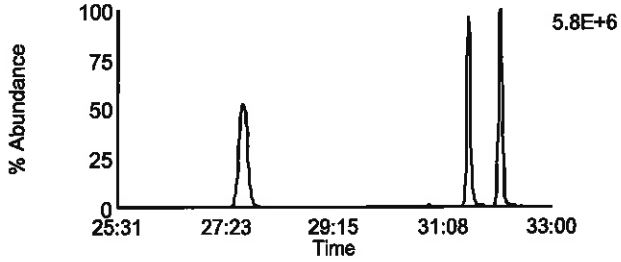
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

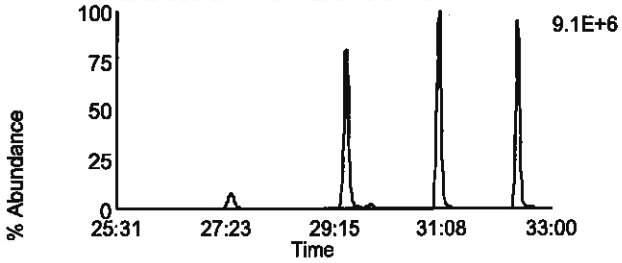
Data File: F130918B_02 G2 C1 - 339.8597
CAL CS3/CPM-7604-279 - SMT FE 4"



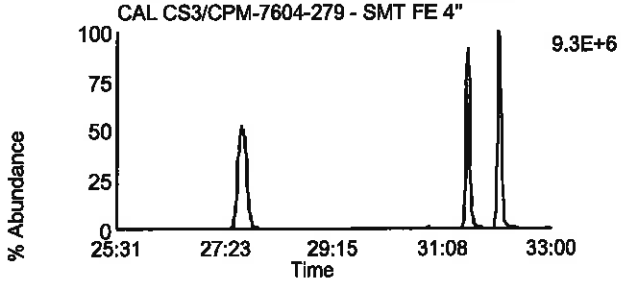
Data File: F130918B_02 G2 C4 - 353.8576
CAL CS3/CPM-7604-279 - SMT FE 4"



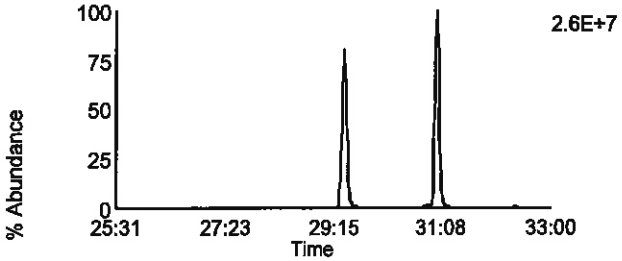
Data File: F130918B_02 G2 C2 - 341.8567
CAL CS3/CPM-7604-279 - SMT FE 4"



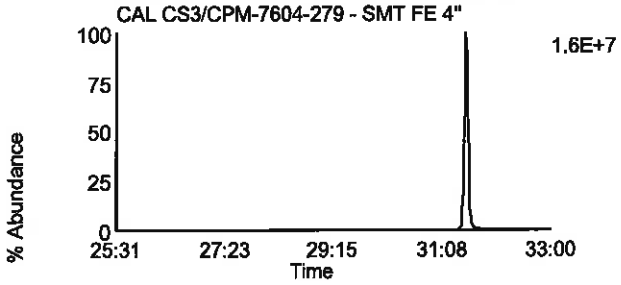
Data File: F130918B_02 G2 C8 - 355.8546
CAL CS3/CPM-7604-279 - SMT FE 4"



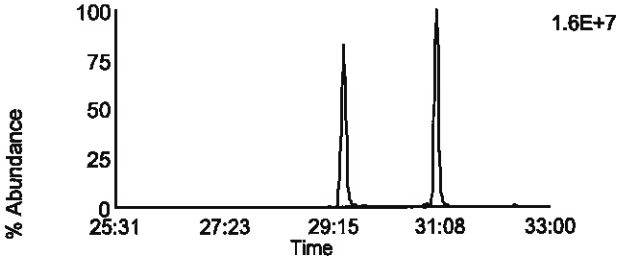
Data File: F130918B_02 G2 C3 - 351.8999
CAL CS3/CPM-7604-279 - SMT FE 4"



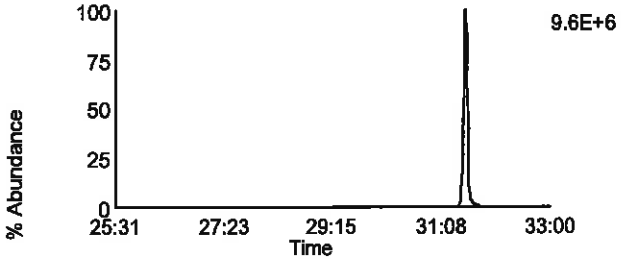
Data File: F130918B_02 G2 C10 - 367.8948
CAL CS3/CPM-7604-279 - SMT FE 4"



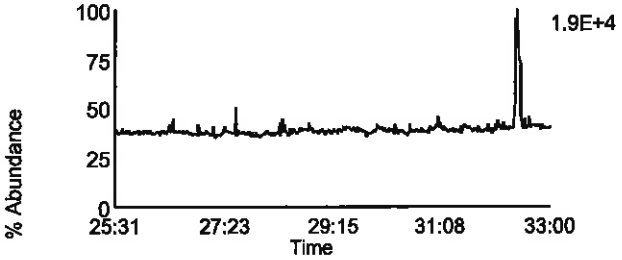
Data File: F130918B_02 G2 C5 - 353.8969
CAL CS3/CPM-7604-279 - SMT FE 4"



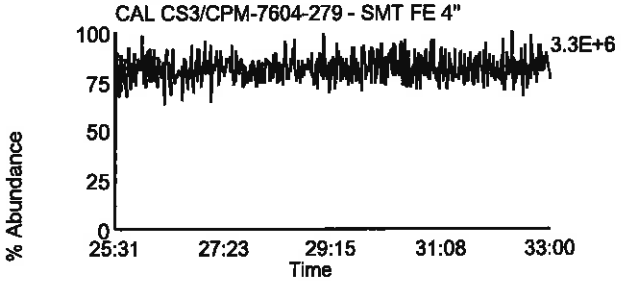
Data File: F130918B_02 G2 C11 - 369.8918
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G2 C12 - 409.7974
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G2 C6 - 354.9792
CAL CS3/CPM-7604-279 - SMT FE 4"

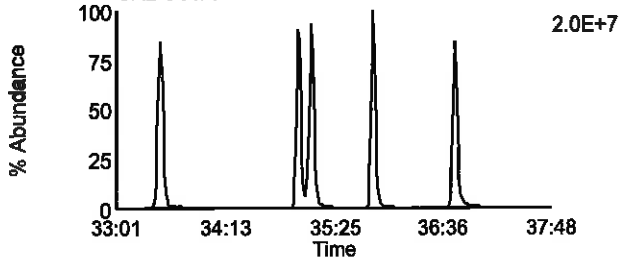


Homologue Group: Hexas

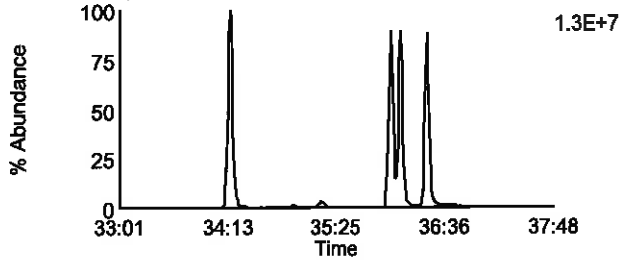
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

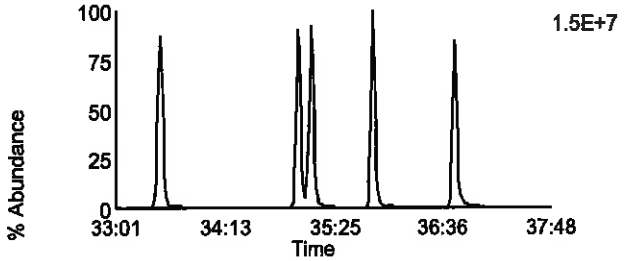
Data File: F130918B_02 G3 C1 - 373.8207
CAL CS3/CPM-7604-279 - SMT FE 4"



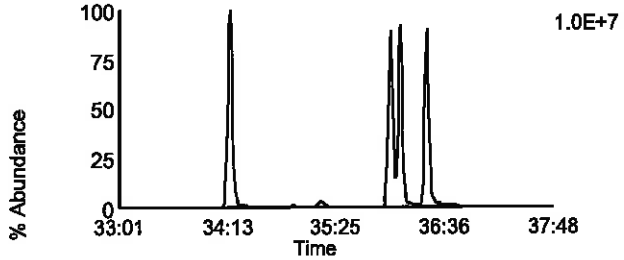
Data File: F130918B_02 G3 C7 - 389.8156
CAL CS3/CPM-7604-279 - SMT FE 4"



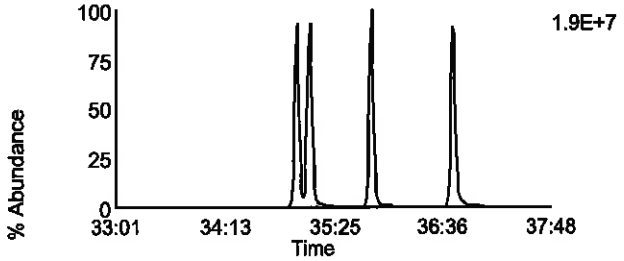
Data File: F130918B_02 G3 C2 - 375.8178
CAL CS3/CPM-7604-279 - SMT FE 4"



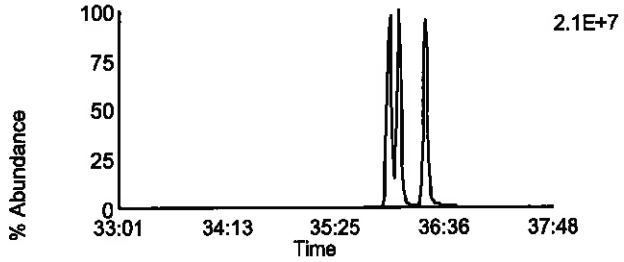
Data File: F130918B_02 G3 C8 - 391.8127
CAL CS3/CPM-7604-279 - SMT FE 4"



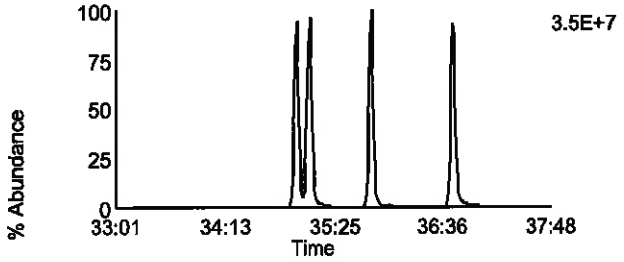
Data File: F130918B_02 G3 C5 - 383.8639
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G3 C9 - 401.8559
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G3 C6 - 385.861
CAL CS3/CPM-7604-279 - SMT FE 4"



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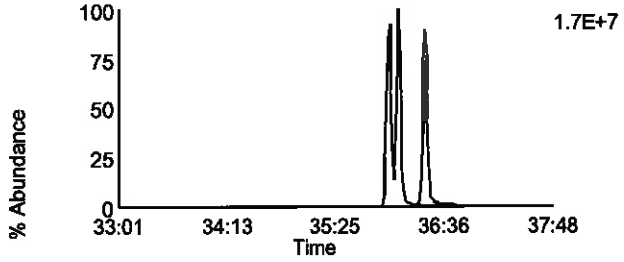
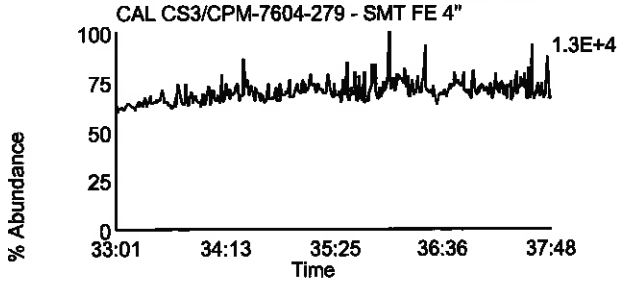
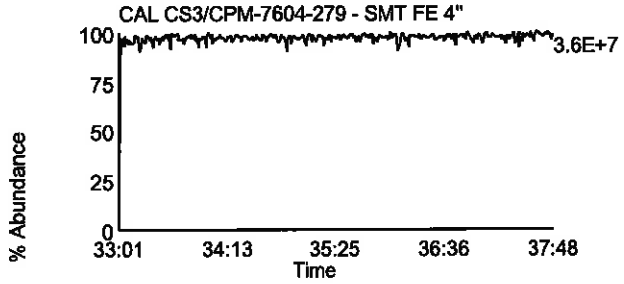
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G3 C11 - 445.7555
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G3 C3 - 380.976
CAL CS3/CPM-7604-279 - SMT FE 4"

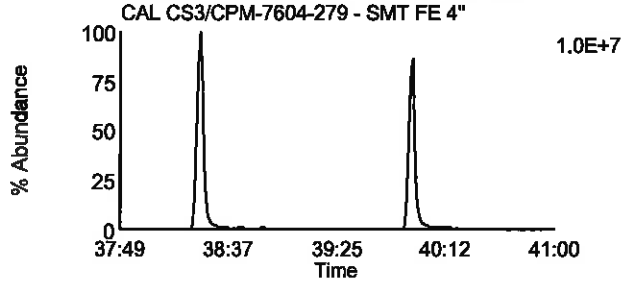


Homologue Group: Heptas

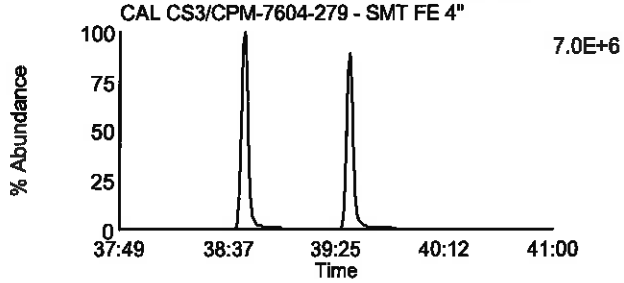
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

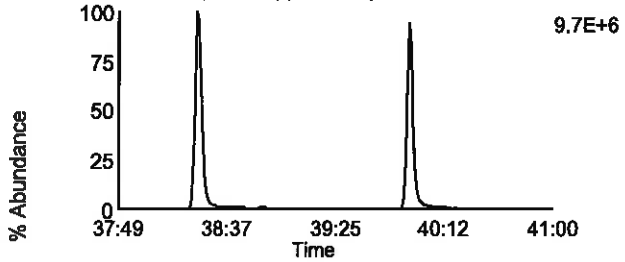
Data File: F130918B_02 G4 C3 - 407.7818
CAL CS3/CPM-7604-279 - SMT FE 4"



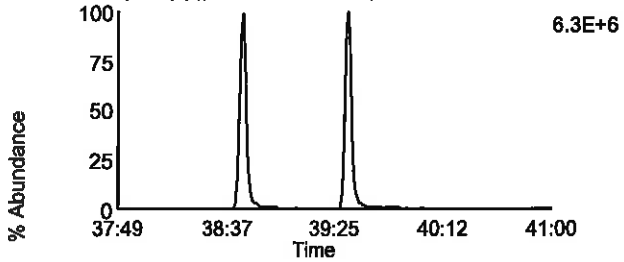
Data File: F130918B_02 G4 C8 - 423.7767
CAL CS3/CPM-7604-279 - SMT FE 4"



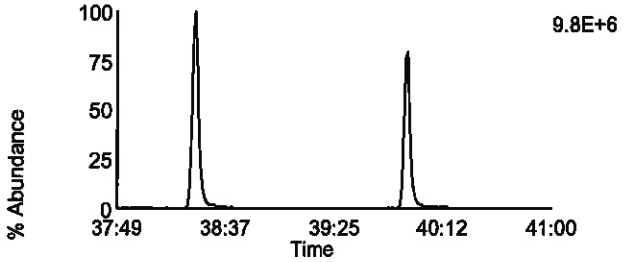
Data File: F130918B_02 G4 C4 - 409.7788
CAL CS3/CPM-7604-279 - SMT FE 4"



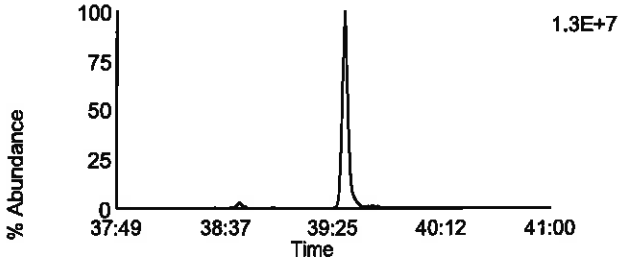
Data File: F130918B_02 G4 C9 - 425.7737
CAL CS3/CPM-7604-279 - SMT FE 4"



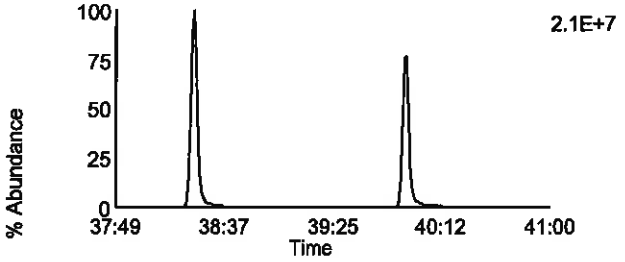
Data File: F130918B_02 G4 C6 - 417.825
CAL CS3/CPM-7604-279 - SMT FE 4"



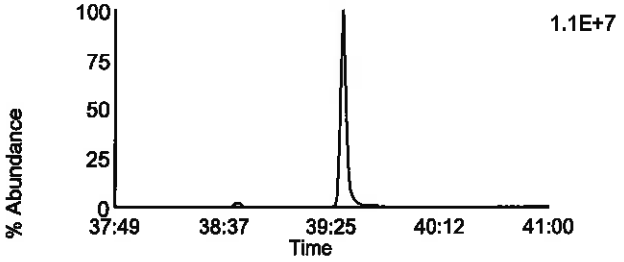
Data File: F130918B_02 G4 C11 - 435.8169
CAL CS3/CPM-7604-279 - SMT FE 4"



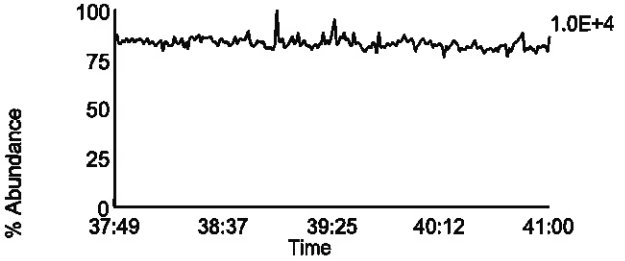
Data File: F130918B_02 G4 C7 - 419.822
CAL CS3/CPM-7604-279 - SMT FE 4"



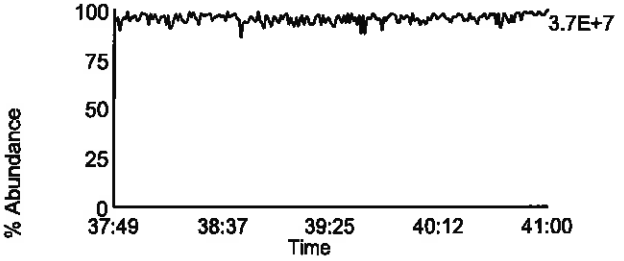
Data File: F130918B_02 G4 C12 - 437.814
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G4 C13 - 479.7165
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G4 C1 - 380.976
CAL CS3/CPM-7604-279 - SMT FE 4"

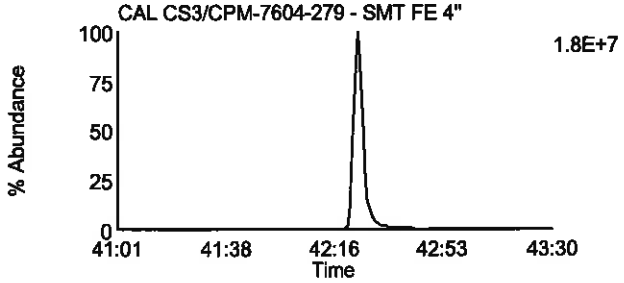


Homologue Group: Octas

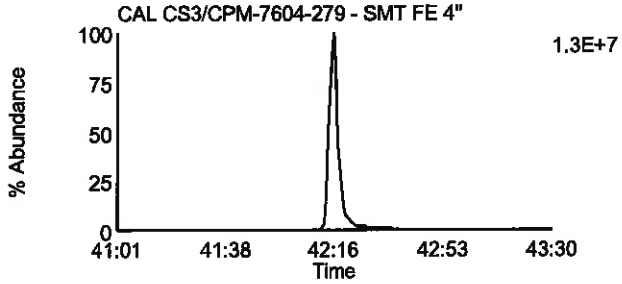
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

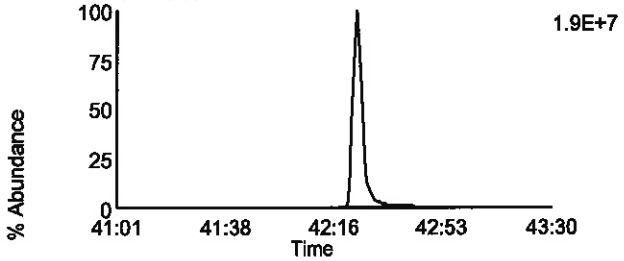
Data File: F130918B_02 G5 C4 - 441.7428
CAL CS3/CPM-7604-279 - SMT FE 4"



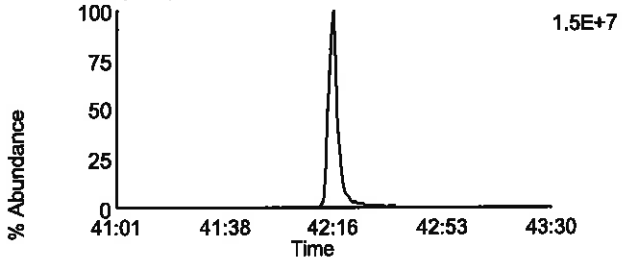
Data File: F130918B_02 G5 C8 - 457.7377
CAL CS3/CPM-7604-279 - SMT FE 4"



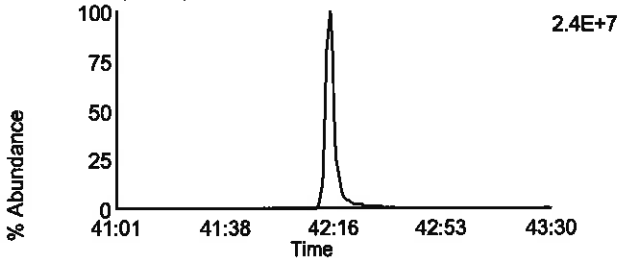
Data File: F130918B_02 G5 C5 - 443.7398
CAL CS3/CPM-7604-279 - SMT FE 4"



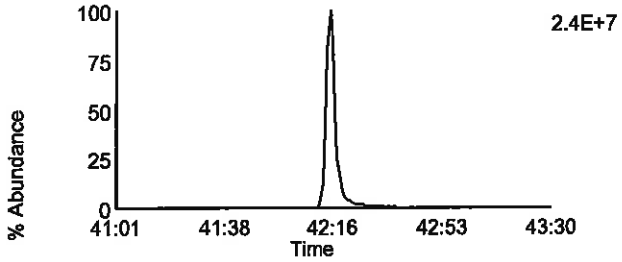
Data File: F130918B_02 G5 C9 - 459.7347
CAL CS3/CPM-7604-279 - SMT FE 4"



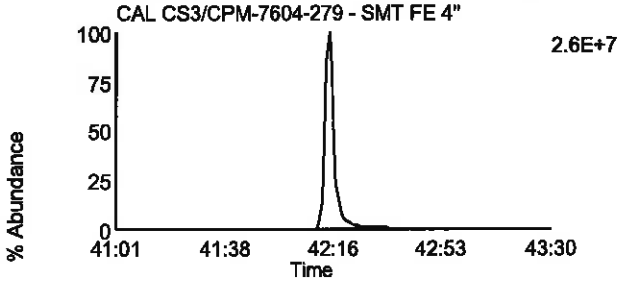
Data File: F130918B_02 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - SMT FE 4"



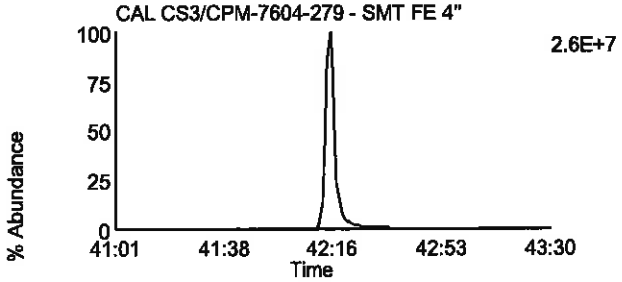
Data File: F130918B_02 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - SMT FE 4"



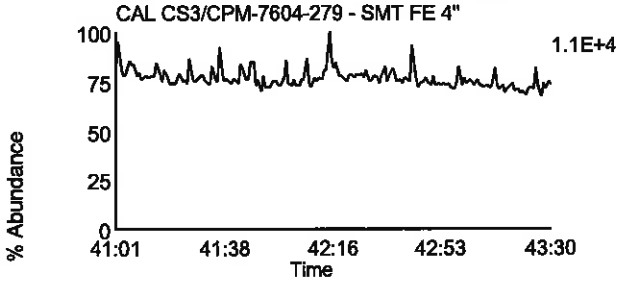
Data File: F130918B_02 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - SMT FE 4"



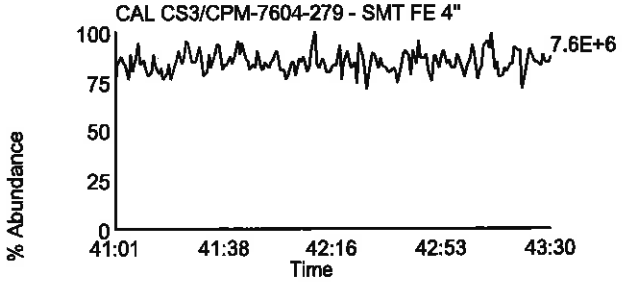
Data File: F130918B_02 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G5 C13 - 513.6775
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G5 C2 - 430.9728
CAL CS3/CPM-7604-279 - SMT FE 4"

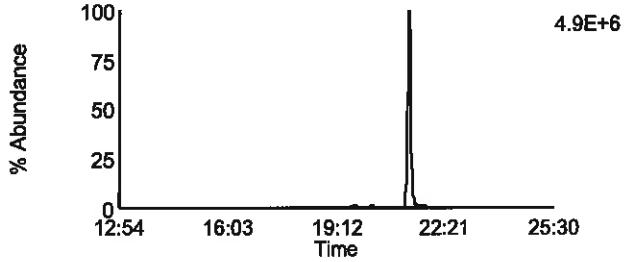


Homologue Group: Tetras

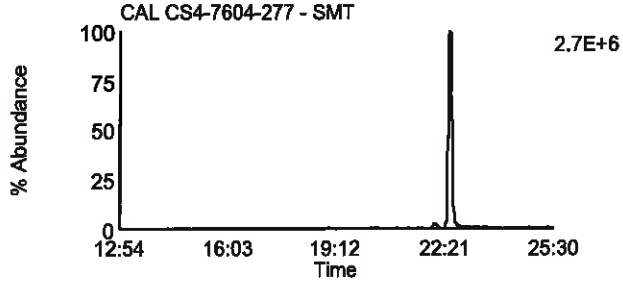
Data File Name: F130918B_06
Date Acquired: 9/18/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR05 (F)

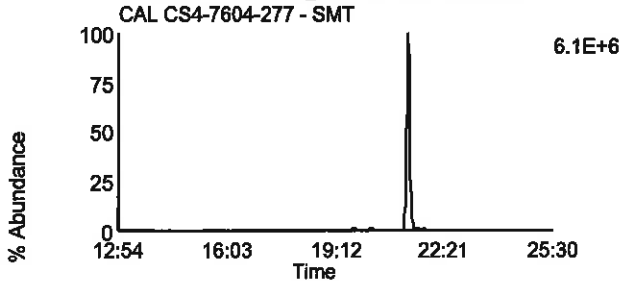
Data File: F130918B_06 G1 C1 - 303.9016
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G1 C7 - 319.8965
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G1 C2 - 305.8987
CAL CS4-7604-277 - SMT



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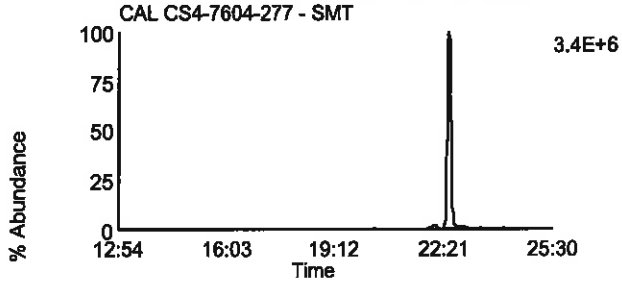
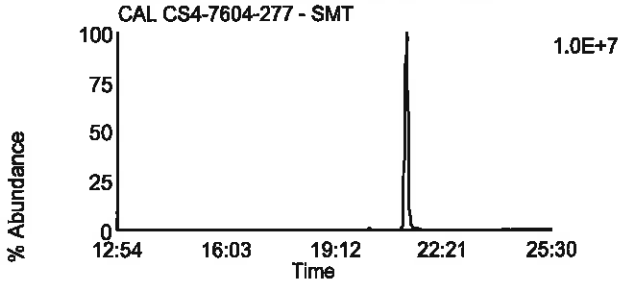
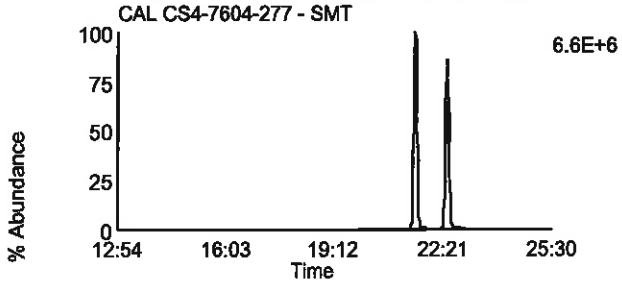
CAL CS4-7604-277 - SMT



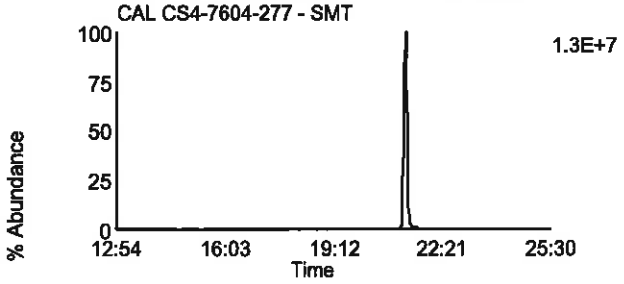
Data File: F130918B_06 G1 C3 - 315.9418
CAL CS4-7604-277 - SMT



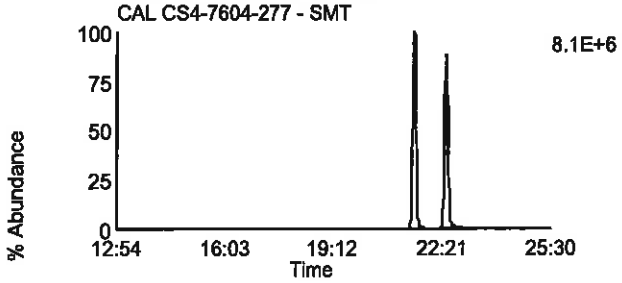
Data File: F130918B_06 G1 C10 - 331.9367
CAL CS4-7604-277 - SMT



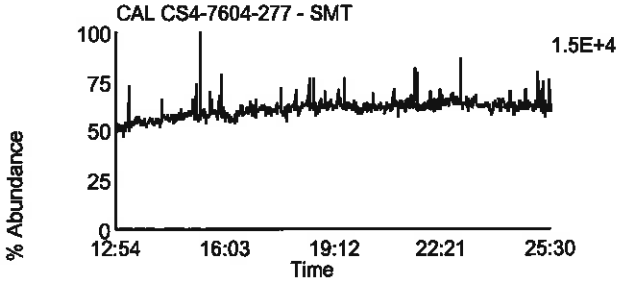
Data File: F130918B_06 G1 C4 - 317.9389
CAL CS4-7604-277 - SMT



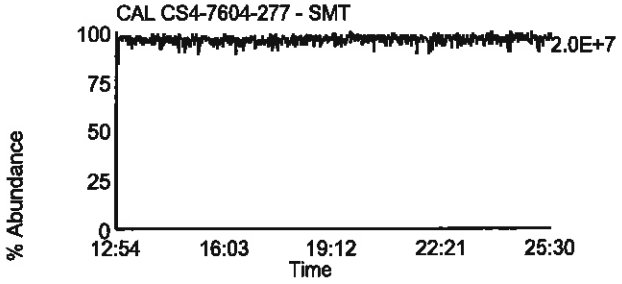
Data File: F130918B_06 G1 C11 - 333.9338
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G1 C14 - 375.8364
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G1 C5 - 318.9792
CAL CS4-7604-277 - SMT

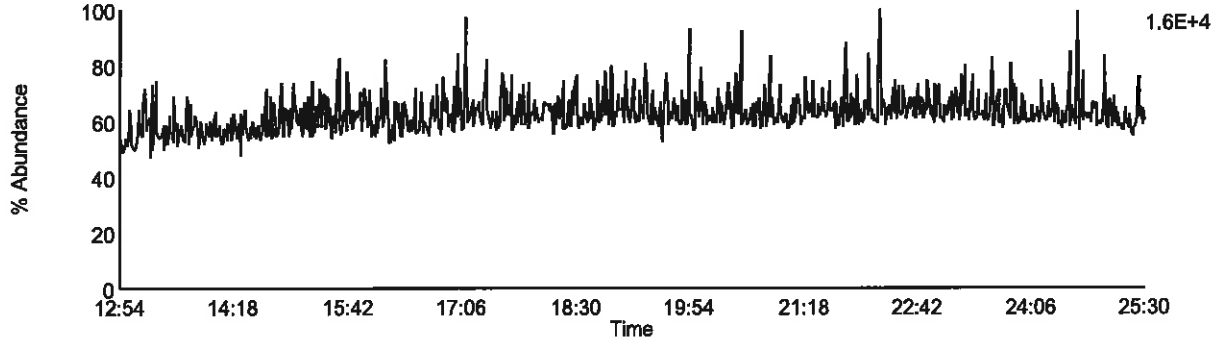


Homologue Group: Penta & Cleanup

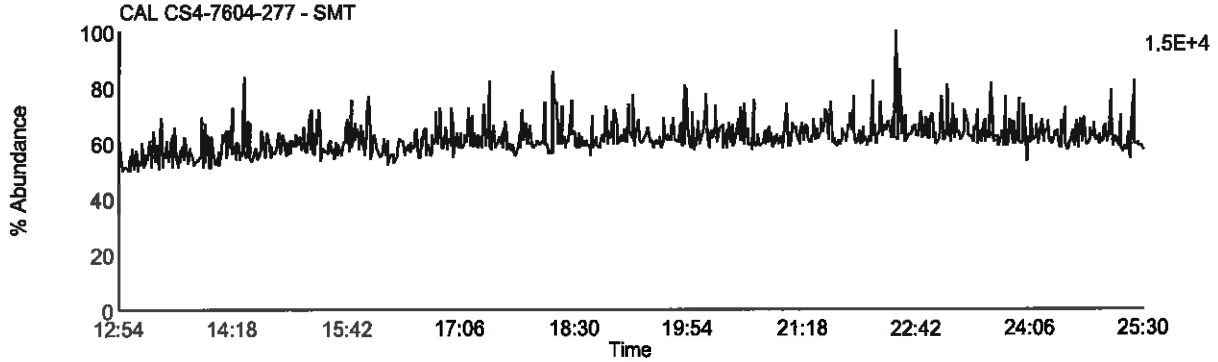
Data File Name: F130918B_06
Date Acquired: 9/18/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR05 (F)

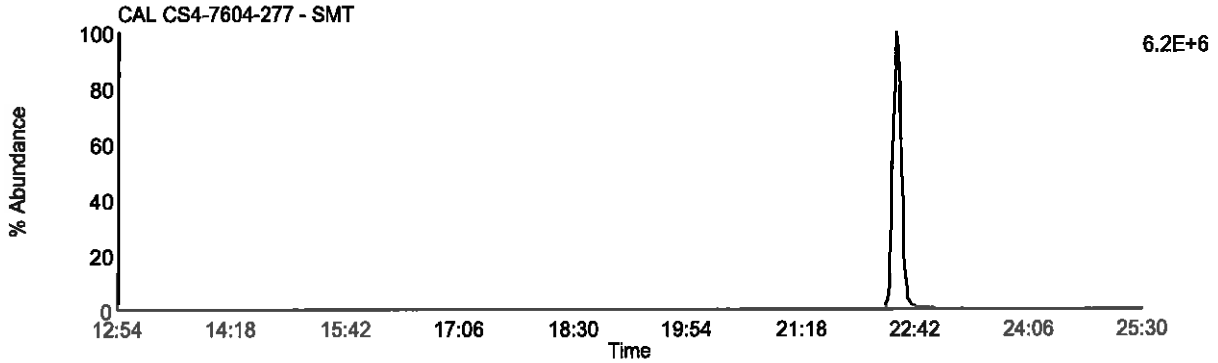
Data File: F130918B_06 G1 C12 - 339.8597
CAL CS4-7604-277 - SMT



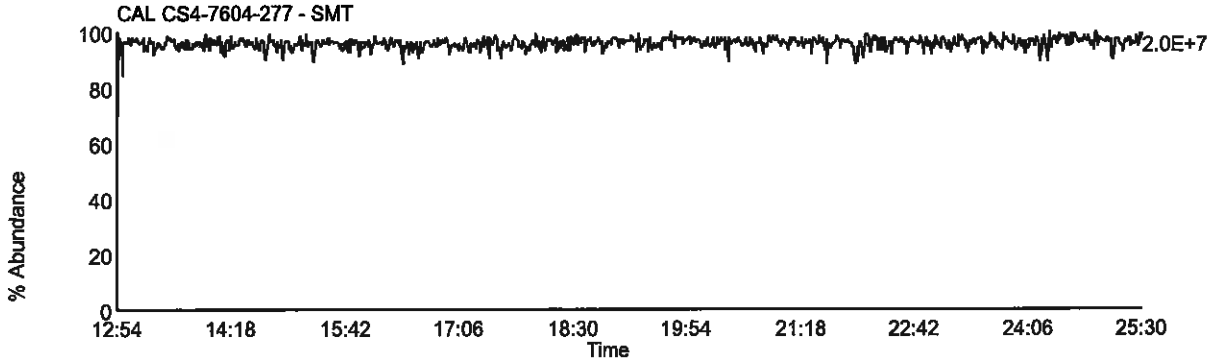
Data File: F130918B_06 G1 C13 - 341.8567
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G1 C9 - 327.8847
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G1 C5 - 318.9792
CAL CS4-7604-277 - SMT

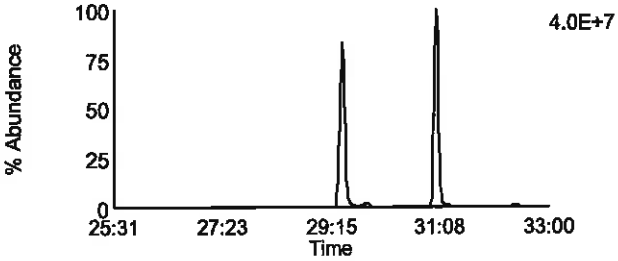


Homologue Group: Pentas

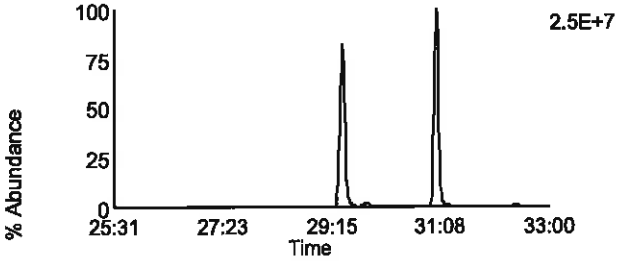
Data File Name: F130918B_06
Date Acquired: 9/18/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR05 (F)

Data File: F130918B_06 G2 C1 - 339.8597
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G2 C2 - 341.8567
CAL CS4-7604-277 - SMT



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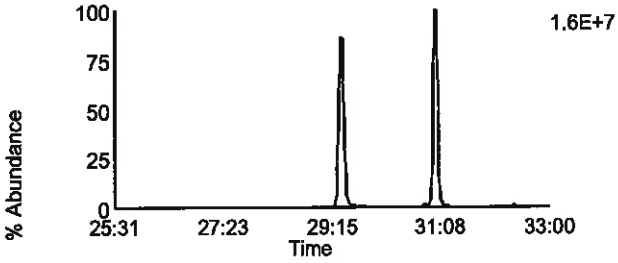
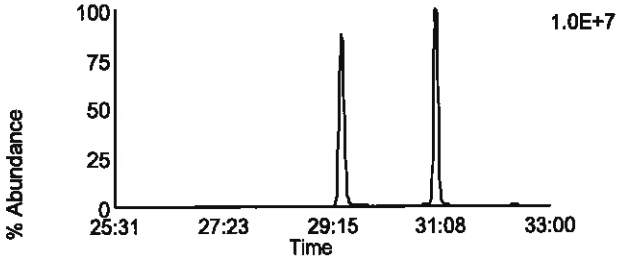
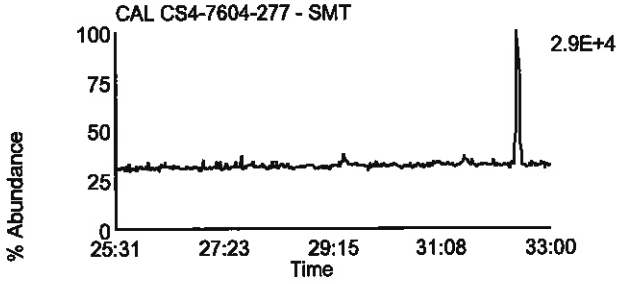
CAL CS4-7604-277 - SMT



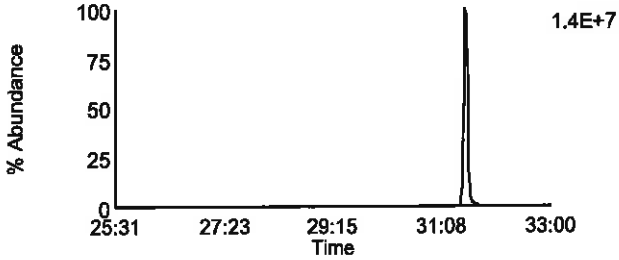
Data File: F130918B_06 G2 C5 - 353.8969
CAL CS4-7604-277 - SMT



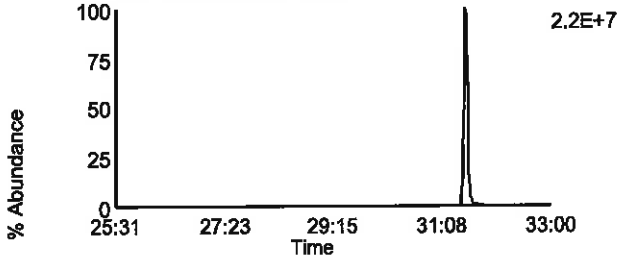
Data File: F130918B_06 G2 C12 - 409.7974
CAL CS4-7604-277 - SMT



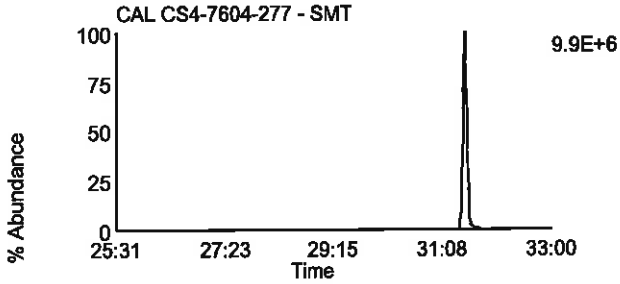
Data File: F130918B_06 G2 C4 - 353.8576
CAL CS4-7604-277 - SMT



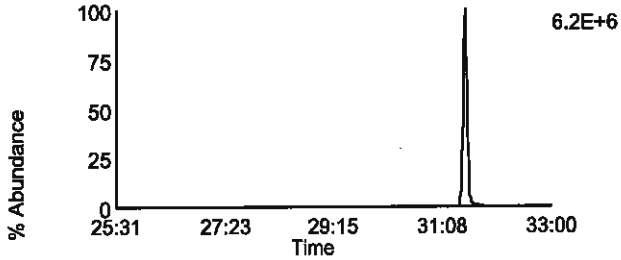
Data File: F130918B_06 G2 C8 - 355.8546
CAL CS4-7604-277 - SMT



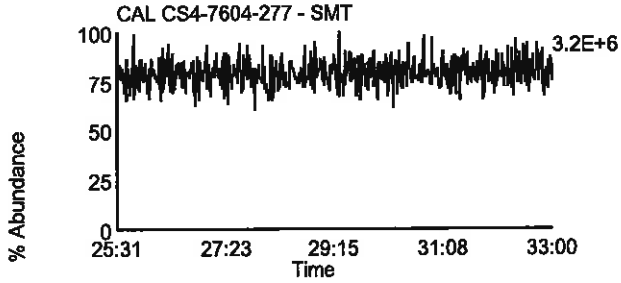
Data File: F130918B_06 G2 C10 - 367.8948
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G2 C11 - 369.8918
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G2 C6 - 354.9792
CAL CS4-7604-277 - SMT

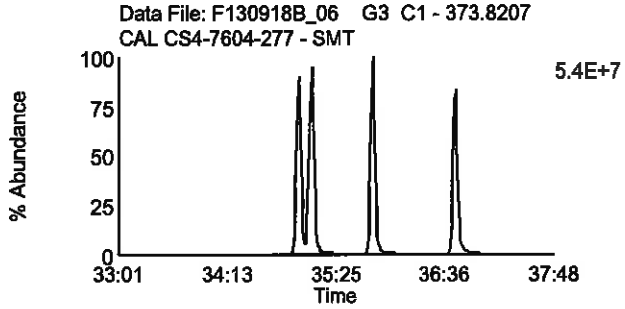


Homologue Group: Hexas

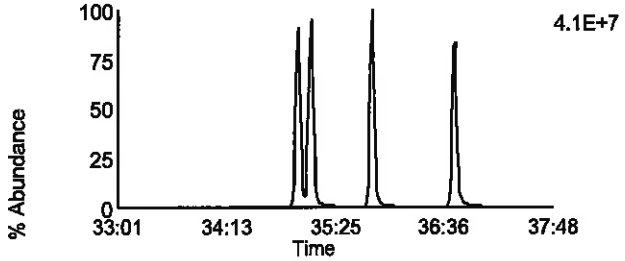
Data File Name: F130918B_06
Date Acquired: 9/18/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR05 (F)

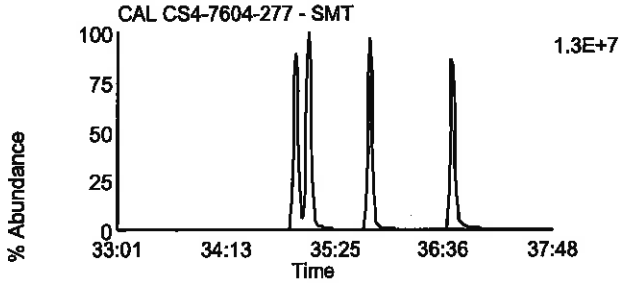
Data File: F130918B_06 G3 C1 - 373.8207
CAL CS4-7604-277 - SMT



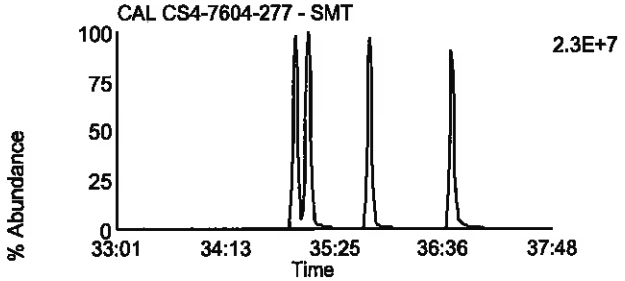
Data File: F130918B_06 G3 C2 - 375.8178
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G3 C5 - 383.8639
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G3 C6 - 385.861
CAL CS4-7604-277 - SMT



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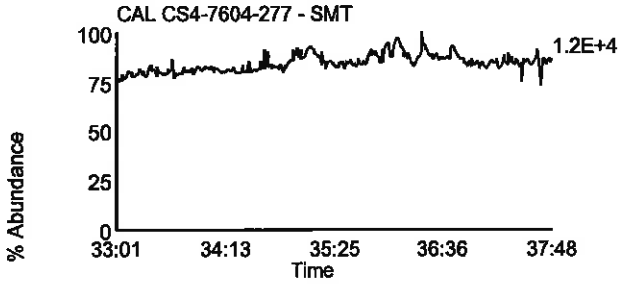
CAL CS4-7604-277 - SMT



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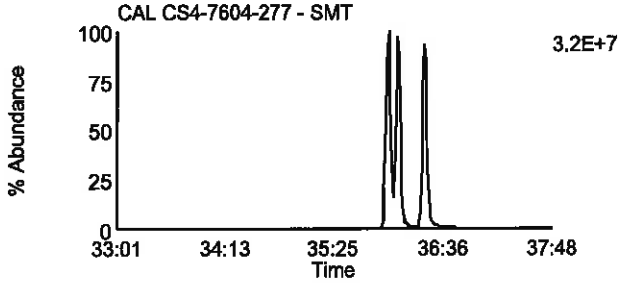
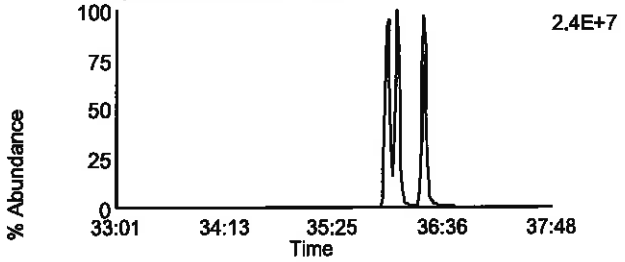
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G3 C8 - 391.8127
CAL CS4-7604-277 - SMT



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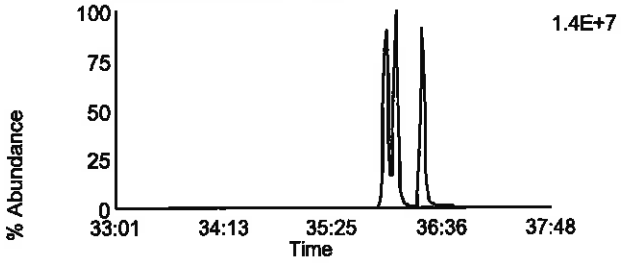
CAL CS4-7604-277 - SMT



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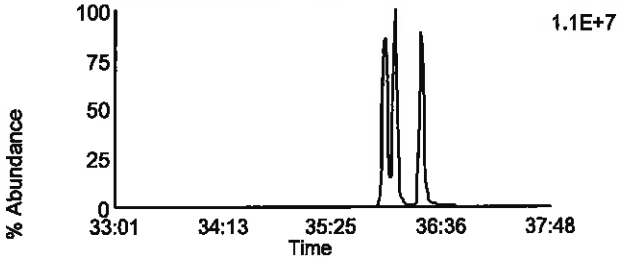
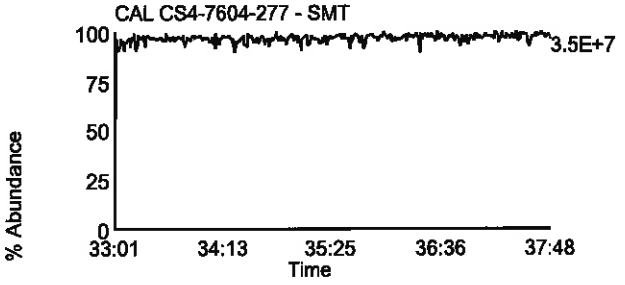
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G3 C3 - 380.976
CAL CS4-7604-277 - SMT

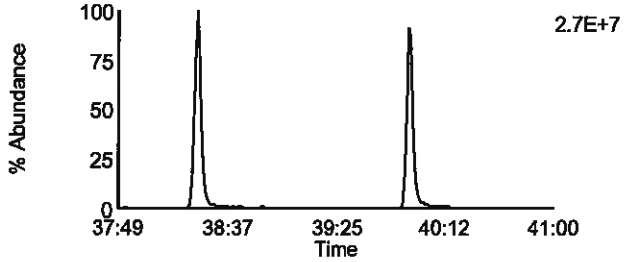


Homologue Group: Heptas

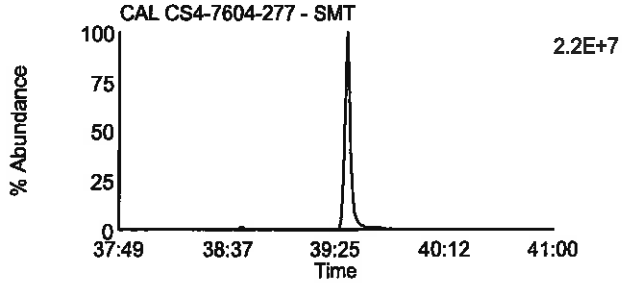
Data File Name: F130918B_06
Date Acquired: 9/18/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR05 (F)

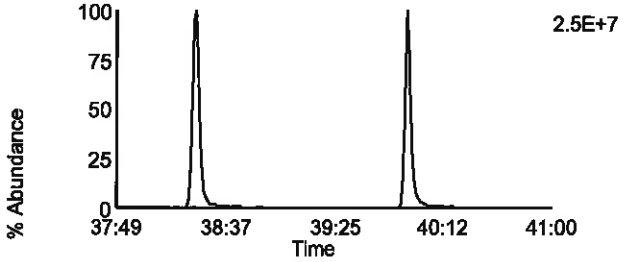
Data File: F130918B_06 G4 C3 - 407.7818
CAL CS4-7604-277 - SMT



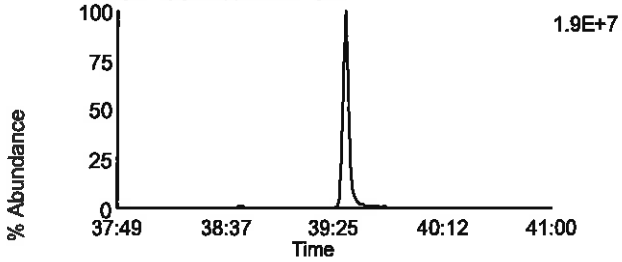
Data File: F130918B_06 G4 C8 - 423.7767
CAL CS4-7604-277 - SMT



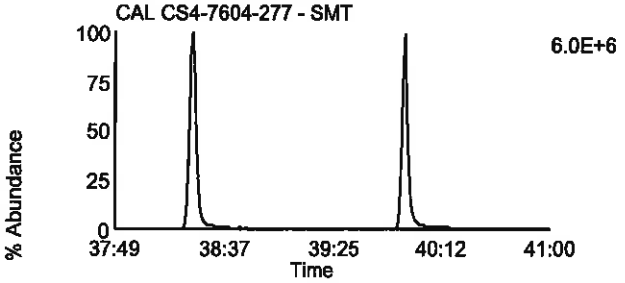
Data File: F130918B_06 G4 C4 - 409.7788
CAL CS4-7604-277 - SMT



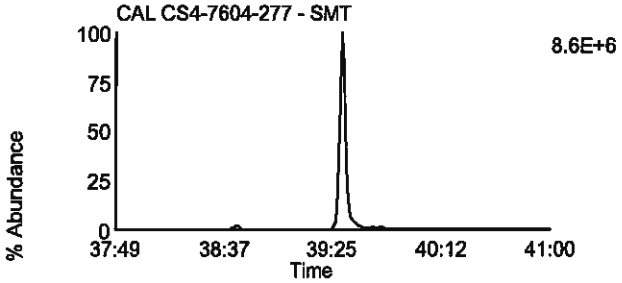
Data File: F130918B_06 G4 C9 - 425.7737
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G4 C6 - 417.825
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G4 C11 - 435.8169
CAL CS4-7604-277 - SMT



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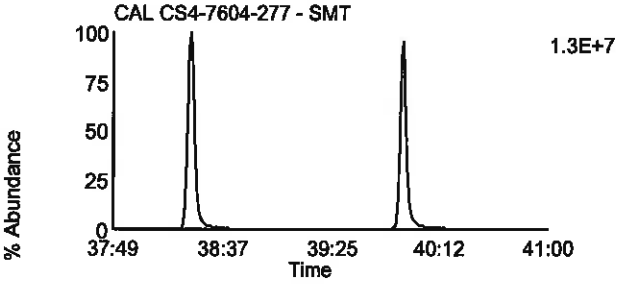
CAL CS4-7604-277 - SMT



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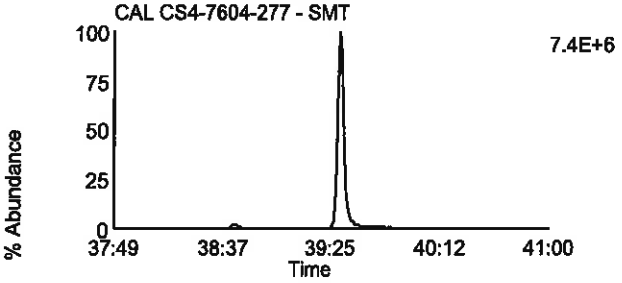
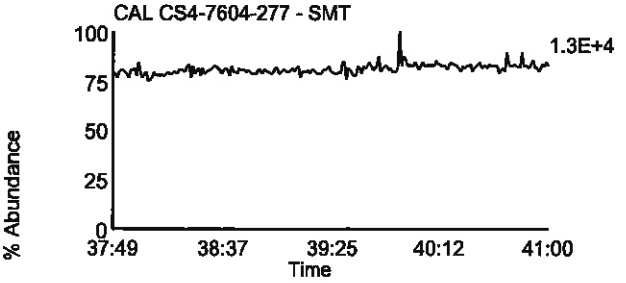
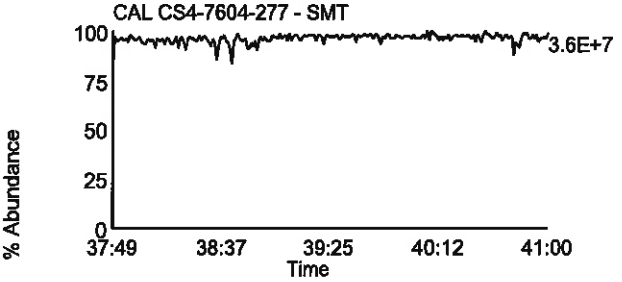
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G4 C13 - 479.7165
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G4 C1 - 380.976
CAL CS4-7604-277 - SMT

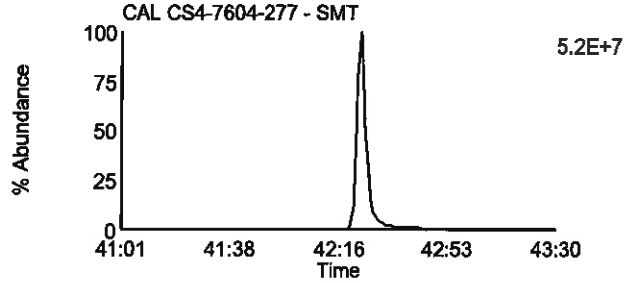


Homologue Group: Octas

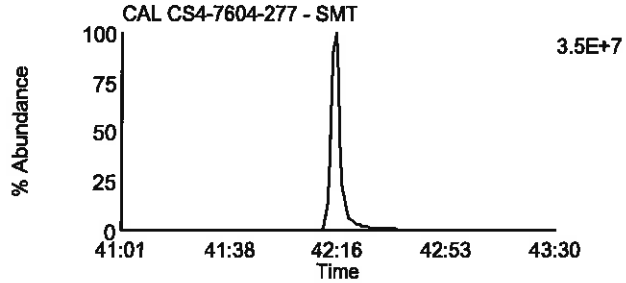
Data File Name: F130918B_06
Date Acquired: 9/18/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR05 (F)

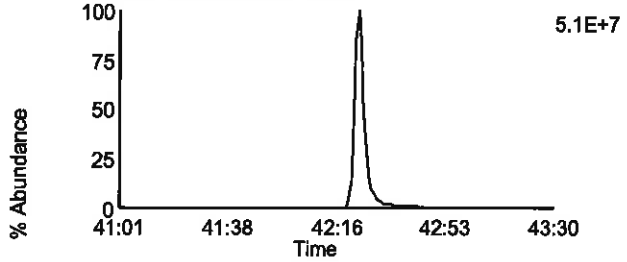
Data File: F130918B_06 G5 C4 - 441.7428
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G5 C8 - 457.7377
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G5 C5 - 443.7398
CAL CS4-7604-277 - SMT



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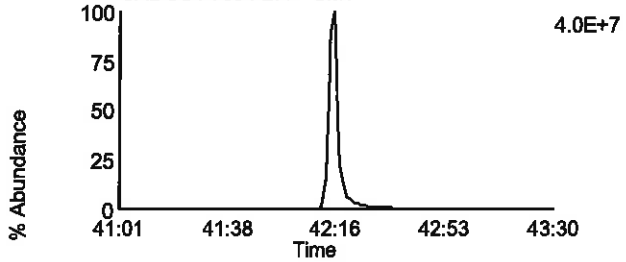
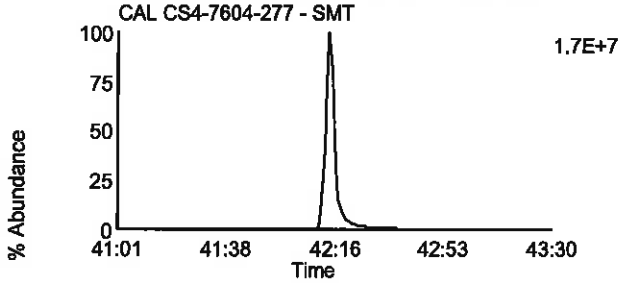
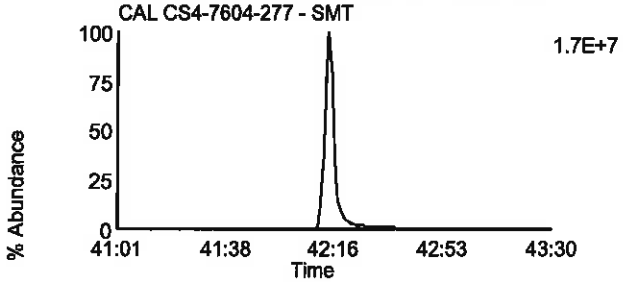
CAL CS4-7604-277 - SMT



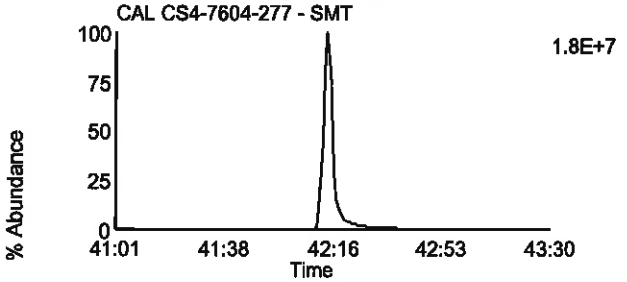
Data File: F130918B_06 G5 C11 - 469.7779
CAL CS4-7604-277 - SMT



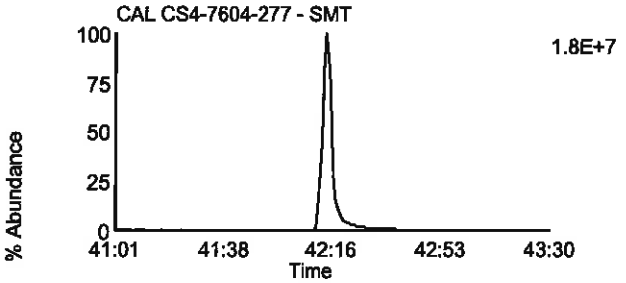
Data File: F130918B_06 G5 C11 - 469.7779
CAL CS4-7604-277 - SMT



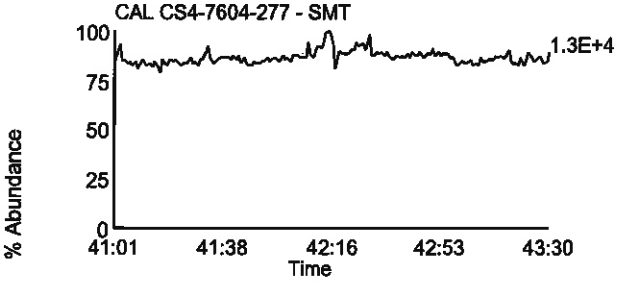
Data File: F130918B_06 G5 C12 - 471.7749
CAL CS4-7604-277 - SMT



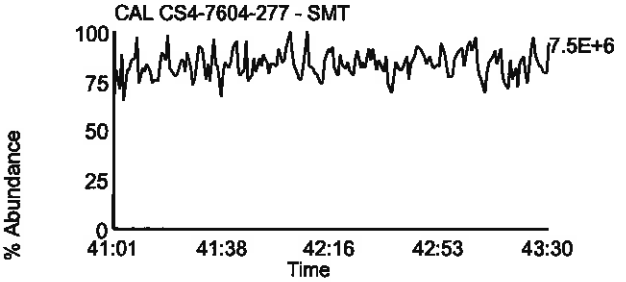
Data File: F130918B_06 G5 C12 - 471.7749
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G5 C13 - 513.6775
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G5 C2 - 430.9728
CAL CS4-7604-277 - SMT

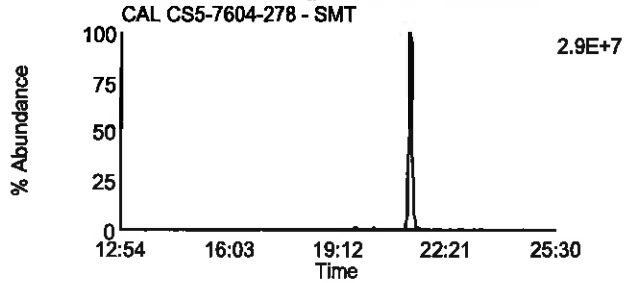


Homologue Group: Tetras

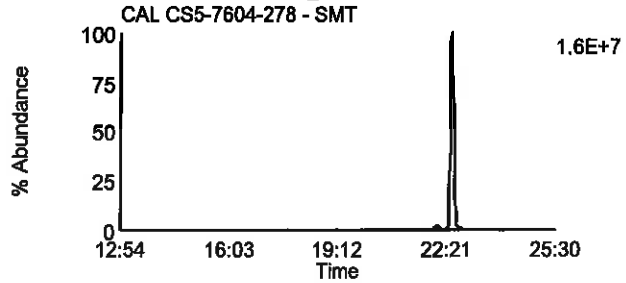
Data File Name: F130918B_05
Date Acquired: 9/18/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR05 (F)

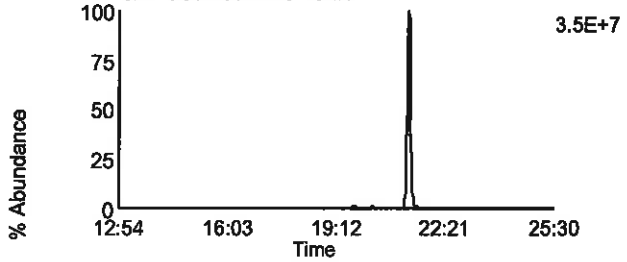
Data File: F130918B_05 G1 C1 - 303.9016
CAL CS5-7604-278 - SMT



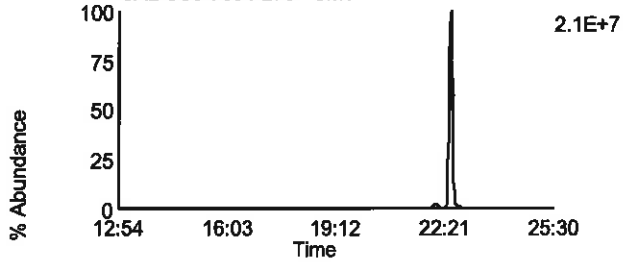
Data File: F130918B_05 G1 C7 - 319.8965
CAL CS5-7604-278 - SMT



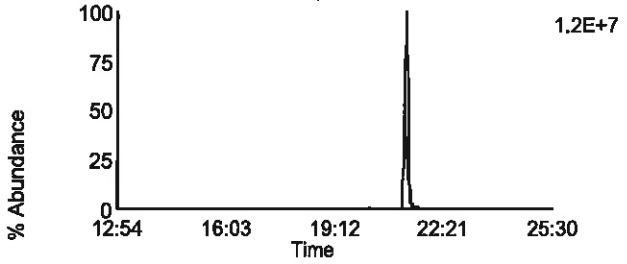
Data File: F130918B_05 G1 C2 - 305.8987
CAL CS5-7604-278 - SMT



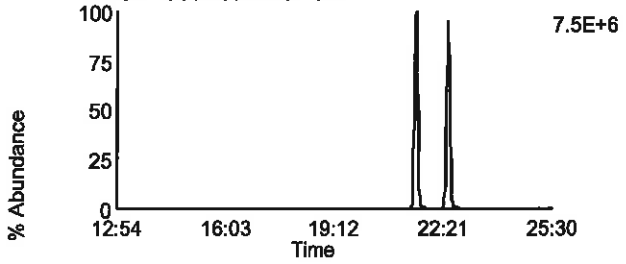
Data File: F130918B_05 G1 C8 - 321.8936
CAL CS5-7604-278 - SMT



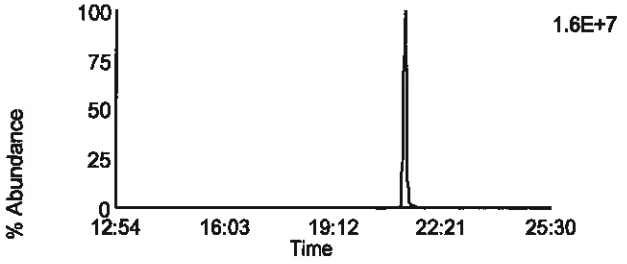
Data File: F130918B_05 G1 C3 - 315.9418
CAL CS5-7604-278 - SMT



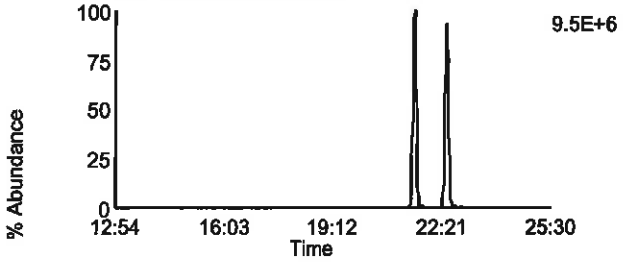
Data File: F130918B_05 G1 C10 - 331.9367
CAL CS5-7604-278 - SMT



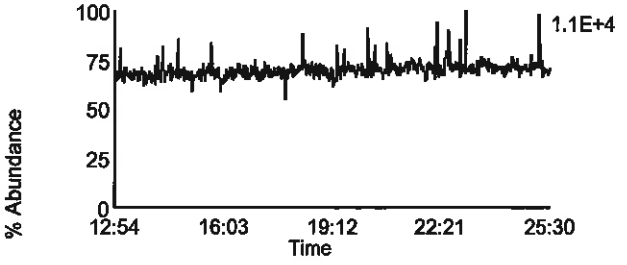
Data File: F130918B_05 G1 C4 - 317.9389
CAL CS5-7604-278 - SMT



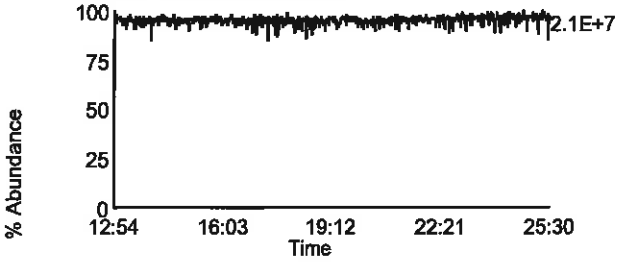
Data File: F130918B_05 G1 C11 - 333.9338
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G1 C14 - 375.8364
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G1 C5 - 318.9792
CAL CS5-7604-278 - SMT

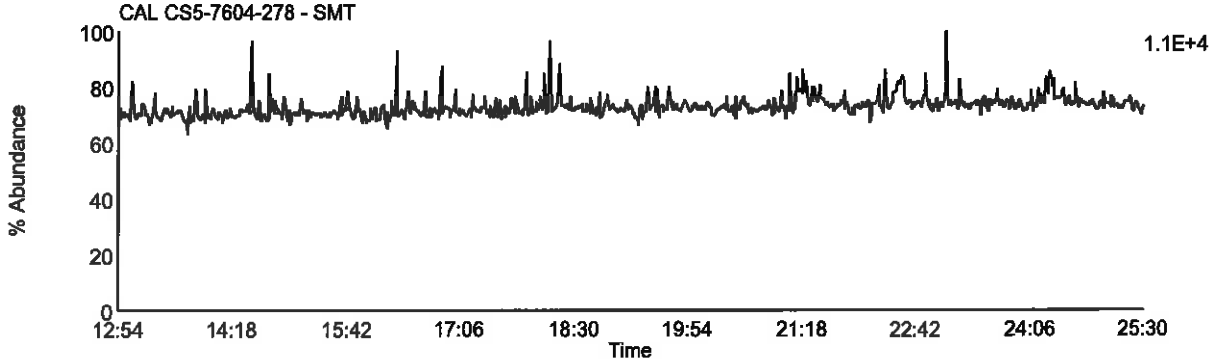


Homologue Group: Penta & Cleanup

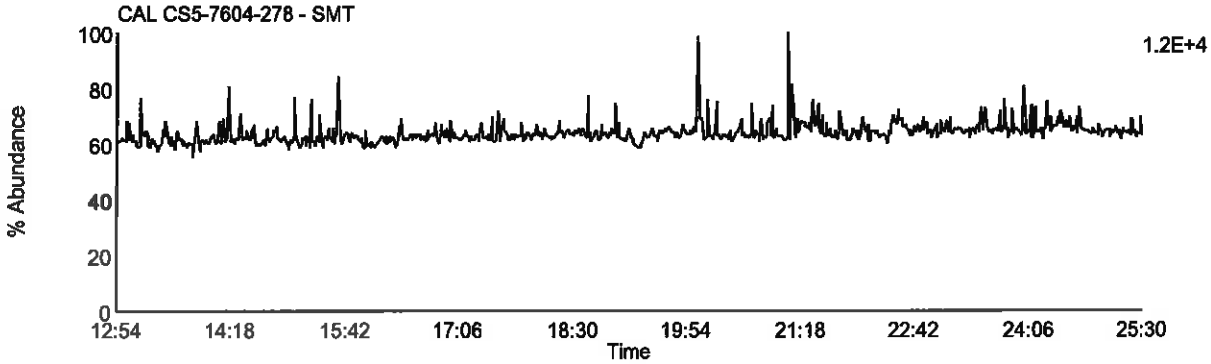
Data File Name: F130918B_05
Date Acquired: 9/18/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR05 (F)

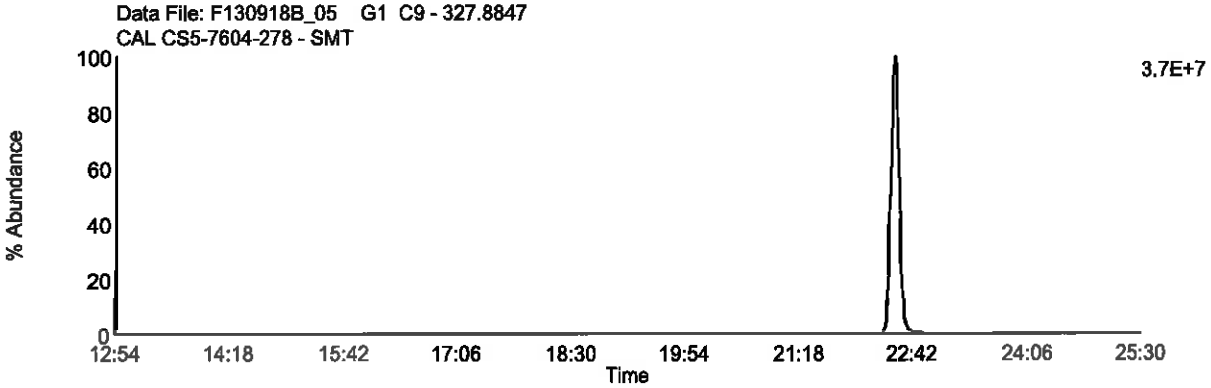
Data File: F130918B_05 G1 C12 - 339.8597
CAL CS5-7604-278 - SMT



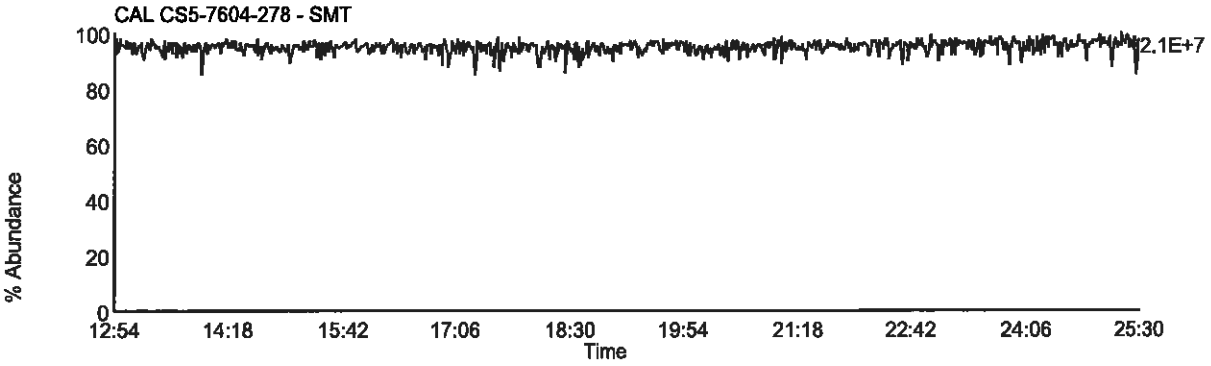
Data File: F130918B_05 G1 C13 - 341.8567
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G1 C9 - 327.8847
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G1 C5 - 318.9792
CAL CS5-7604-278 - SMT

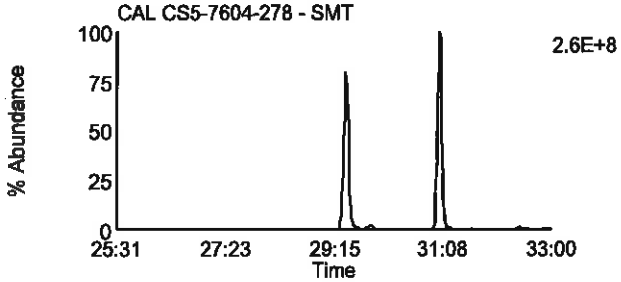


Homologue Group: Pentas

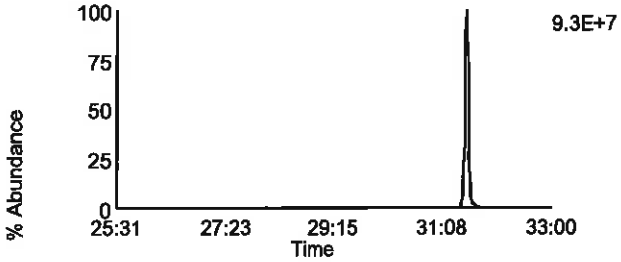
Data File Name: F130918B_05
Date Acquired: 9/18/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR05 (F)

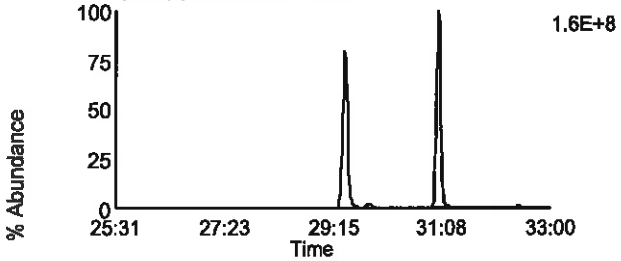
Data File: F130918B_05 G2 C1 - 339.8597
CAL CS5-7604-278 - SMT



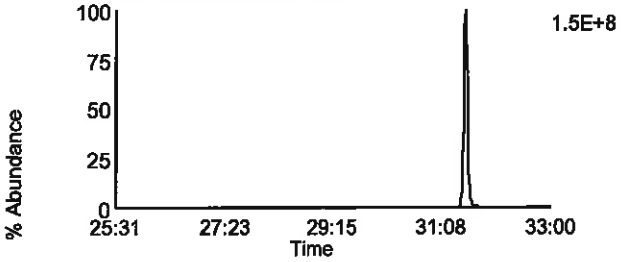
Data File: F130918B_05 G2 C4 - 353.8576
CAL CS5-7604-278 - SMT



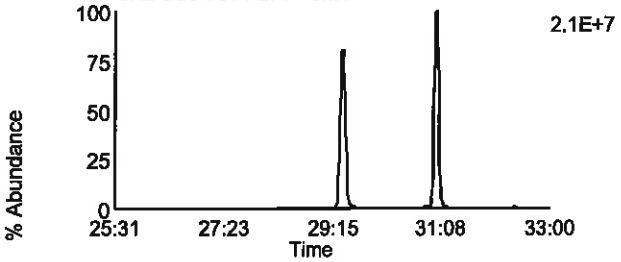
Data File: F130918B_05 G2 C2 - 341.8567
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G2 C8 - 355.8546
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G2 C3 - 351.8999
CAL CS5-7604-278 - SMT



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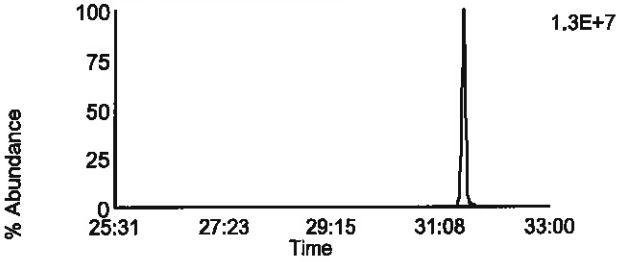
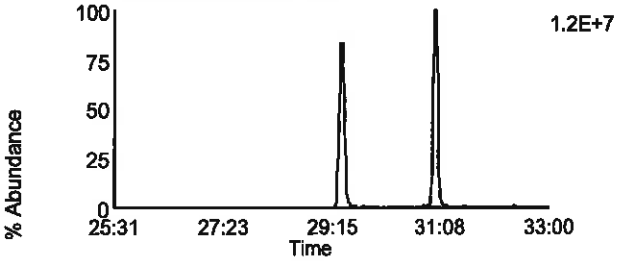
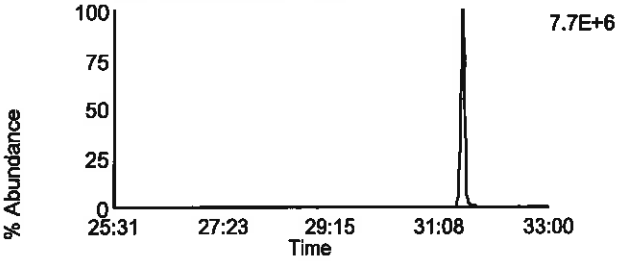
CAL CS5-7604-278 - SMT



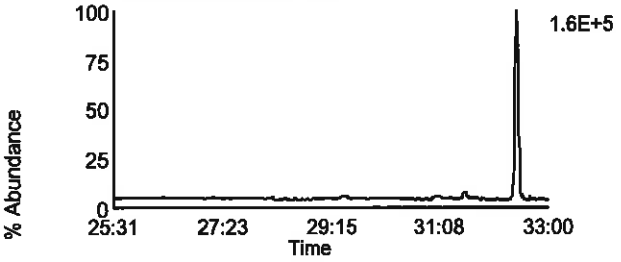
Data File: F130918B_05 G2 C5 - 353.8969
CAL CS5-7604-278 - SMT



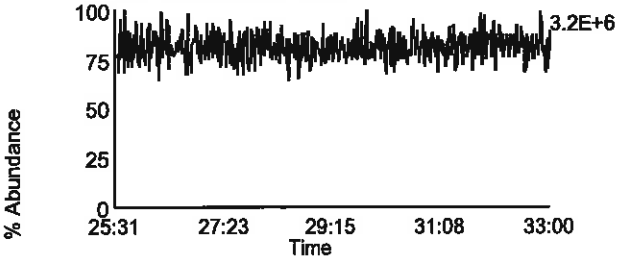
Data File: F130918B_05 G2 C11 - 369.8918
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G2 C12 - 409.7974
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G2 C6 - 354.9792
CAL CS5-7604-278 - SMT

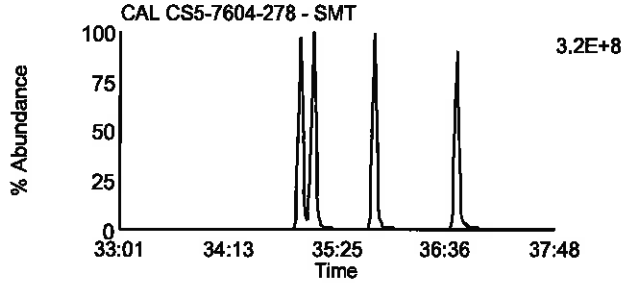


Homologue Group: Hexas

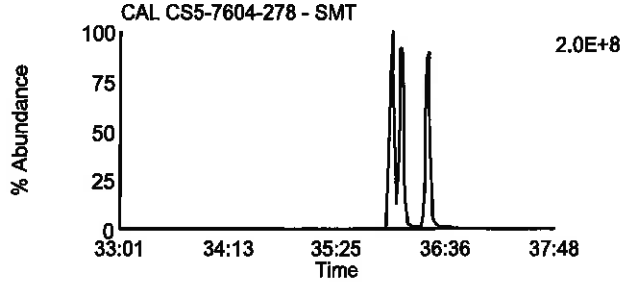
Data File Name: F130918B_05
Date Acquired: 9/18/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR05 (F)

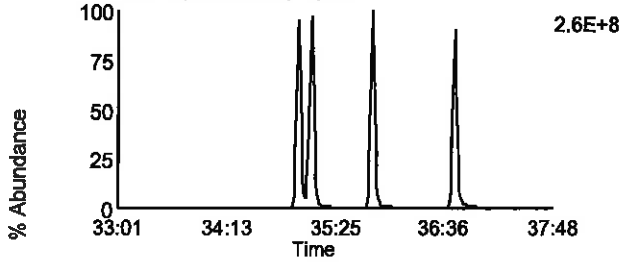
Data File: F130918B_05 G3 C1 - 373.8207
CAL CS5-7604-278 - SMT



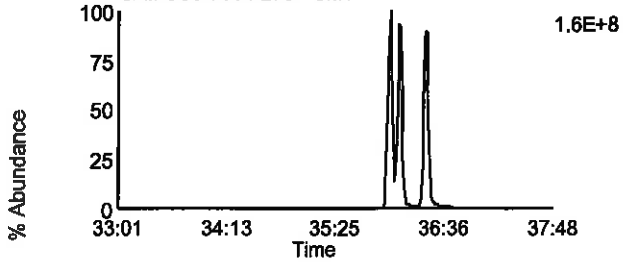
Data File: F130918B_05 G3 C7 - 389.8156
CAL CS5-7604-278 - SMT



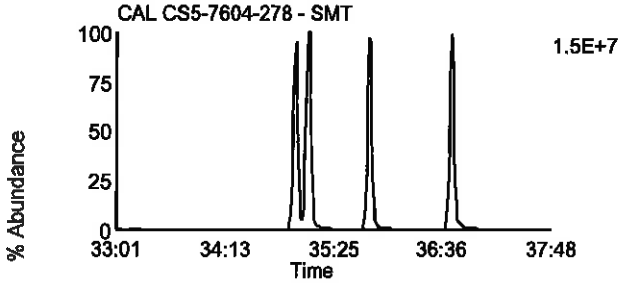
Data File: F130918B_05 G3 C2 - 375.8178
CAL CS5-7604-278 - SMT



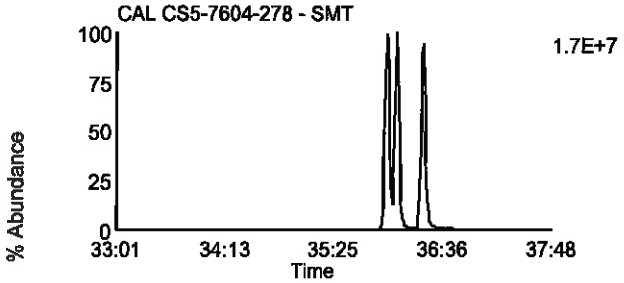
Data File: F130918B_05 G3 C8 - 391.8127
CAL CS5-7604-278 - SMT



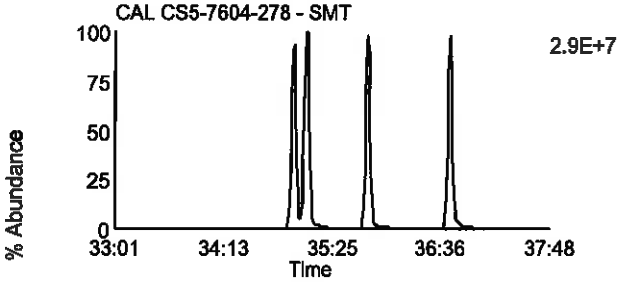
Data File: F130918B_05 G3 C5 - 383.8639
CAL CS5-7604-278 - SMT



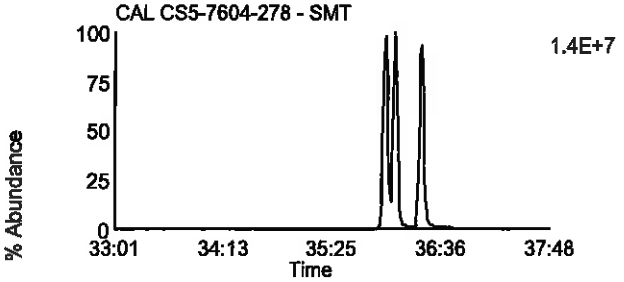
Data File: F130918B_05 G3 C9 - 401.8559
CAL CS5-7604-278 - SMT



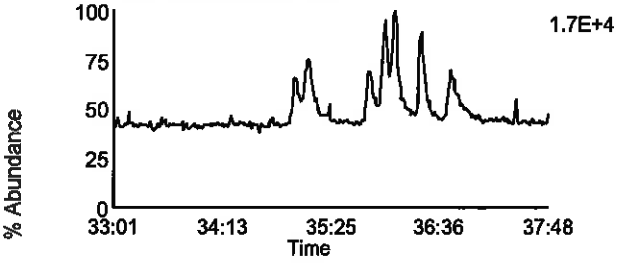
Data File: F130918B_05 G3 C6 - 385.861
CAL CS5-7604-278 - SMT



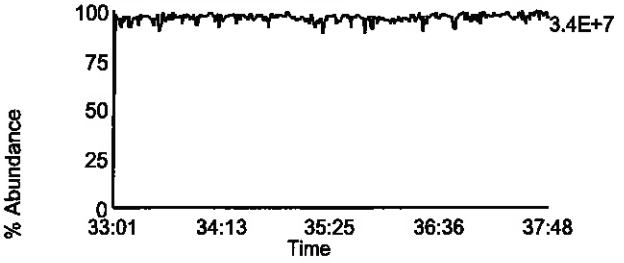
Data File: F130918B_05 G3 C10 - 403.8529
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G3 C11 - 445.7555
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G3 C3 - 380.976
CAL CS5-7604-278 - SMT

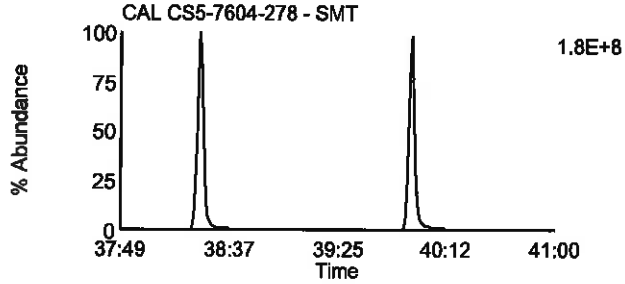


Homologue Group: Heptas

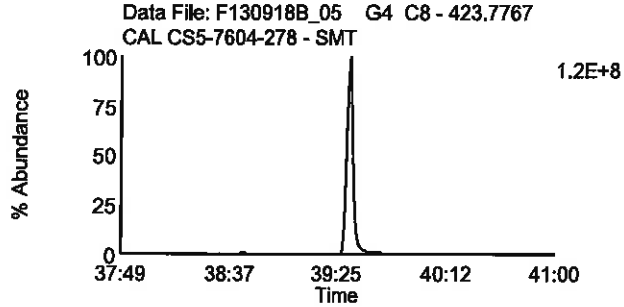
Data File Name: F130918B_05
Date Acquired: 9/18/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR05 (F)

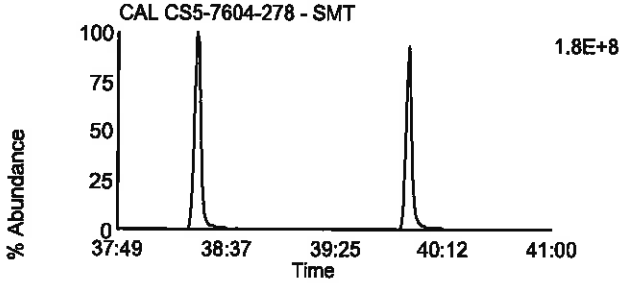
Data File: F130918B_05 G4 C3 - 407.7818
CAL CS5-7604-278 - SMT



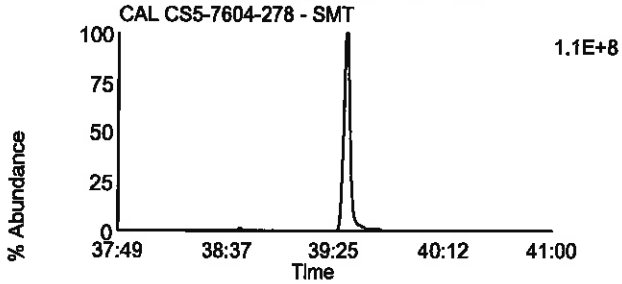
Data File: F130918B_05 G4 C8 - 423.7767
CAL CS5-7604-278 - SMT



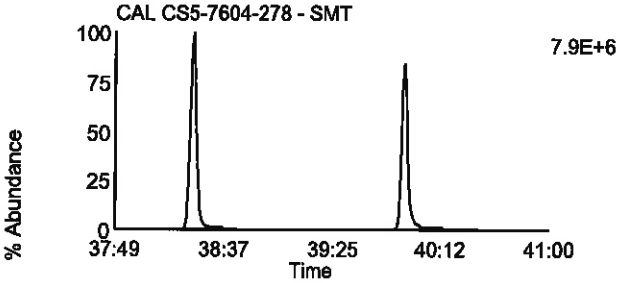
Data File: F130918B_05 G4 C4 - 409.7788
CAL CS5-7604-278 - SMT



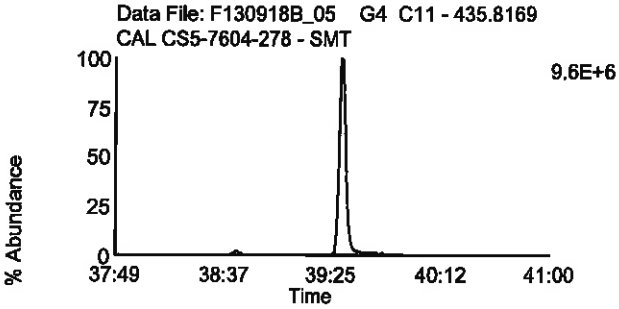
Data File: F130918B_05 G4 C9 - 425.7737
CAL CS5-7604-278 - SMT



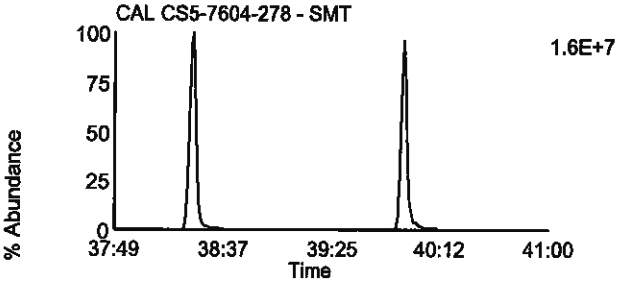
Data File: F130918B_05 G4 C6 - 417.825
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G4 C11 - 435.8169
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G4 C7 - 419.822
CAL CS5-7604-278 - SMT



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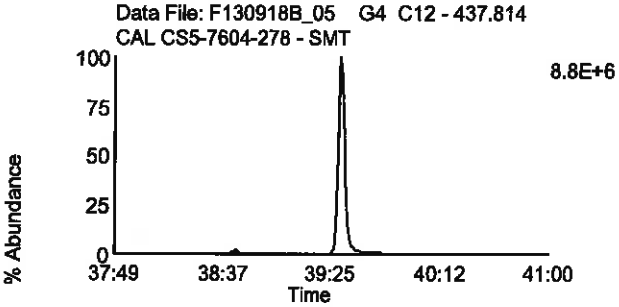
CAL CS5-7604-278 - SMT



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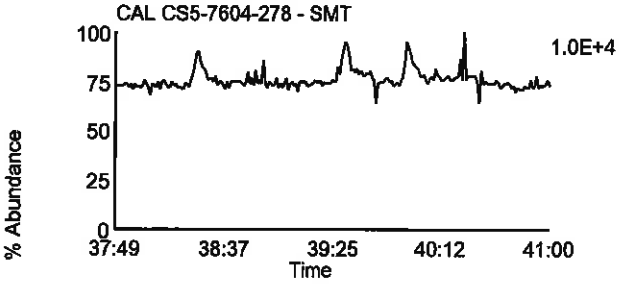
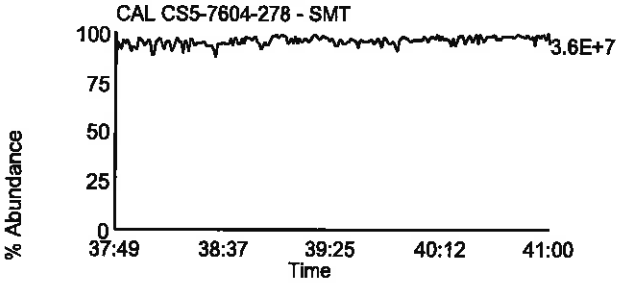
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G4 C1 - 380.976
CAL CS5-7604-278 - SMT

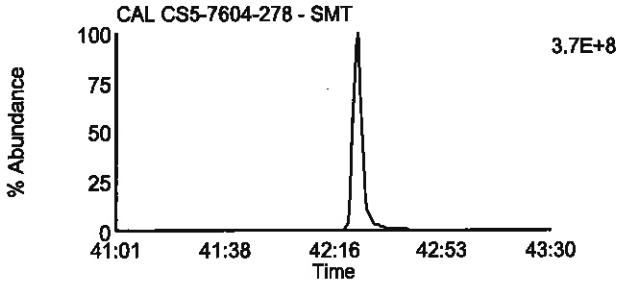


Homologue Group: Octas

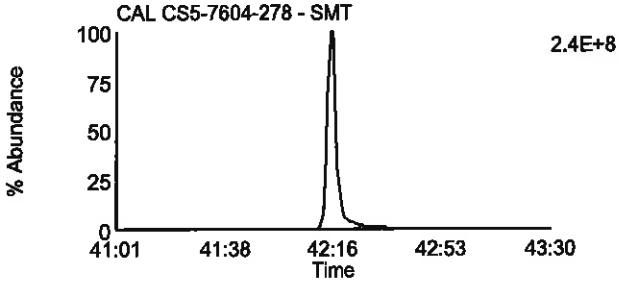
Data File Name: F130918B_05
Date Acquired: 9/18/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR05 (F)

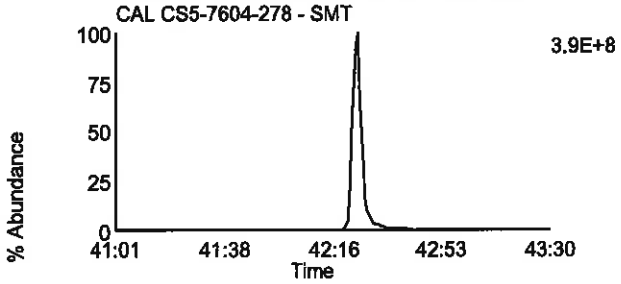
Data File: F130918B_05 G5 C4 - 441.7428
CAL CS5-7604-278 - SMT



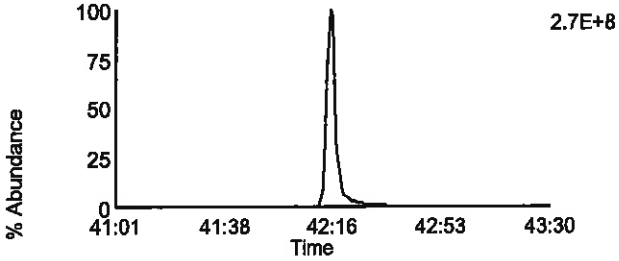
Data File: F130918B_05 G5 C8 - 457.7377
CAL CS5-7604-278 - SMT



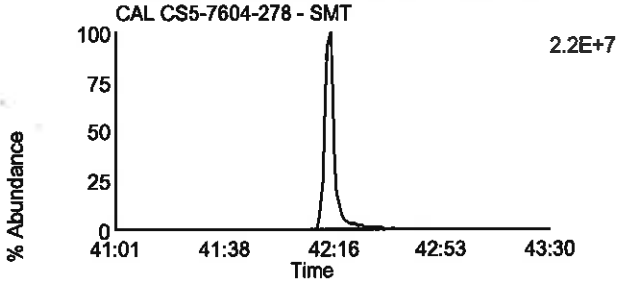
Data File: F130918B_05 G5 C5 - 443.7398
CAL CS5-7604-278 - SMT



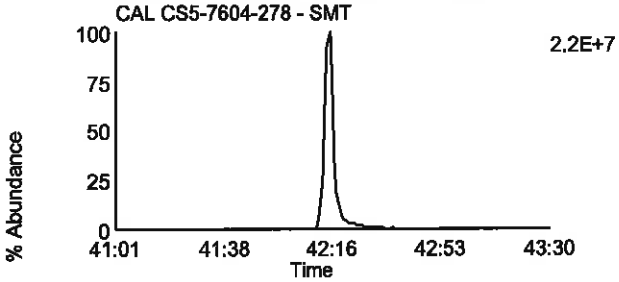
Data File: F130918B_05 G5 C9 - 459.7347
CAL CS5-7604-278 - SMT



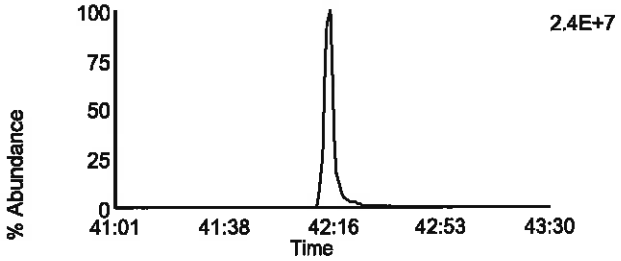
Data File: F130918B_05 G5 C11 - 469.7779
CAL CS5-7604-278 - SMT



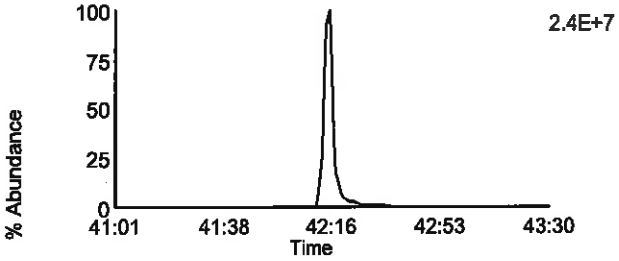
Data File: F130918B_05 G5 C11 - 469.7779
CAL CS5-7604-278 - SMT



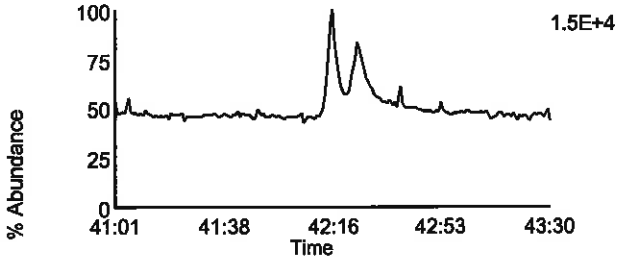
Data File: F130918B_05 G5 C12 - 471.7749
CAL CS5-7604-278 - SMT



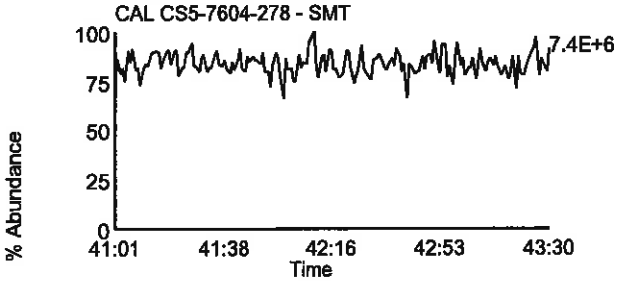
Data File: F130918B_05 G5 C12 - 471.7749
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G5 C13 - 513.6775
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G5 C2 - 430.9728
CAL CS5-7604-278 - SMT

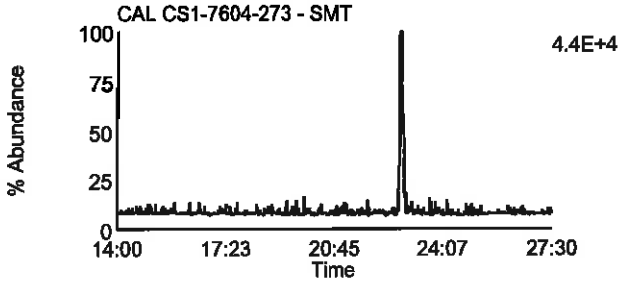


Homologue Group: Tetras

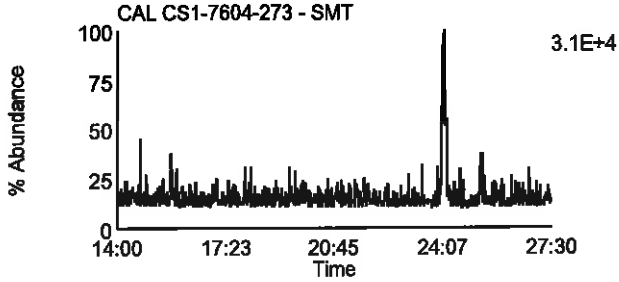
Data File Name: U130729B_11
Date Acquired: 7/29/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR06 (U)

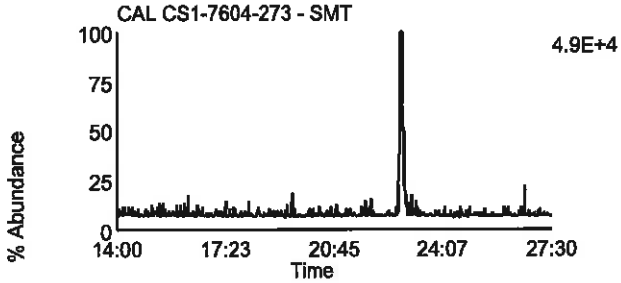
Data File: U130729B_11 G1 C1 - 303.9016
CAL CS1-7604-273 - SMT



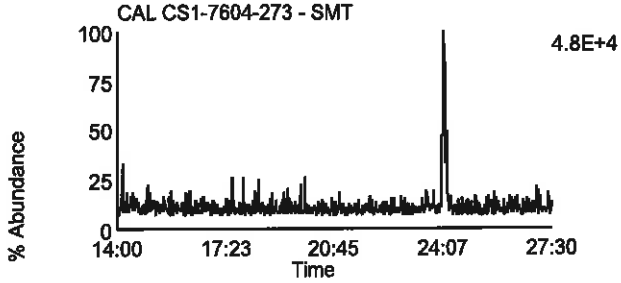
Data File: U130729B_11 G1 C7 - 319.8965
CAL CS1-7604-273 - SMT



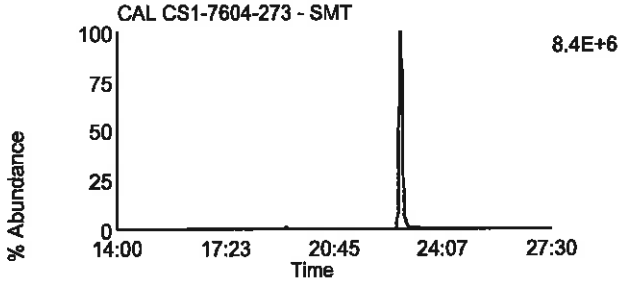
Data File: U130729B_11 G1 C2 - 305.8987
CAL CS1-7604-273 - SMT



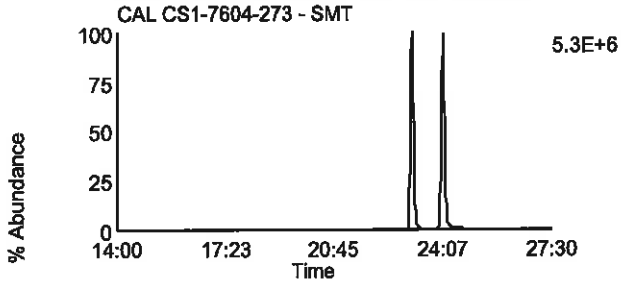
Data File: U130729B_11 G1 C8 - 321.8936
CAL CS1-7604-273 - SMT



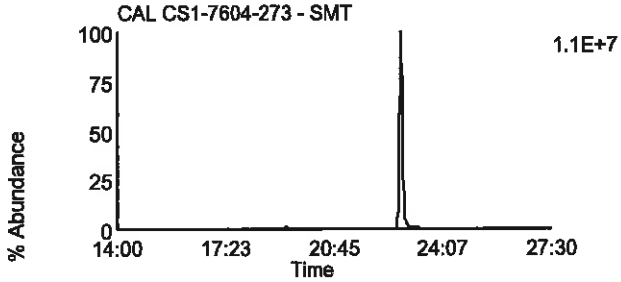
Data File: U130729B_11 G1 C3 - 315.9418
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G1 C10 - 331.9367
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G1 C4 - 317.9389
CAL CS1-7604-273 - SMT



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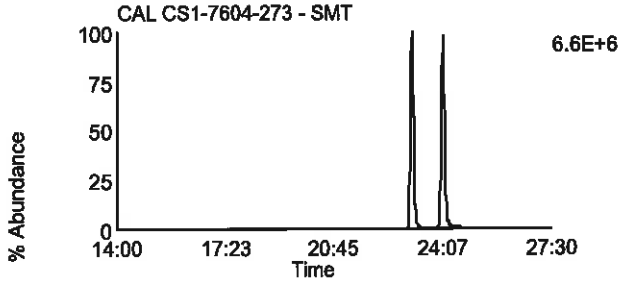
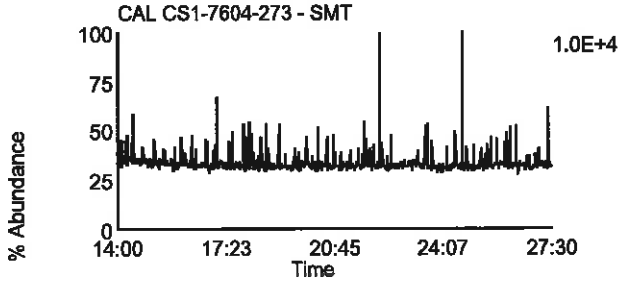
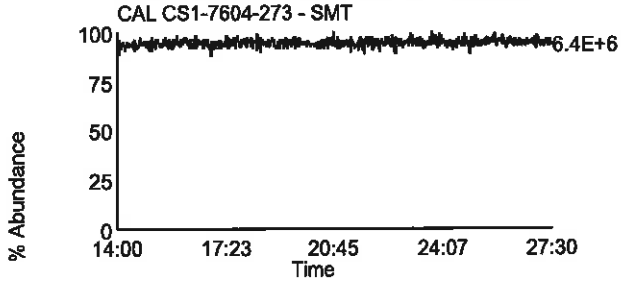
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G1 C14 - 375.8364
CAL CS1-7604-273 - SMT



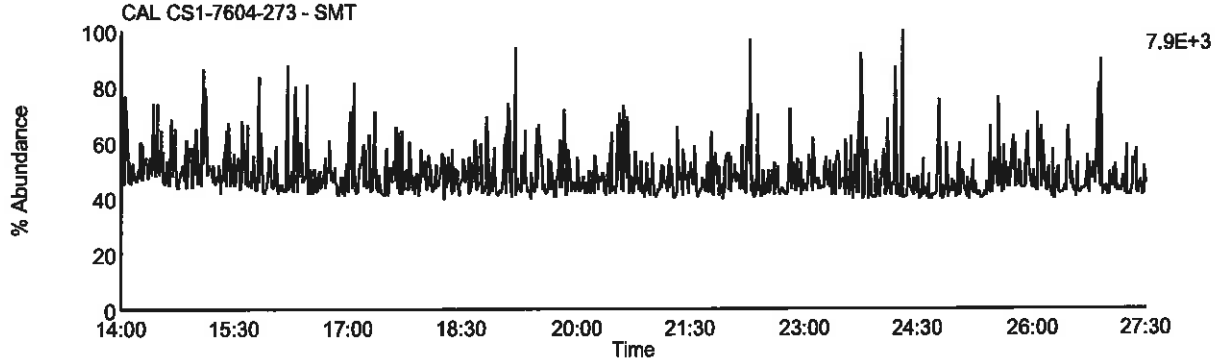
Data File: U130729B_11 G1 C5 - 318.9792
CAL CS1-7604-273 - SMT



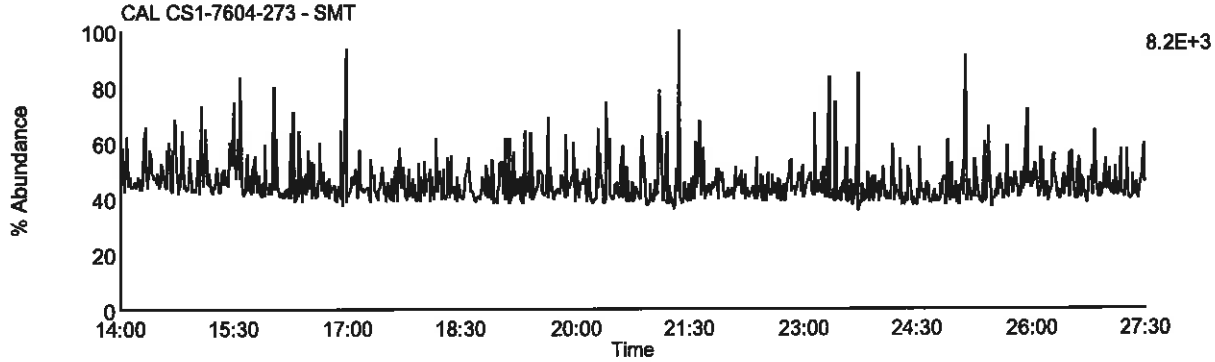
Homologue Group: Penta & Cleanup

Data File Name: U130729B_11	Lab Sample ID: CS1-7604-273
Date Acquired: 7/29/2013	Client Sample ID:
Sample Description: CAL CS1-7604-273 - SMT	Instrument: 10MSHR06 (U)

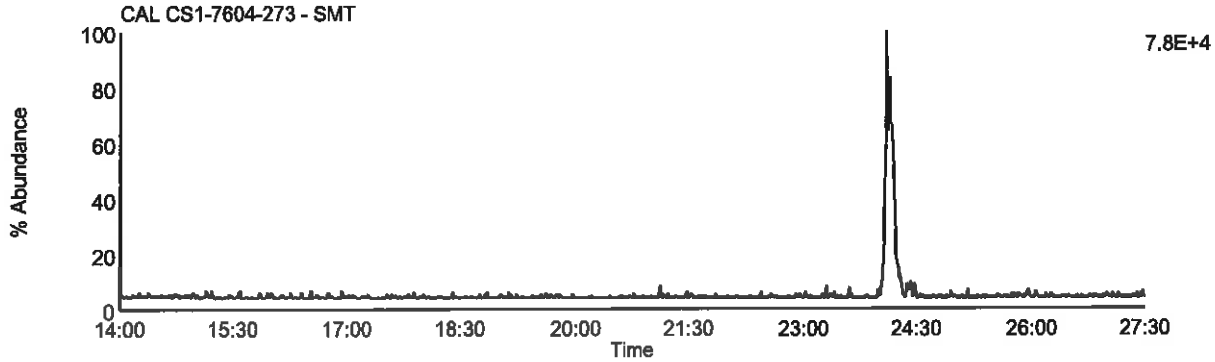
Data File: U130729B_11 G1 C12 - 339.8597
CAL CS1-7604-273 - SMT



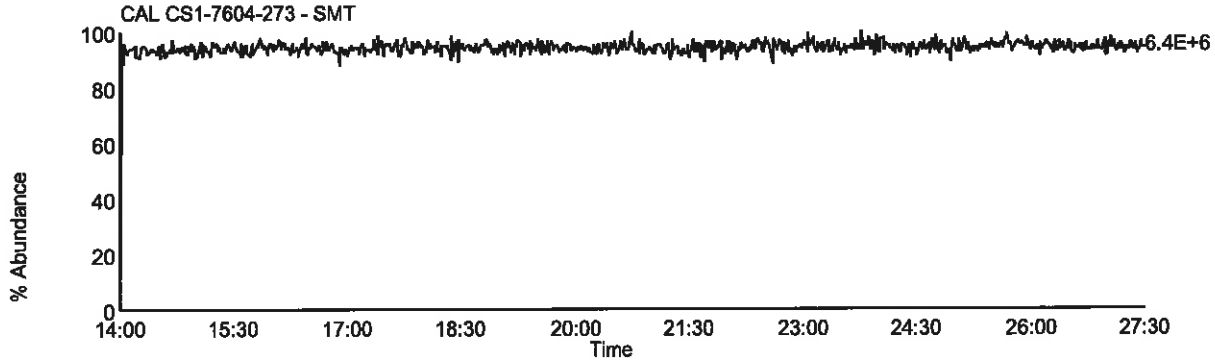
Data File: U130729B_11 G1 C13 - 341.8567
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G1 C9 - 327.8847
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G1 C5 - 318.9792
CAL CS1-7604-273 - SMT

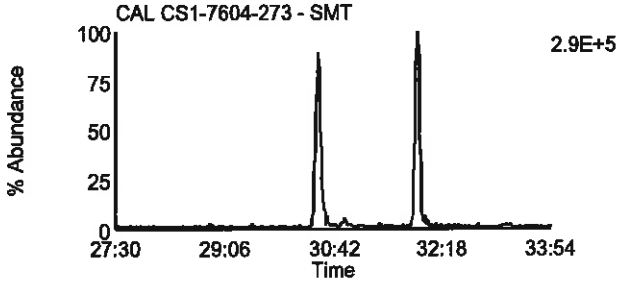


Homologue Group: Pentas

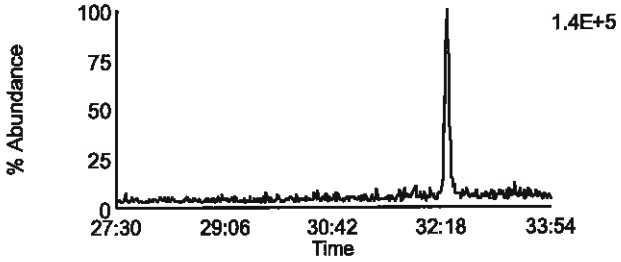
Data File Name: U130729B_11
Date Acquired: 7/29/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR06 (U)

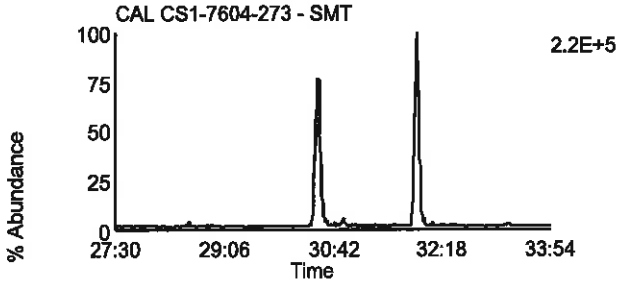
Data File: U130729B_11 G2 C1 - 339.8597
CAL CS1-7604-273 - SMT



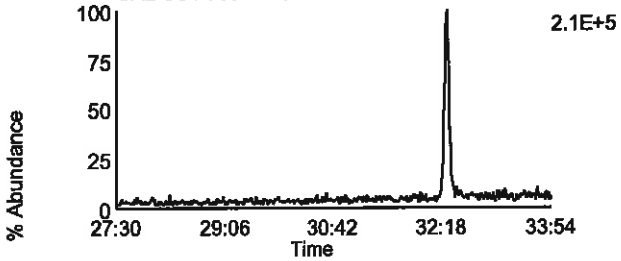
Data File: U130729B_11 G2 C4 - 353.8576
CAL CS1-7604-273 - SMT



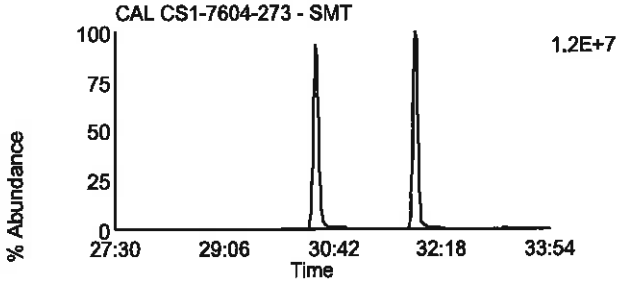
Data File: U130729B_11 G2 C2 - 341.8567
CAL CS1-7604-273 - SMT



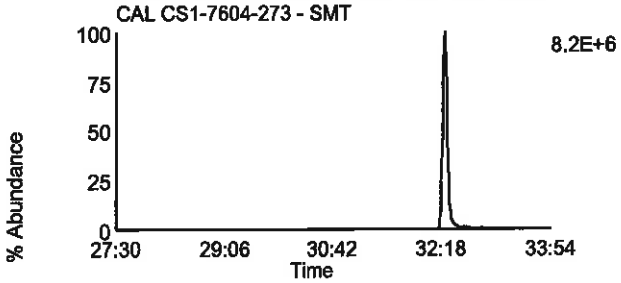
Data File: U130729B_11 G2 C8 - 355.8546
CAL CS1-7604-273 - SMT



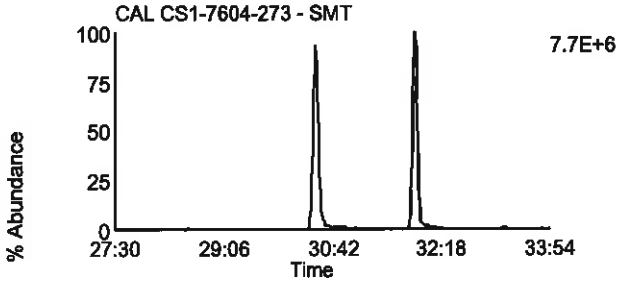
Data File: U130729B_11 G2 C3 - 351.8999
CAL CS1-7604-273 - SMT



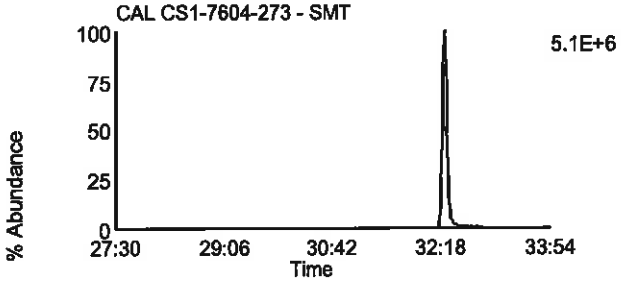
Data File: U130729B_11 G2 C10 - 367.8948
CAL CS1-7604-273 - SMT



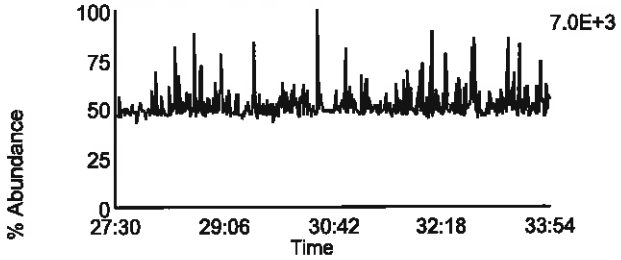
Data File: U130729B_11 G2 C5 - 353.8969
CAL CS1-7604-273 - SMT



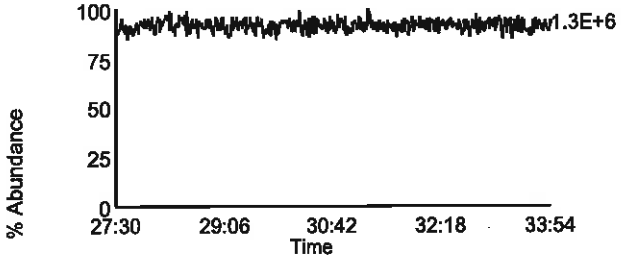
Data File: U130729B_11 G2 C11 - 369.8918
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G2 C12 - 409.7974
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G2 C6 - 354.9792
CAL CS1-7604-273 - SMT

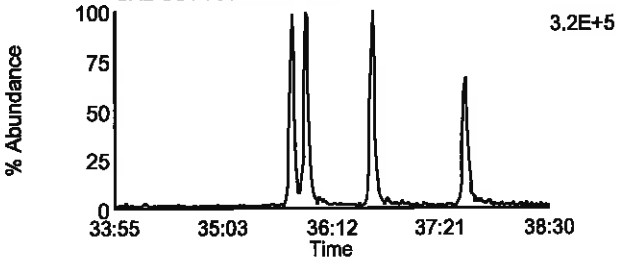


Homologue Group: Hexas

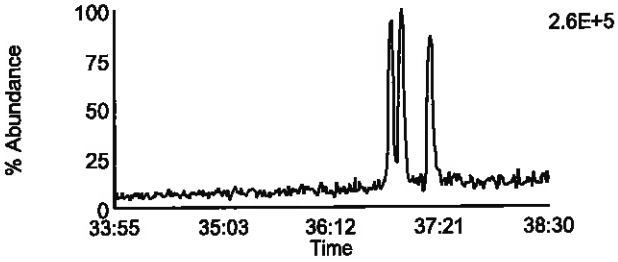
Data File Name: U130729B_11
Date Acquired: 7/29/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR06 (U)

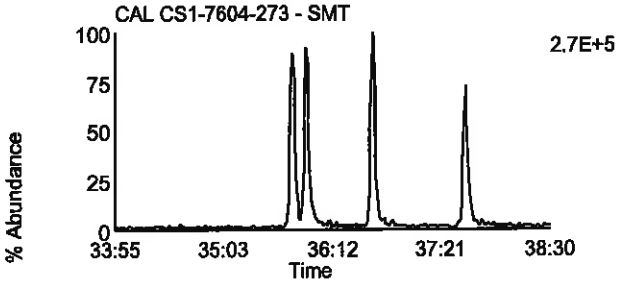
Data File: U130729B_11 G3 C1 - 373.8207
CAL CS1-7604-273 - SMT



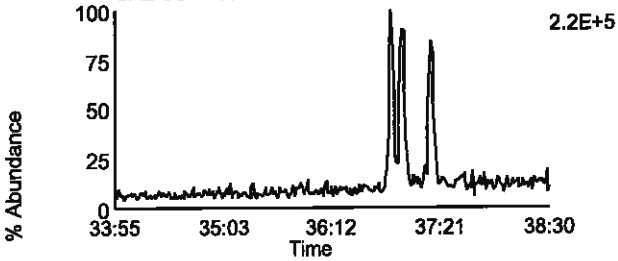
Data File: U130729B_11 G3 C7 - 389.8156
CAL CS1-7604-273 - SMT



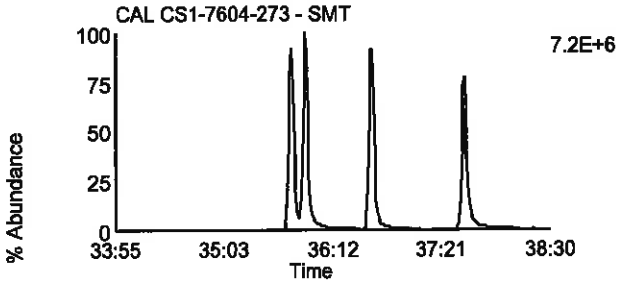
Data File: U130729B_11 G3 C2 - 375.8178
CAL CS1-7604-273 - SMT



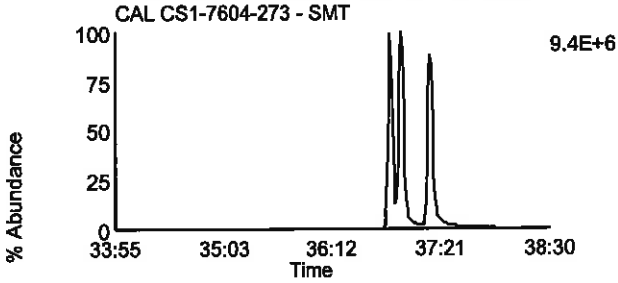
Data File: U130729B_11 G3 C8 - 391.8127
CAL CS1-7604-273 - SMT



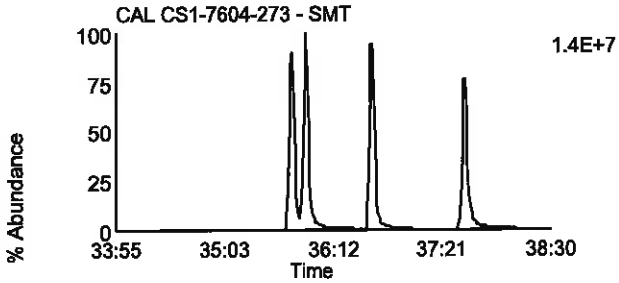
Data File: U130729B_11 G3 C5 - 383.8639
CAL CS1-7604-273 - SMT



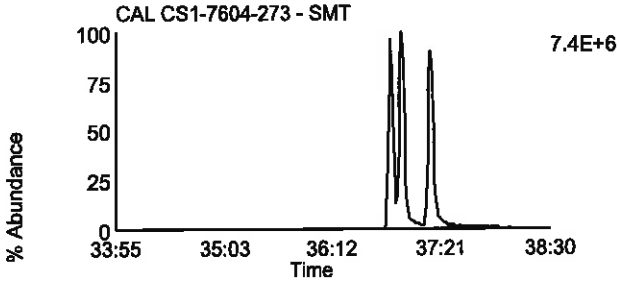
Data File: U130729B_11 G3 C9 - 401.8559
CAL CS1-7604-273 - SMT



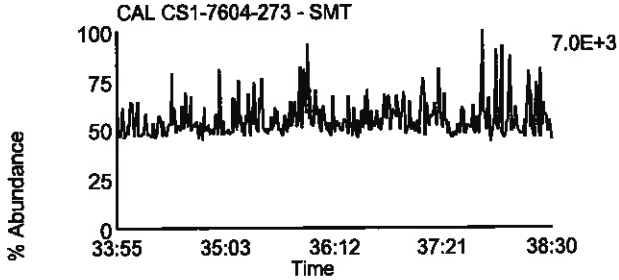
Data File: U130729B_11 G3 C6 - 385.861
CAL CS1-7604-273 - SMT



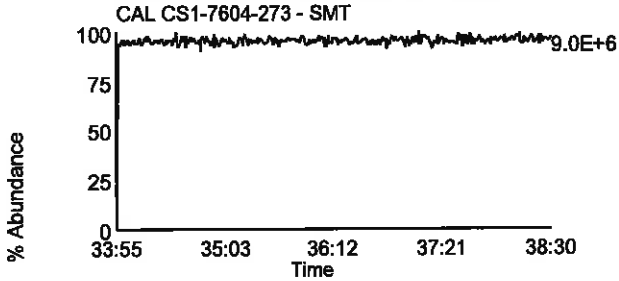
Data File: U130729B_11 G3 C10 - 403.8529
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G3 C11 - 445.7555
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G3 C3 - 380.976
CAL CS1-7604-273 - SMT

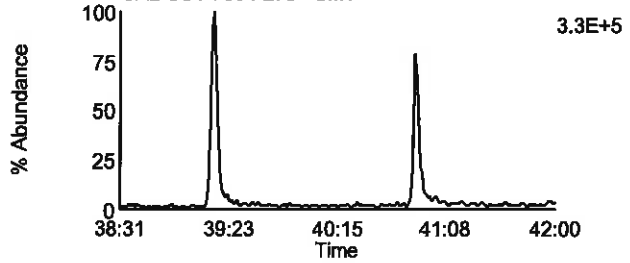


Homologue Group: Heptas

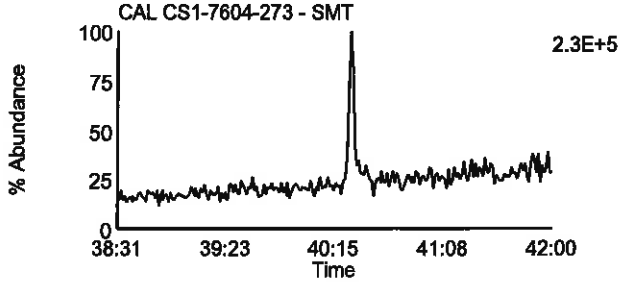
Data File Name: U130729B_11
Date Acquired: 7/29/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR06 (U)

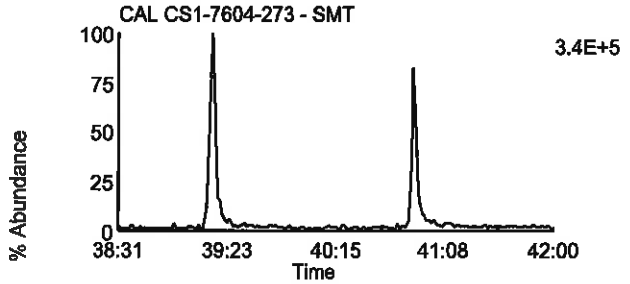
Data File: U130729B_11 G4 C3 - 407.7818
CAL CS1-7604-273 - SMT



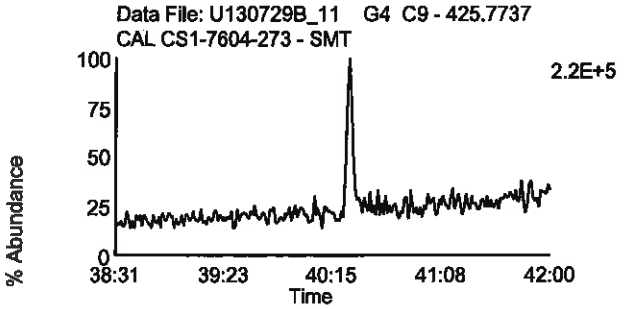
Data File: U130729B_11 G4 C8 - 423.7767
CAL CS1-7604-273 - SMT



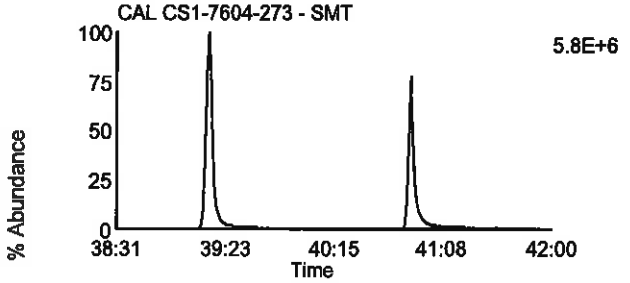
Data File: U130729B_11 G4 C4 - 409.7788
CAL CS1-7604-273 - SMT



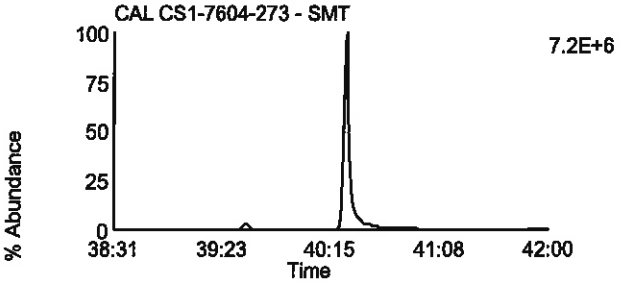
Data File: U130729B_11 G4 C9 - 425.7737
CAL CS1-7604-273 - SMT



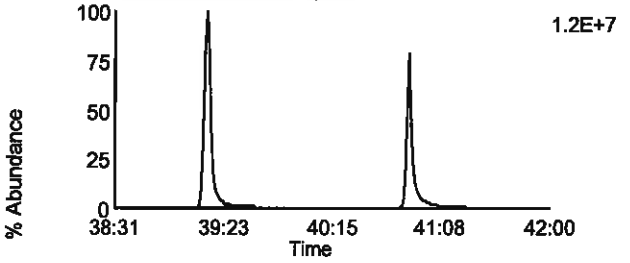
Data File: U130729B_11 G4 C6 - 417.825
CAL CS1-7604-273 - SMT



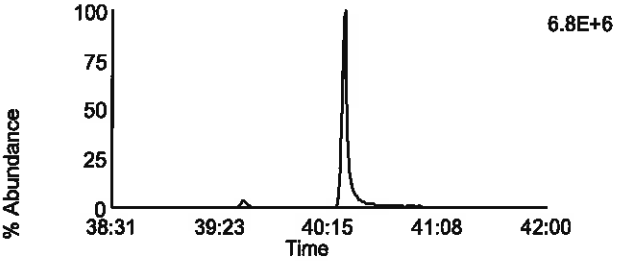
Data File: U130729B_11 G4 C11 - 435.8169
CAL CS1-7604-273 - SMT



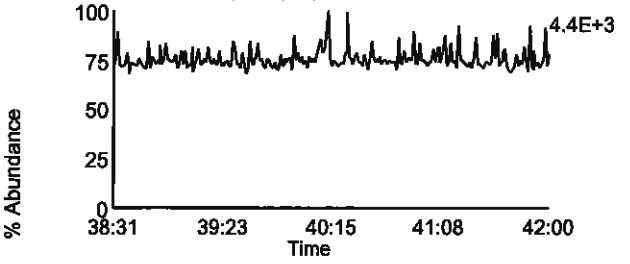
Data File: U130729B_11 G4 C7 - 419.822
CAL CS1-7604-273 - SMT



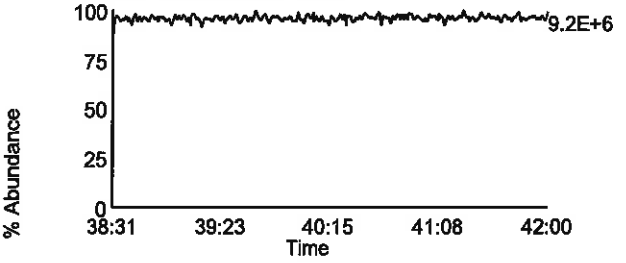
Data File: U130729B_11 G4 C12 - 437.814
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G4 C13 - 479.7165
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G4 C1 - 380.976
CAL CS1-7604-273 - SMT

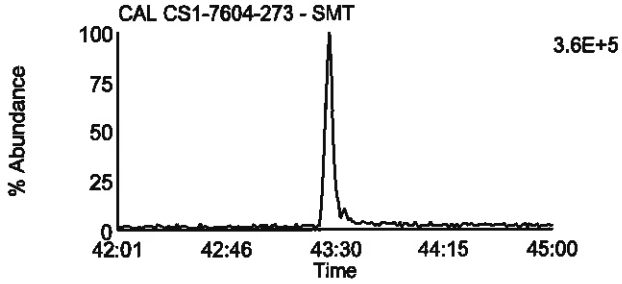


Homologue Group: Octas

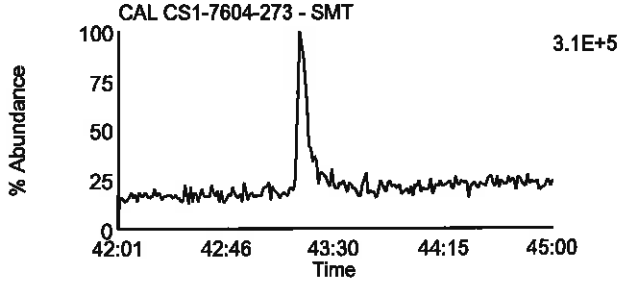
Data File Name: U130729B_11
Date Acquired: 7/29/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR06 (U)

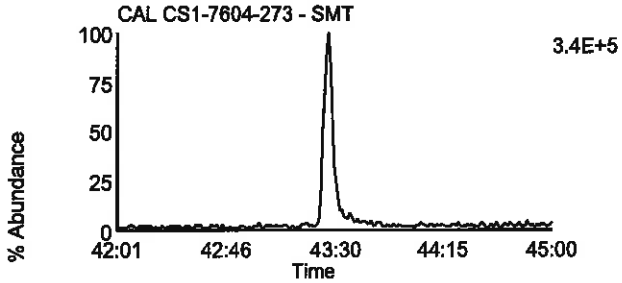
Data File: U130729B_11 G5 C4 - 441.7428
CAL CS1-7604-273 - SMT



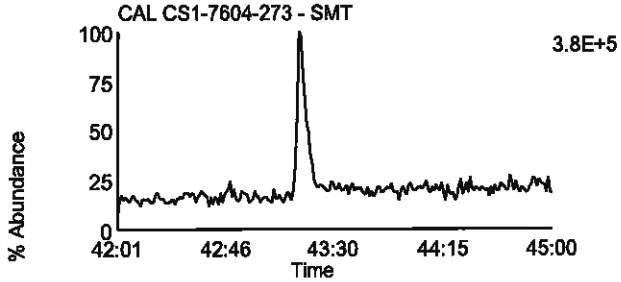
Data File: U130729B_11 G5 C8 - 457.7377
CAL CS1-7604-273 - SMT



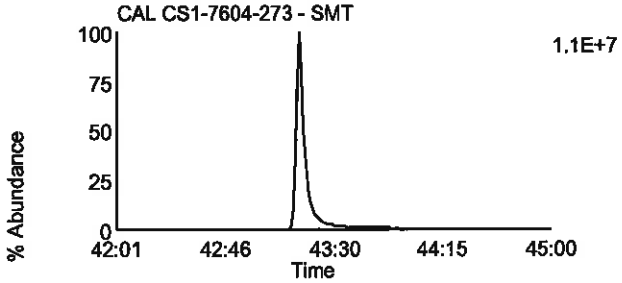
Data File: U130729B_11 G5 C5 - 443.7398
CAL CS1-7604-273 - SMT



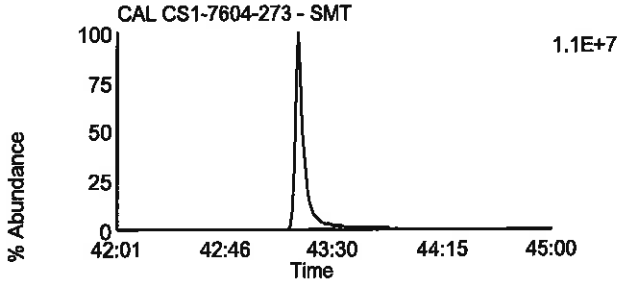
Data File: U130729B_11 G5 C9 - 459.7347
CAL CS1-7604-273 - SMT



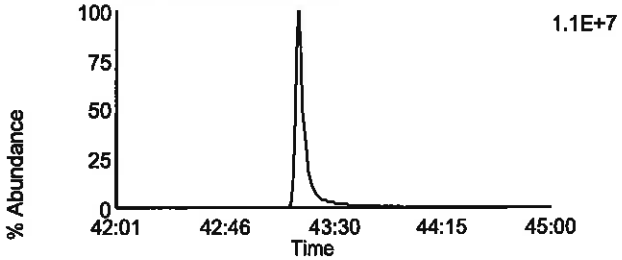
Data File: U130729B_11 G5 C11 - 469.7779
CAL CS1-7604-273 - SMT



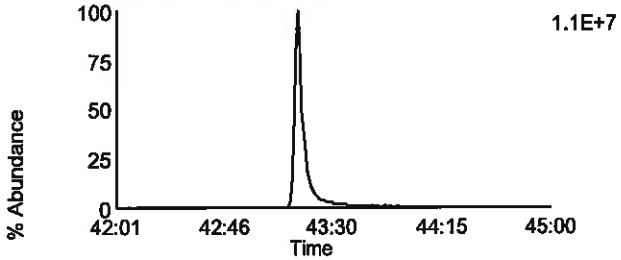
Data File: U130729B_11 G5 C11 - 469.7779
CAL CS1-7604-273 - SMT



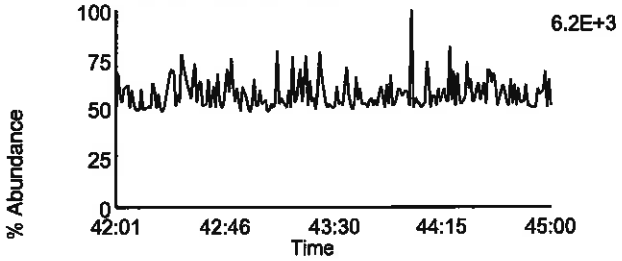
Data File: U130729B_11 G5 C12 - 471.7749
CAL CS1-7604-273 - SMT



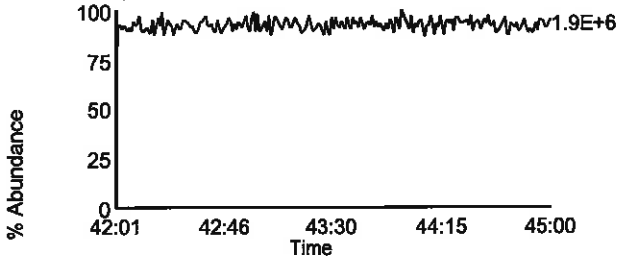
Data File: U130729B_11 G5 C12 - 471.7749
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G5 C13 - 513.6775
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G5 C2 - 430.9728
CAL CS1-7604-273 - SMT

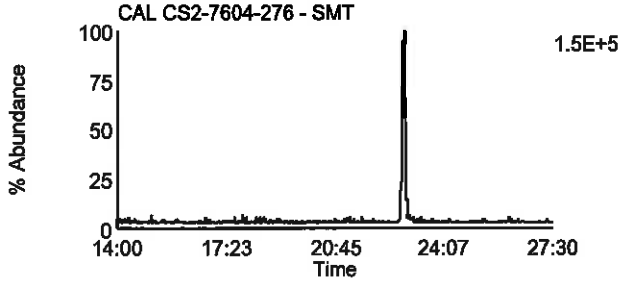


Homologue Group: Tetras

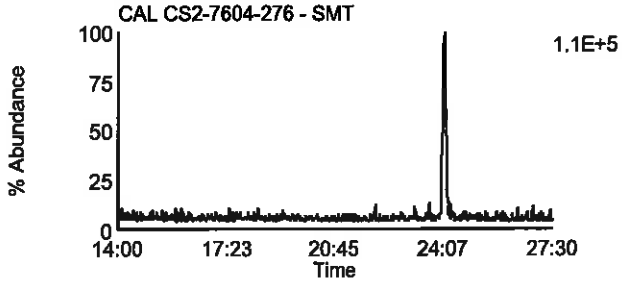
Data File Name: U130729B_10
Date Acquired: 7/29/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR06 (U)

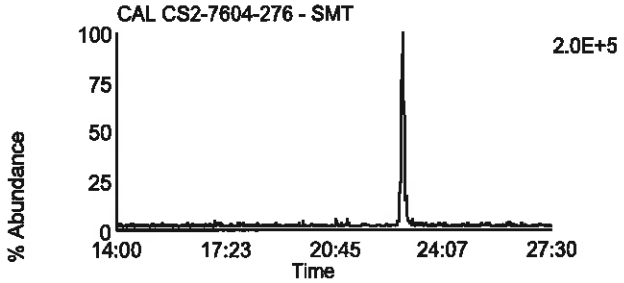
Data File: U130729B_10 G1 C1 - 303.9016
CAL CS2-7604-276 - SMT



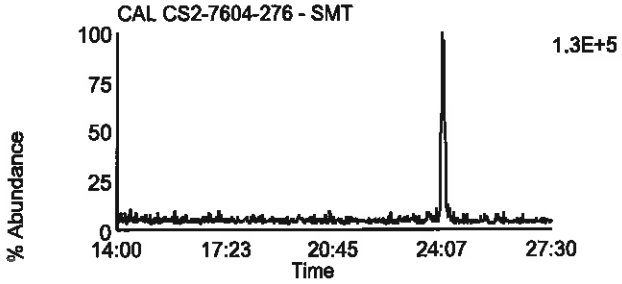
Data File: U130729B_10 G1 C7 - 319.8965
CAL CS2-7604-276 - SMT



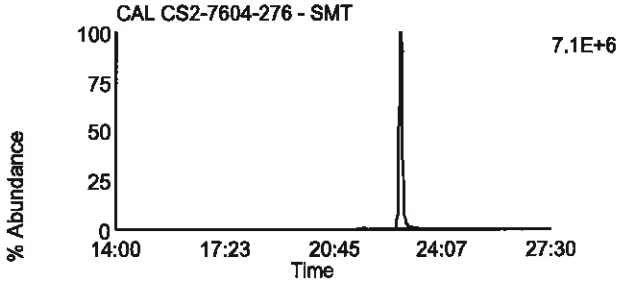
Data File: U130729B_10 G1 C2 - 305.8987
CAL CS2-7604-276 - SMT



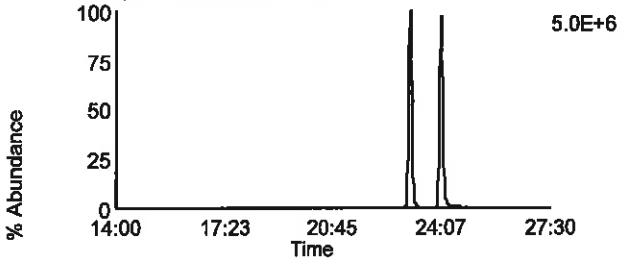
Data File: U130729B_10 G1 C8 - 321.8936
CAL CS2-7604-276 - SMT



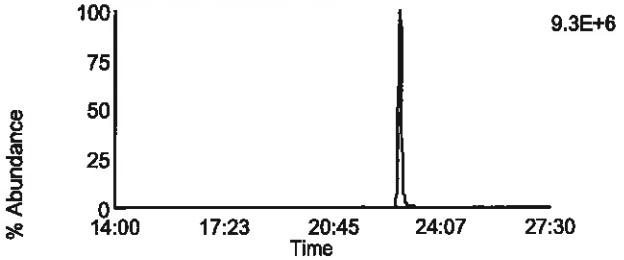
Data File: U130729B_10 G1 C3 - 315.9418
CAL CS2-7604-276 - SMT



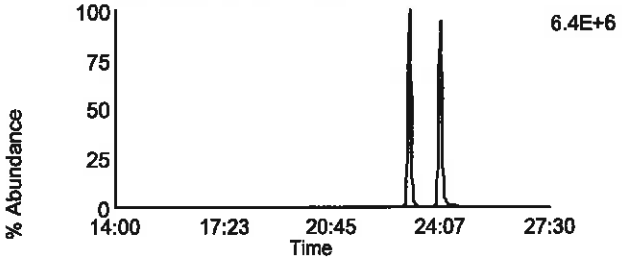
Data File: U130729B_10 G1 C10 - 331.9367
CAL CS2-7604-276 - SMT



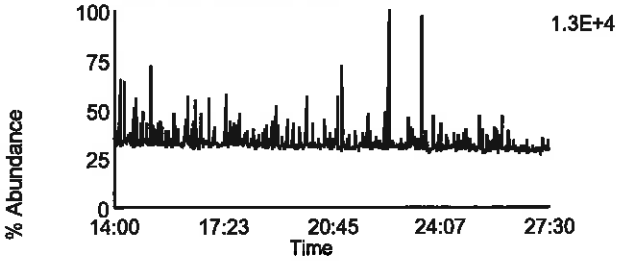
Data File: U130729B_10 G1 C4 - 317.9389
CAL CS2-7604-276 - SMT



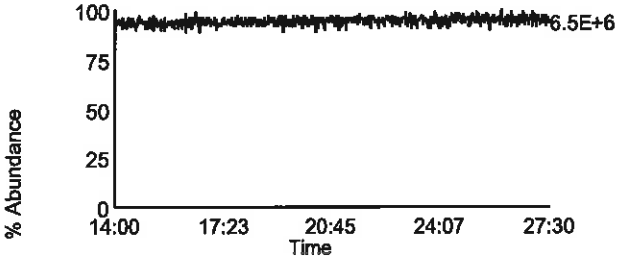
Data File: U130729B_10 G1 C11 - 333.9338
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G1 C14 - 375.8364
CAL CS2-7604-276 - SMT



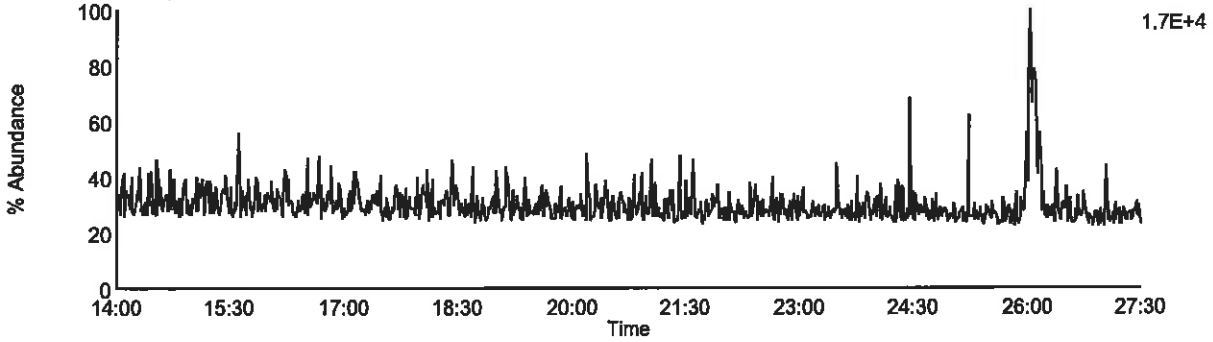
Data File: U130729B_10 G1 C5 - 318.9792
CAL CS2-7604-276 - SMT



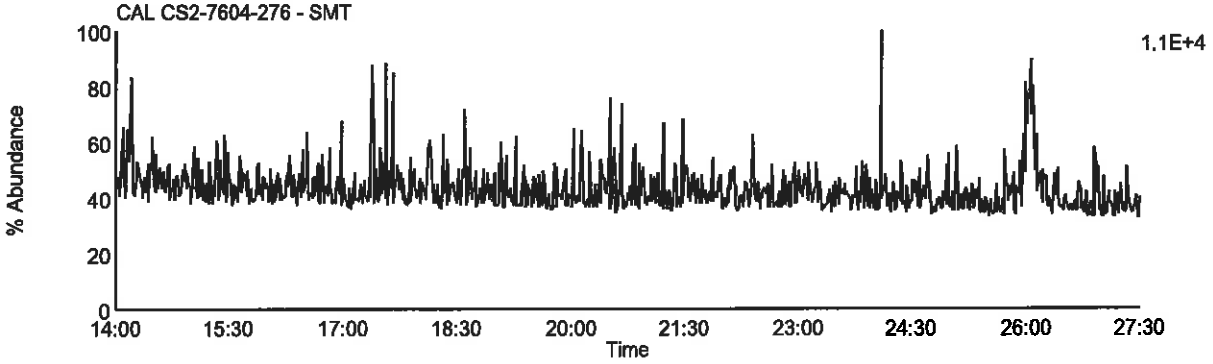
Homologue Group: Penta & Cleanup

Data File Name: U130729B_10	Lab Sample ID: CS2-7604-276
Date Acquired: 7/29/2013	Client Sample ID:
Sample Description: CAL CS2-7604-276 - SMT	Instrument: 10MSHR06 (U)

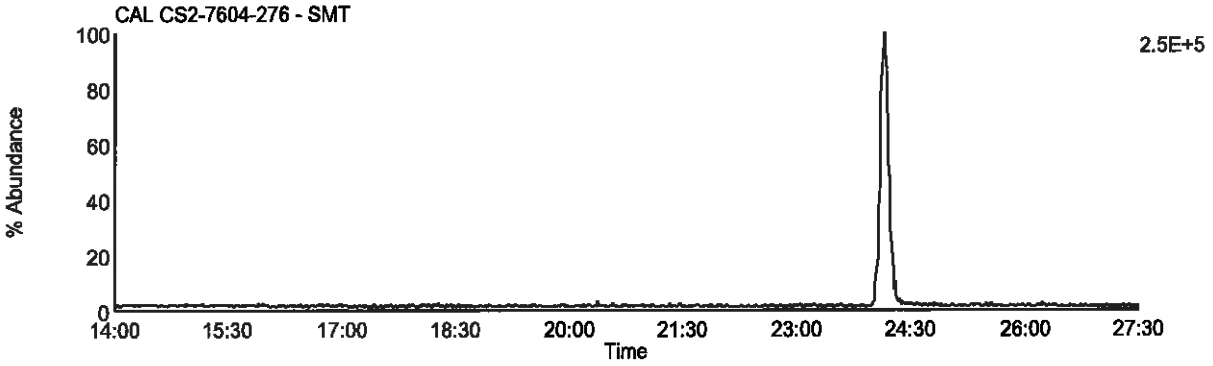
Data File: U130729B_10 G1 C12 - 339.8597
CAL CS2-7604-276 - SMT



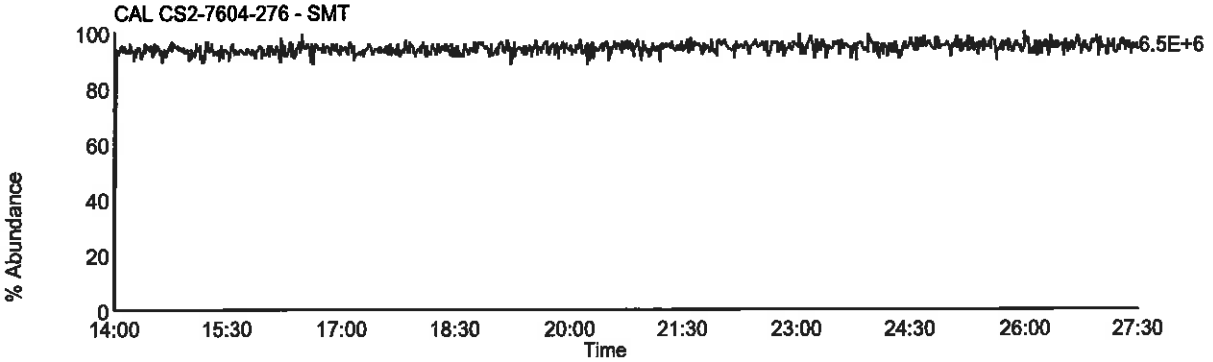
Data File: U130729B_10 G1 C13 - 341.8567
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G1 C9 - 327.8847
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G1 C5 - 318.9792
CAL CS2-7604-276 - SMT

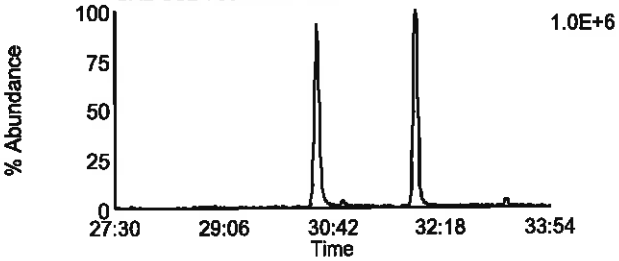


Homologue Group: Pentas

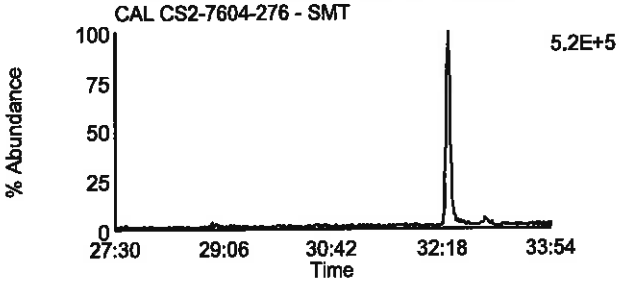
Data File Name: U130729B_10
Date Acquired: 7/29/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR06 (U)

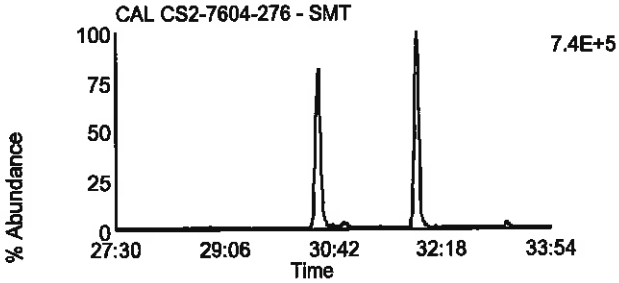
Data File: U130729B_10 G2 C1 - 339.8597
CAL CS2-7604-276 - SMT



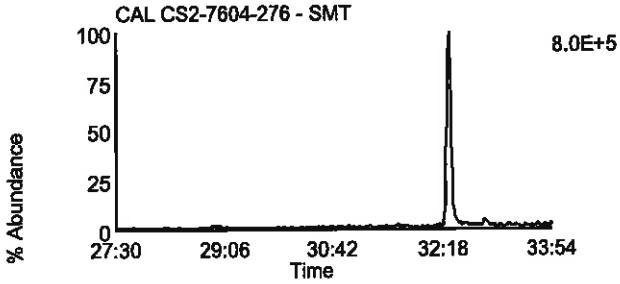
Data File: U130729B_10 G2 C4 - 353.8576
CAL CS2-7604-276 - SMT



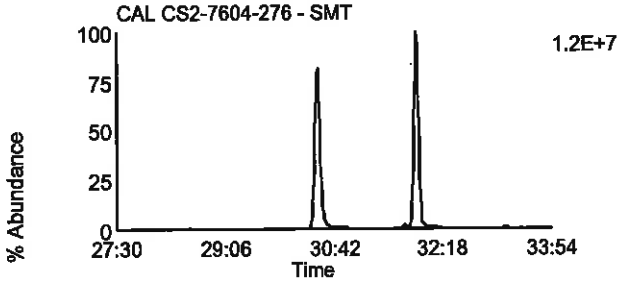
Data File: U130729B_10 G2 C2 - 341.8567
CAL CS2-7604-276 - SMT



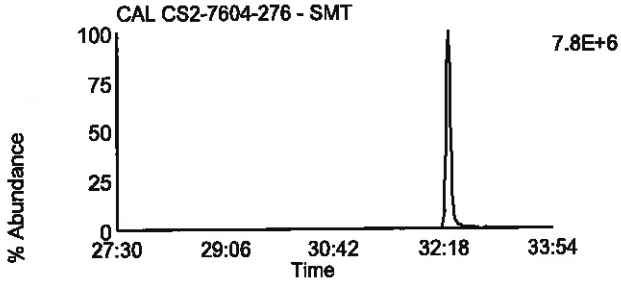
Data File: U130729B_10 G2 C8 - 355.8546
CAL CS2-7604-276 - SMT



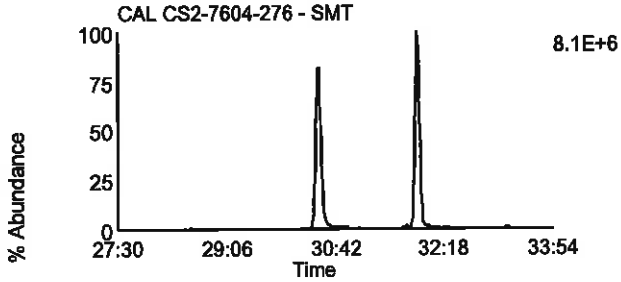
Data File: U130729B_10 G2 C3 - 351.8999
CAL CS2-7604-276 - SMT



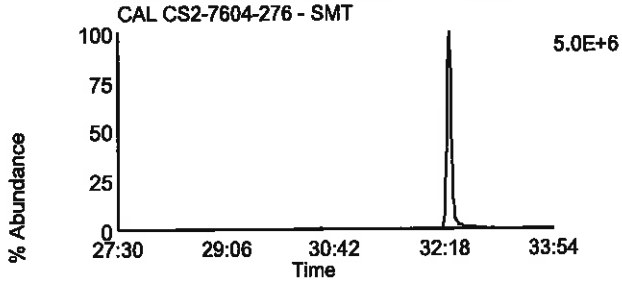
Data File: U130729B_10 G2 C10 - 367.8948
CAL CS2-7604-276 - SMT



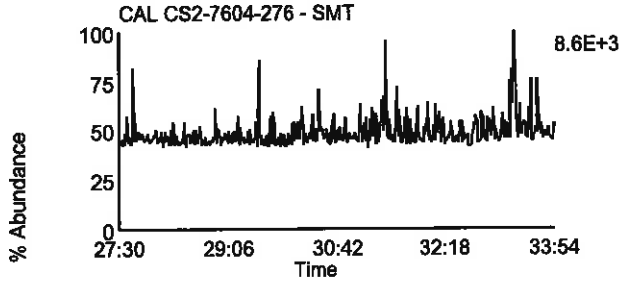
Data File: U130729B_10 G2 C5 - 353.8969
CAL CS2-7604-276 - SMT



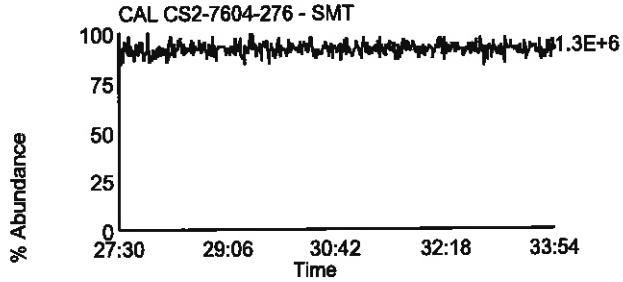
Data File: U130729B_10 G2 C11 - 369.8918
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G2 C12 - 409.7974
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G2 C6 - 354.9792
CAL CS2-7604-276 - SMT

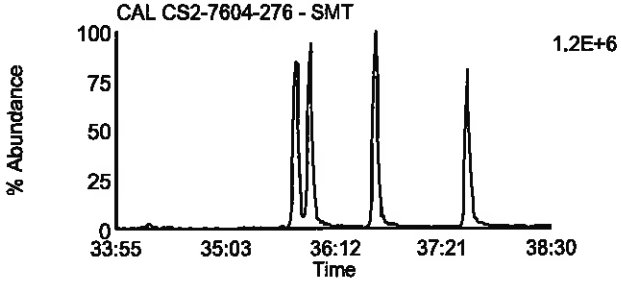


Homologue Group: Hexas

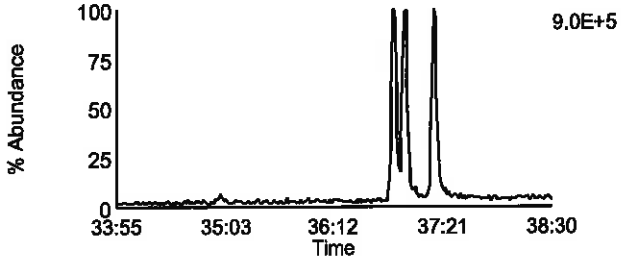
Data File Name: U130729B_10
Date Acquired: 7/29/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR06 (U)

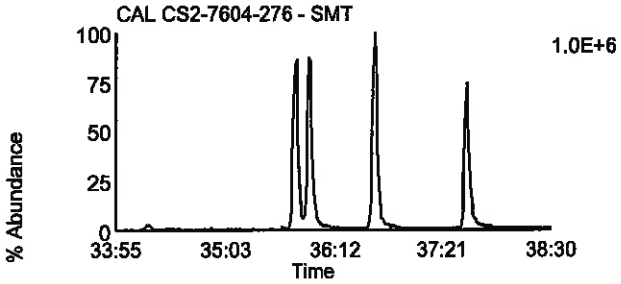
Data File: U130729B_10 G3 C1 - 373.8207
CAL CS2-7604-276 - SMT



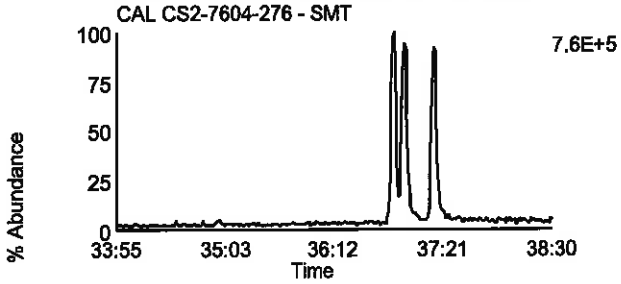
Data File: U130729B_10 G3 C7 - 389.8156
CAL CS2-7604-276 - SMT



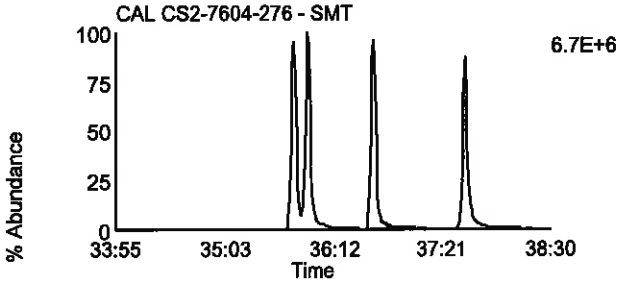
Data File: U130729B_10 G3 C2 - 375.8178
CAL CS2-7604-276 - SMT



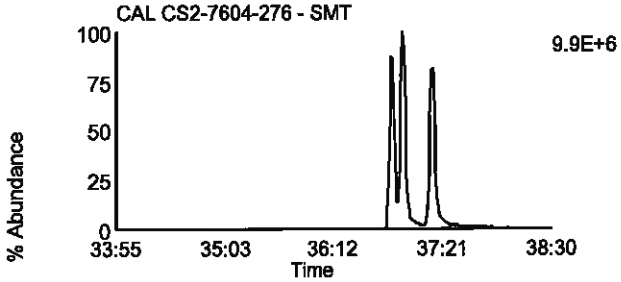
Data File: U130729B_10 G3 C8 - 391.8127
CAL CS2-7604-276 - SMT



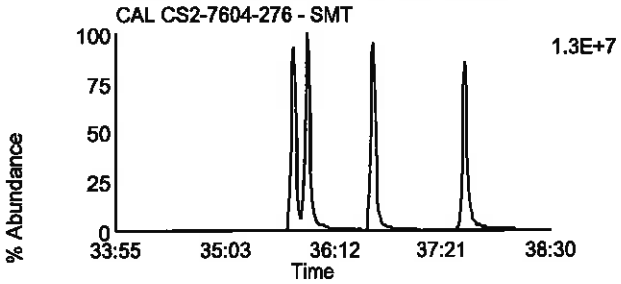
Data File: U130729B_10 G3 C5 - 383.8639
CAL CS2-7604-276 - SMT



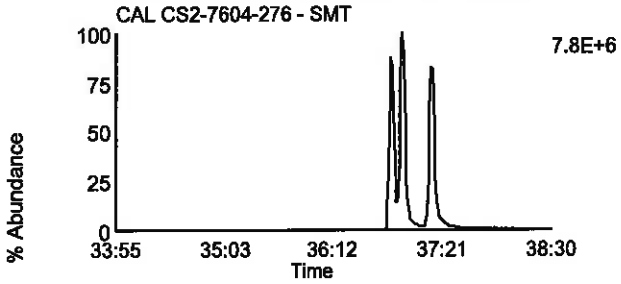
Data File: U130729B_10 G3 C9 - 401.8559
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G3 C6 - 385.861
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G3 C10 - 403.8529
CAL CS2-7604-276 - SMT



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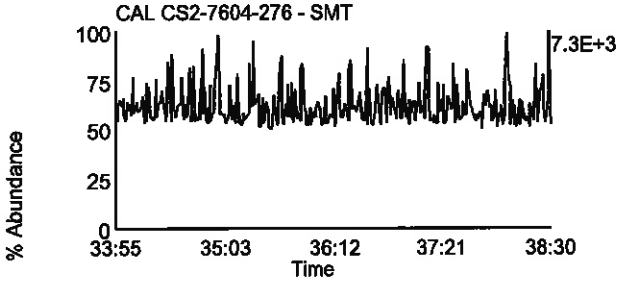
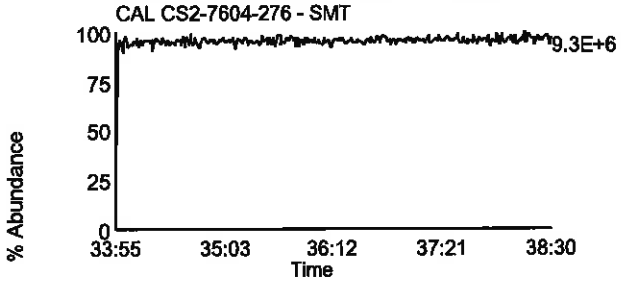
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G3 C3 - 380.976
CAL CS2-7604-276 - SMT

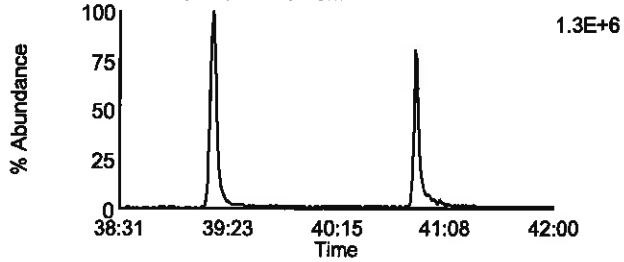


Homologue Group: Heptas

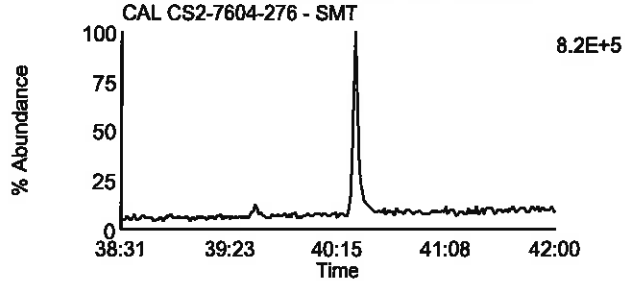
Data File Name: U130729B_10
Date Acquired: 7/29/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR06 (U)

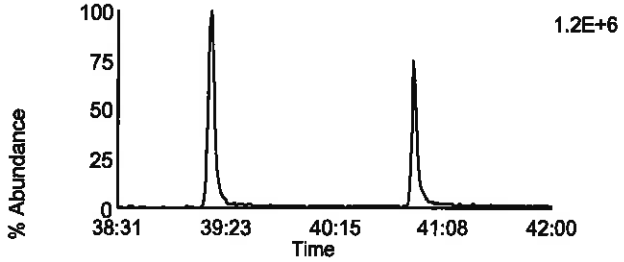
Data File: U130729B_10 G4 C3 - 407.7818
CAL CS2-7604-276 - SMT



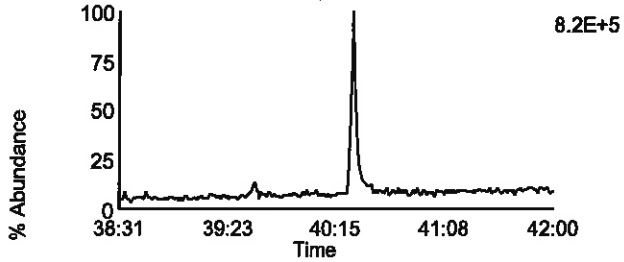
Data File: U130729B_10 G4 C8 - 423.7767
CAL CS2-7604-276 - SMT



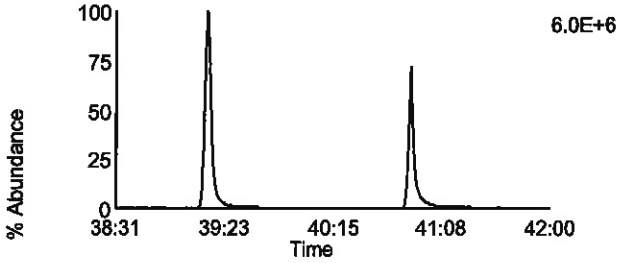
Data File: U130729B_10 G4 C4 - 409.7788
CAL CS2-7604-276 - SMT



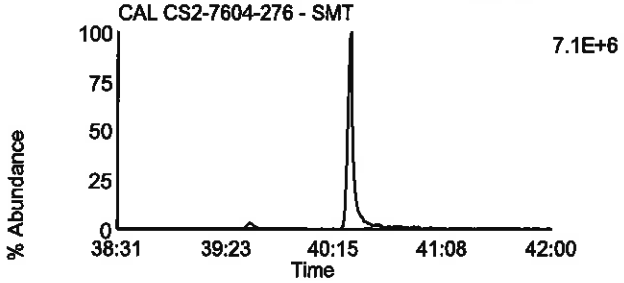
Data File: U130729B_10 G4 C9 - 425.7737
CAL CS2-7604-276 - SMT



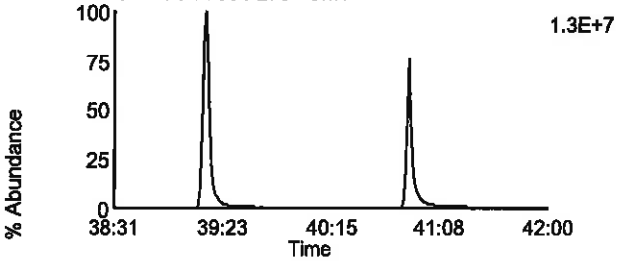
Data File: U130729B_10 G4 C6 - 417.825
CAL CS2-7604-276 - SMT



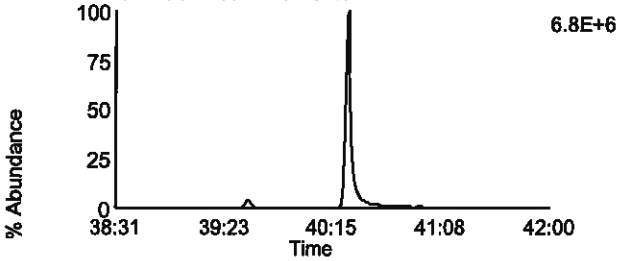
Data File: U130729B_10 G4 C11 - 435.8169
CAL CS2-7604-276 - SMT



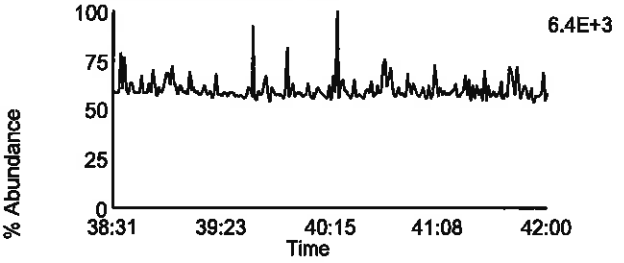
Data File: U130729B_10 G4 C7 - 419.822
CAL CS2-7604-276 - SMT



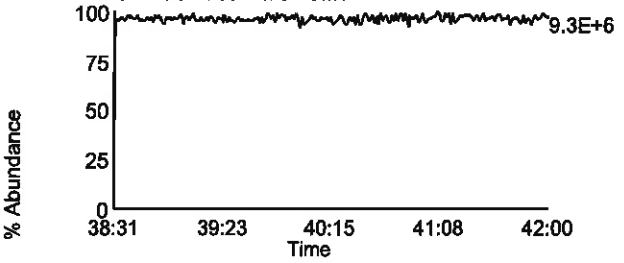
Data File: U130729B_10 G4 C12 - 437.814
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G4 C13 - 479.7165
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G4 C1 - 380.976
CAL CS2-7604-276 - SMT

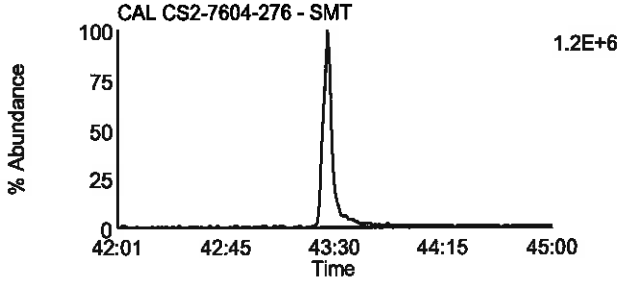


Homologue Group: Octas

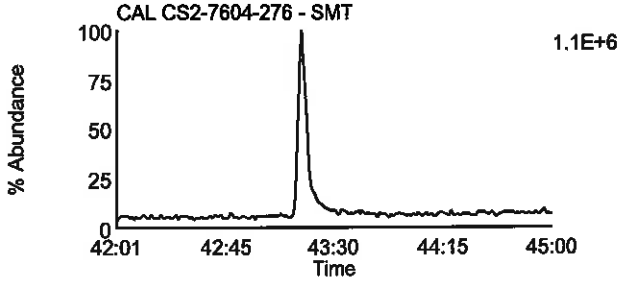
Data File Name: U130729B_10
Date Acquired: 7/29/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR06 (U)

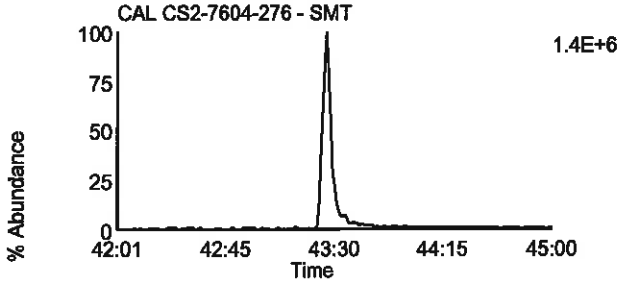
Data File: U130729B_10 G5 C4 - 441.7428
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G5 C8 - 457.7377
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G5 C5 - 443.7398
CAL CS2-7604-276 - SMT



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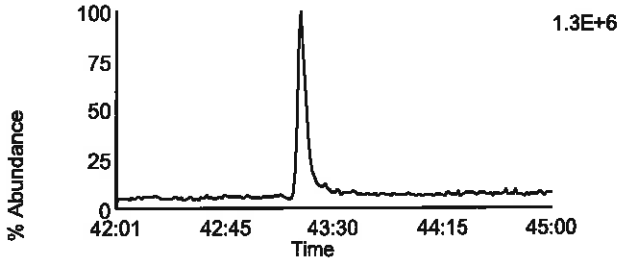
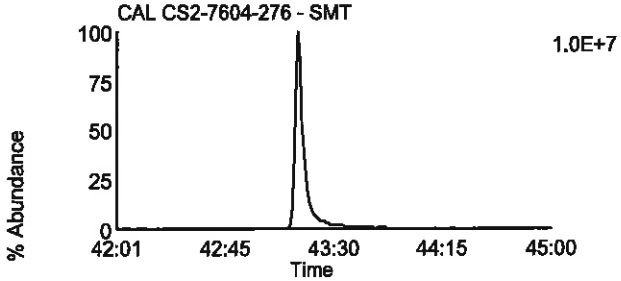
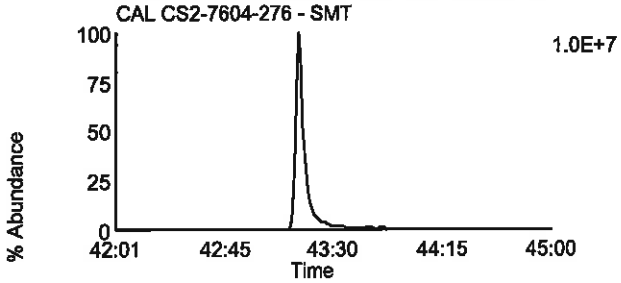
CAL CS2-7604-276 - SMT



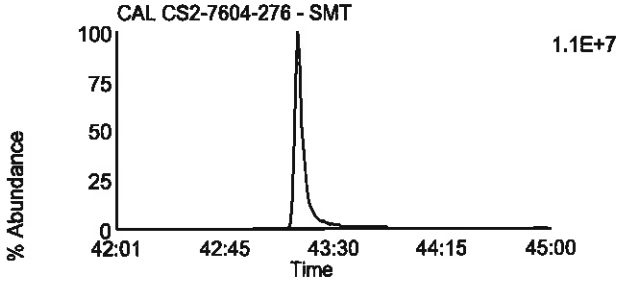
Data File: U130729B_10 G5 C11 - 469.7779
CAL CS2-7604-276 - SMT



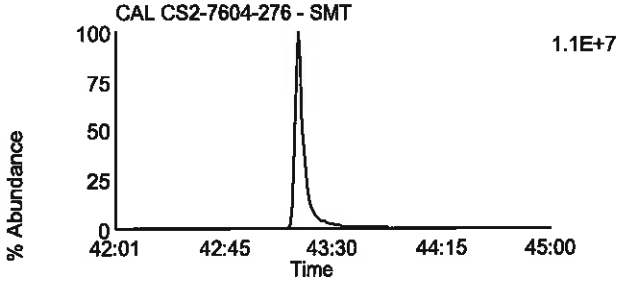
Data File: U130729B_10 G5 C11 - 469.7779
CAL CS2-7604-276 - SMT



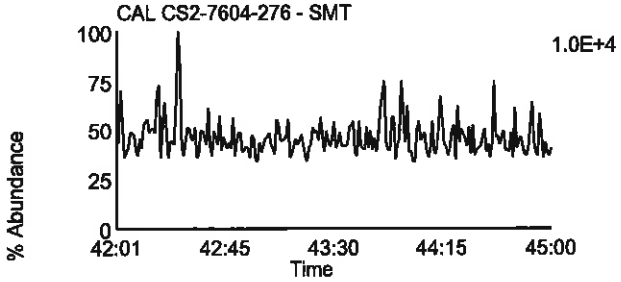
Data File: U130729B_10 G5 C12 - 471.7749
CAL CS2-7604-276 - SMT



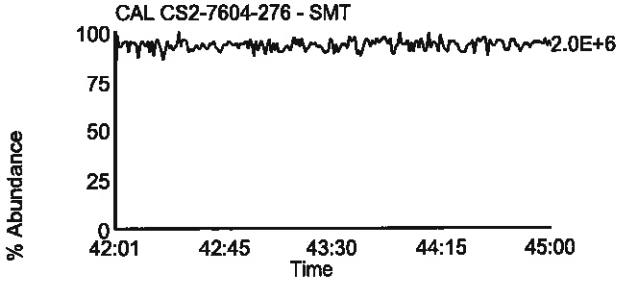
Data File: U130729B_10 G5 C12 - 471.7749
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G5 C13 - 513.6775
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G5 C2 - 430.9728
CAL CS2-7604-276 - SMT

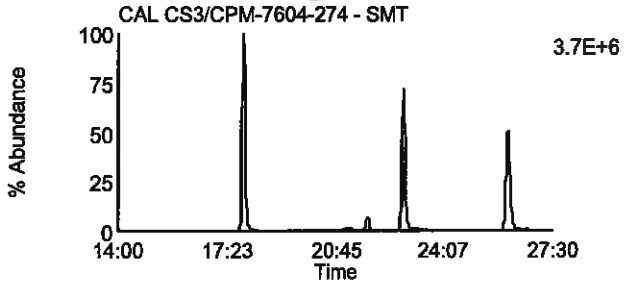


Homologue Group: Tetras

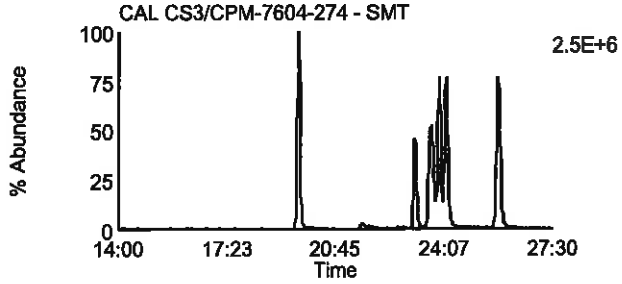
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID:
Instrument: 10MSHR06 (U)

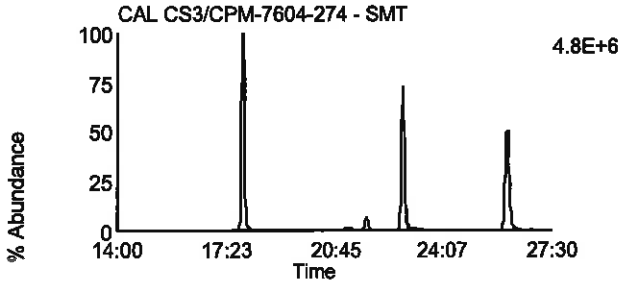
Data File: U130729B_09 G1 C1 - 303.9016
CAL CS3/CPM-7604-274 - SMT



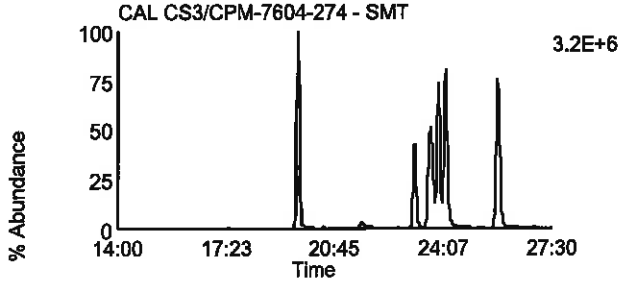
Data File: U130729B_09 G1 C7 - 319.8965
CAL CS3/CPM-7604-274 - SMT



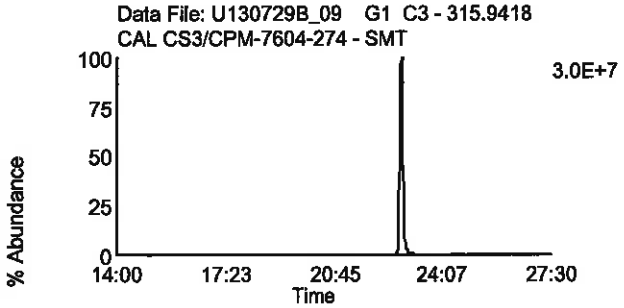
Data File: U130729B_09 G1 C2 - 305.8987
CAL CS3/CPM-7604-274 - SMT



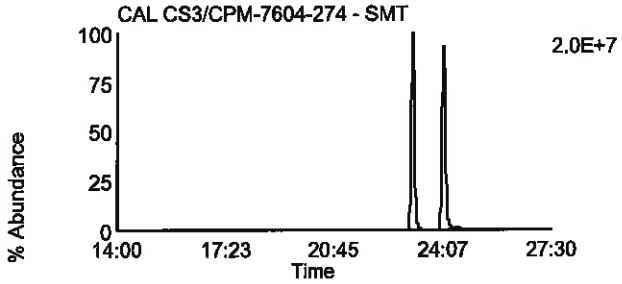
Data File: U130729B_09 G1 C8 - 321.8936
CAL CS3/CPM-7604-274 - SMT



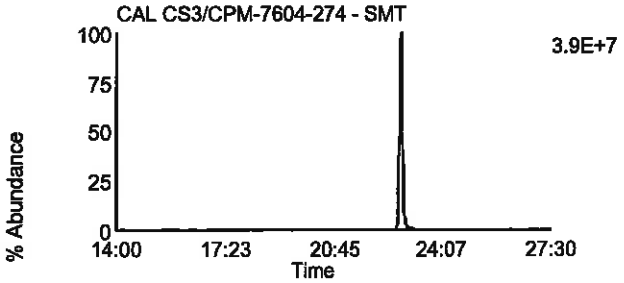
Data File: U130729B_09 G1 C3 - 315.9418
CAL CS3/CPM-7604-274 - SMT



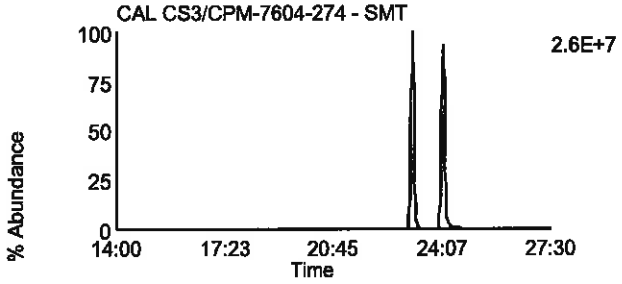
Data File: U130729B_09 G1 C10 - 331.9367
CAL CS3/CPM-7604-274 - SMT



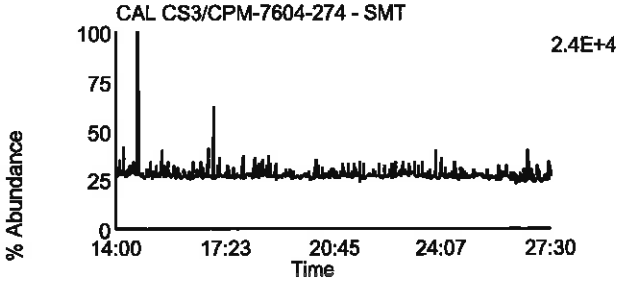
Data File: U130729B_09 G1 C4 - 317.9389
CAL CS3/CPM-7604-274 - SMT



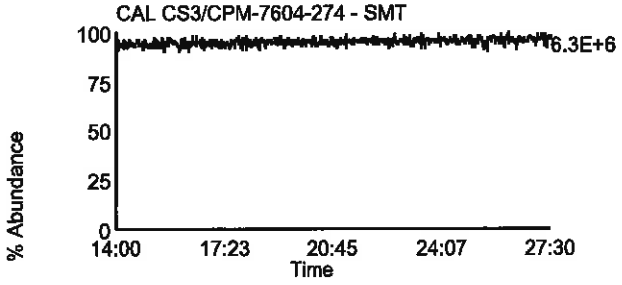
Data File: U130729B_09 G1 C11 - 333.9338
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G1 C14 - 375.8364
CAL CS3/CPM-7604-274 - SMT



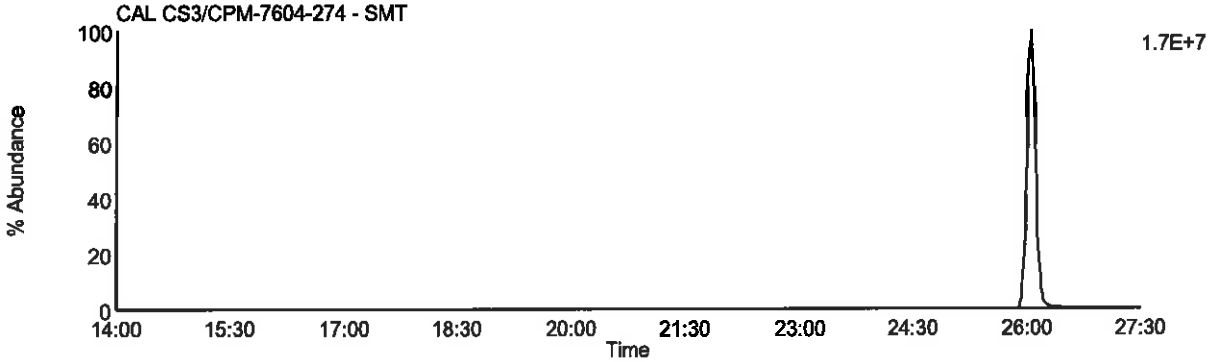
Data File: U130729B_09 G1 C5 - 318.9792
CAL CS3/CPM-7604-274 - SMT



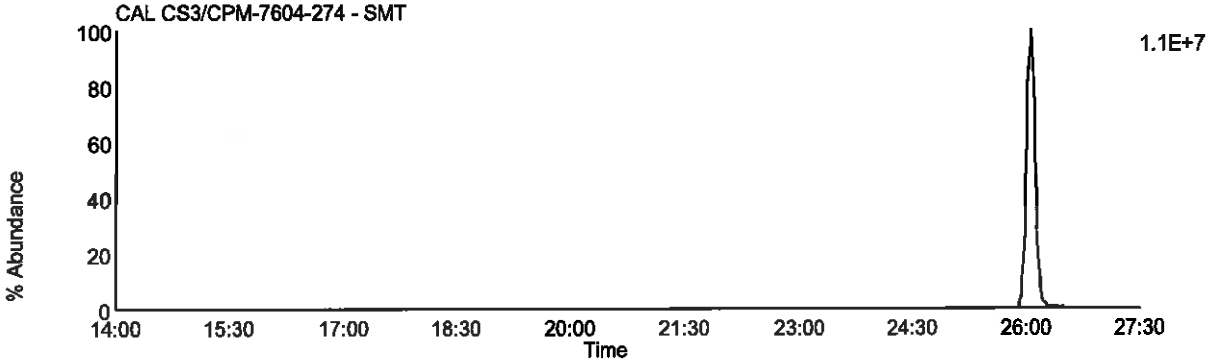
Homologue Group: Penta & Cleanup

Data File Name: U130729B_09	Lab Sample ID: CS3/CPM-7604-274
Date Acquired: 7/29/2013	Client Sample ID:
Sample Description: CAL CS3/CPM-7604-274 - SMT	Instrument: 10MSHR06 (U)

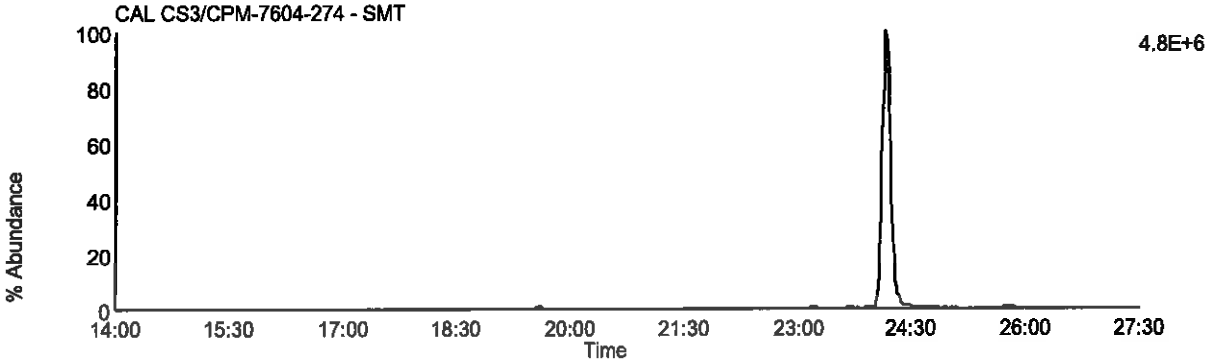
Data File: U130729B_09 G1 C12 - 339.8597
CAL CS3/CPM-7604-274 - SMT



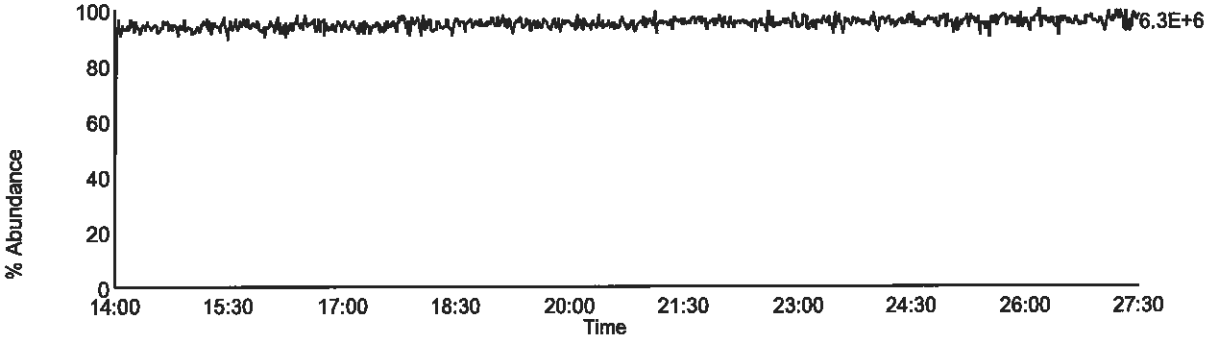
Data File: U130729B_09 G1 C13 - 341.8567
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G1 C9 - 327.8847
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G1 C5 - 318.9792
CAL CS3/CPM-7604-274 - SMT

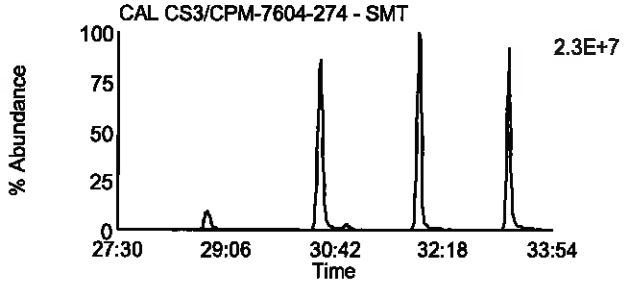


Homologue Group: Pentas

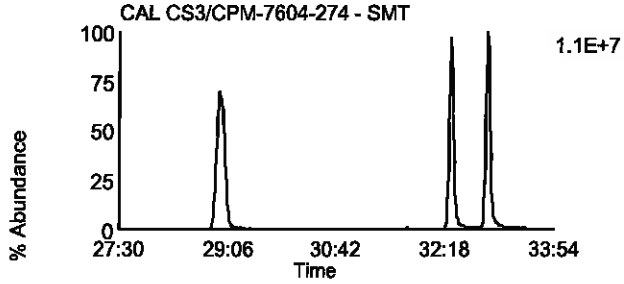
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID:
Instrument: 10MSHR06 (U)

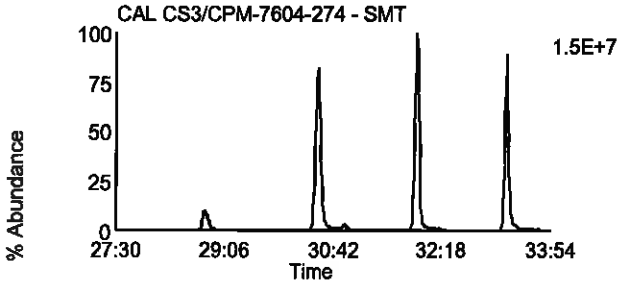
Data File: U130729B_09 G2 C1 - 339.8597
CAL CS3/CPM-7604-274 - SMT



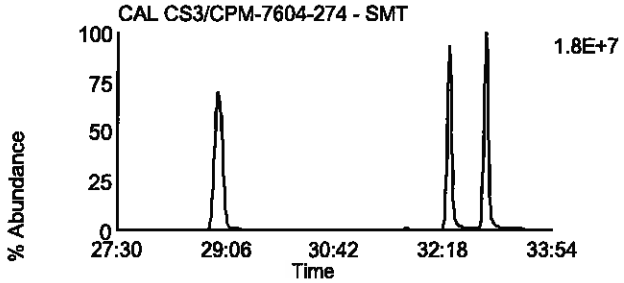
Data File: U130729B_09 G2 C4 - 353.8576
CAL CS3/CPM-7604-274 - SMT



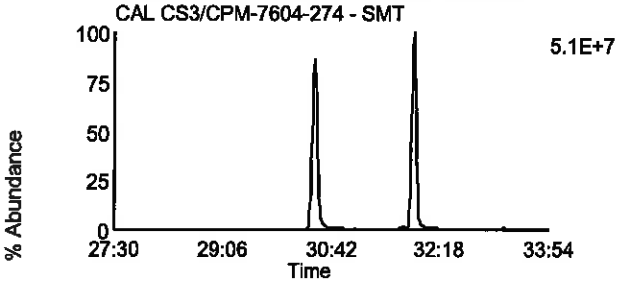
Data File: U130729B_09 G2 C2 - 341.8567
CAL CS3/CPM-7604-274 - SMT



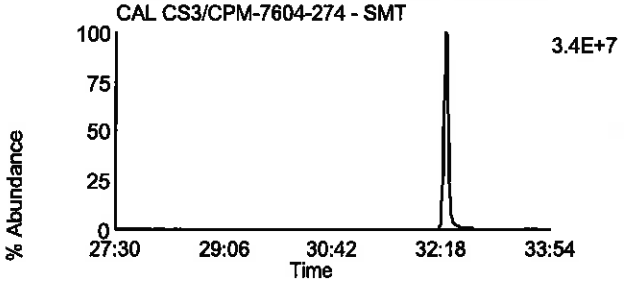
Data File: U130729B_09 G2 C8 - 355.8546
CAL CS3/CPM-7604-274 - SMT



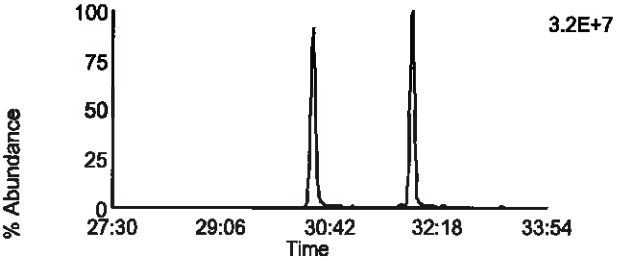
Data File: U130729B_09 G2 C3 - 351.8999
CAL CS3/CPM-7604-274 - SMT



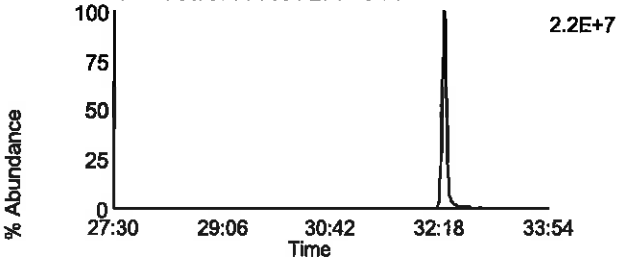
Data File: U130729B_09 G2 C10 - 367.8948
CAL CS3/CPM-7604-274 - SMT



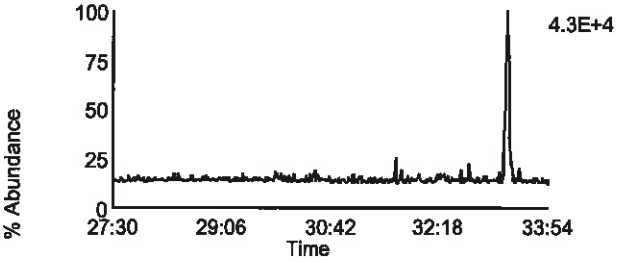
Data File: U130729B_09 G2 C5 - 353.8969
CAL CS3/CPM-7604-274 - SMT



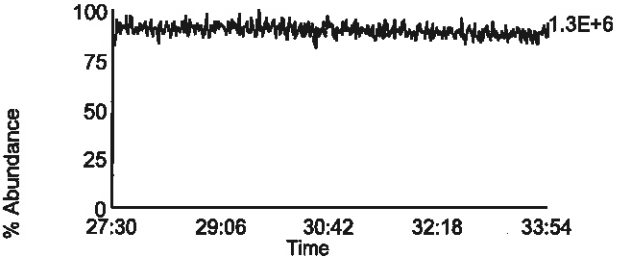
Data File: U130729B_09 G2 C11 - 369.8918
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G2 C12 - 409.7974
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G2 C6 - 354.9792
CAL CS3/CPM-7604-274 - SMT

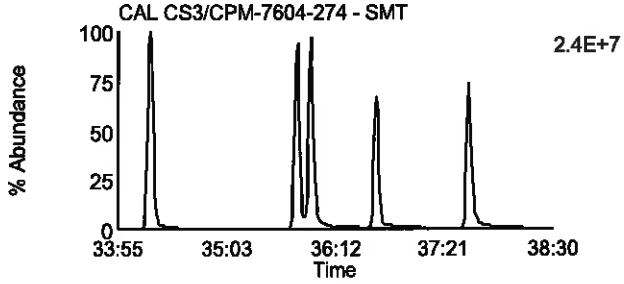


Homologue Group: Hexas

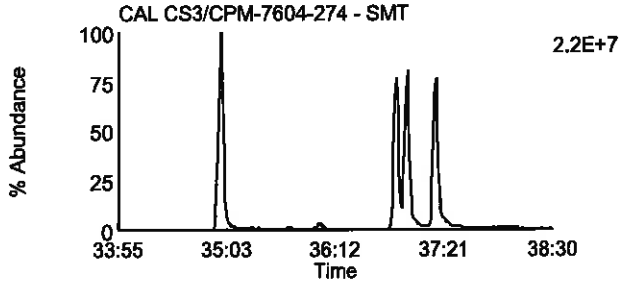
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130729B_09 G3 C1 - 373.8207
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G3 C7 - 389.8156
CAL CS3/CPM-7604-274 - SMT



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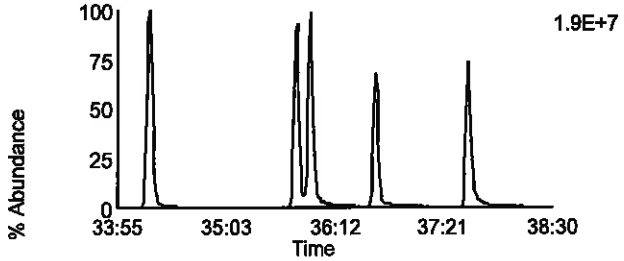
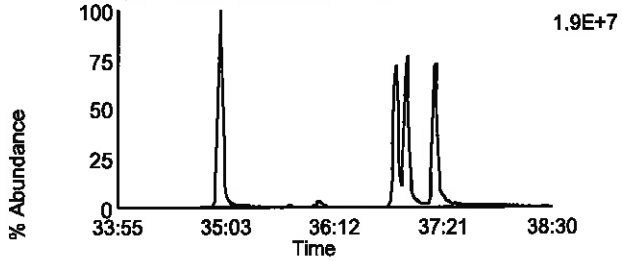
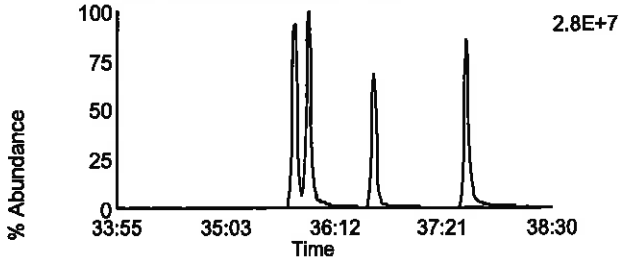
CAL CS3/CPM-7604-274 - SMT



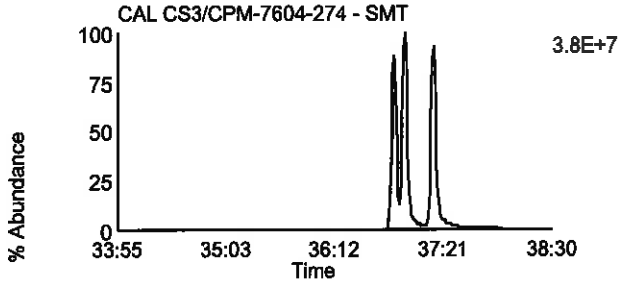
Data File: U130729B_09 G3 C8 - 391.8127
CAL CS3/CPM-7604-274 - SMT



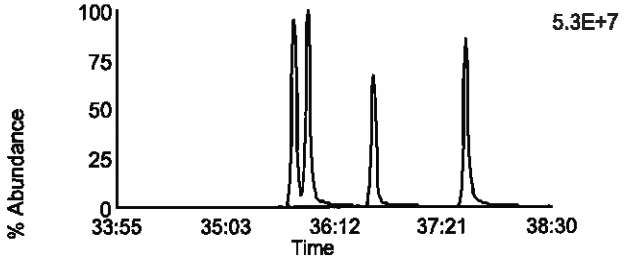
Data File: U130729B_09 G3 C5 - 383.8639
CAL CS3/CPM-7604-274 - SMT



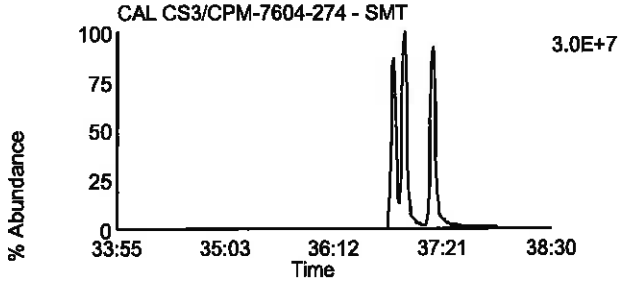
Data File: U130729B_09 G3 C9 - 401.8559
CAL CS3/CPM-7604-274 - SMT



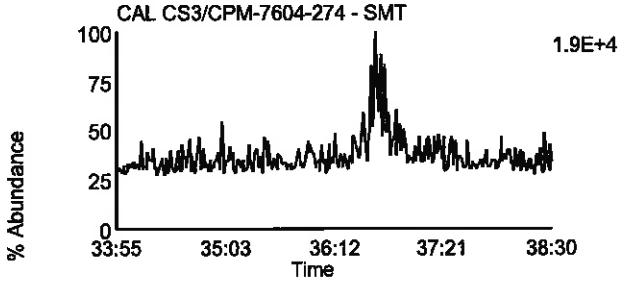
Data File: U130729B_09 G3 C6 - 385.861
CAL CS3/CPM-7604-274 - SMT



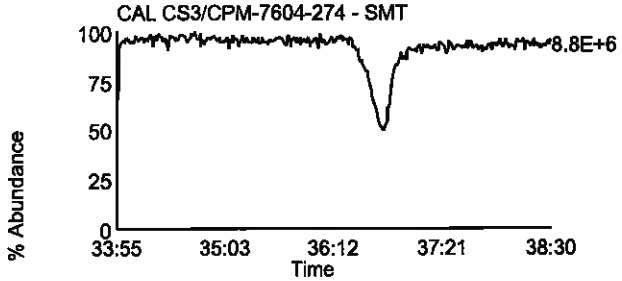
Data File: U130729B_09 G3 C10 - 403.8529
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G3 C11 - 445.7555
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G3 C3 - 380.976
CAL CS3/CPM-7604-274 - SMT

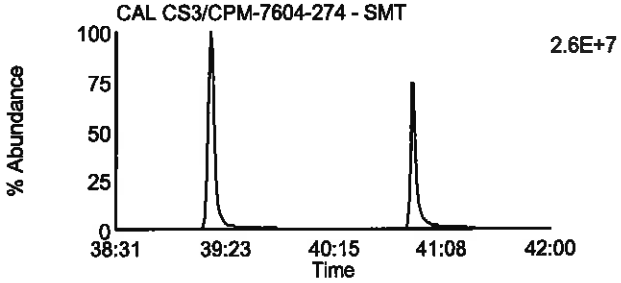


Homologue Group: Heptas

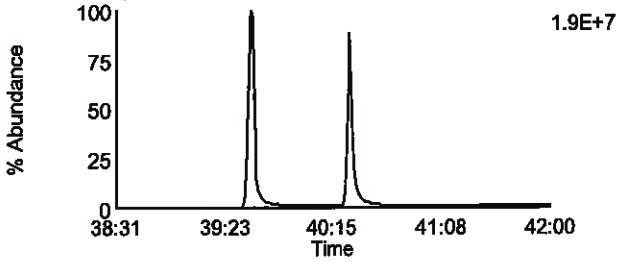
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID:
Instrument: 10MSHR06 (U)

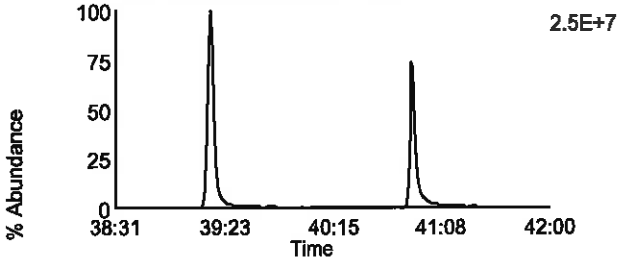
Data File: U130729B_09 G4 C3 - 407.7818
CAL CS3/CPM-7604-274 - SMT



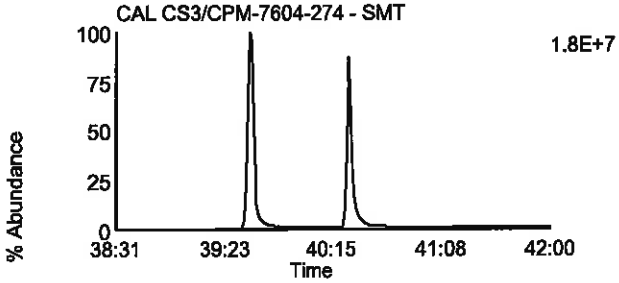
Data File: U130729B_09 G4 C8 - 423.7767
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G4 C4 - 409.7788
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G4 C9 - 425.7737
CAL CS3/CPM-7604-274 - SMT



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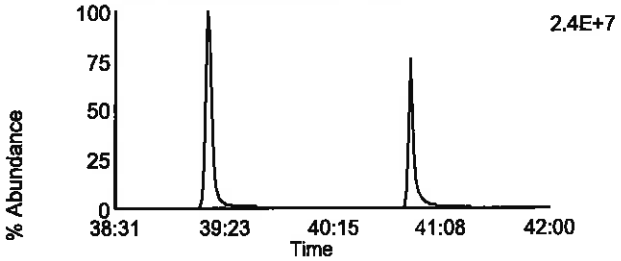
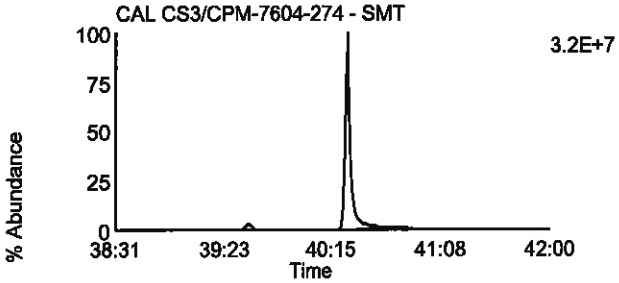
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G4 C11 - 435.8169
CAL CS3/CPM-7604-274 - SMT



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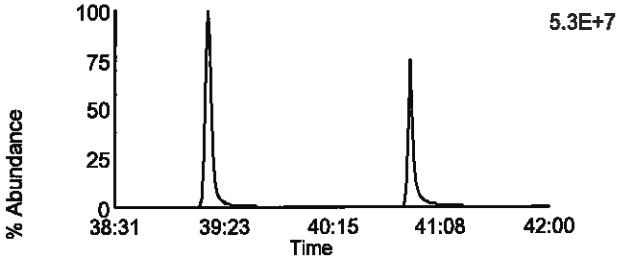
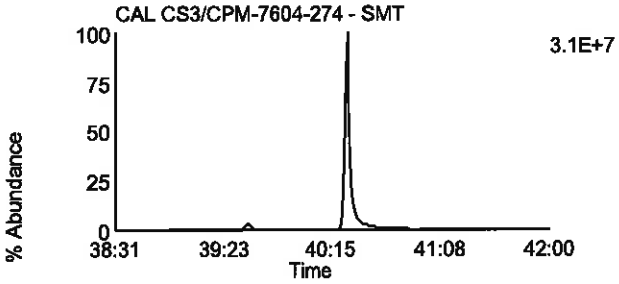
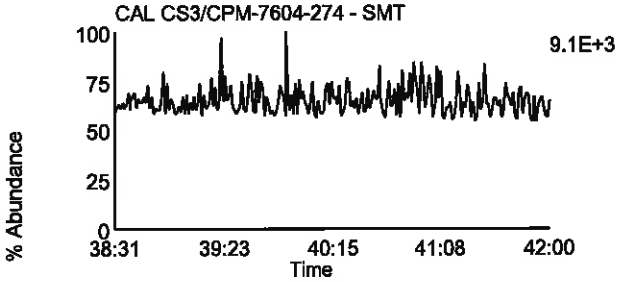
CAL CS3/CPM-7604-274 - SMT



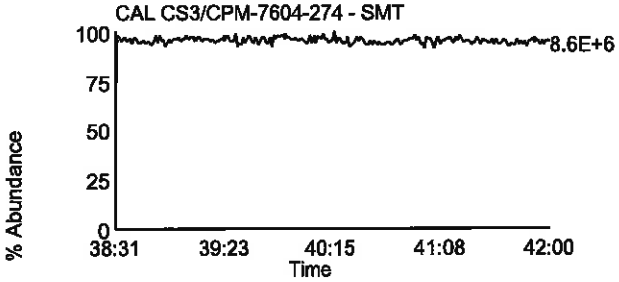
Data File: U130729B_09 G4 C12 - 437.814
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G4 C13 - 479.7165
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G4 C1 - 380.976
CAL CS3/CPM-7604-274 - SMT

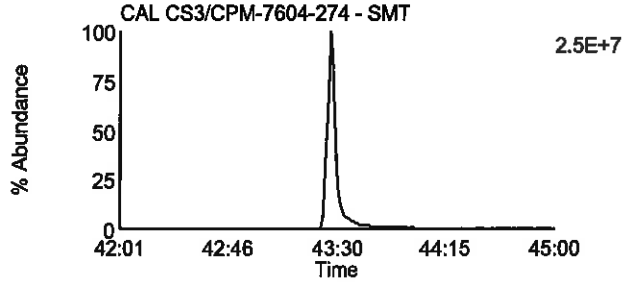


Homologue Group: Octas

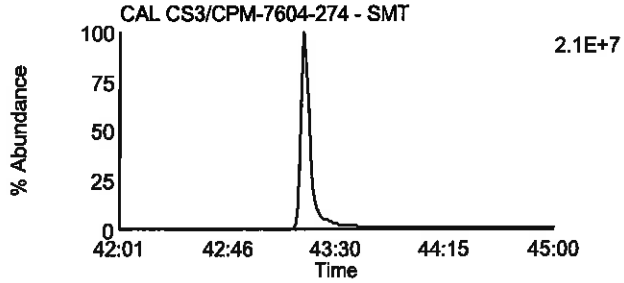
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID:
Instrument: 10MSHR06 (U)

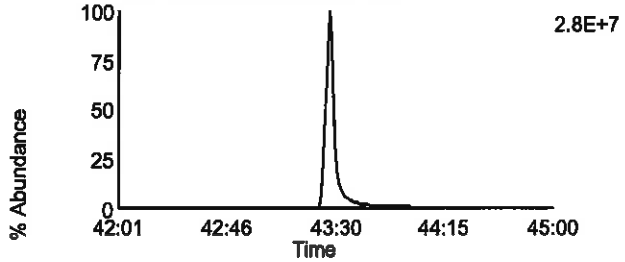
Data File: U130729B_09 G5 C4 - 441.7428
CAL CS3/CPM-7604-274 - SMT



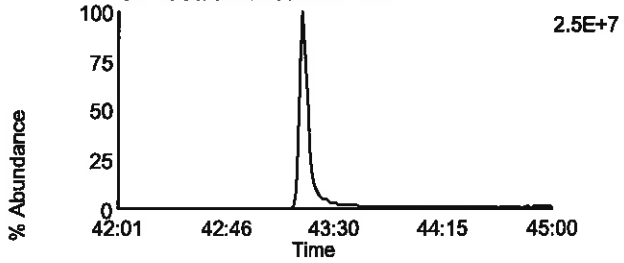
Data File: U130729B_09 G5 C8 - 457.7377
CAL CS3/CPM-7604-274 - SMT



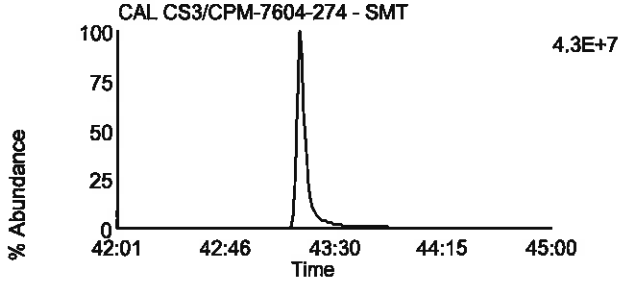
Data File: U130729B_09 G5 C5 - 443.7398
CAL CS3/CPM-7604-274 - SMT



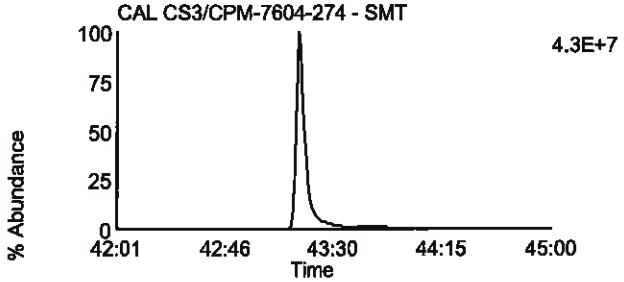
Data File: U130729B_09 G5 C9 - 459.7347
CAL CS3/CPM-7604-274 - SMT



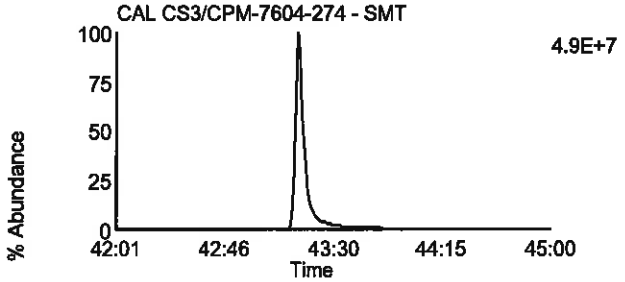
Data File: U130729B_09 G5 C11 - 469.7779
CAL CS3/CPM-7604-274 - SMT



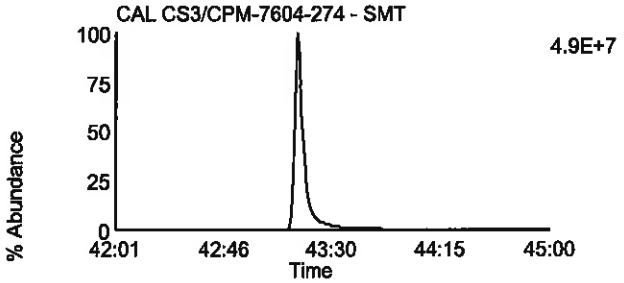
Data File: U130729B_09 G5 C11 - 469.7779
CAL CS3/CPM-7604-274 - SMT



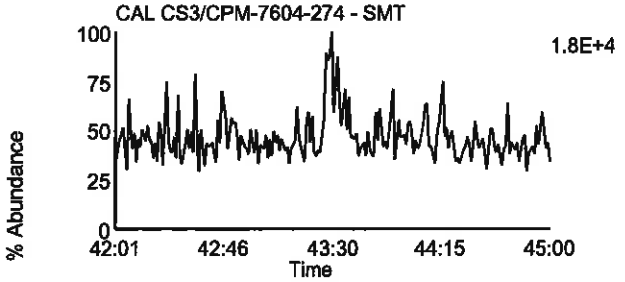
Data File: U130729B_09 G5 C12 - 471.7749
CAL CS3/CPM-7604-274 - SMT



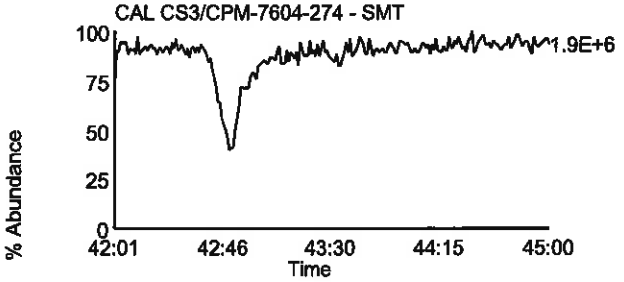
Data File: U130729B_09 G5 C12 - 471.7749
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G5 C13 - 513.6775
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G5 C2 - 430.9728
CAL CS3/CPM-7604-274 - SMT

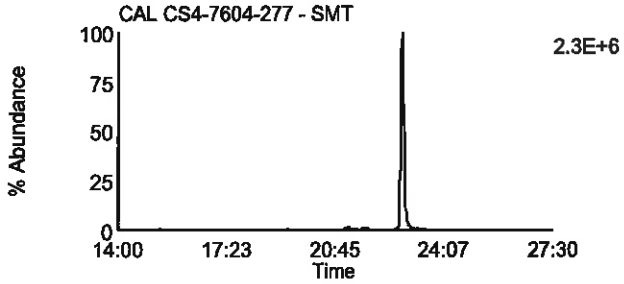


Homologue Group: Tetras

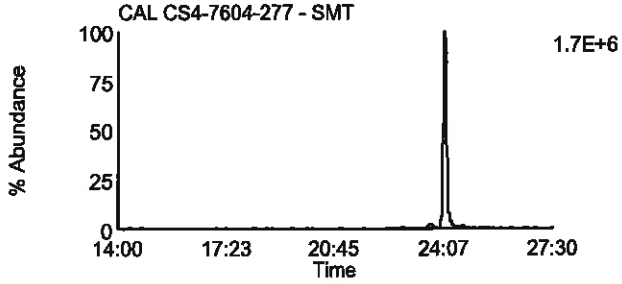
Data File Name: U130729B_13
Date Acquired: 7/30/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR06 (U)

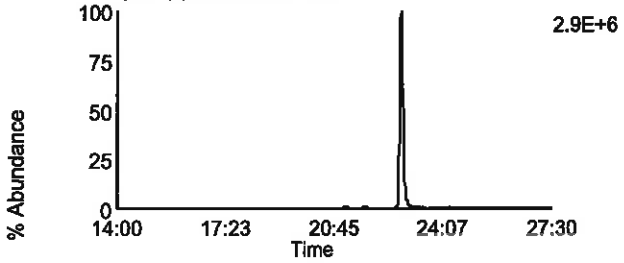
Data File: U130729B_13 G1 C1 - 303.9016
CAL CS4-7604-277 - SMT



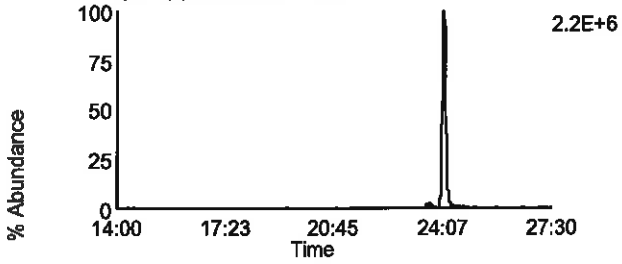
Data File: U130729B_13 G1 C7 - 319.8965
CAL CS4-7604-277 - SMT



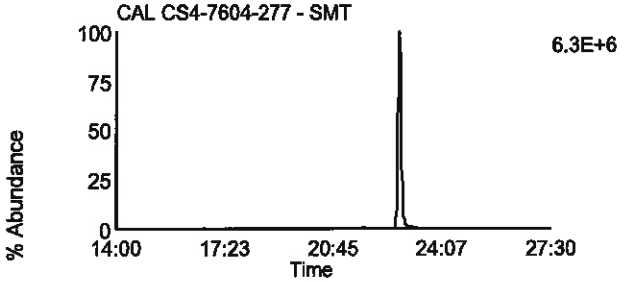
Data File: U130729B_13 G1 C2 - 305.8987
CAL CS4-7604-277 - SMT



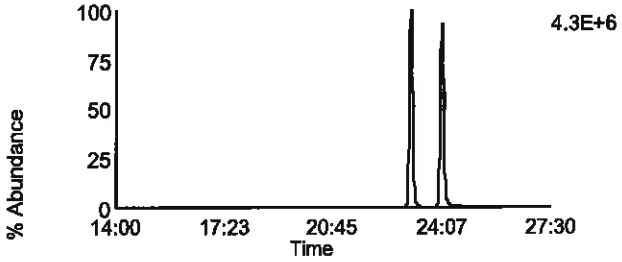
Data File: U130729B_13 G1 C8 - 321.8936
CAL CS4-7604-277 - SMT



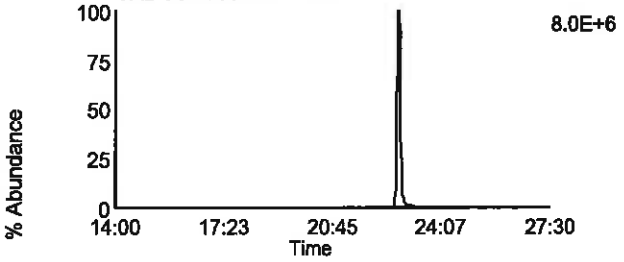
Data File: U130729B_13 G1 C3 - 315.9418
CAL CS4-7604-277 - SMT



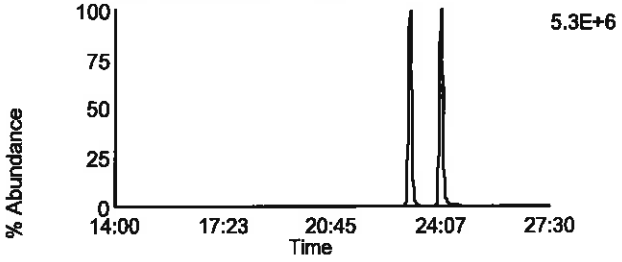
Data File: U130729B_13 G1 C10 - 331.9367
CAL CS4-7604-277 - SMT



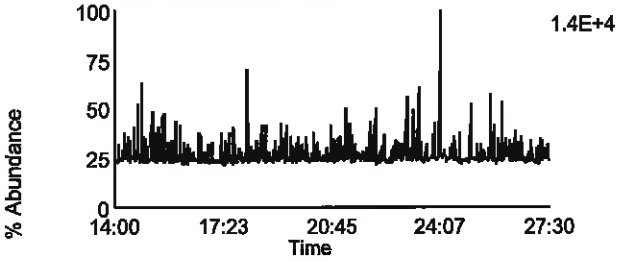
Data File: U130729B_13 G1 C4 - 317.9389
CAL CS4-7604-277 - SMT



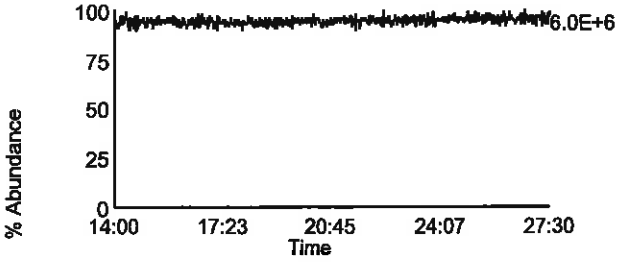
Data File: U130729B_13 G1 C11 - 333.9338
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G1 C14 - 375.8364
CAL CS4-7604-277 - SMT



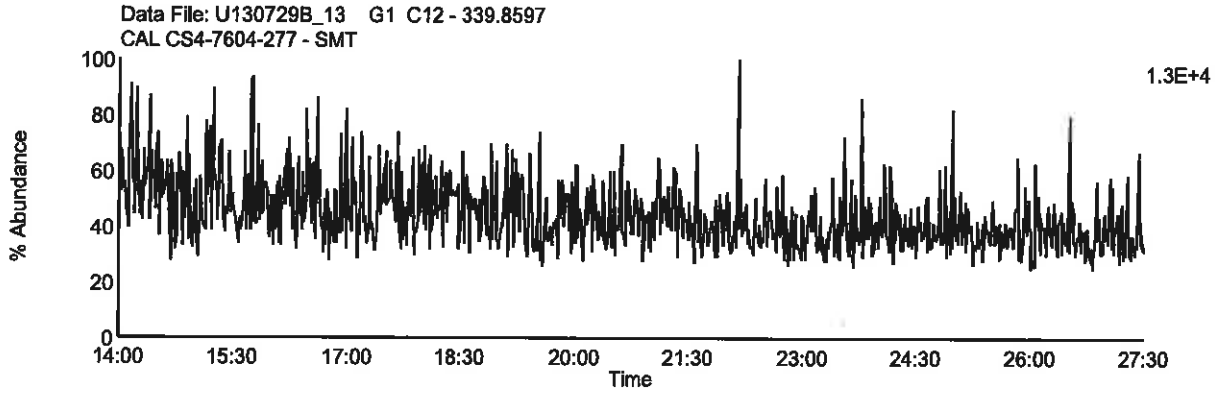
Data File: U130729B_13 G1 C5 - 318.9792
CAL CS4-7604-277 - SMT

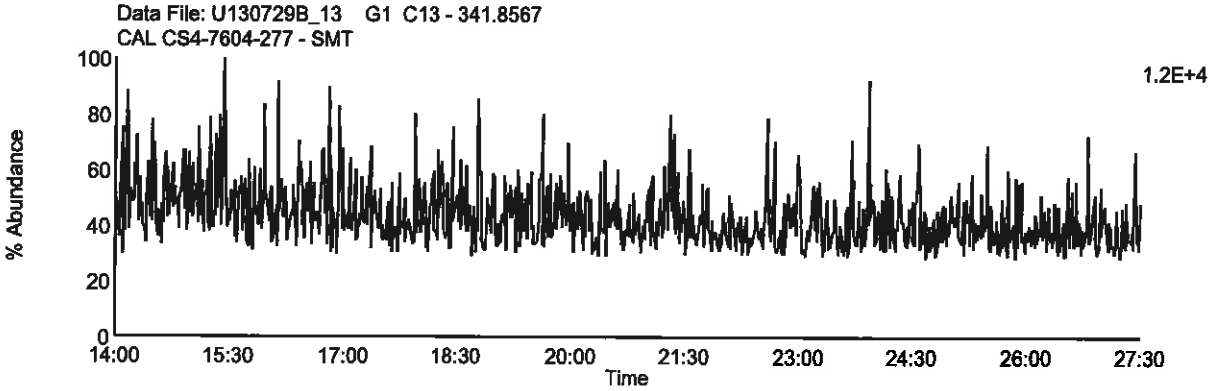


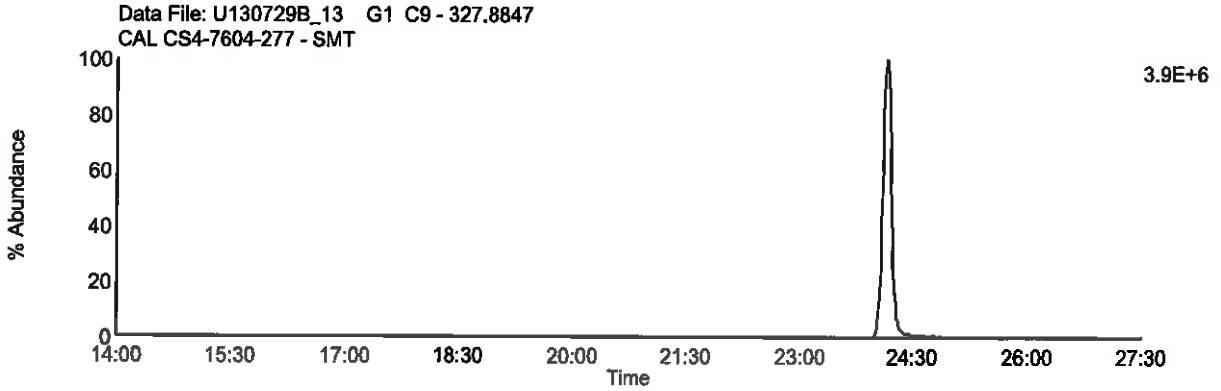
Homologue Group: Penta & Cleanup

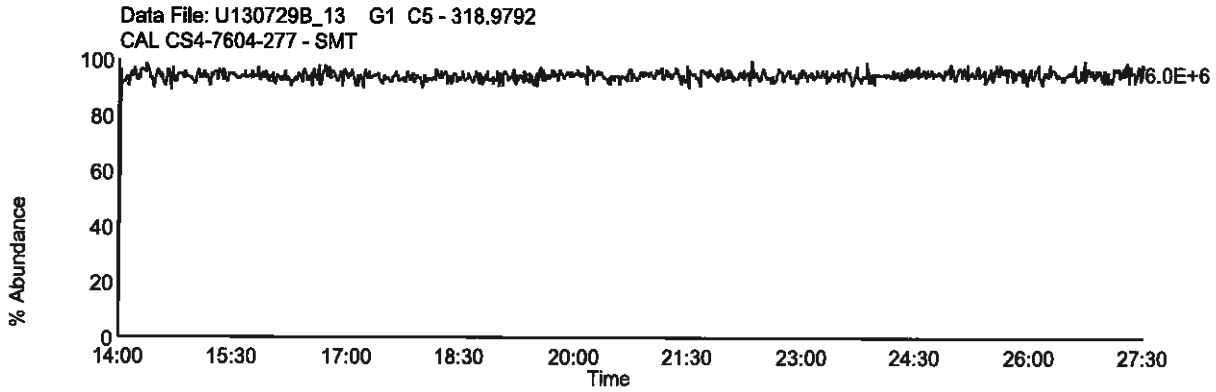
Data File Name: U130729B_13
Date Acquired: 7/30/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR06 (U)







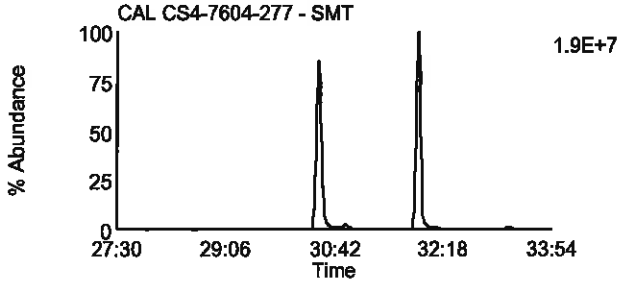


Homologue Group: Pentas

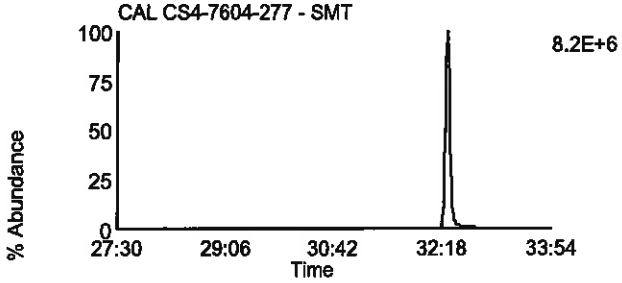
Data File Name: U130729B_13
Date Acquired: 7/30/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR06 (U)

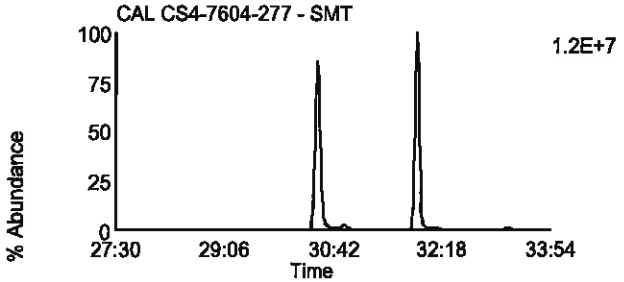
Data File: U130729B_13 G2 C1 - 339.8597
CAL CS4-7604-277 - SMT



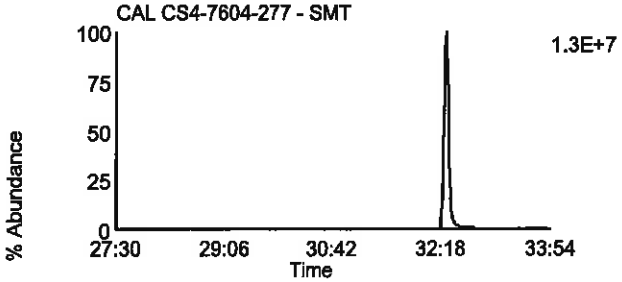
Data File: U130729B_13 G2 C4 - 353.8576
CAL CS4-7604-277 - SMT



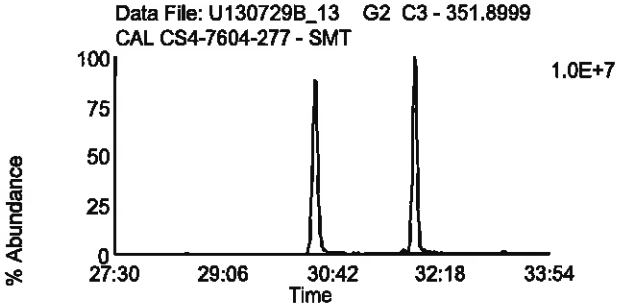
Data File: U130729B_13 G2 C2 - 341.8567
CAL CS4-7604-277 - SMT



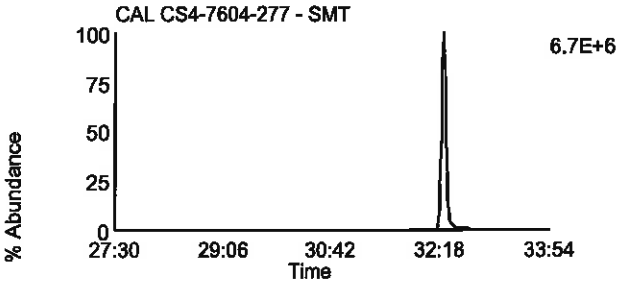
Data File: U130729B_13 G2 C8 - 355.8546
CAL CS4-7604-277 - SMT



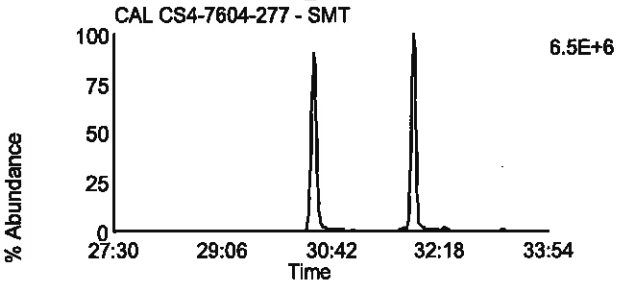
Data File: U130729B_13 G2 C3 - 351.8999
CAL CS4-7604-277 - SMT



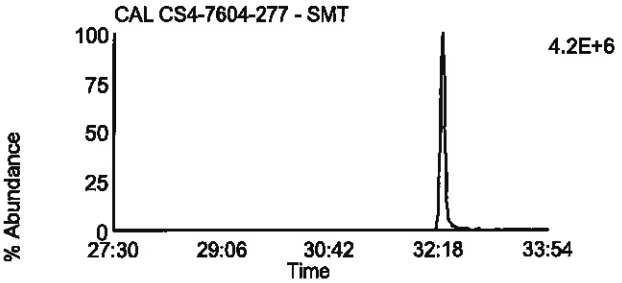
Data File: U130729B_13 G2 C10 - 367.8948
CAL CS4-7604-277 - SMT



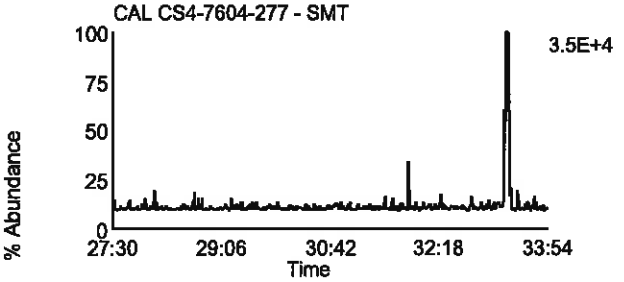
Data File: U130729B_13 G2 C5 - 353.8969
CAL CS4-7604-277 - SMT



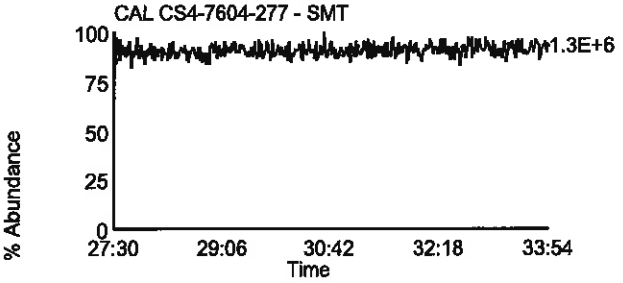
Data File: U130729B_13 G2 C11 - 369.8918
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G2 C12 - 409.7974
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G2 C6 - 354.9792
CAL CS4-7604-277 - SMT

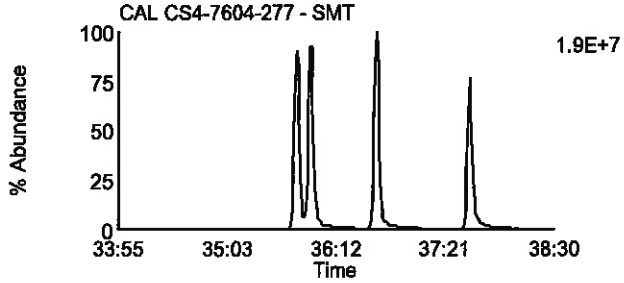


Homologue Group: Hexas

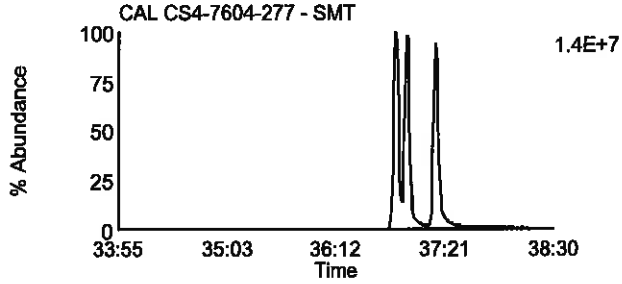
Data File Name: U130729B_13
Date Acquired: 7/30/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR06 (U)

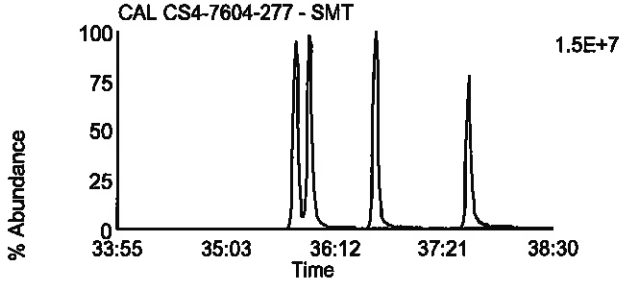
Data File: U130729B_13 G3 C1 - 373.8207
CAL CS4-7604-277 - SMT



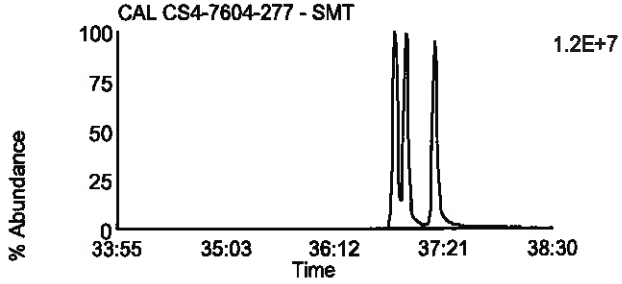
Data File: U130729B_13 G3 C7 - 389.8156
CAL CS4-7604-277 - SMT



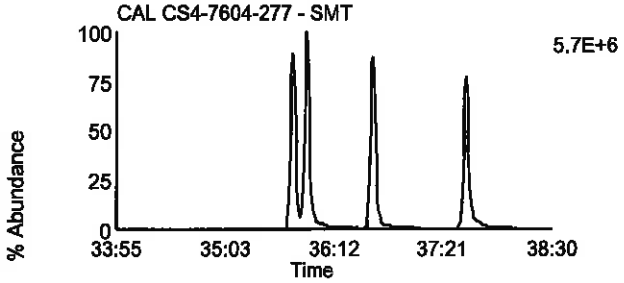
Data File: U130729B_13 G3 C2 - 375.8178
CAL CS4-7604-277 - SMT



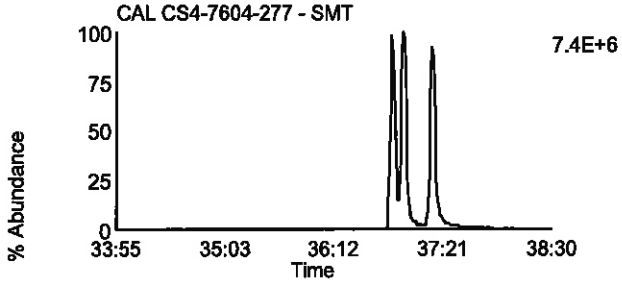
Data File: U130729B_13 G3 C8 - 391.8127
CAL CS4-7604-277 - SMT



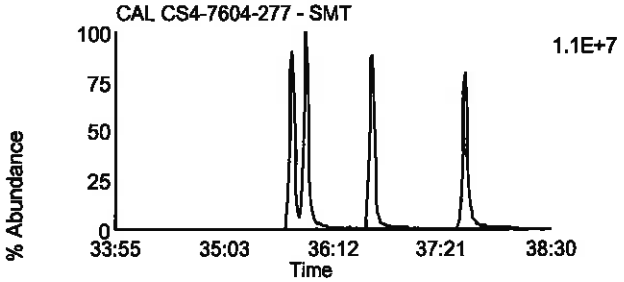
Data File: U130729B_13 G3 C5 - 383.8639
CAL CS4-7604-277 - SMT



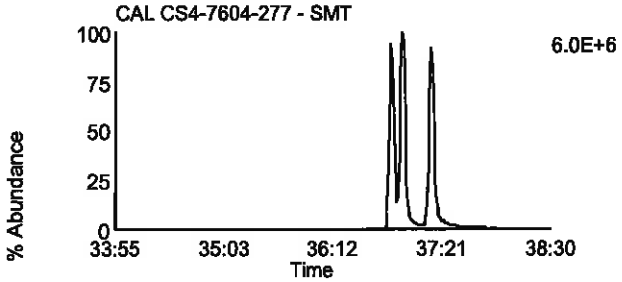
Data File: U130729B_13 G3 C9 - 401.8559
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G3 C6 - 385.861
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G3 C10 - 403.8529
CAL CS4-7604-277 - SMT



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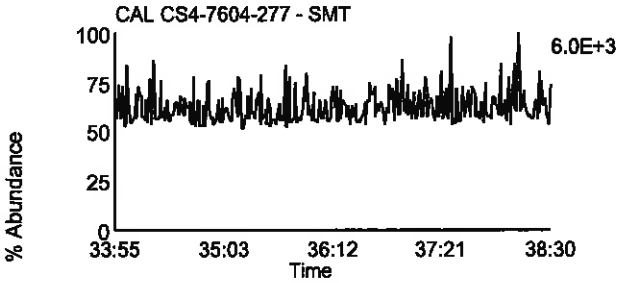
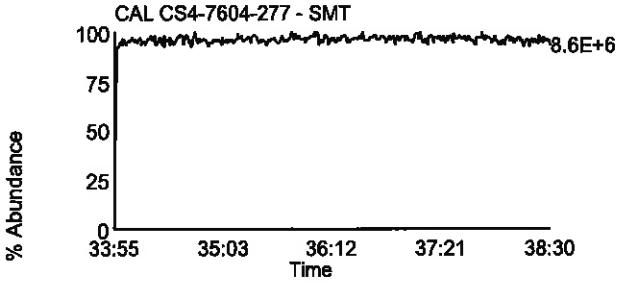
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G3 C3 - 380.976
CAL CS4-7604-277 - SMT

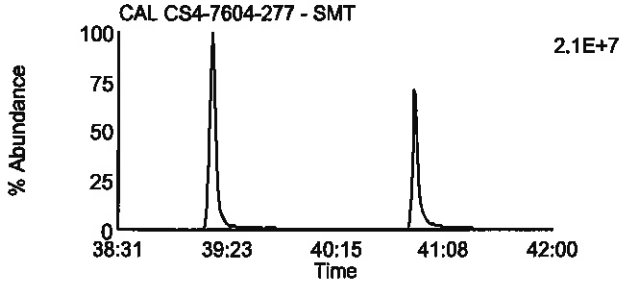


Homologue Group: Heptas

Data File Name: U130729B_13
Date Acquired: 7/30/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130729B_13 G4 C3 - 407.7818
CAL CS4-7604-277 - SMT



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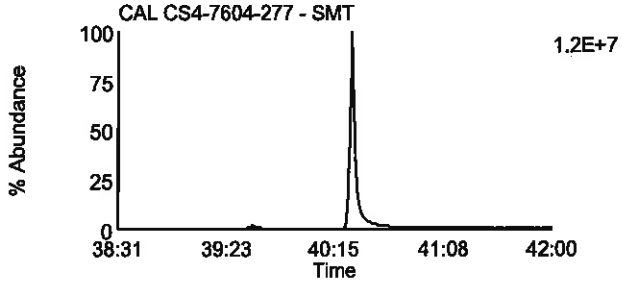
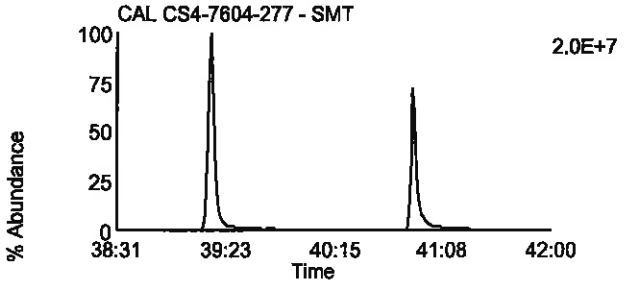
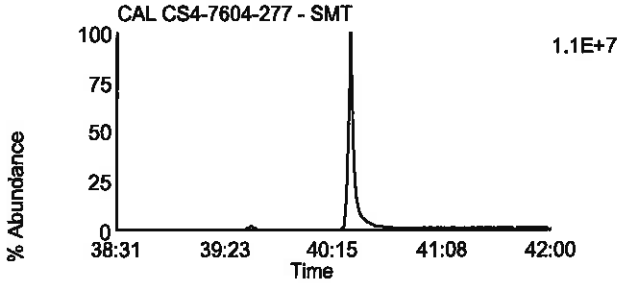
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G4 C4 - 409.7788
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G4 C9 - 425.7737
CAL CS4-7604-277 - SMT



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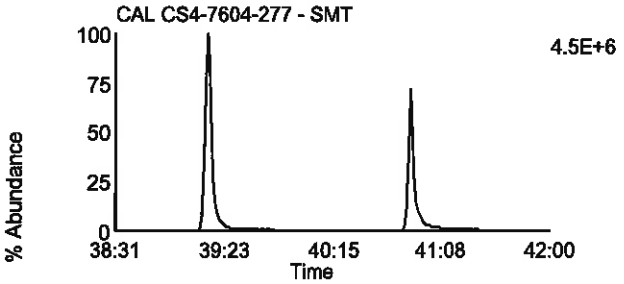
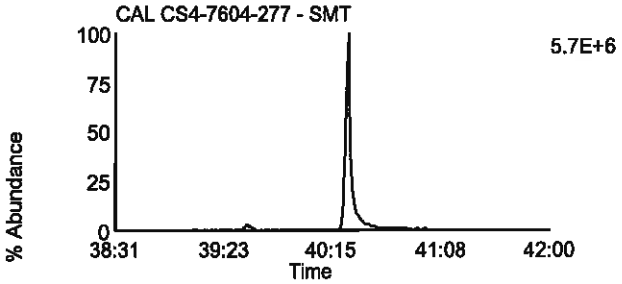
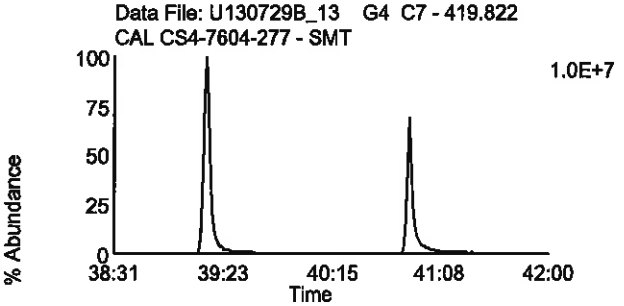
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G4 C11 - 435.8169
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G4 C7 - 419.822
CAL CS4-7604-277 - SMT



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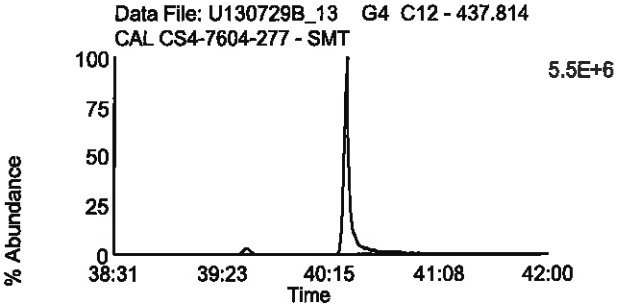
CAL CS4-7604-277 - SMT



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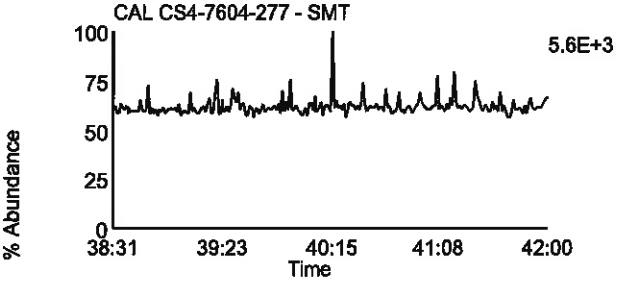
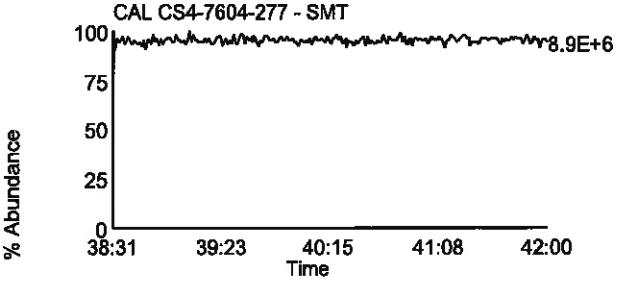
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G4 C1 - 380.976
CAL CS4-7604-277 - SMT

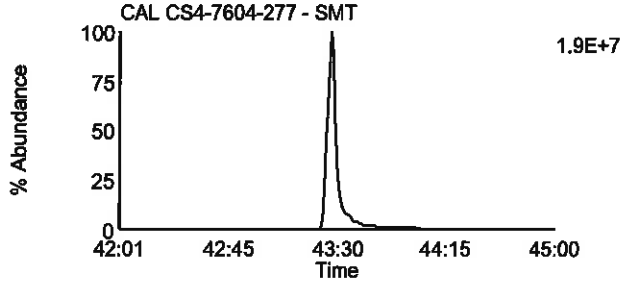


Homologue Group: Octas

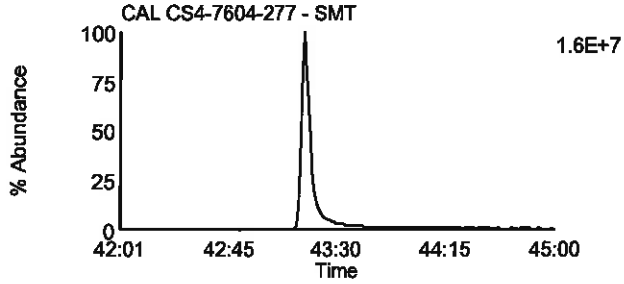
Data File Name: U130729B_13
Date Acquired: 7/30/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR06 (U)

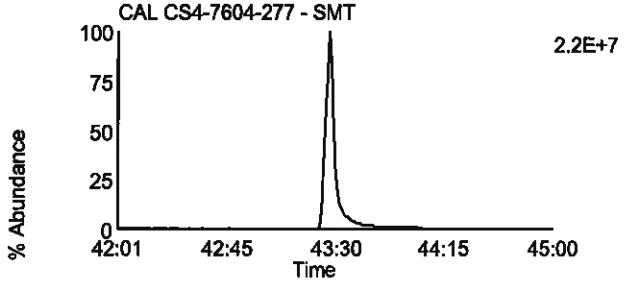
Data File: U130729B_13 G5 C4 - 441.7428
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G5 C8 - 457.7377
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G5 C5 - 443.7398
CAL CS4-7604-277 - SMT



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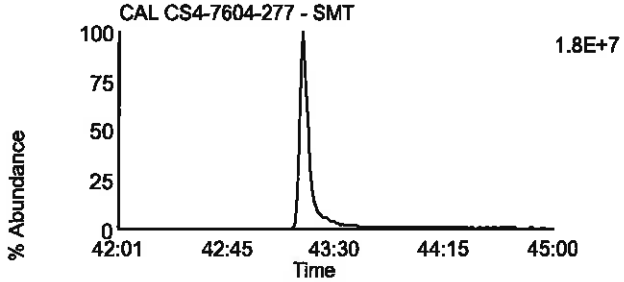
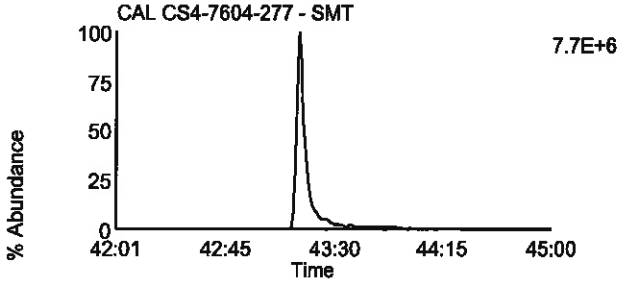
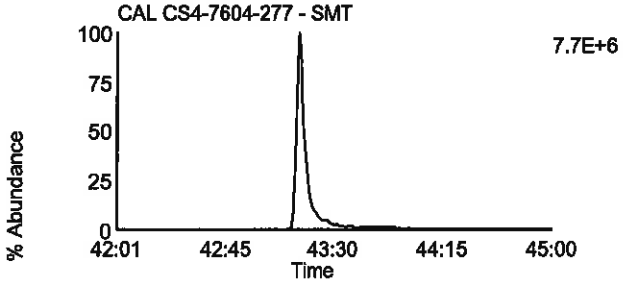
CAL CS4-7604-277 - SMT



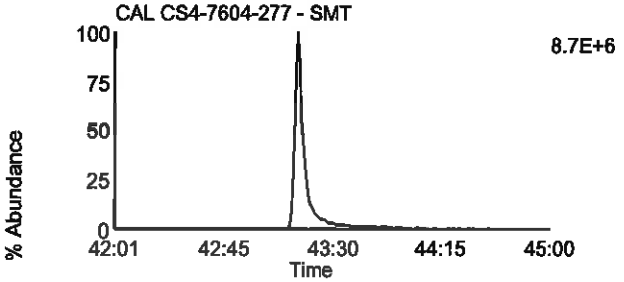
Data File: U130729B_13 G5 C11 - 469.7779
CAL CS4-7604-277 - SMT



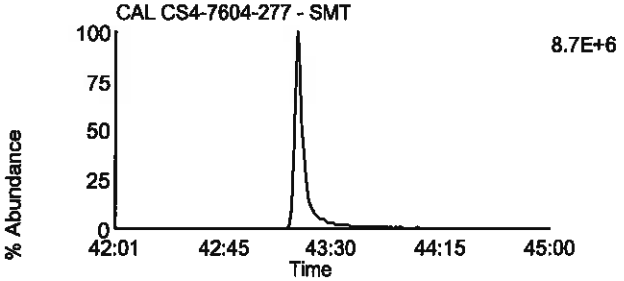
Data File: U130729B_13 G5 C11 - 469.7779
CAL CS4-7604-277 - SMT



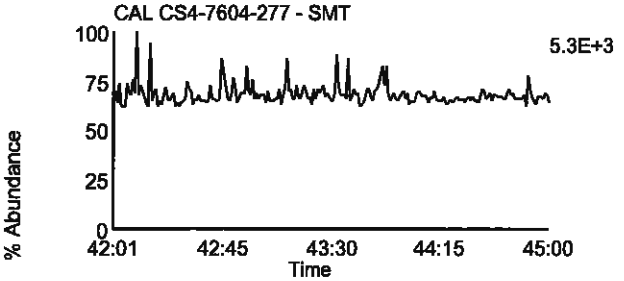
Data File: U130729B_13 G5 C12 - 471.7749
CAL CS4-7604-277 - SMT



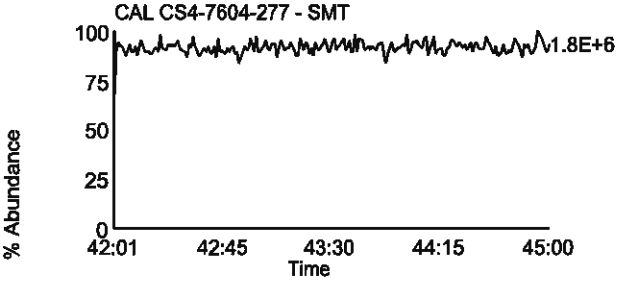
Data File: U130729B_13 G5 C12 - 471.7749
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G5 C13 - 513.6775
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G5 C2 - 430.9728
CAL CS4-7604-277 - SMT

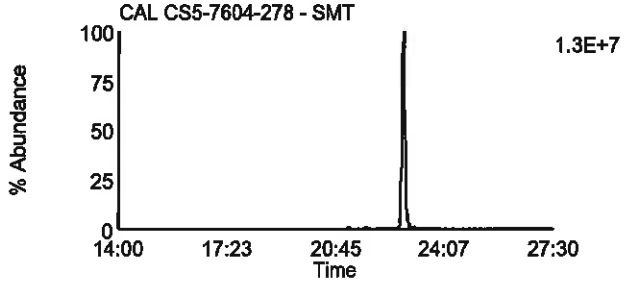


Homologue Group: Tetras

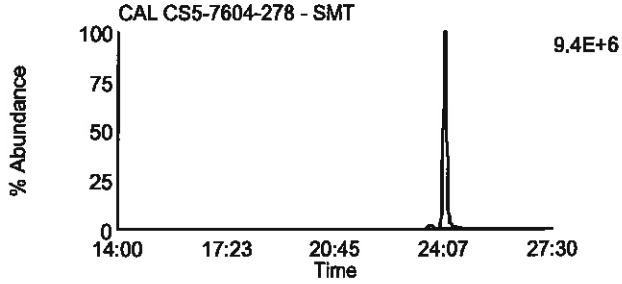
Data File Name: U130729B_12
Date Acquired: 7/30/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130729B_12 G1 C1 - 303.9016
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G1 C7 - 319.8965
CAL CS5-7604-278 - SMT



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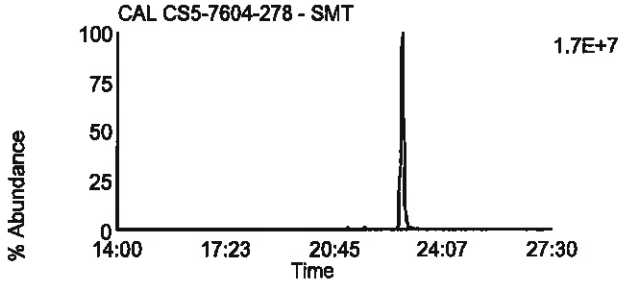
CAL CS5-7604-278 - SMT



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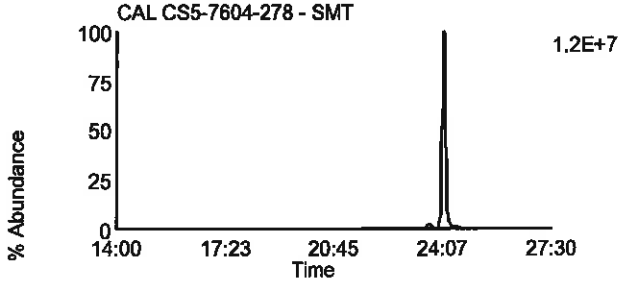
CAL CS5-7604-278 - SMT



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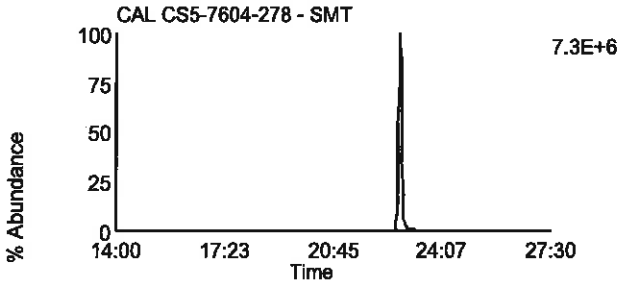
CAL CS5-7604-278 - SMT



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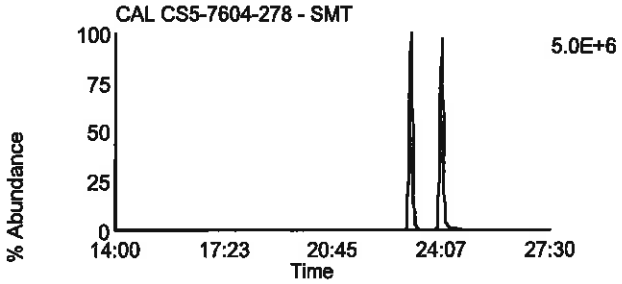
CAL CS5-7604-278 - SMT



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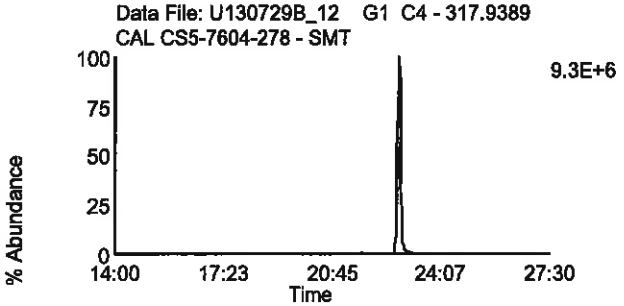
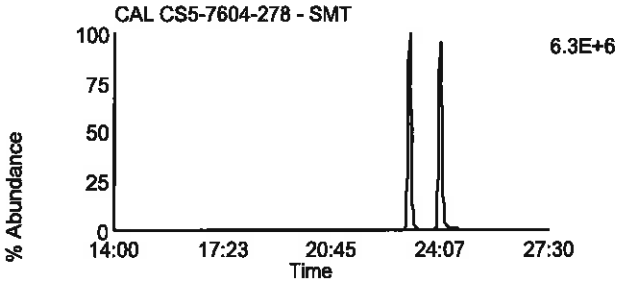
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G1 C11 - 333.9338
CAL CS5-7604-278 - SMT



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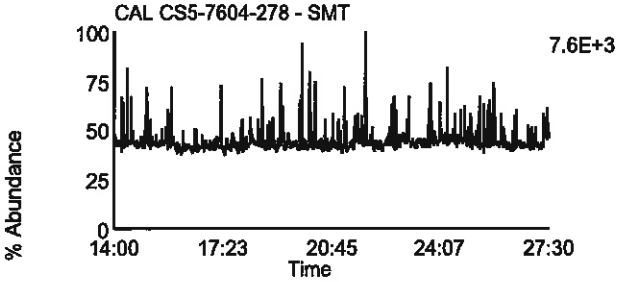
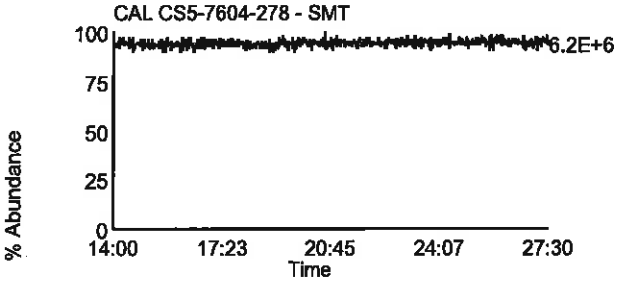
CAL CS5-7604-278 - SMT

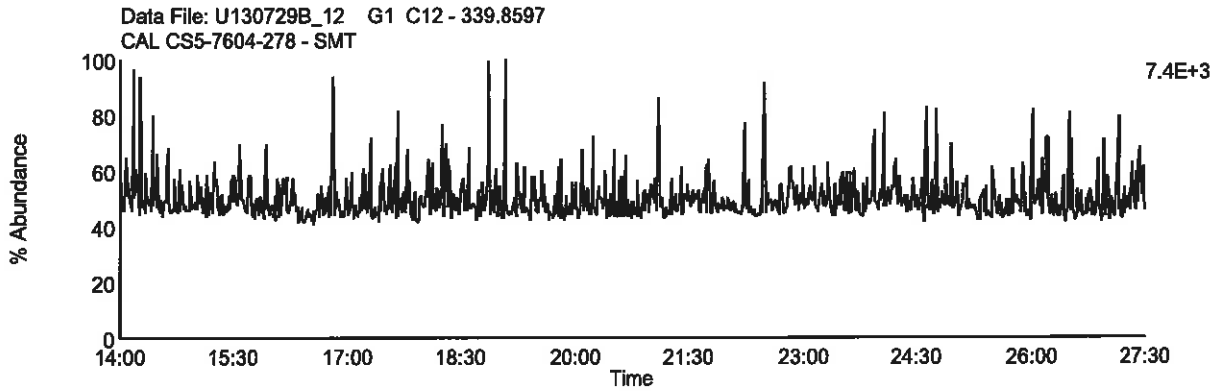


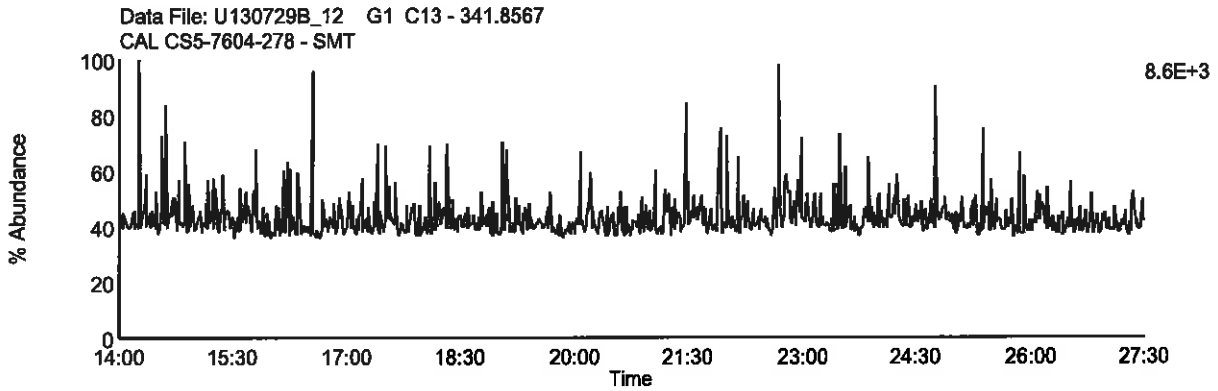
Data File: U130729B_12 G1 C5 - 318.9792
CAL CS5-7604-278 - SMT

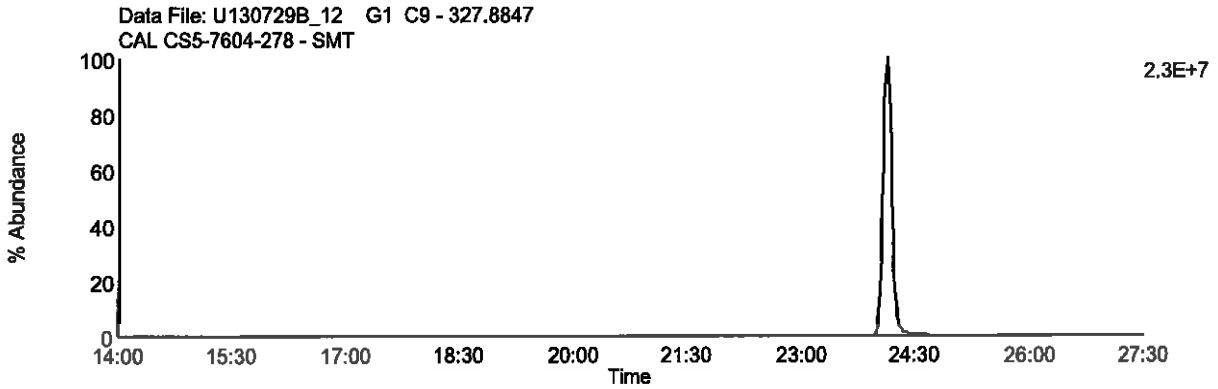


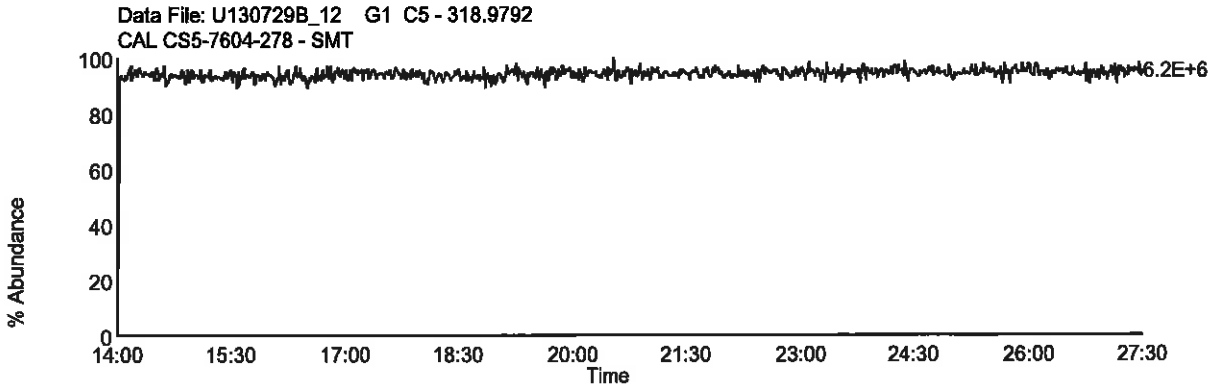
Homologue Group: Penta & Cleanup

Data File Name: U130729B_12	Lab Sample ID: CS5-7604-278
Date Acquired: 7/30/2013	Client Sample ID:
Sample Description: CAL CS5-7604-278 - SMT	Instrument: 10MSHR06 (U)







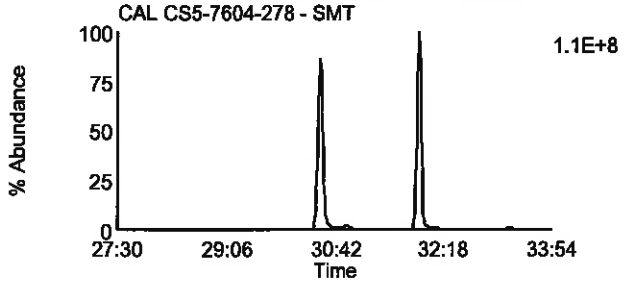


Homologue Group: Pentas

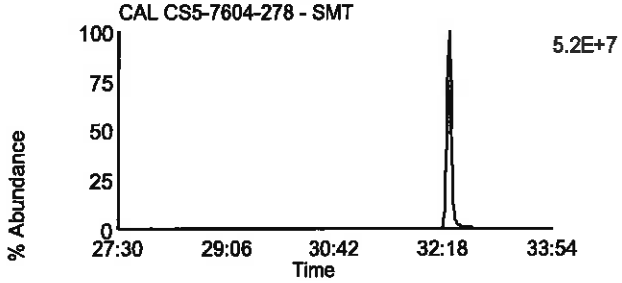
Data File Name: U130729B_12
Date Acquired: 7/30/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR06 (U)

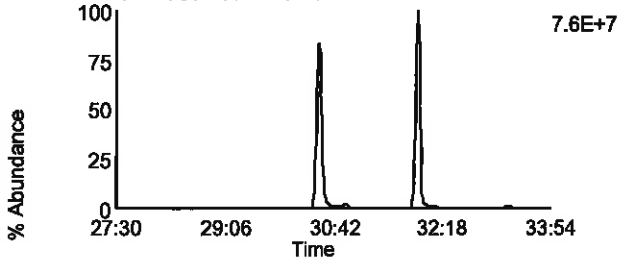
Data File: U130729B_12 G2 C1 - 339.8597
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G2 C4 - 353.8576
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G2 C2 - 341.8567
CAL CS5-7604-278 - SMT



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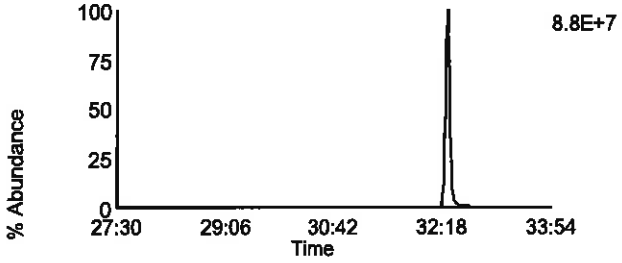
CAL CS5-7604-278 - SMT



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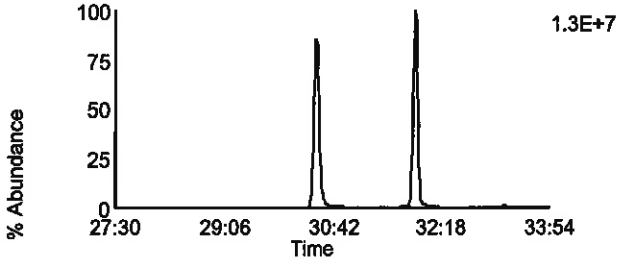
CAL CS5-7604-278 - SMT



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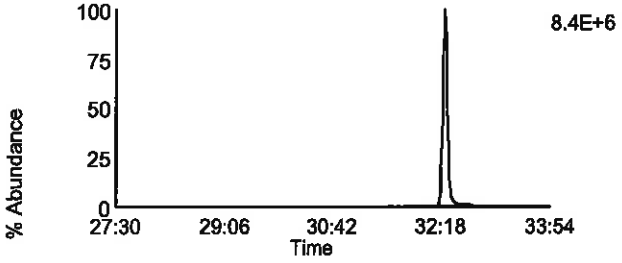
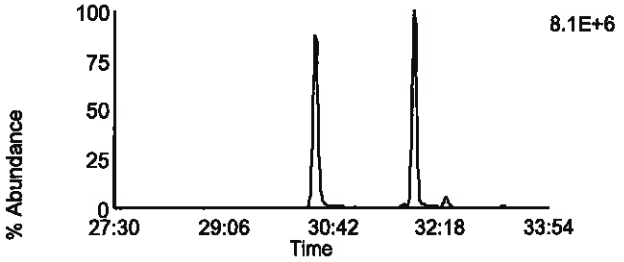
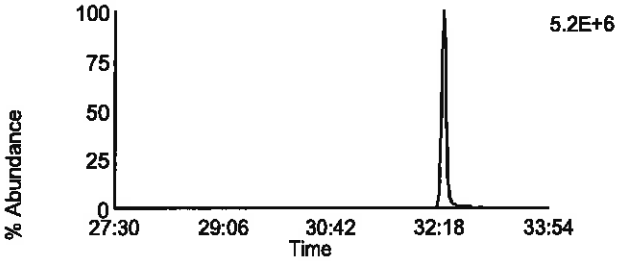
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G2 C5 - 353.8969
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G2 C11 - 369.8918
CAL CS5-7604-278 - SMT



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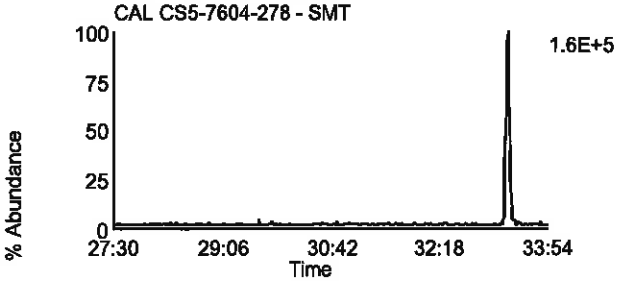
CAL CS5-7604-278 - SMT



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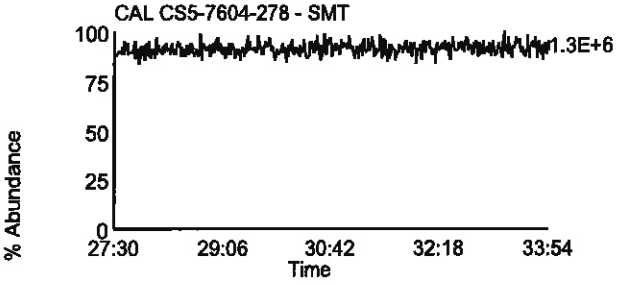
CAL CS5-7604-278 - SMT

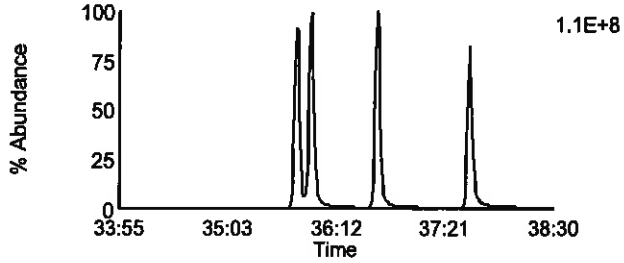


Homologue Group: Hexas

Data File Name: U130729B_12
Date Acquired: 7/30/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130729B_12 G3 C1 - 373.8207
CAL CS5-7604-278 - SMT



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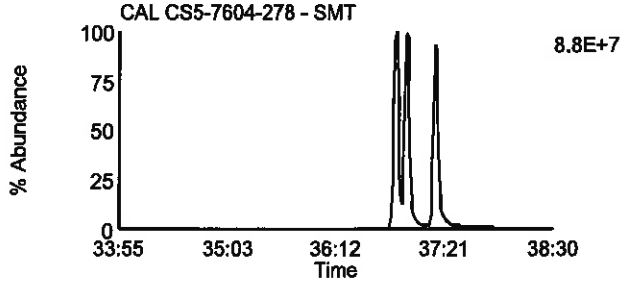
CAL CS5-7604-278 - SMT



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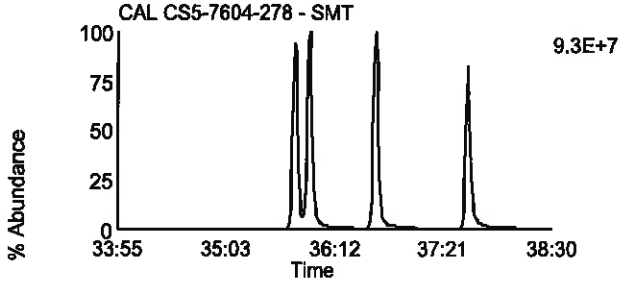
CAL CS5-7604-278 - SMT



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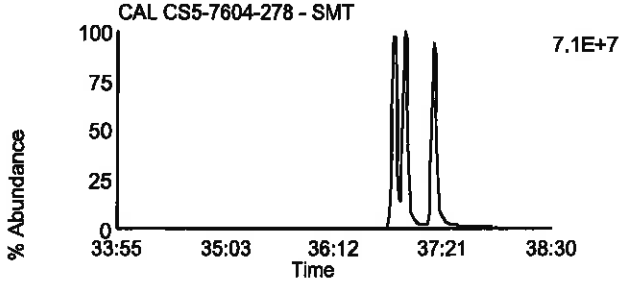
CAL CS5-7604-278 - SMT



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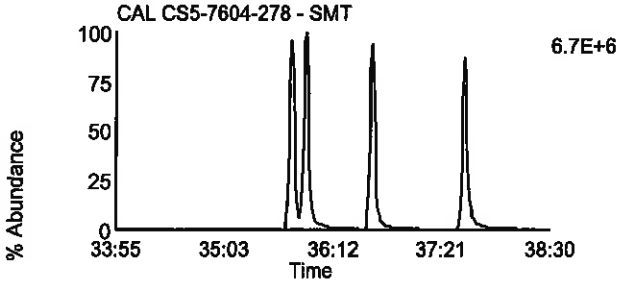
CAL CS5-7604-278 - SMT



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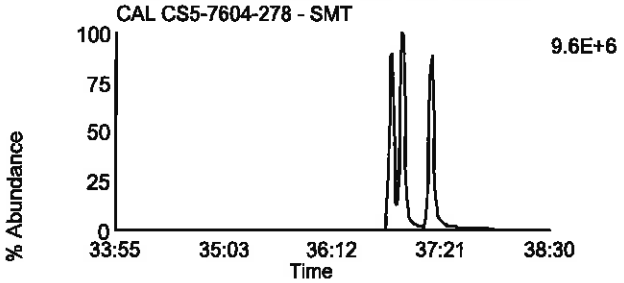
CAL CS5-7604-278 - SMT



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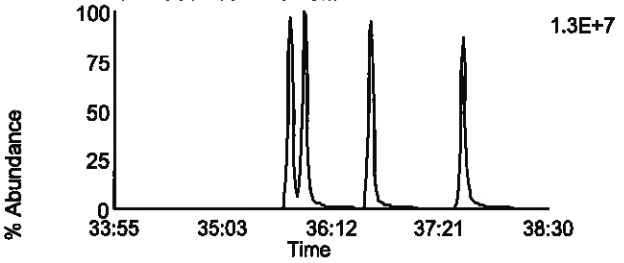
CAL CS5-7604-278 - SMT



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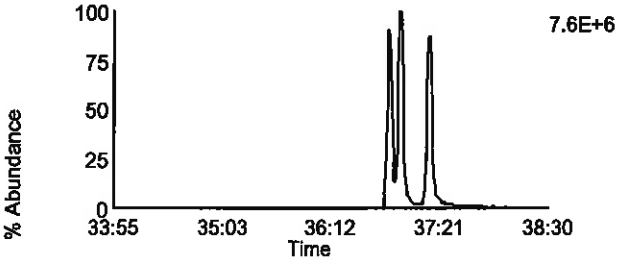
CAL CS5-7604-278 - SMT



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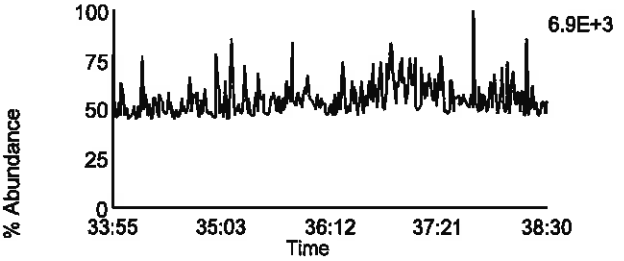
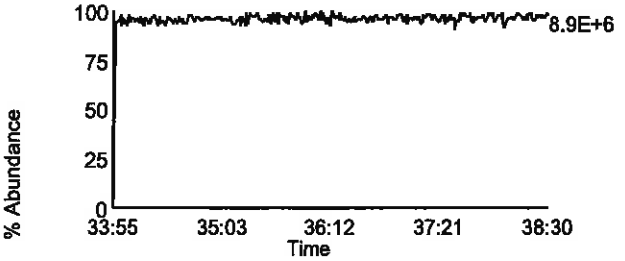
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G3 C3 - 380.976
CAL CS5-7604-278 - SMT

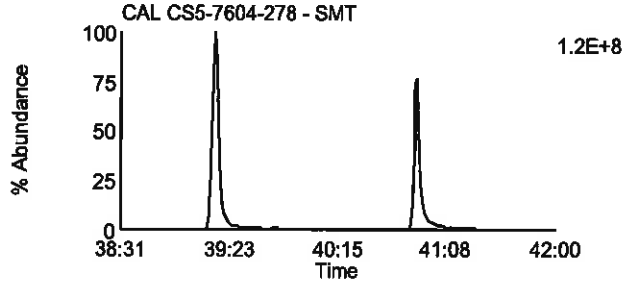


Homologue Group: Heptas

Data File Name: U130729B_12
Date Acquired: 7/30/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130729B_12 G4 C3 - 407.7818
CAL CS5-7604-278 - SMT



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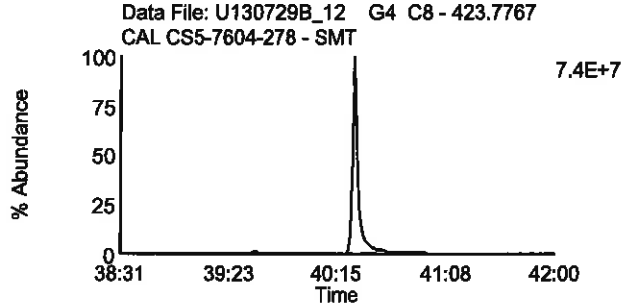
CAL CS5-7604-278 - SMT



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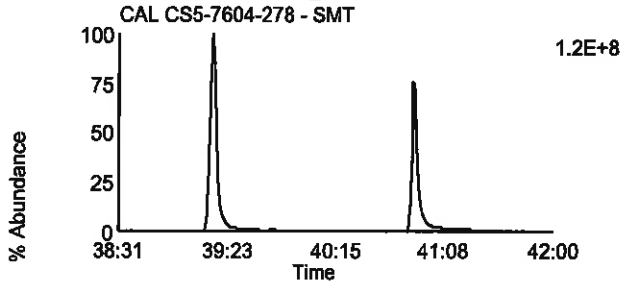
CAL CS5-7604-278 - SMT



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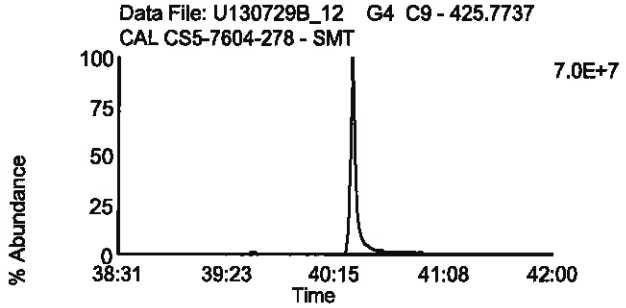
CAL CS5-7604-278 - SMT



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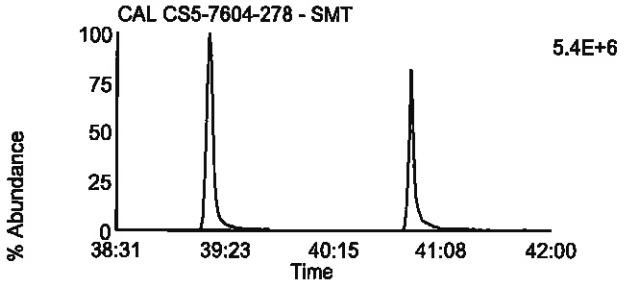
CAL CS5-7604-278 - SMT



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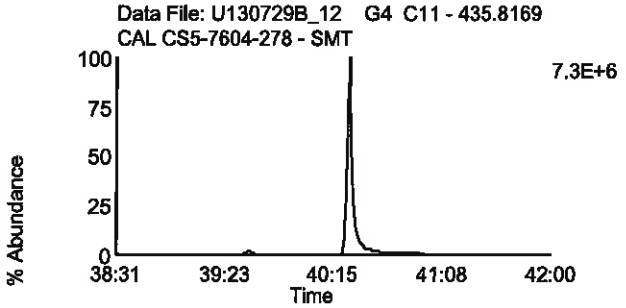
CAL CS5-7604-278 - SMT



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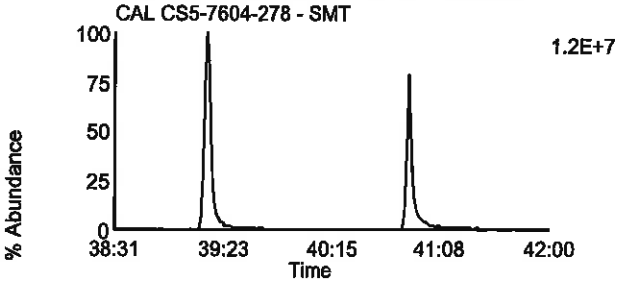
CAL CS5-7604-278 - SMT



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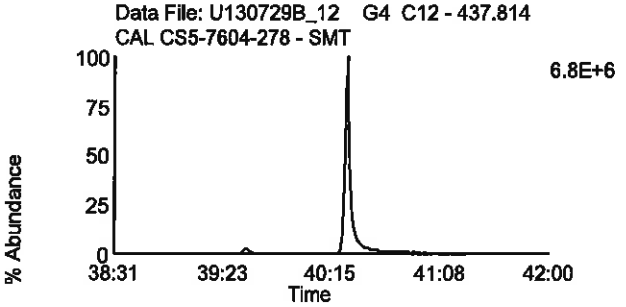

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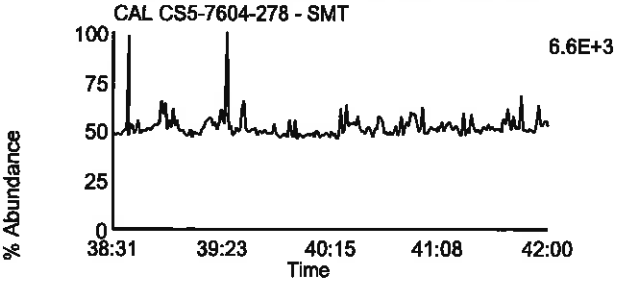
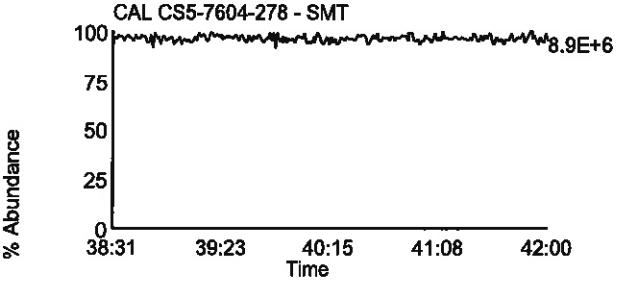
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G4 C1 - 380.976
CAL CS5-7604-278 - SMT

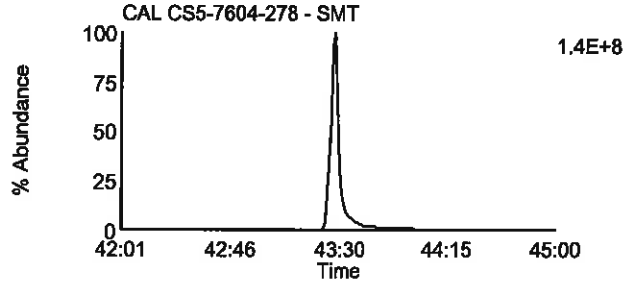


Homologue Group: Octas

Data File Name: U130729B_12
Date Acquired: 7/30/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130729B_12 G5 C4 - 441.7428
CAL CS5-7604-278 - SMT



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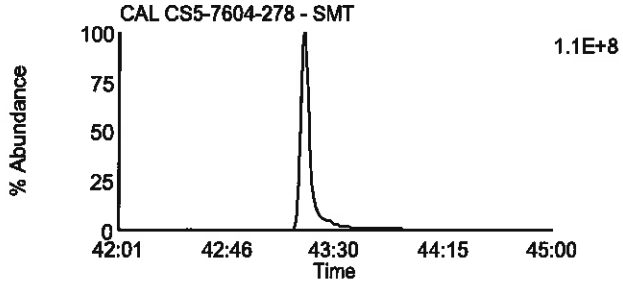
CAL CS5-7604-278 - SMT



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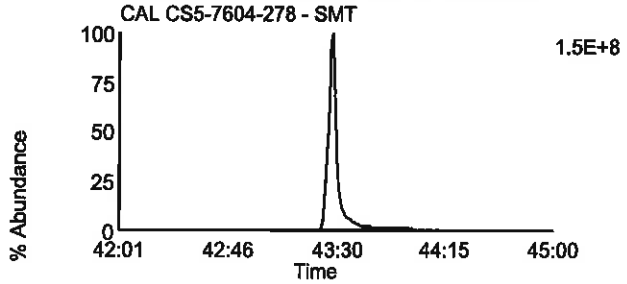
CAL CS5-7604-278 - SMT



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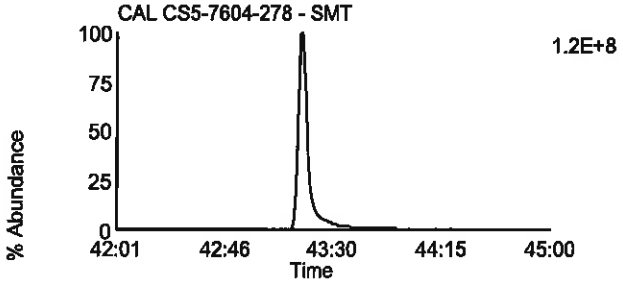
CAL CS5-7604-278 - SMT



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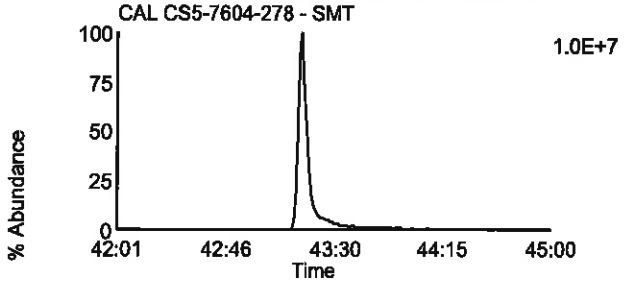
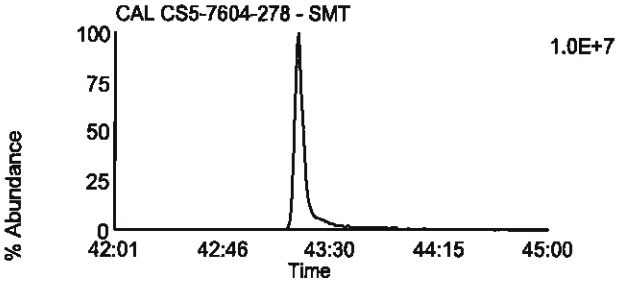
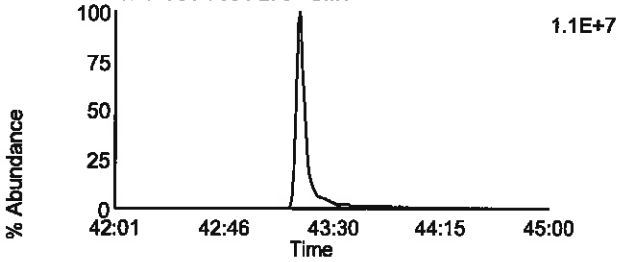
CAL CS5-7604-278 - SMT



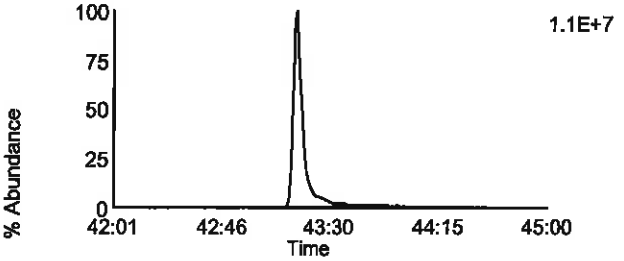
Data File: U130729B_12 G5 C11 - 469.7779
CAL CS5-7604-278 - SMT



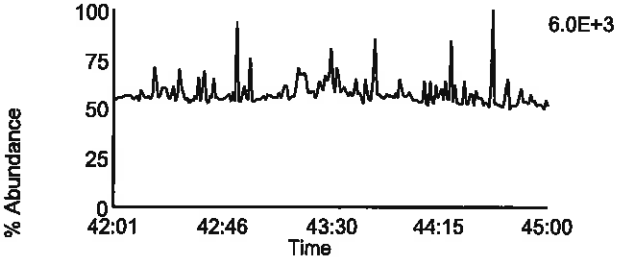
Data File: U130729B_12 G5 C12 - 471.7749
CAL CS5-7604-278 - SMT



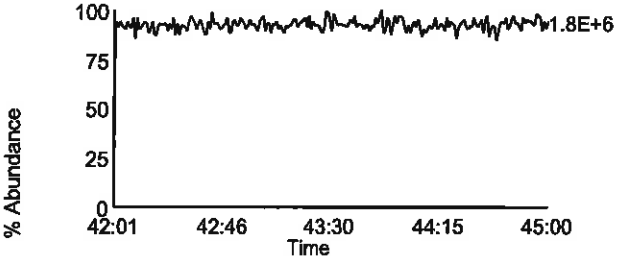
Data File: U130729B_12 G5 C12 - 471.7749
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G5 C13 - 513.6775
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G5 C2 - 430.9728
CAL CS5-7604-278 - SMT

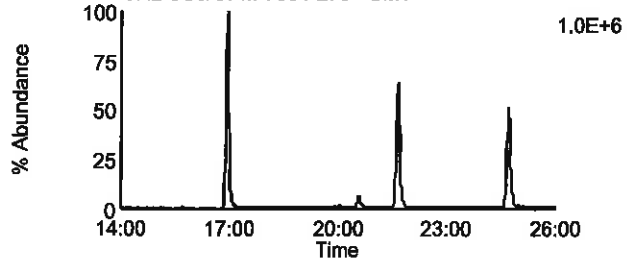


Homologue Group: Tetras

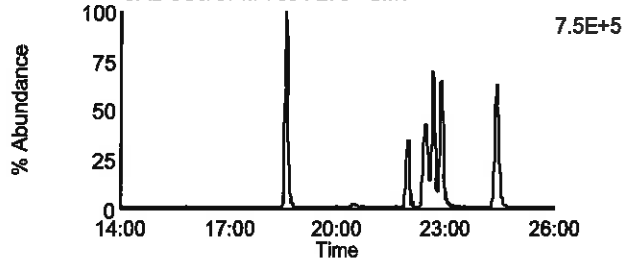
Data File Name: U130917A_06
Date Acquired: 9/17/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

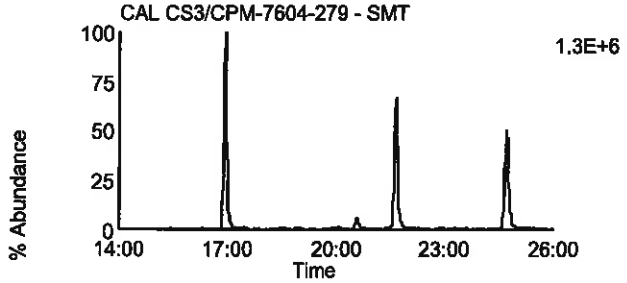
Data File: U130917A_06 G1 C1 - 303.9016
CAL CS3/CPM-7604-279 - SMT



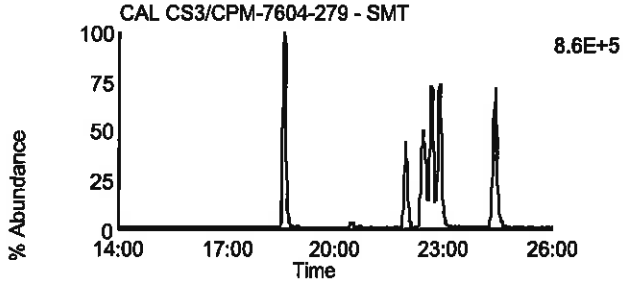
Data File: U130917A_06 G1 C7 - 319.8965
CAL CS3/CPM-7604-279 - SMT



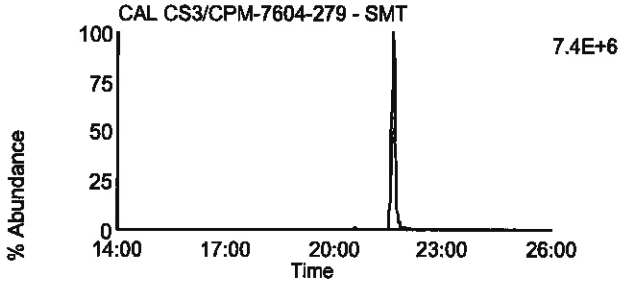
Data File: U130917A_06 G1 C2 - 305.8987
CAL CS3/CPM-7604-279 - SMT



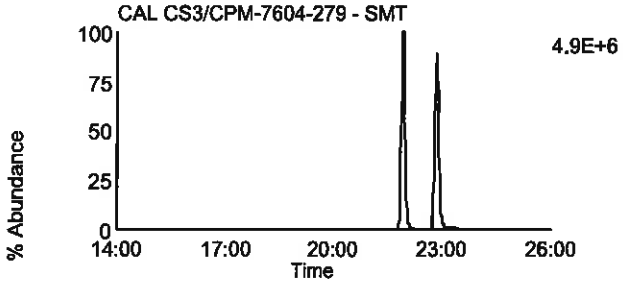
Data File: U130917A_06 G1 C8 - 321.8936
CAL CS3/CPM-7604-279 - SMT



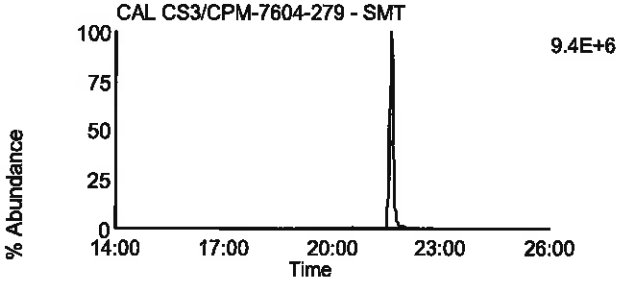
Data File: U130917A_06 G1 C3 - 315.9418
CAL CS3/CPM-7604-279 - SMT



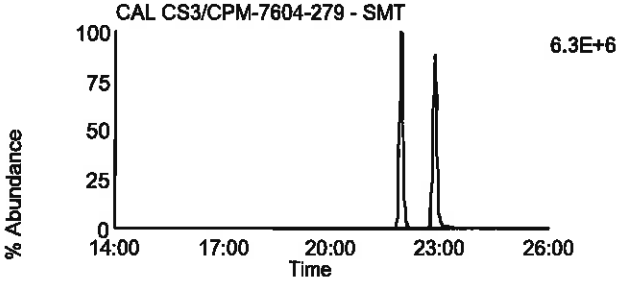
Data File: U130917A_06 G1 C10 - 331.9367
CAL CS3/CPM-7604-279 - SMT



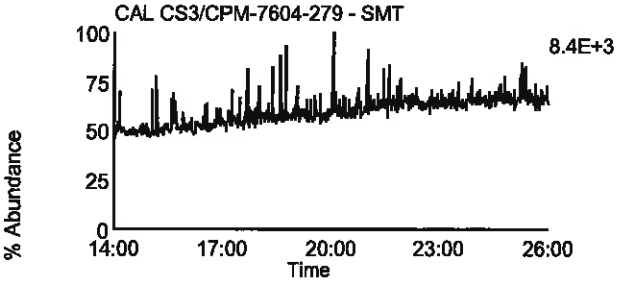
Data File: U130917A_06 G1 C4 - 317.9389
CAL CS3/CPM-7604-279 - SMT



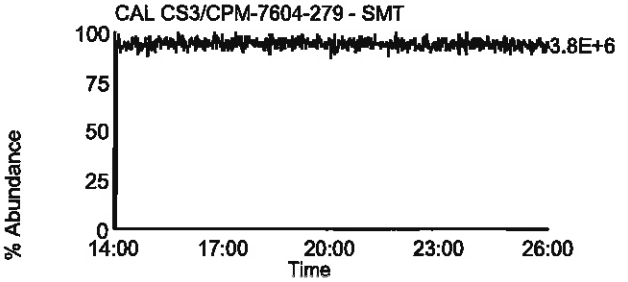
Data File: U130917A_06 G1 C11 - 333.9338
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_06 G1 C14 - 375.8364
CAL CS3/CPM-7604-279 - SMT



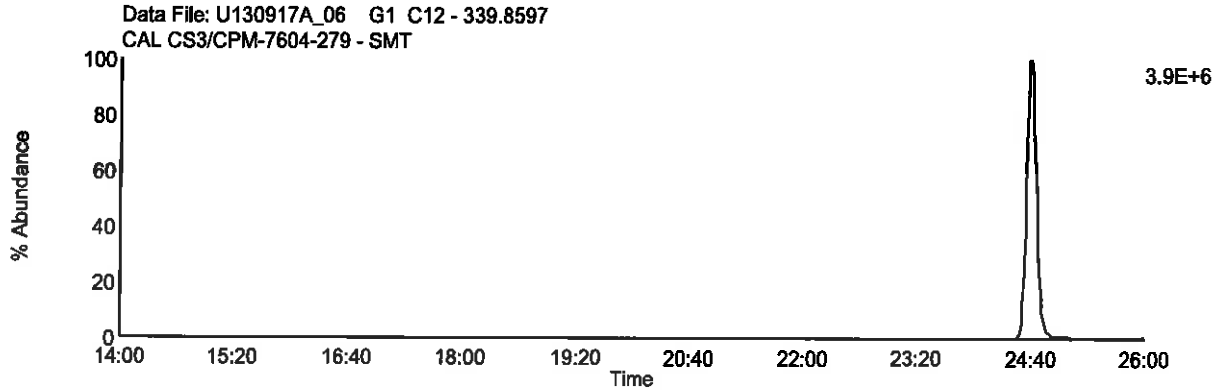
Data File: U130917A_06 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - SMT

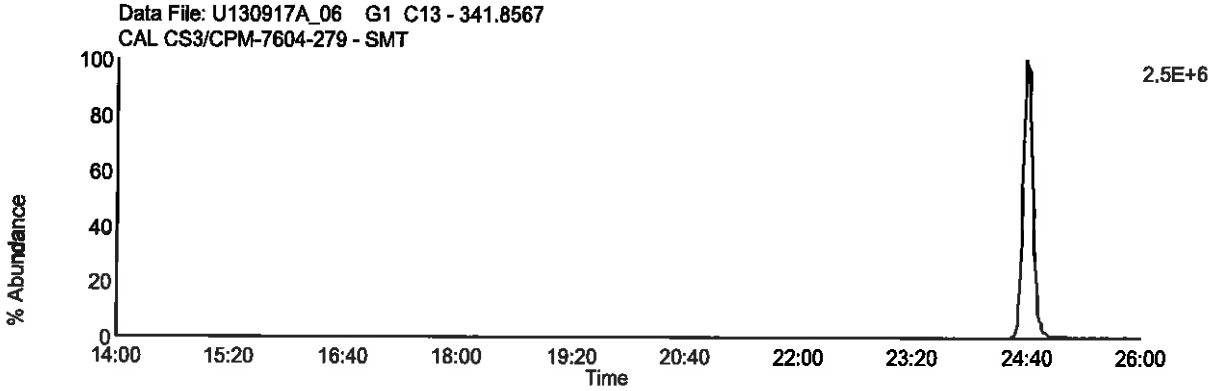


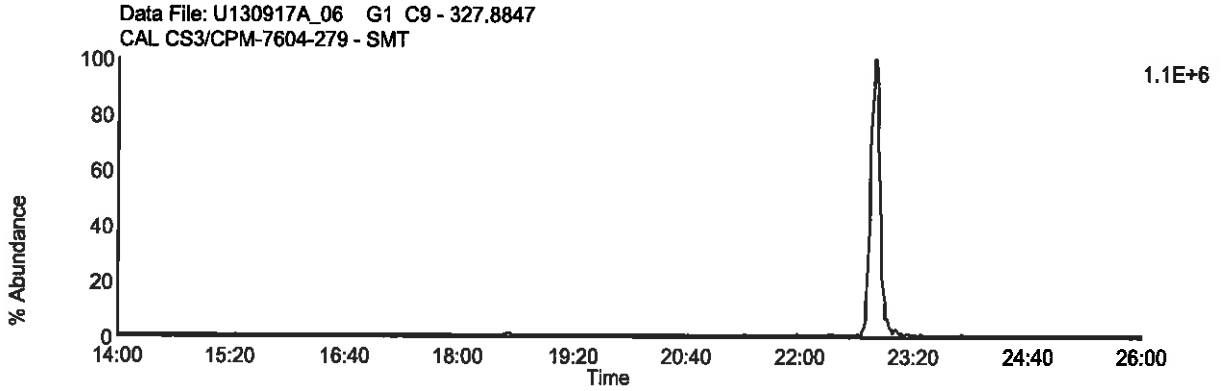
Homologue Group: Penta & Cleanup

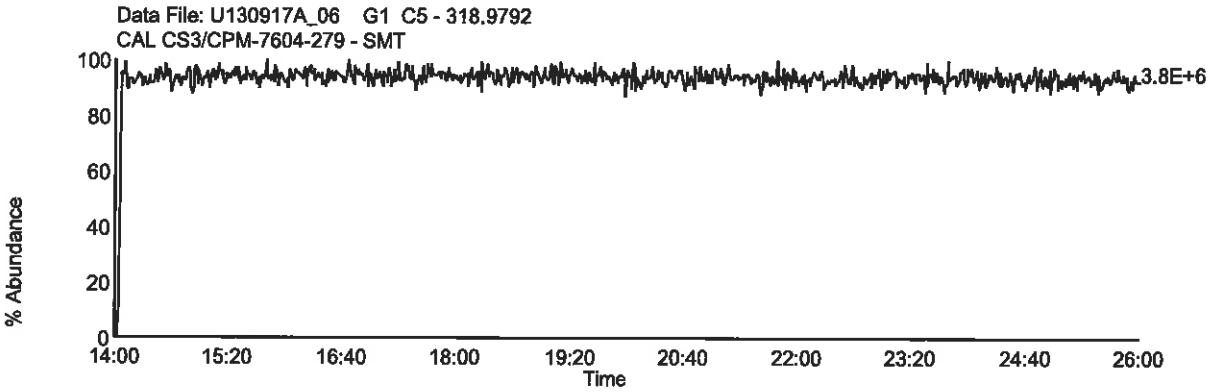
Data File Name: U130917A_06
Date Acquired: 9/17/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)







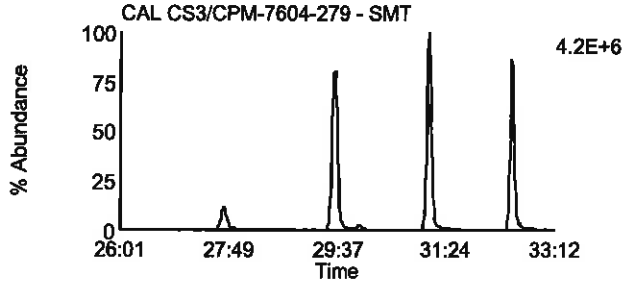


Homologue Group: Pentas

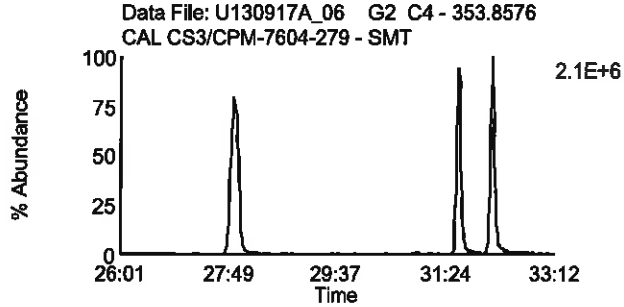
Data File Name: U130917A_06
Date Acquired: 9/17/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

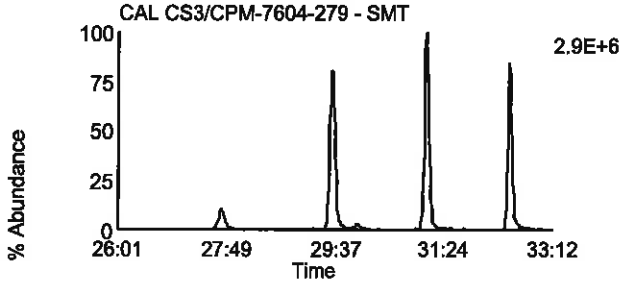
Data File: U130917A_06 G2 C1 - 339.8597
CAL CS3/CPM-7604-279 - SMT



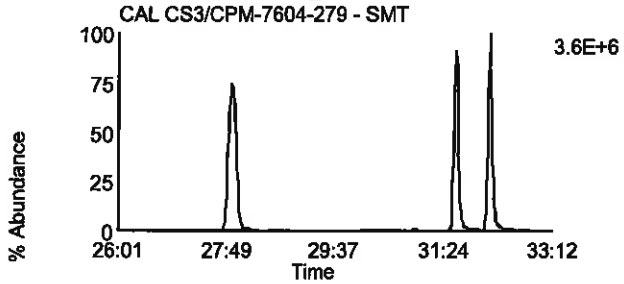
Data File: U130917A_06 G2 C4 - 353.8576
CAL CS3/CPM-7604-279 - SMT



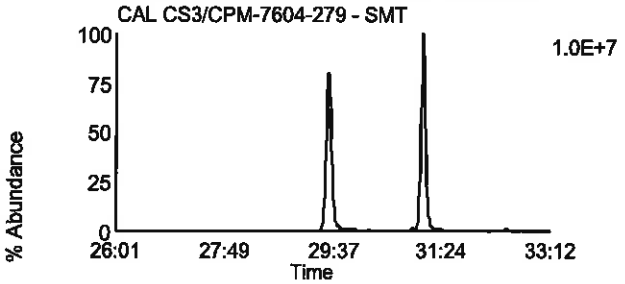
Data File: U130917A_06 G2 C2 - 341.8567
CAL CS3/CPM-7604-279 - SMT



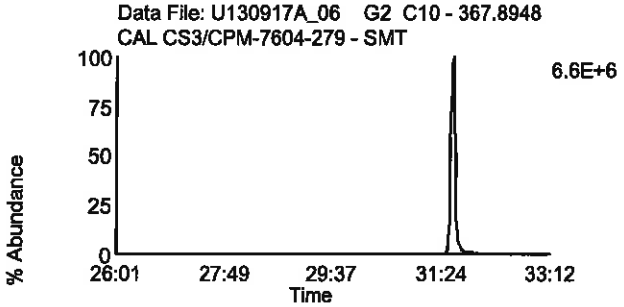
Data File: U130917A_06 G2 C8 - 355.8546
CAL CS3/CPM-7604-279 - SMT



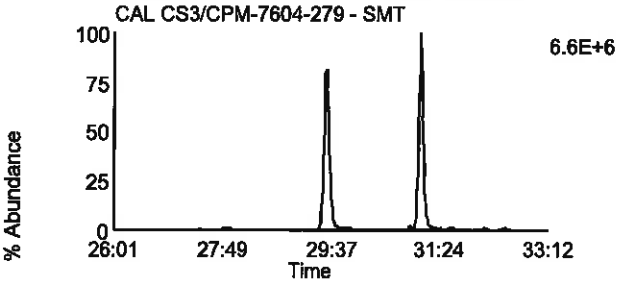
Data File: U130917A_06 G2 C3 - 351.8999
CAL CS3/CPM-7604-279 - SMT



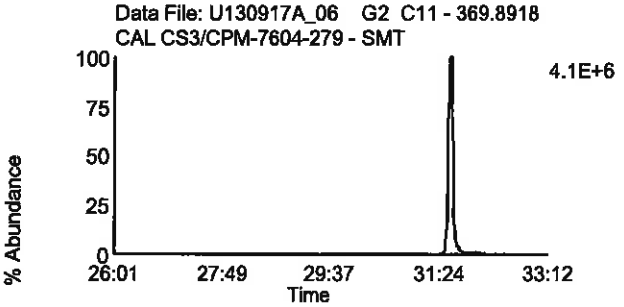
Data File: U130917A_06 G2 C10 - 367.8948
CAL CS3/CPM-7604-279 - SMT



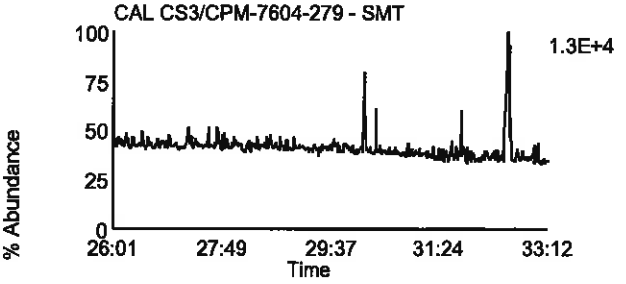
Data File: U130917A_06 G2 C5 - 353.8969
CAL CS3/CPM-7604-279 - SMT



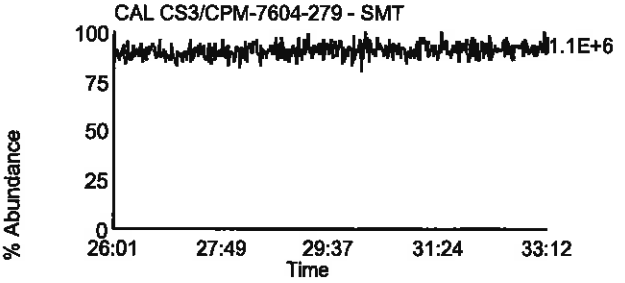
Data File: U130917A_06 G2 C11 - 369.8918
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_06 G2 C12 - 409.7974
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_06 G2 C6 - 354.9792
CAL CS3/CPM-7604-279 - SMT

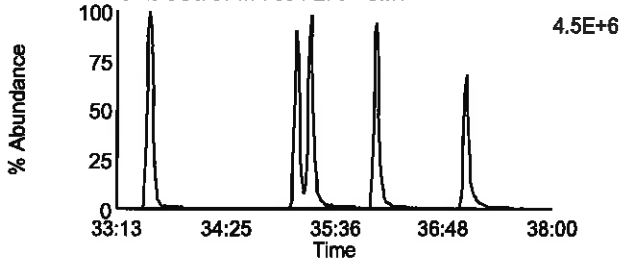


Homologue Group: Hexas

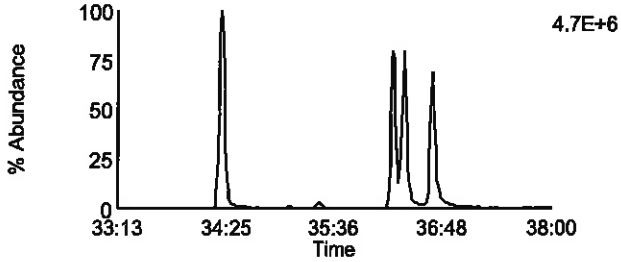
Data File Name: U130917A_06
Date Acquired: 9/17/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

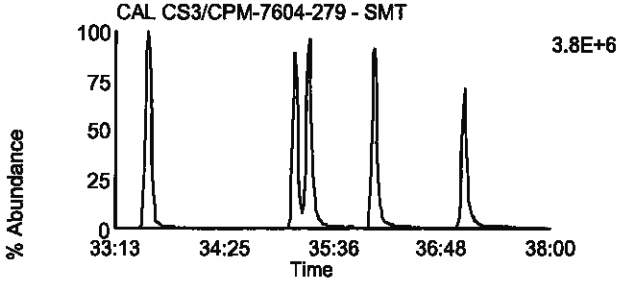
Data File: U130917A_06 G3 C1 - 373.8207
CAL CS3/CPM-7604-279 - SMT



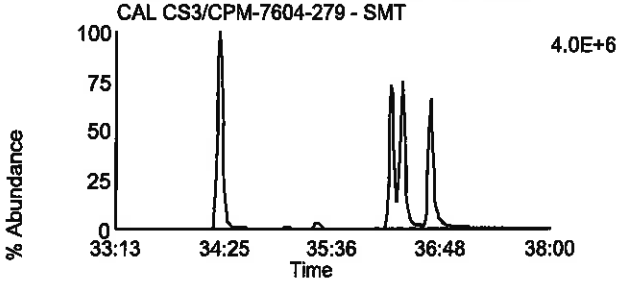
Data File: U130917A_06 G3 C7 - 389.8156
CAL CS3/CPM-7604-279 - SMT



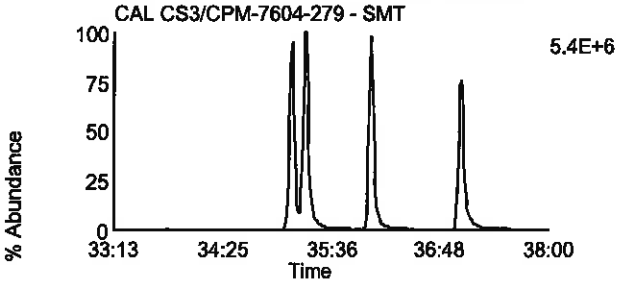
Data File: U130917A_06 G3 C2 - 375.8178
CAL CS3/CPM-7604-279 - SMT



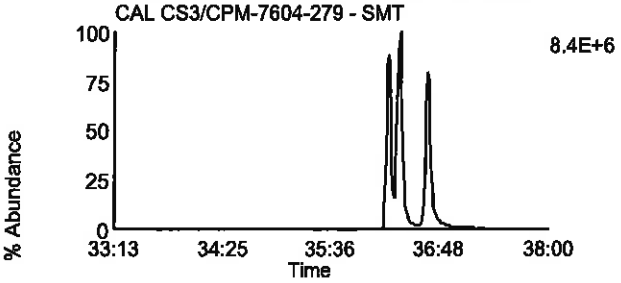
Data File: U130917A_06 G3 C8 - 391.8127
CAL CS3/CPM-7604-279 - SMT



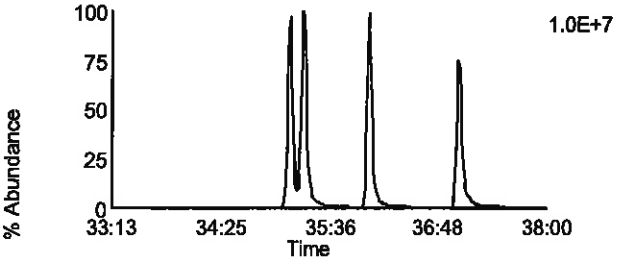
Data File: U130917A_06 G3 C5 - 383.8639
CAL CS3/CPM-7604-279 - SMT



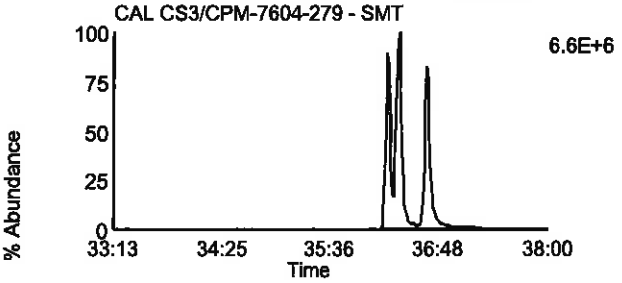
Data File: U130917A_06 G3 C9 - 401.8559
CAL CS3/CPM-7604-279 - SMT



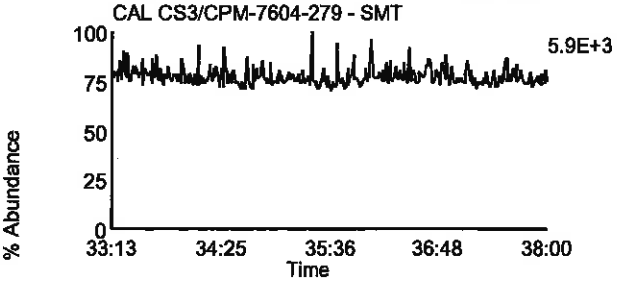
Data File: U130917A_06 G3 C6 - 385.861
CAL CS3/CPM-7604-279 - SMT



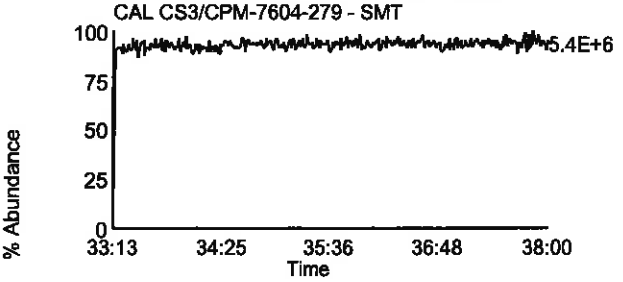
Data File: U130917A_06 G3 C10 - 403.8529
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_06 G3 C11 - 445.7555
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_06 G3 C3 - 380.976
CAL CS3/CPM-7604-279 - SMT

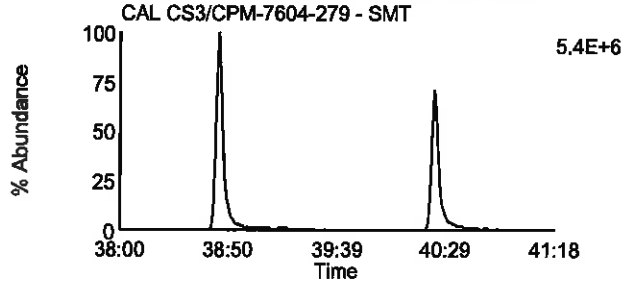


Homologue Group: Heptas

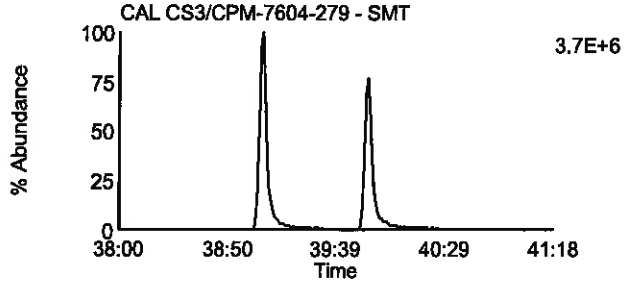
Data File Name: U130917A_06
Date Acquired: 9/17/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

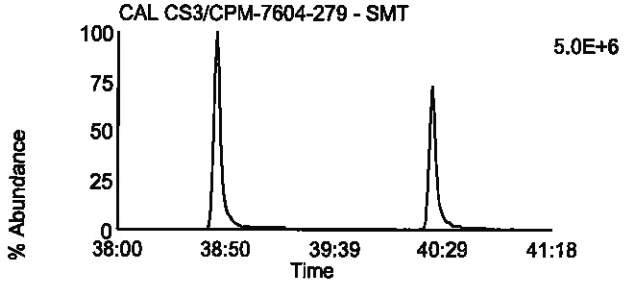
Data File: U130917A_06 G4 C3 - 407.7818
CAL CS3/CPM-7604-279 - SMT



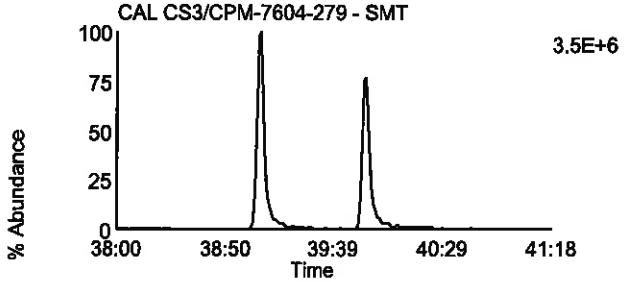
Data File: U130917A_06 G4 C8 - 423.7767
CAL CS3/CPM-7604-279 - SMT



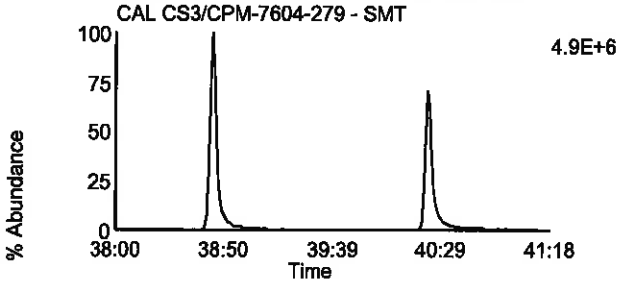
Data File: U130917A_06 G4 C4 - 409.7788
CAL CS3/CPM-7604-279 - SMT



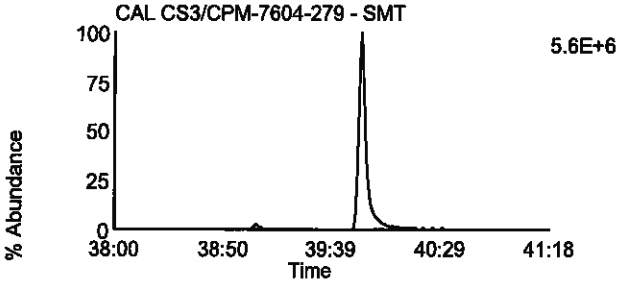
Data File: U130917A_06 G4 C9 - 425.7737
CAL CS3/CPM-7604-279 - SMT



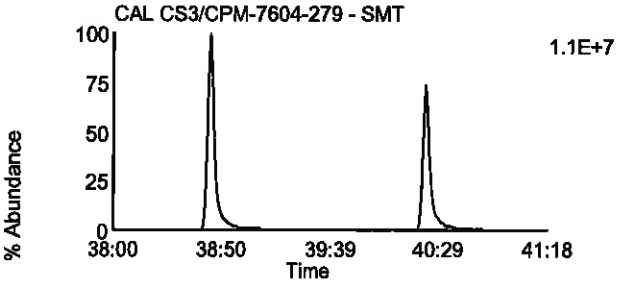
Data File: U130917A_06 G4 C6 - 417.825
CAL CS3/CPM-7604-279 - SMT



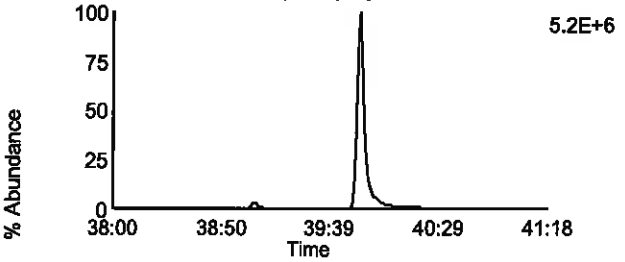
Data File: U130917A_06 G4 C11 - 435.8169
CAL CS3/CPM-7604-279 - SMT



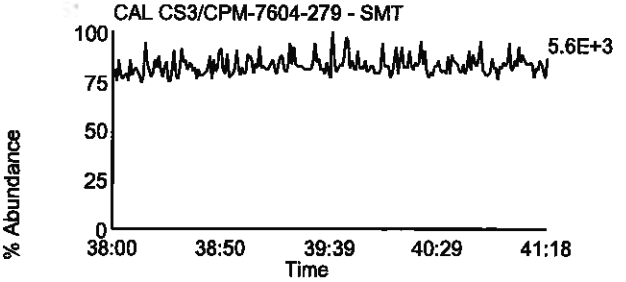
Data File: U130917A_06 G4 C7 - 419.822
CAL CS3/CPM-7604-279 - SMT



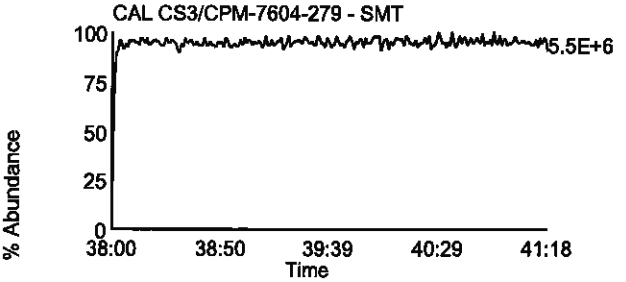
Data File: U130917A_06 G4 C12 - 437.814
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_06 G4 C13 - 479.7165
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_06 G4 C1 - 380.976
CAL CS3/CPM-7604-279 - SMT

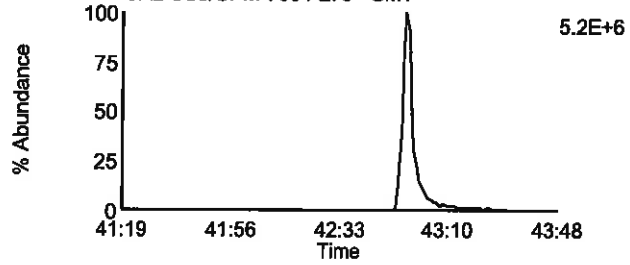


Homologue Group: Octas

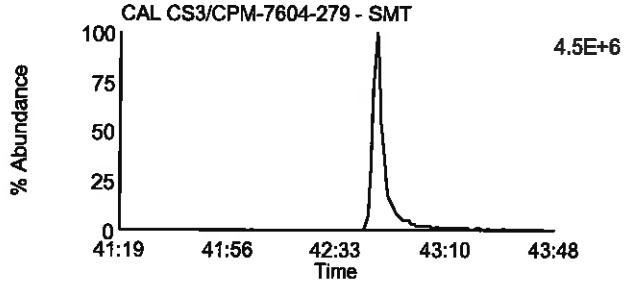
Data File Name: U130917A_06
Date Acquired: 9/17/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

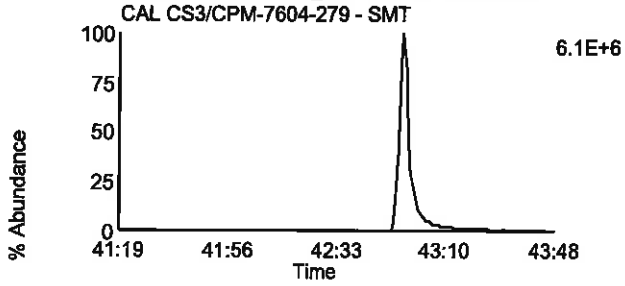
Data File: U130917A_06 G5 C4 - 441.7428
CAL CS3/CPM-7604-279 - SMT



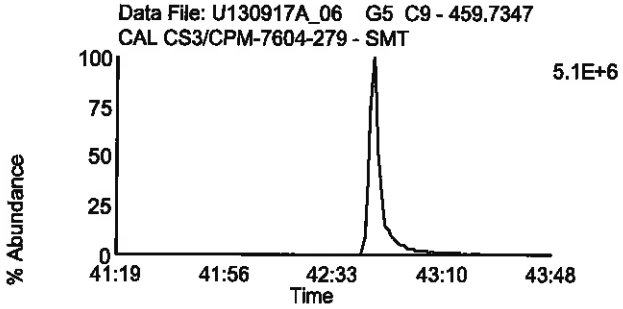
Data File: U130917A_06 G5 C8 - 457.7377
CAL CS3/CPM-7604-279 - SMT



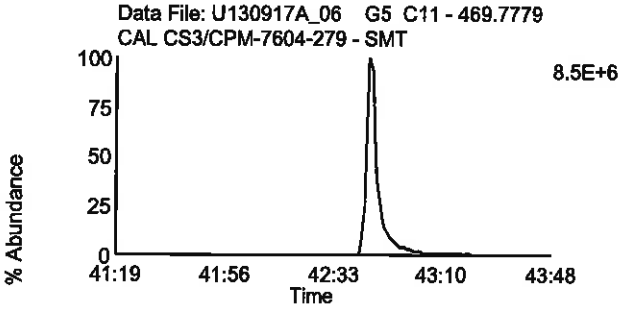
Data File: U130917A_06 G5 C5 - 443.7398
CAL CS3/CPM-7604-279 - SMT



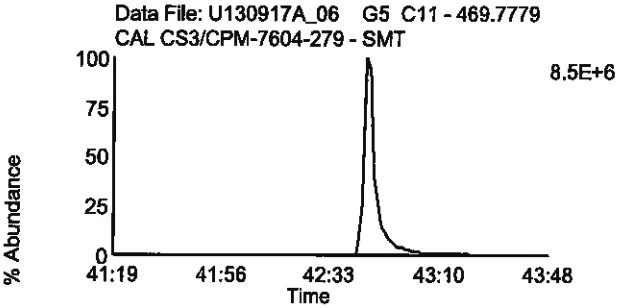
Data File: U130917A_06 G5 C9 - 459.7347
CAL CS3/CPM-7604-279 - SMT



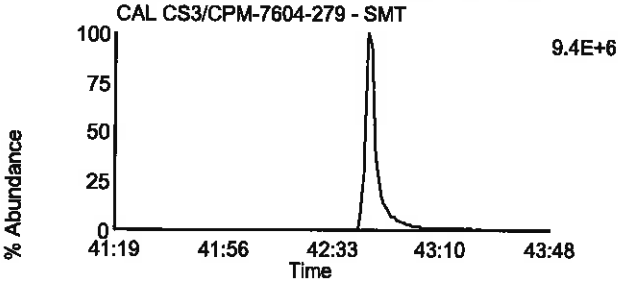
Data File: U130917A_06 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - SMT



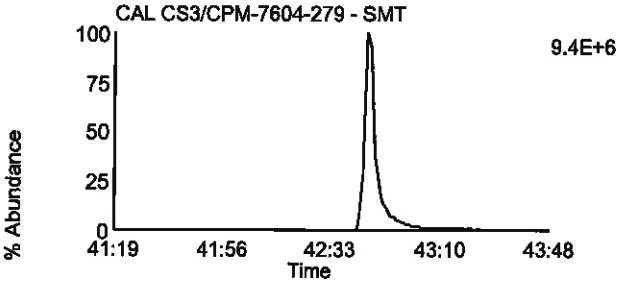
Data File: U130917A_06 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - SMT



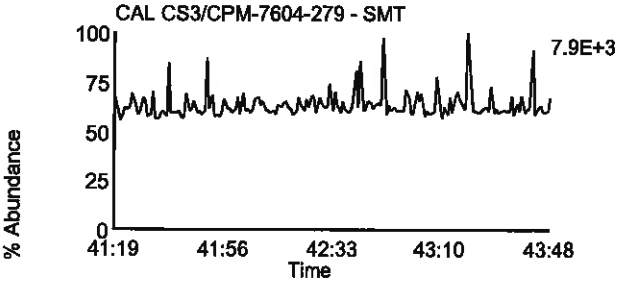
Data File: U130917A_06 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - SMT



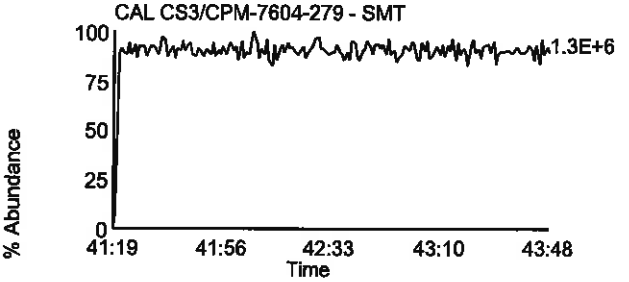
Data File: U130917A_06 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_06 G5 C13 - 513.6775
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_06 G5 C2 - 430.9728
CAL CS3/CPM-7604-279 - SMT

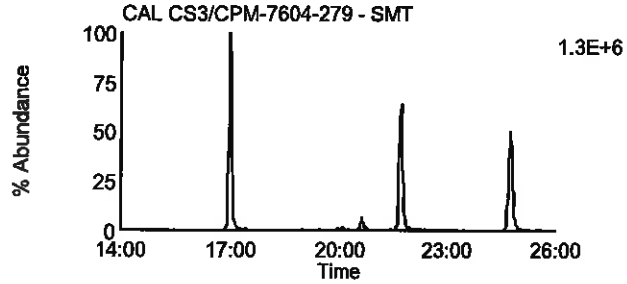


Homologue Group: Tetras

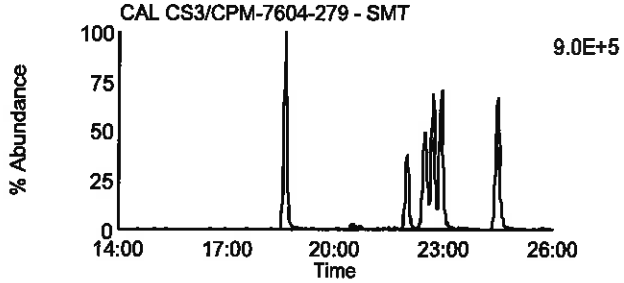
Data File Name: U130917A_22
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

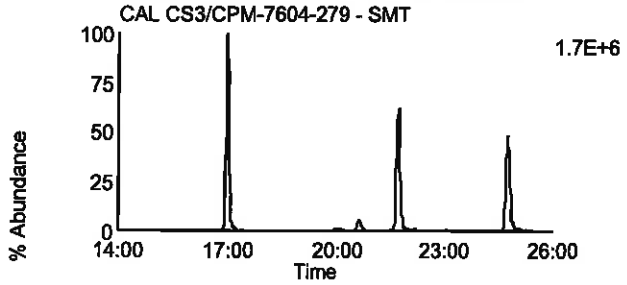
Data File: U130917A_22 G1 C1 - 303.9016
CAL CS3/CPM-7604-279 - SMT



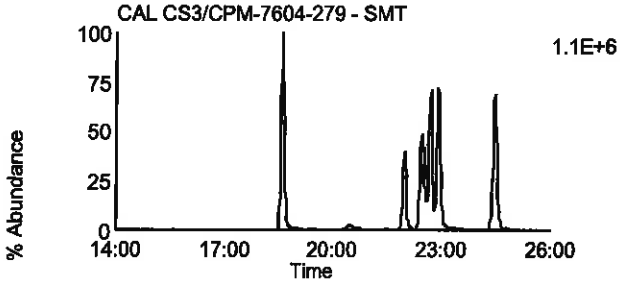
Data File: U130917A_22 G1 C7 - 319.8965
CAL CS3/CPM-7604-279 - SMT



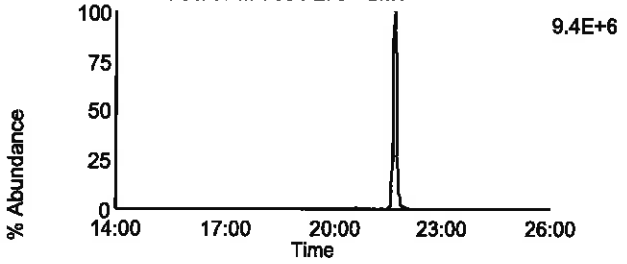
Data File: U130917A_22 G1 C2 - 305.8987
CAL CS3/CPM-7604-279 - SMT



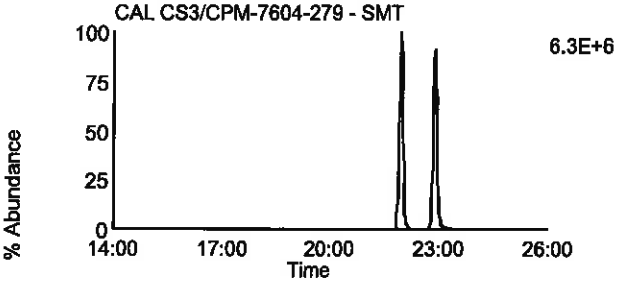
Data File: U130917A_22 G1 C8 - 321.8936
CAL CS3/CPM-7604-279 - SMT



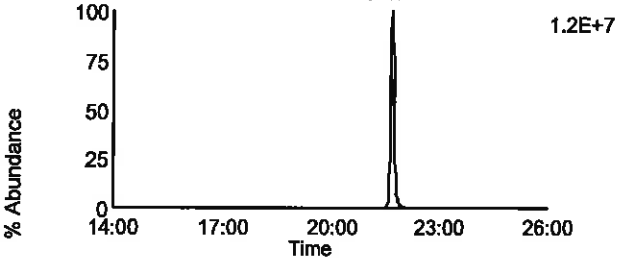
Data File: U130917A_22 G1 C3 - 315.9418
CAL CS3/CPM-7604-279 - SMT



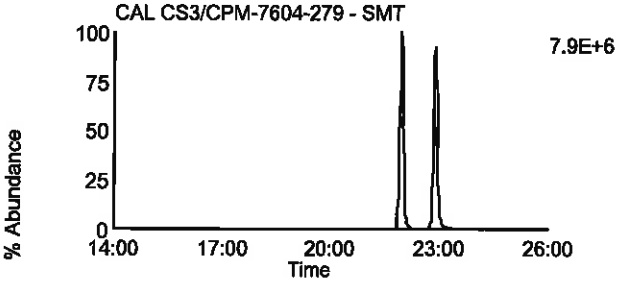
Data File: U130917A_22 G1 C10 - 331.9367
CAL CS3/CPM-7604-279 - SMT



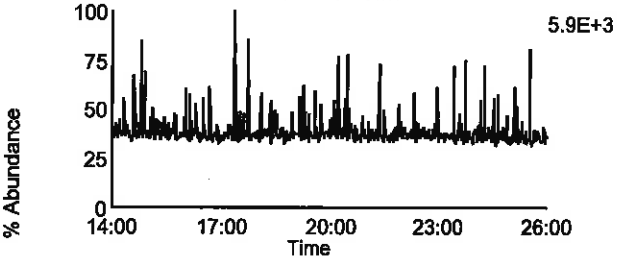
Data File: U130917A_22 G1 C4 - 317.9389
CAL CS3/CPM-7604-279 - SMT



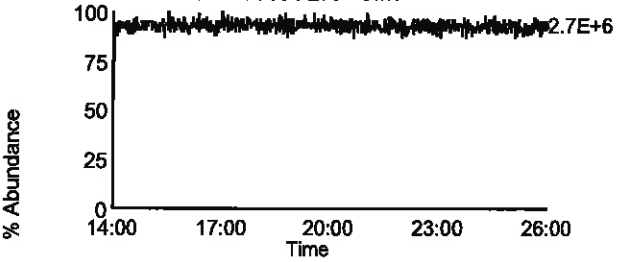
Data File: U130917A_22 G1 C11 - 333.9338
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G1 C14 - 375.8364
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - SMT

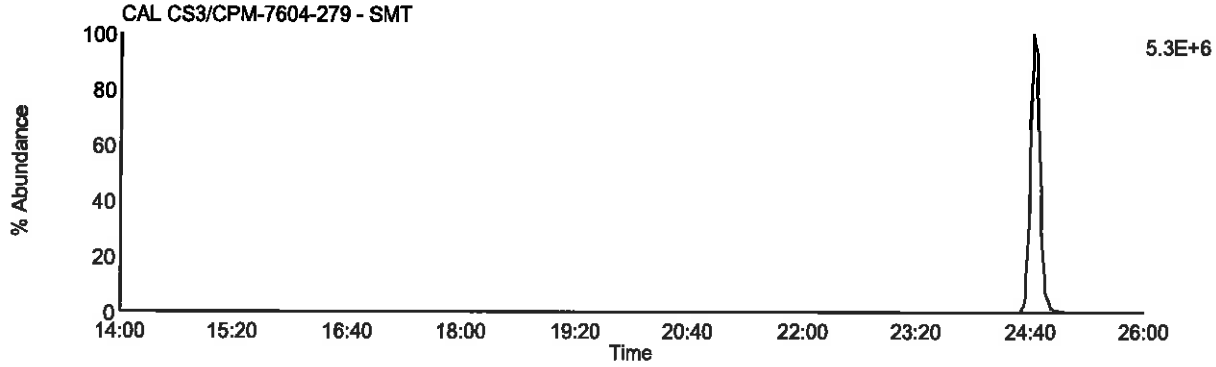


Homologue Group: Penta & Cleanup

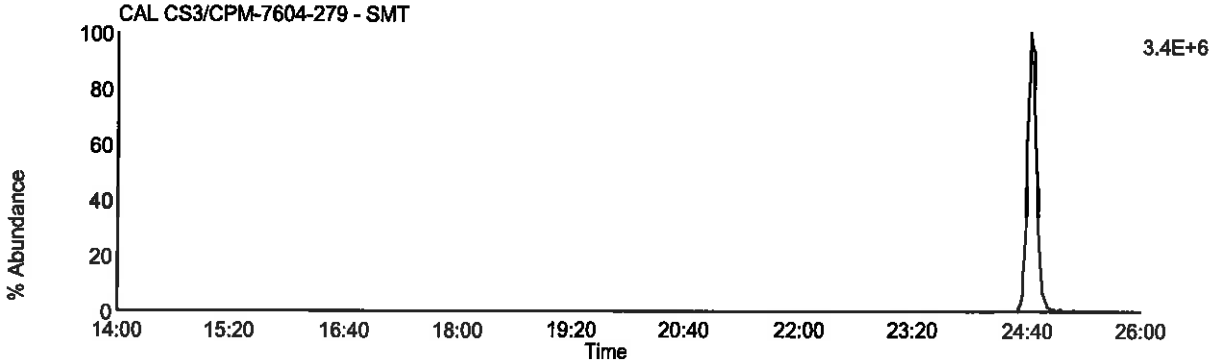
Data File Name: U130917A_22
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

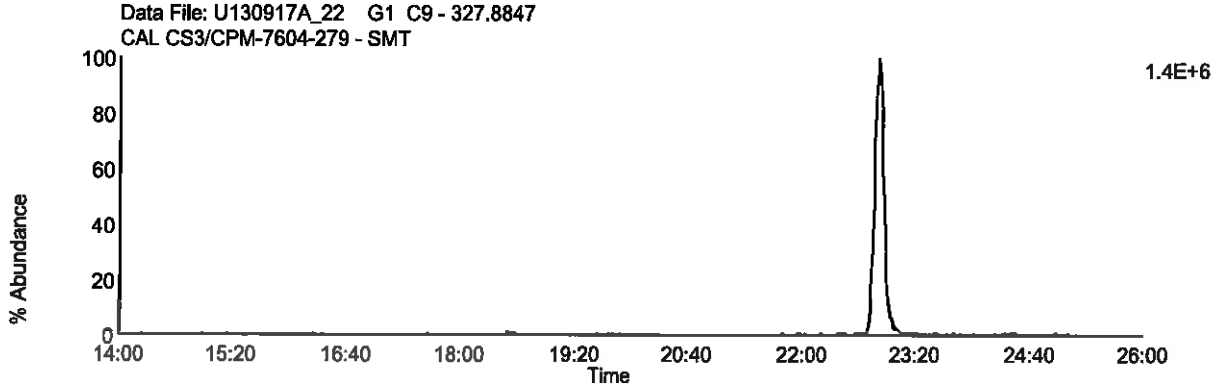
Data File: U130917A_22 G1 C12 - 339.8597
CAL CS3/CPM-7604-279 - SMT



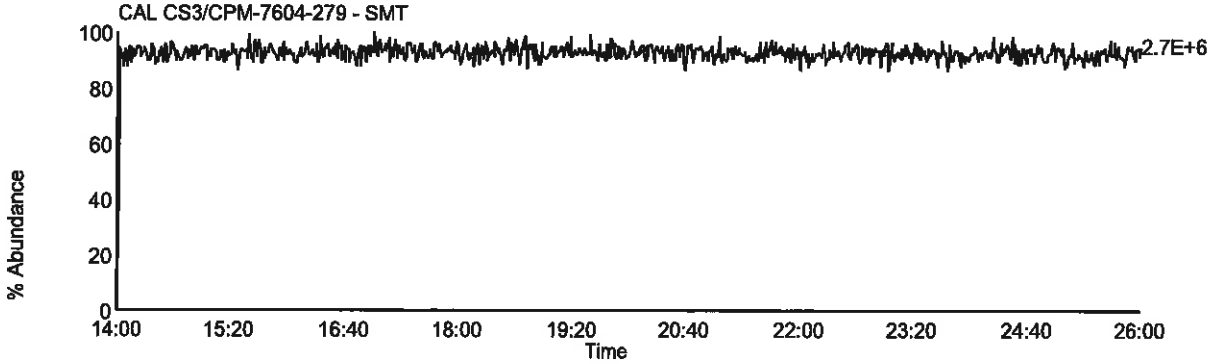
Data File: U130917A_22 G1 C13 - 341.8567
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G1 C9 - 327.8847
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - SMT

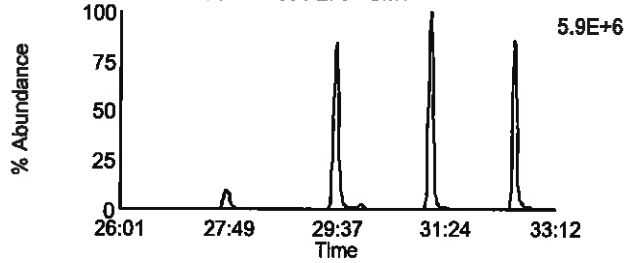


Homologue Group: Pentas

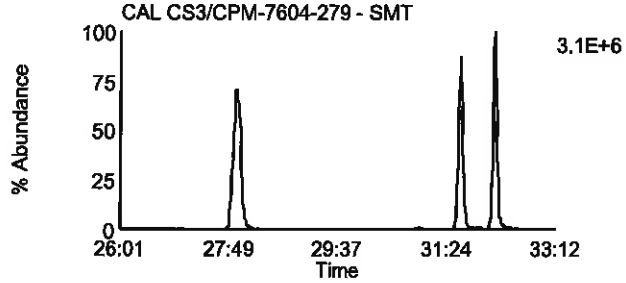
Data File Name: U130917A_22
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

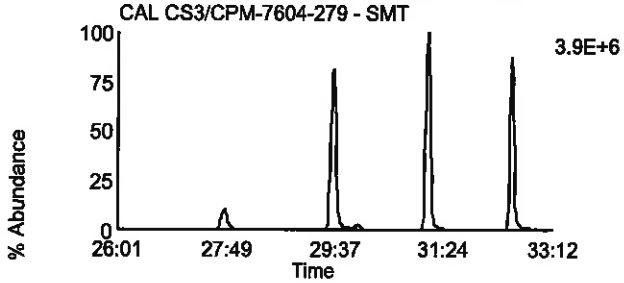
Data File: U130917A_22 G2 C1 - 339.8597
CAL CS3/CPM-7604-279 - SMT



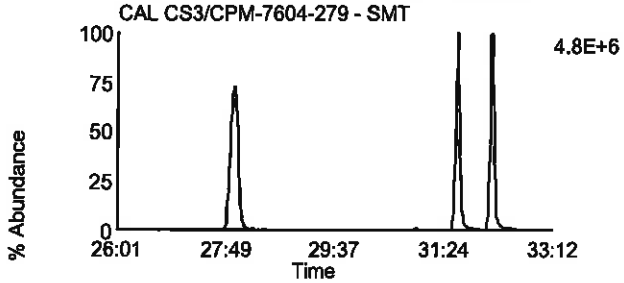
Data File: U130917A_22 G2 C4 - 353.8576
CAL CS3/CPM-7604-279 - SMT



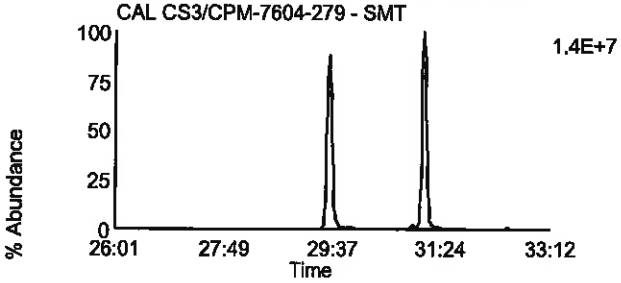
Data File: U130917A_22 G2 C2 - 341.8567
CAL CS3/CPM-7604-279 - SMT



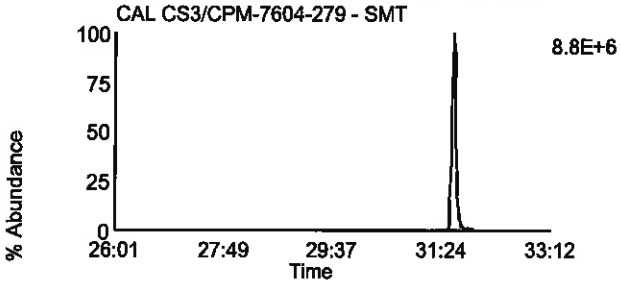
Data File: U130917A_22 G2 C8 - 355.8546
CAL CS3/CPM-7604-279 - SMT



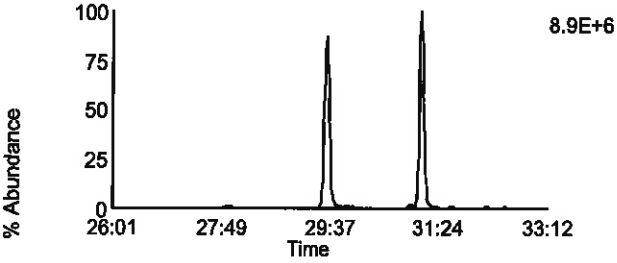
Data File: U130917A_22 G2 C3 - 351.8999
CAL CS3/CPM-7604-279 - SMT



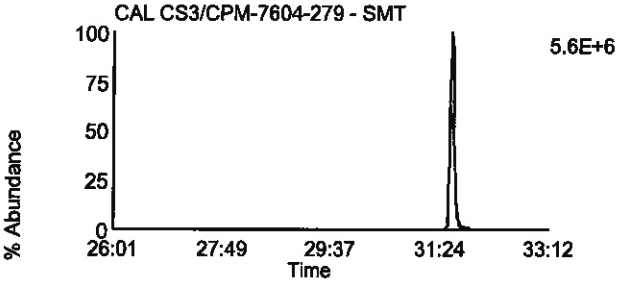
Data File: U130917A_22 G2 C10 - 367.8948
CAL CS3/CPM-7604-279 - SMT



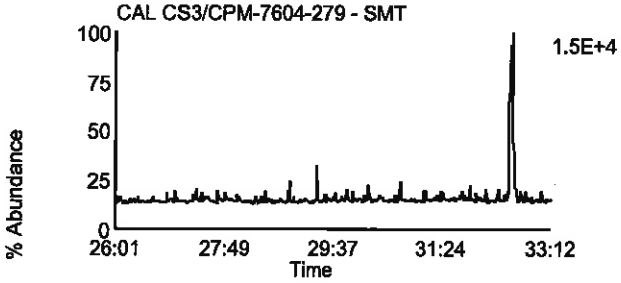
Data File: U130917A_22 G2 C5 - 353.8969
CAL CS3/CPM-7604-279 - SMT



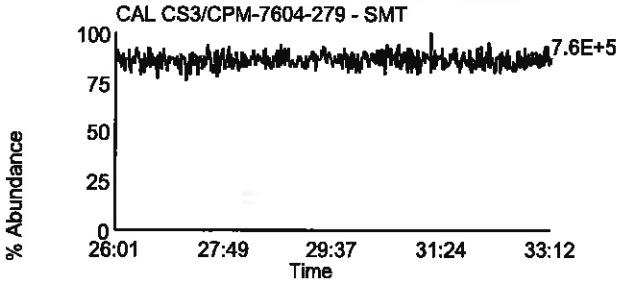
Data File: U130917A_22 G2 C11 - 369.8918
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G2 C12 - 409.7974
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G2 C6 - 354.9792
CAL CS3/CPM-7604-279 - SMT

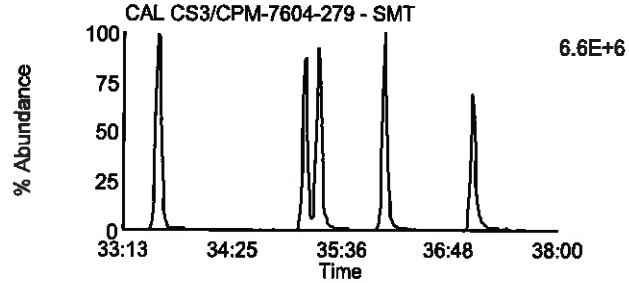


Homologue Group: Hexas

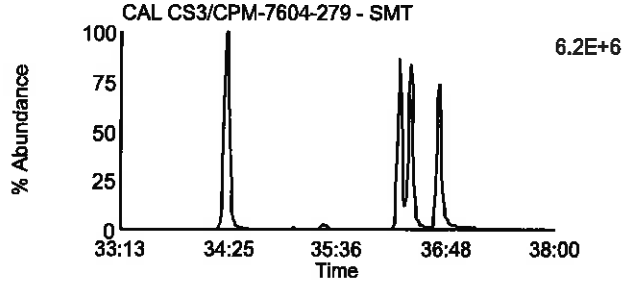
Data File Name: U130917A_22
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

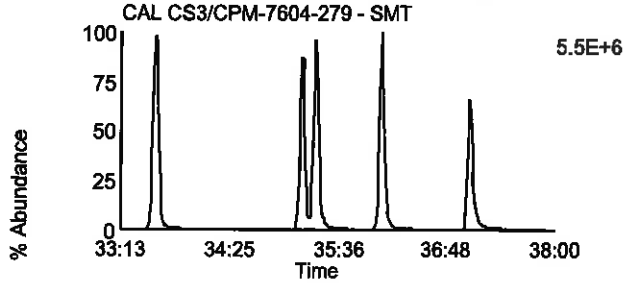
Data File: U130917A_22 G3 C1 - 373.8207
CAL CS3/CPM-7604-279 - SMT



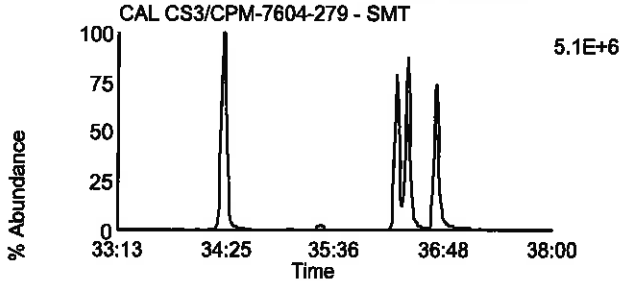
Data File: U130917A_22 G3 C7 - 389.8156
CAL CS3/CPM-7604-279 - SMT



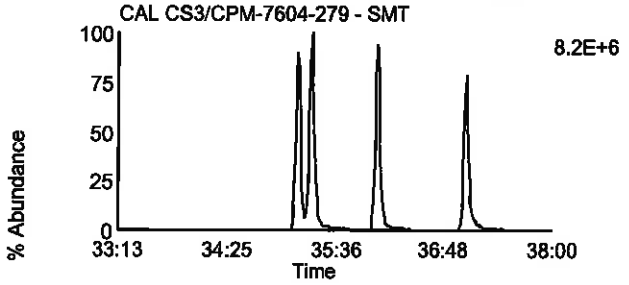
Data File: U130917A_22 G3 C2 - 375.8178
CAL CS3/CPM-7604-279 - SMT



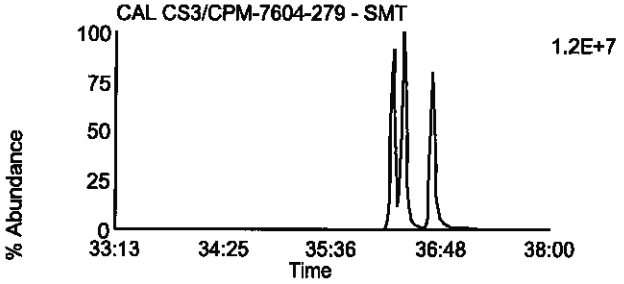
Data File: U130917A_22 G3 C8 - 391.8127
CAL CS3/CPM-7604-279 - SMT



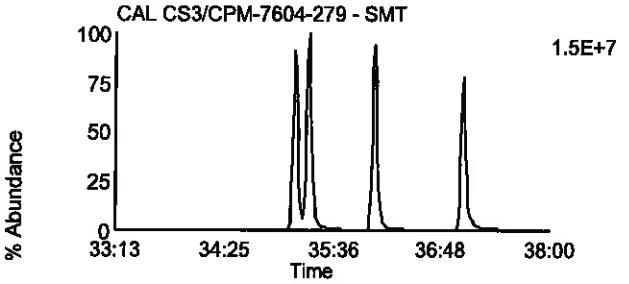
Data File: U130917A_22 G3 C5 - 383.8639
CAL CS3/CPM-7604-279 - SMT



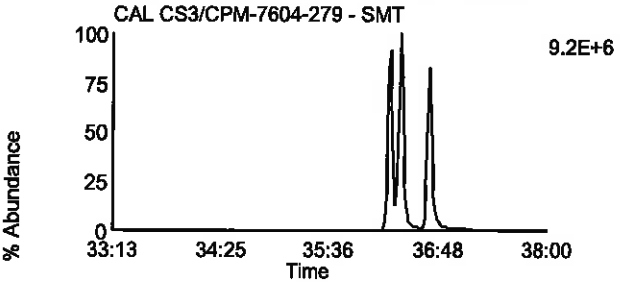
Data File: U130917A_22 G3 C9 - 401.8559
CAL CS3/CPM-7604-279 - SMT



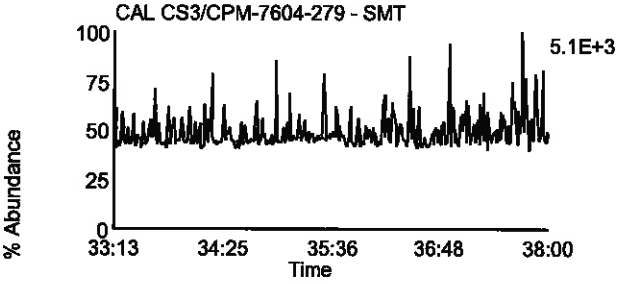
Data File: U130917A_22 G3 C6 - 385.861
CAL CS3/CPM-7604-279 - SMT



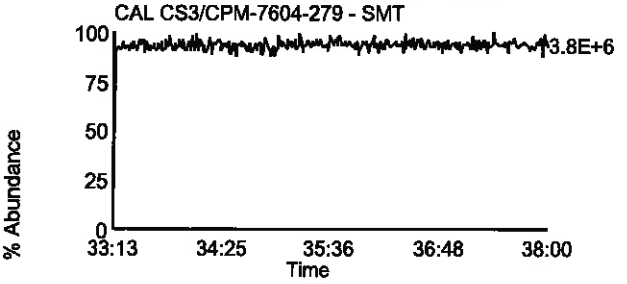
Data File: U130917A_22 G3 C10 - 403.8529
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G3 C11 - 445.7555
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G3 C3 - 380.976
CAL CS3/CPM-7604-279 - SMT

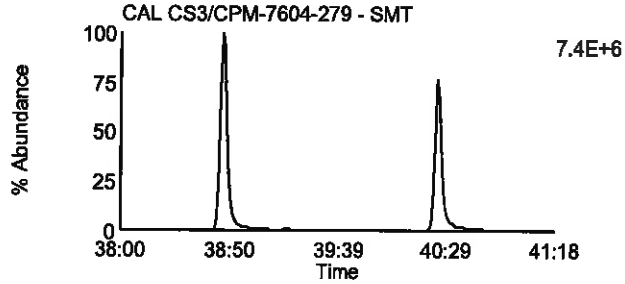


Homologue Group: Heptas

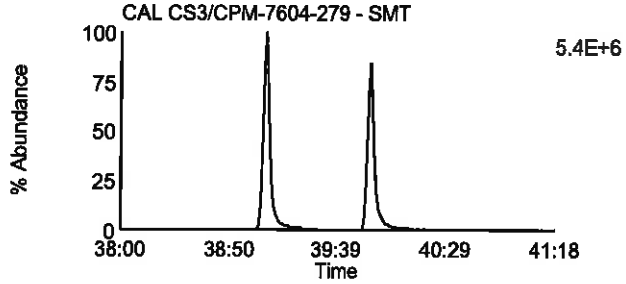
Data File Name: U130917A_22
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

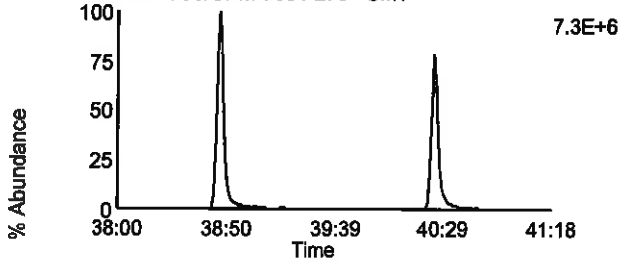
Data File: U130917A_22 G4 C3 - 407.7818
CAL CS3/CPM-7604-279 - SMT



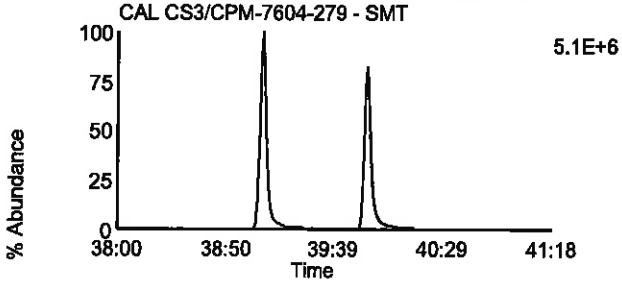
Data File: U130917A_22 G4 C8 - 423.7767
CAL CS3/CPM-7604-279 - SMT



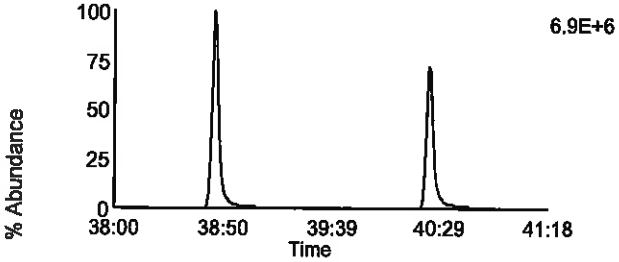
Data File: U130917A_22 G4 C4 - 409.7788
CAL CS3/CPM-7604-279 - SMT



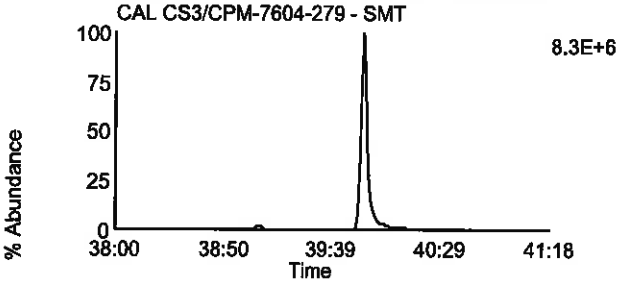
Data File: U130917A_22 G4 C9 - 425.7737
CAL CS3/CPM-7604-279 - SMT



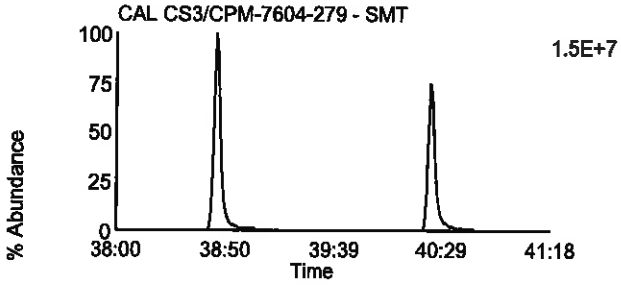
Data File: U130917A_22 G4 C6 - 417.825
CAL CS3/CPM-7604-279 - SMT



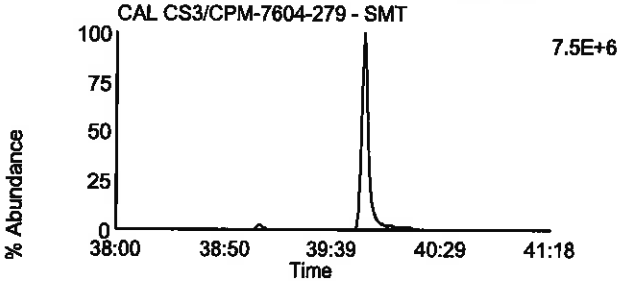
Data File: U130917A_22 G4 C11 - 435.8169
CAL CS3/CPM-7604-279 - SMT



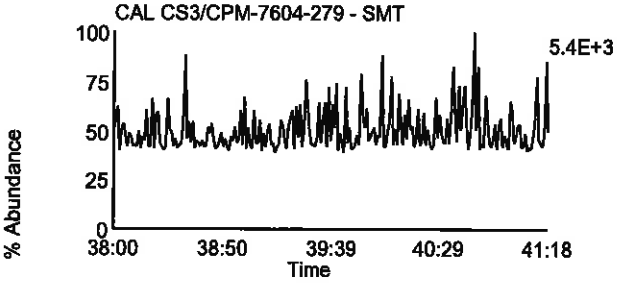
Data File: U130917A_22 G4 C7 - 419.822
CAL CS3/CPM-7604-279 - SMT



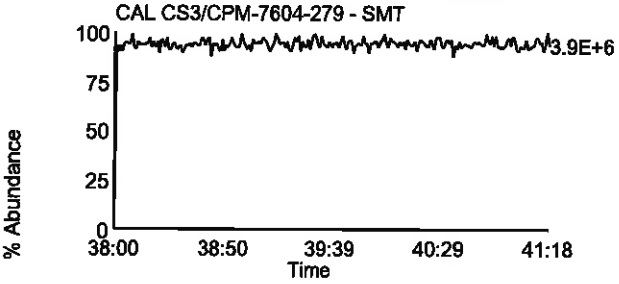
Data File: U130917A_22 G4 C12 - 437.814
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G4 C13 - 479.7165
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G4 C1 - 380.976
CAL CS3/CPM-7604-279 - SMT

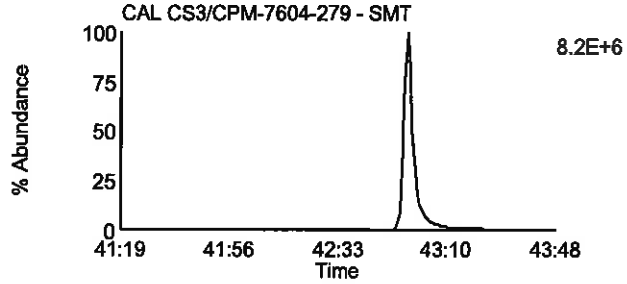


Homologue Group: Octas

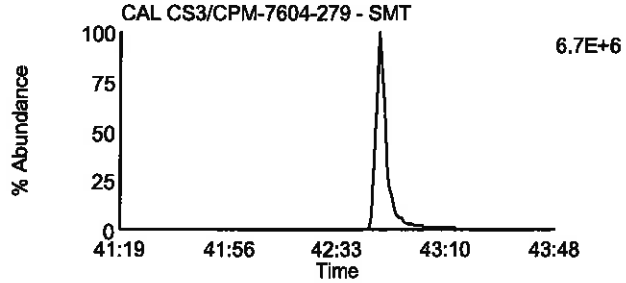
Data File Name: U130917A_22
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

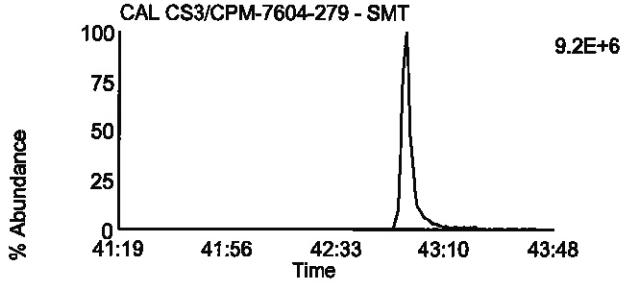
Data File: U130917A_22 G5 C4 - 441.7428
CAL CS3/CPM-7604-279 - SMT



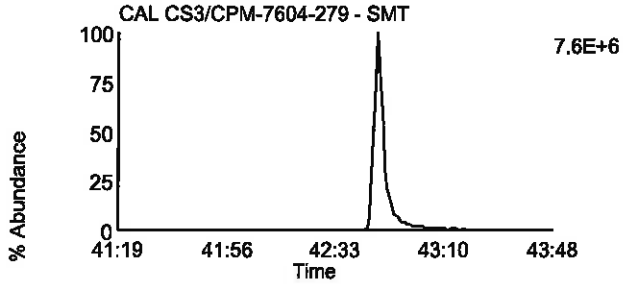
Data File: U130917A_22 G5 C8 - 457.7377
CAL CS3/CPM-7604-279 - SMT



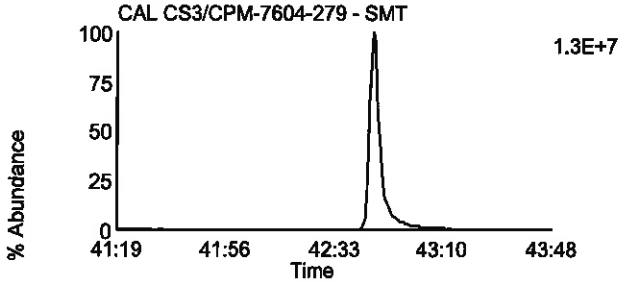
Data File: U130917A_22 G5 C5 - 443.7398
CAL CS3/CPM-7604-279 - SMT



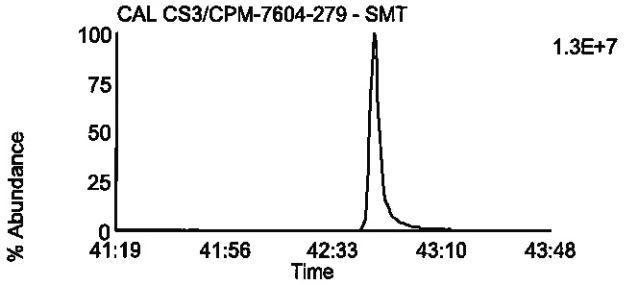
Data File: U130917A_22 G5 C9 - 459.7347
CAL CS3/CPM-7604-279 - SMT



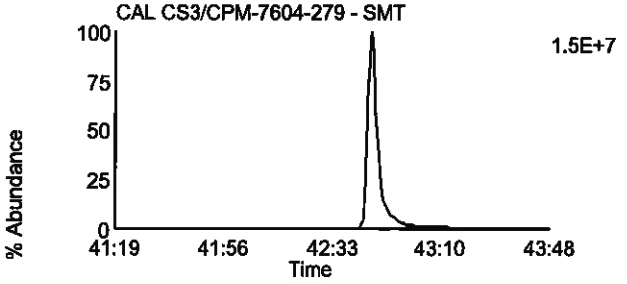
Data File: U130917A_22 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - SMT



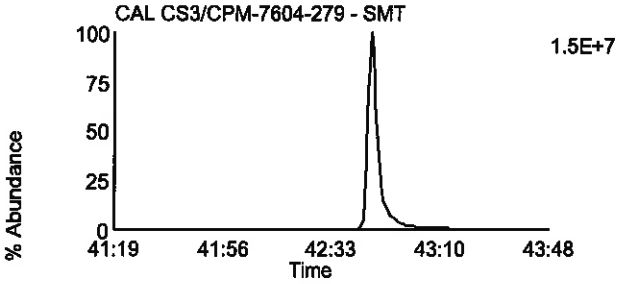
Data File: U130917A_22 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - SMT



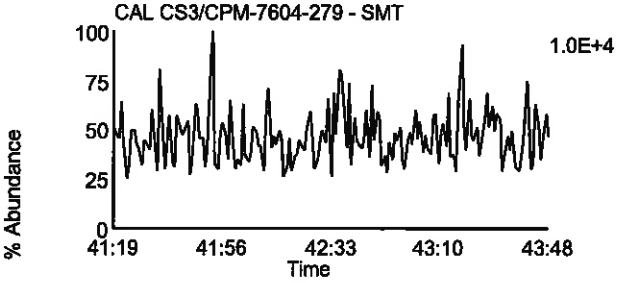
Data File: U130917A_22 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - SMT



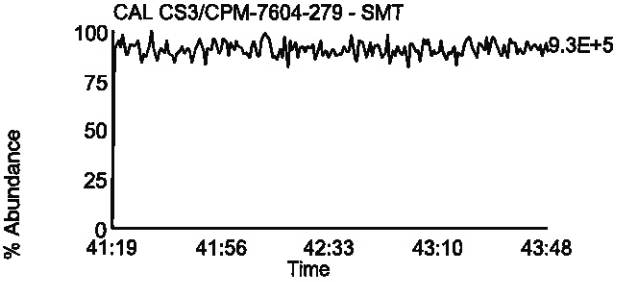
Data File: U130917A_22 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G5 C13 - 513.6775
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G5 C2 - 430.9728
CAL CS3/CPM-7604-279 - SMT

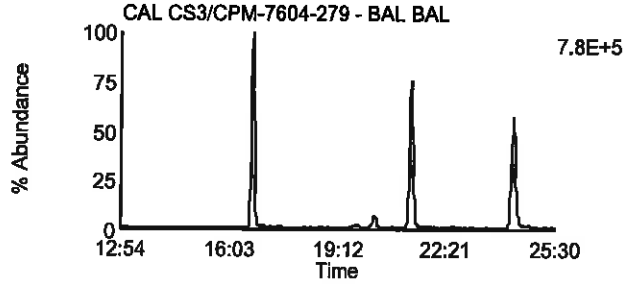


Homologue Group: Tetras

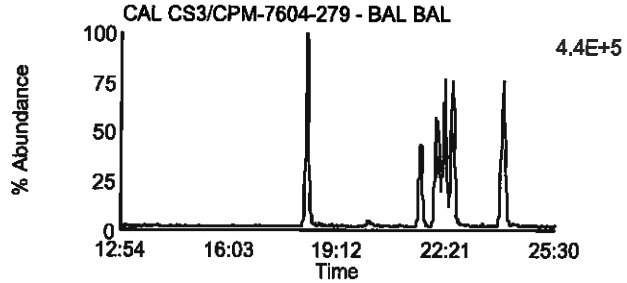
Data File Name: F130921A_16
Date Acquired: 9/21/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

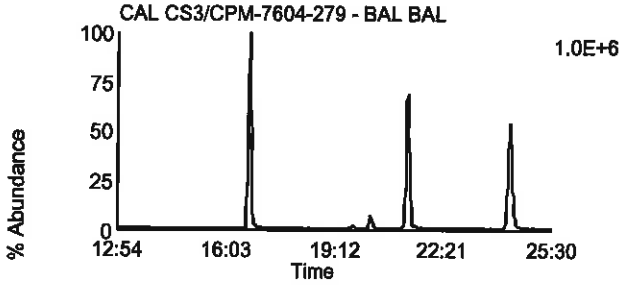
Data File: F130921A_16 G1 C1 - 303.9016
CAL CS3/CPM-7604-279 - BAL BAL



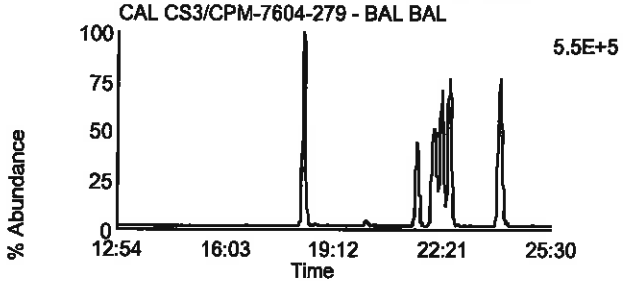
Data File: F130921A_16 G1 C7 - 319.8965
CAL CS3/CPM-7604-279 - BAL BAL



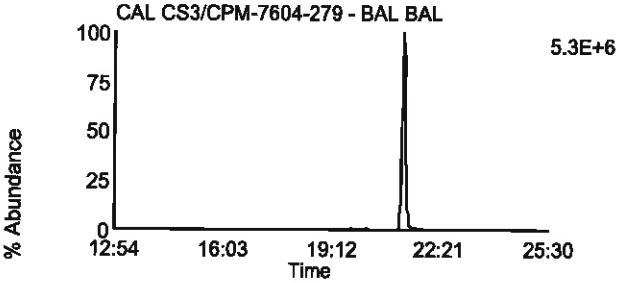
Data File: F130921A_16 G1 C2 - 305.8987
CAL CS3/CPM-7604-279 - BAL BAL



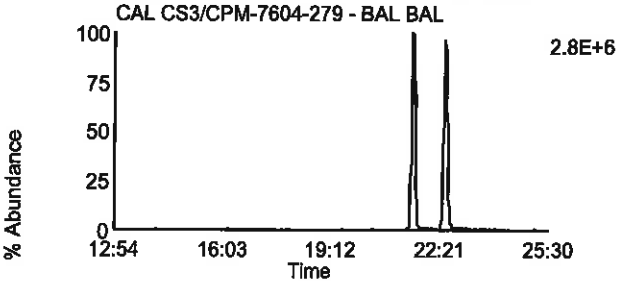
Data File: F130921A_16 G1 C8 - 321.8936
CAL CS3/CPM-7604-279 - BAL BAL



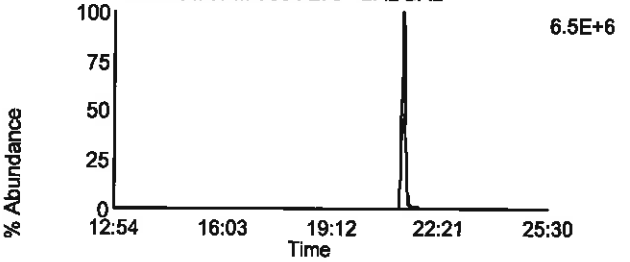
Data File: F130921A_16 G1 C3 - 315.9418
CAL CS3/CPM-7604-279 - BAL BAL



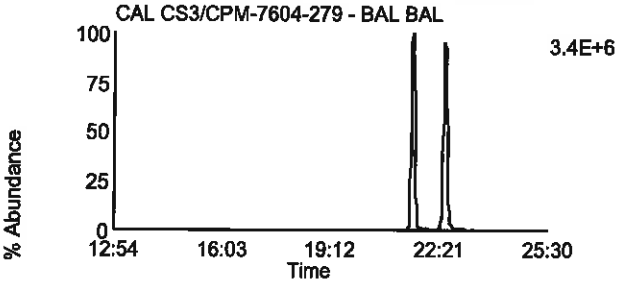
Data File: F130921A_16 G1 C10 - 331.9367
CAL CS3/CPM-7604-279 - BAL BAL



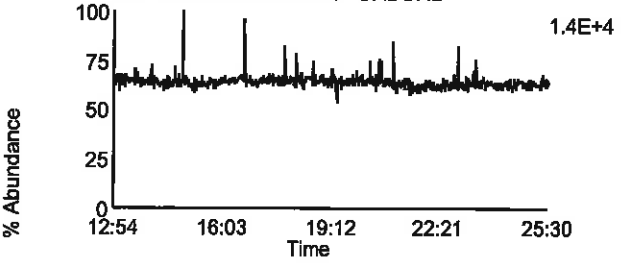
Data File: F130921A_16 G1 C4 - 317.9389
CAL CS3/CPM-7604-279 - BAL BAL



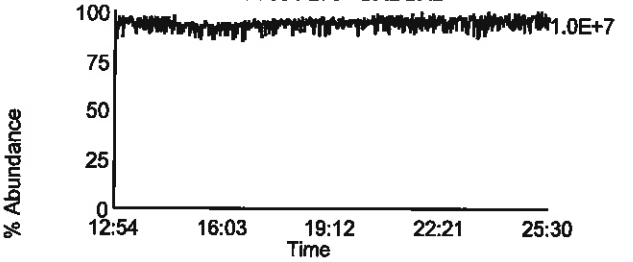
Data File: F130921A_16 G1 C11 - 333.9338
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G1 C14 - 375.8364
CAL CS3/CPM-7604-279 - BAL BAL



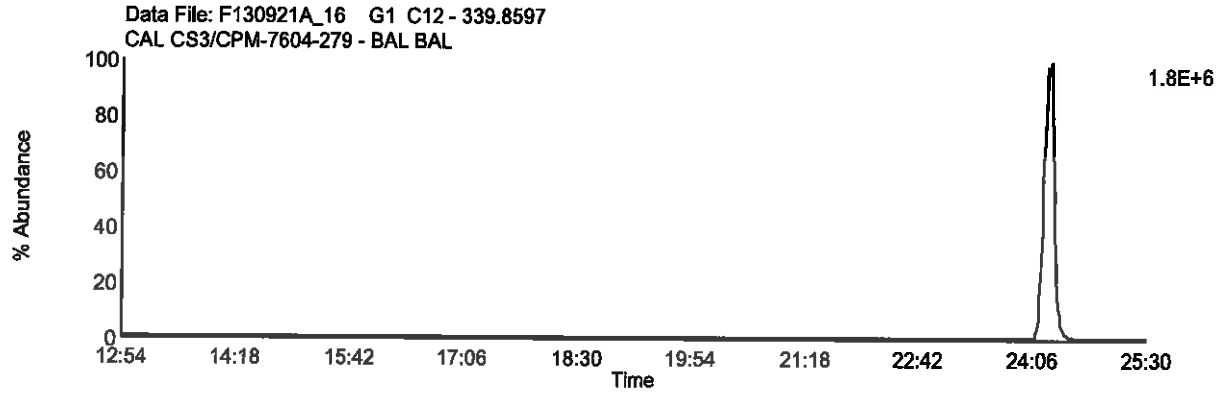
Data File: F130921A_16 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - BAL BAL

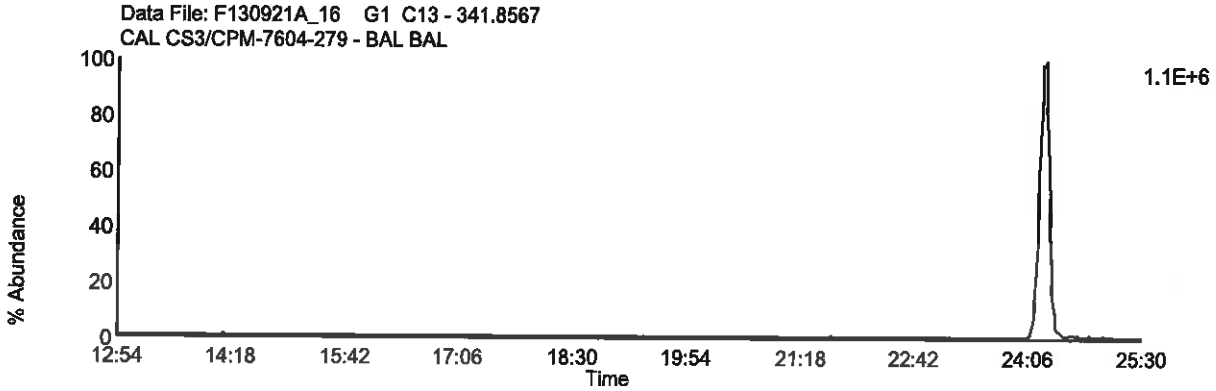


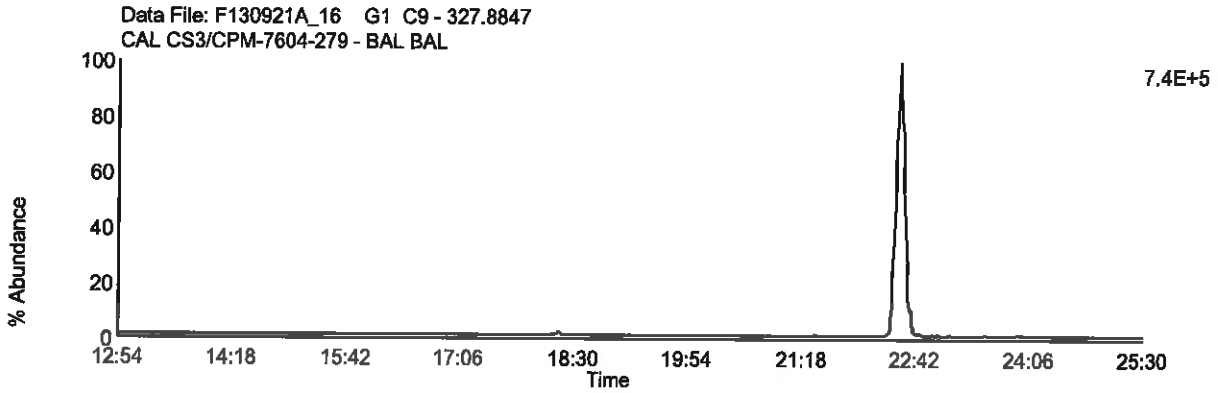
Homologue Group: Penta & Cleanup

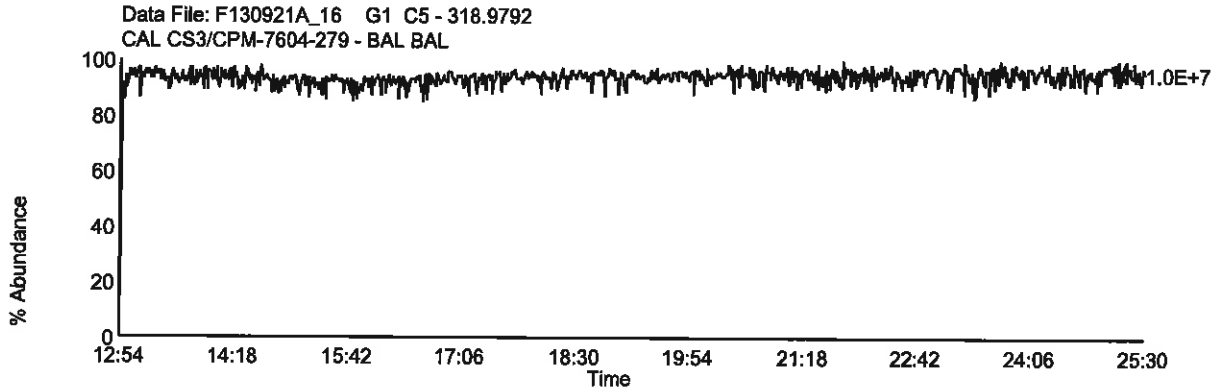
Data File Name: F130921A_16
Date Acquired: 9/21/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)







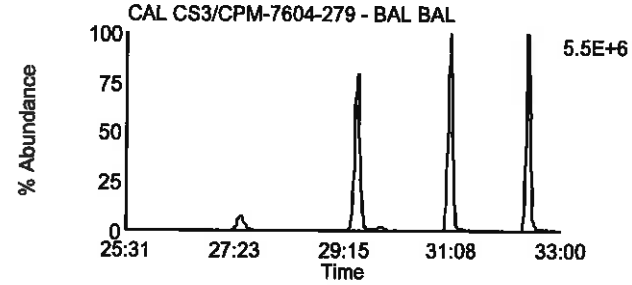


Homologue Group: Pentas

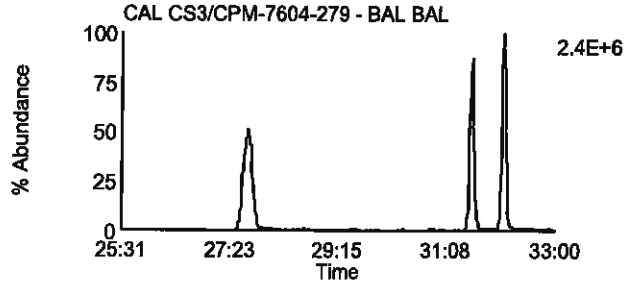
Data File Name: F130921A_16
Date Acquired: 9/21/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

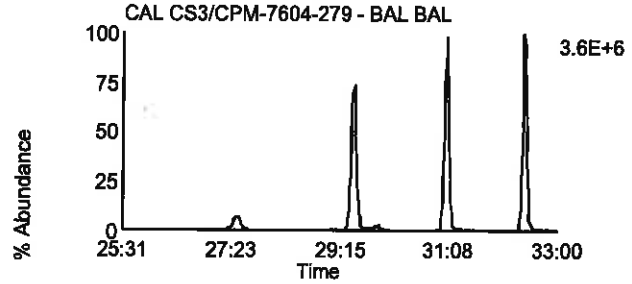
Data File: F130921A_16 G2 C1 - 339.8597
CAL CS3/CPM-7604-279 - BAL BAL



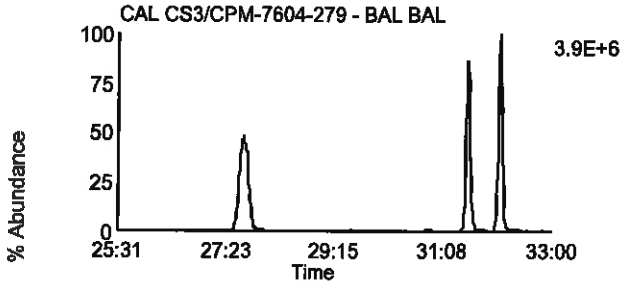
Data File: F130921A_16 G2 C4 - 353.8576
CAL CS3/CPM-7604-279 - BAL BAL



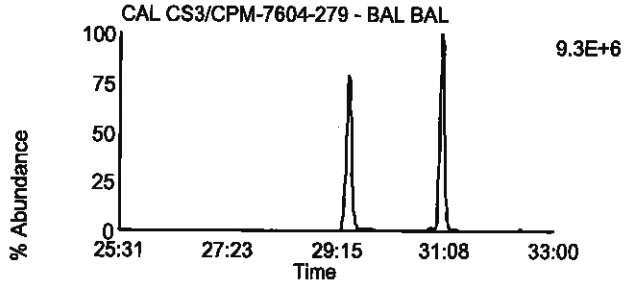
Data File: F130921A_16 G2 C2 - 341.8567
CAL CS3/CPM-7604-279 - BAL BAL



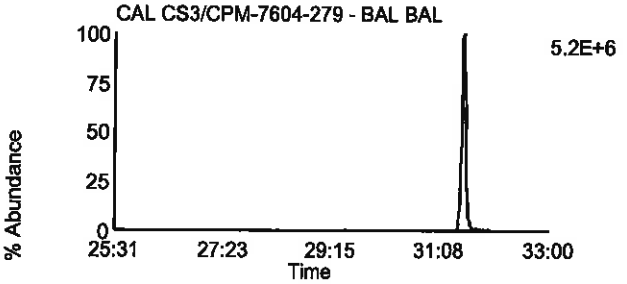
Data File: F130921A_16 G2 C8 - 355.8546
CAL CS3/CPM-7604-279 - BAL BAL



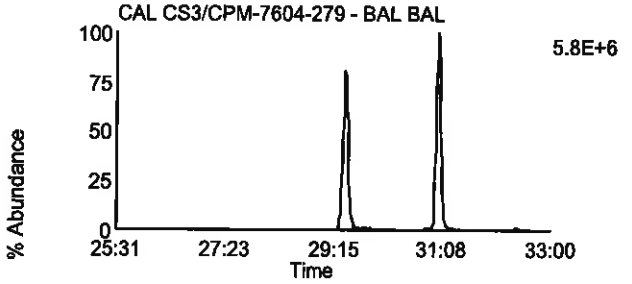
Data File: F130921A_16 G2 C3 - 351.8999
CAL CS3/CPM-7604-279 - BAL BAL



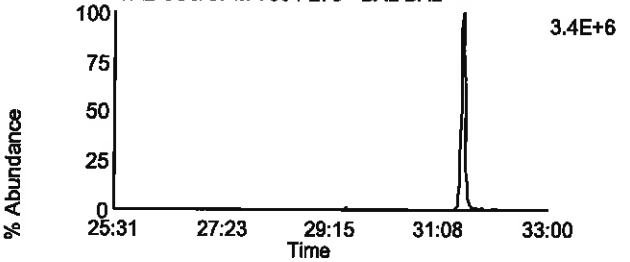
Data File: F130921A_16 G2 C10 - 367.8948
CAL CS3/CPM-7604-279 - BAL BAL



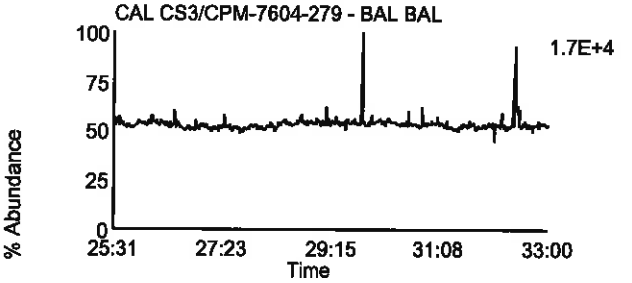
Data File: F130921A_16 G2 C5 - 353.8969
CAL CS3/CPM-7604-279 - BAL BAL



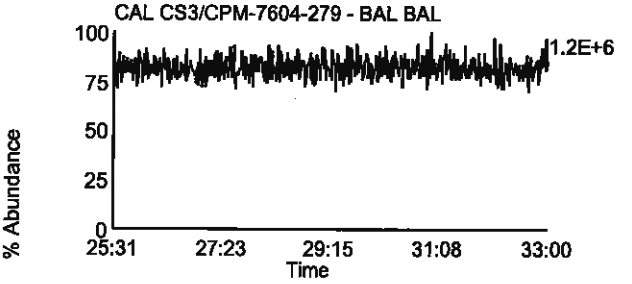
Data File: F130921A_16 G2 C11 - 369.8918
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G2 C12 - 409.7974
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G2 C6 - 354.9792
CAL CS3/CPM-7604-279 - BAL BAL

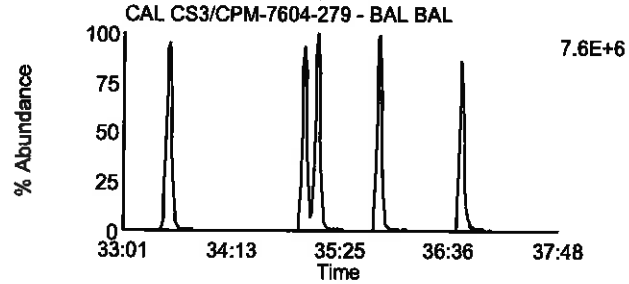


Homologue Group: Hexas

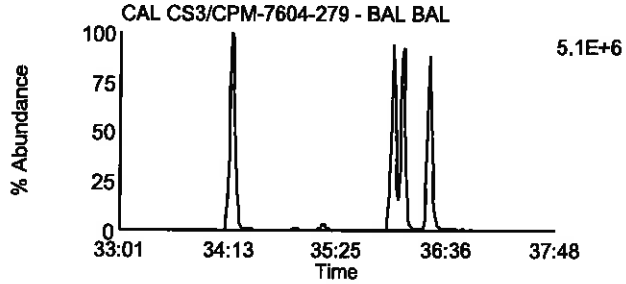
Data File Name: F130921A_16
Date Acquired: 9/21/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

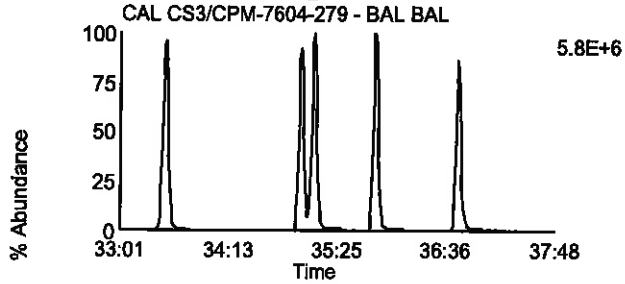
Data File: F130921A_16 G3 C1 - 373.8207
CAL CS3/CPM-7604-279 - BAL BAL



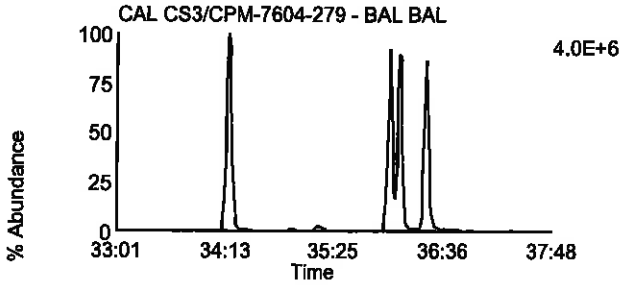
Data File: F130921A_16 G3 C7 - 389.8156
CAL CS3/CPM-7604-279 - BAL BAL



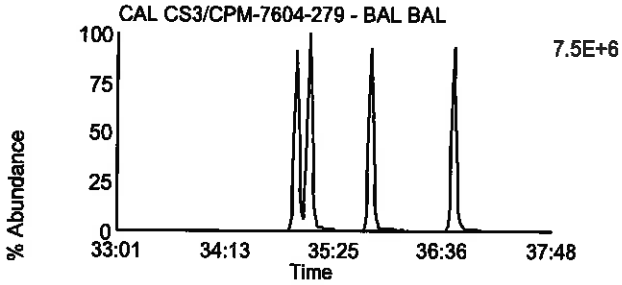
Data File: F130921A_16 G3 C2 - 375.8178
CAL CS3/CPM-7604-279 - BAL BAL



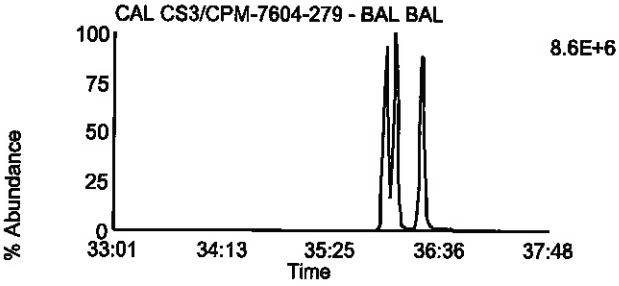
Data File: F130921A_16 G3 C8 - 391.8127
CAL CS3/CPM-7604-279 - BAL BAL



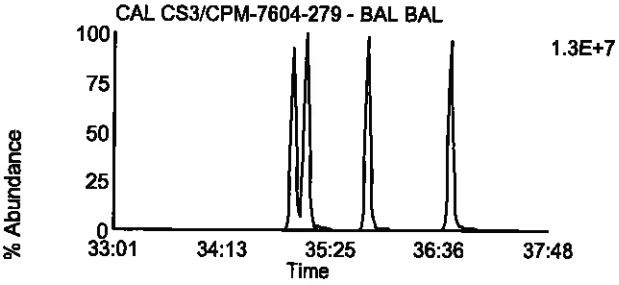
Data File: F130921A_16 G3 C5 - 383.8639
CAL CS3/CPM-7604-279 - BAL BAL



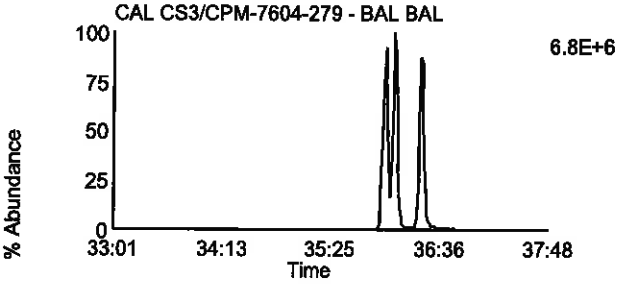
Data File: F130921A_16 G3 C9 - 401.8559
CAL CS3/CPM-7604-279 - BAL BAL



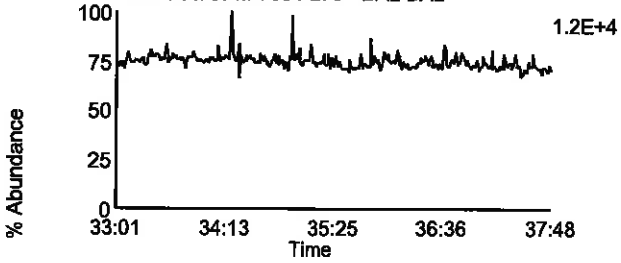
Data File: F130921A_16 G3 C6 - 385.861
CAL CS3/CPM-7604-279 - BAL BAL



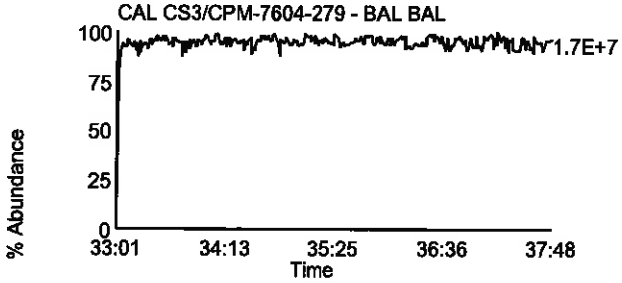
Data File: F130921A_16 G3 C10 - 403.8529
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G3 C11 - 445.7555
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G3 C3 - 380.976
CAL CS3/CPM-7604-279 - BAL BAL

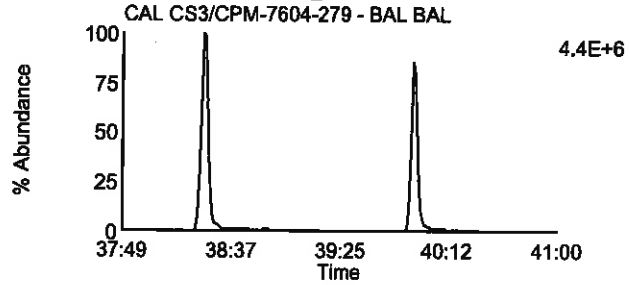


Homologue Group: Heptas

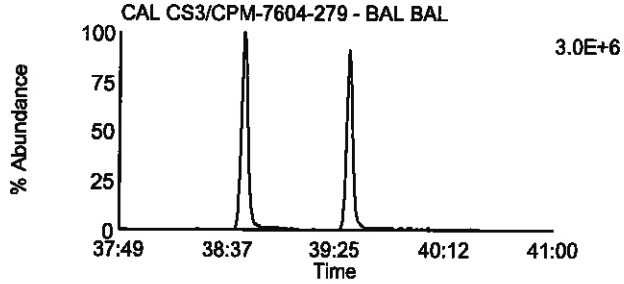
Data File Name: F130921A_16
Date Acquired: 9/21/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

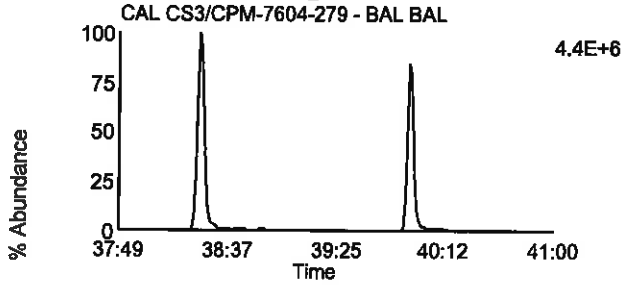
Data File: F130921A_16 G4 C3 - 407.7818
CAL CS3/CPM-7604-279 - BAL BAL



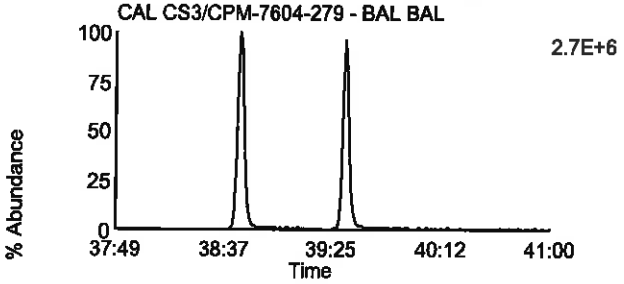
Data File: F130921A_16 G4 C8 - 423.7767
CAL CS3/CPM-7604-279 - BAL BAL



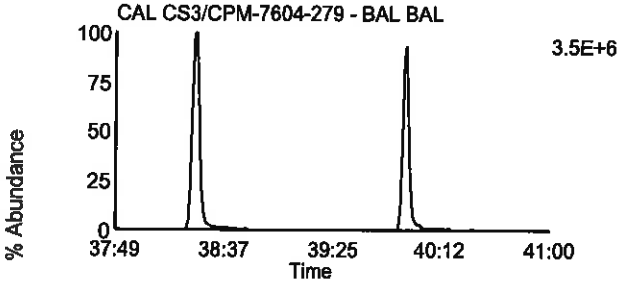
Data File: F130921A_16 G4 C4 - 409.7788
CAL CS3/CPM-7604-279 - BAL BAL



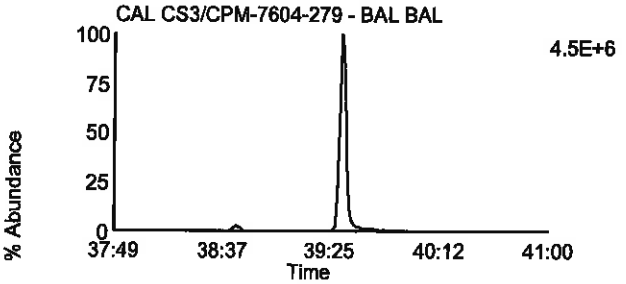
Data File: F130921A_16 G4 C9 - 425.7737
CAL CS3/CPM-7604-279 - BAL BAL



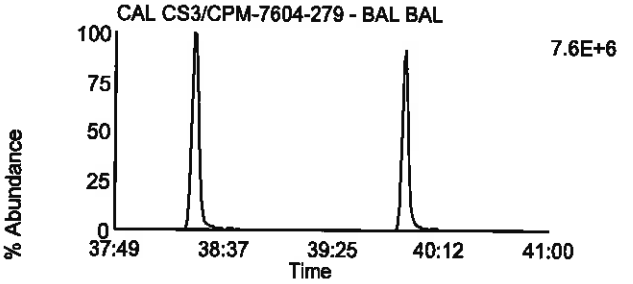
Data File: F130921A_16 G4 C6 - 417.825
CAL CS3/CPM-7604-279 - BAL BAL



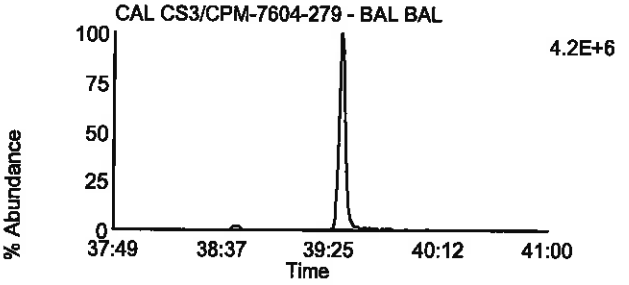
Data File: F130921A_16 G4 C11 - 435.8169
CAL CS3/CPM-7604-279 - BAL BAL



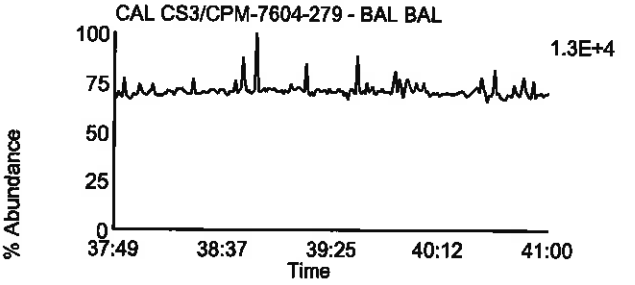
Data File: F130921A_16 G4 C7 - 419.822
CAL CS3/CPM-7604-279 - BAL BAL



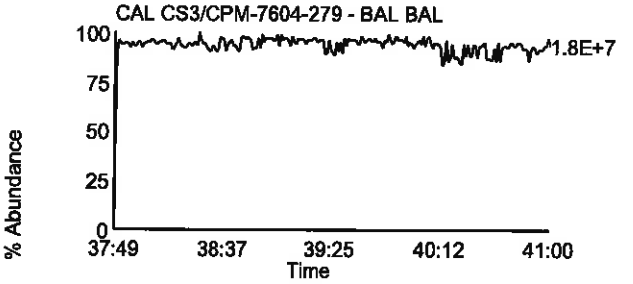
Data File: F130921A_16 G4 C12 - 437.814
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G4 C13 - 479.7165
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G4 C1 - 380.976
CAL CS3/CPM-7604-279 - BAL BAL

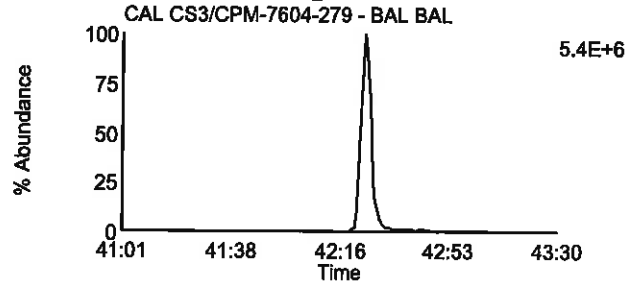


Homologue Group: Octas

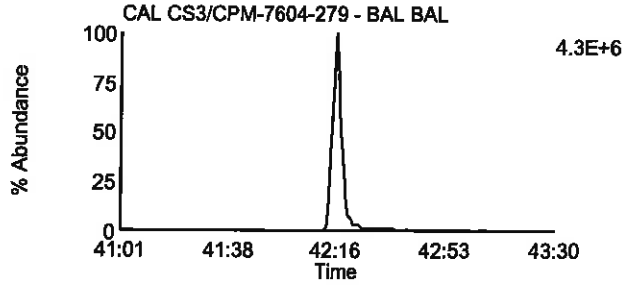
Data File Name: F130921A_16
Date Acquired: 9/21/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

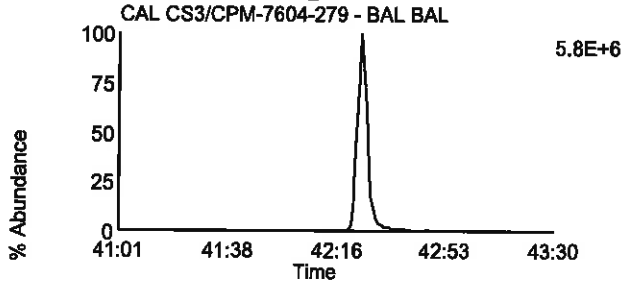
Data File: F130921A_16 G5 C4 - 441.7428
CAL CS3/CPM-7604-279 - BAL BAL



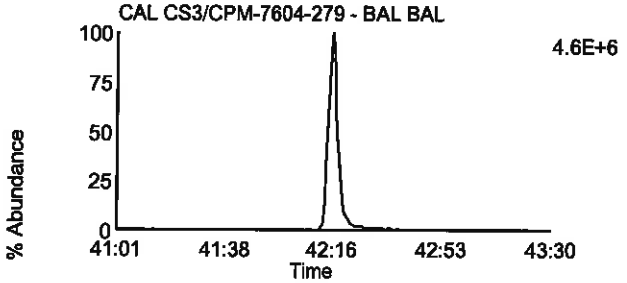
Data File: F130921A_16 G5 C8 - 457.7377
CAL CS3/CPM-7604-279 - BAL BAL



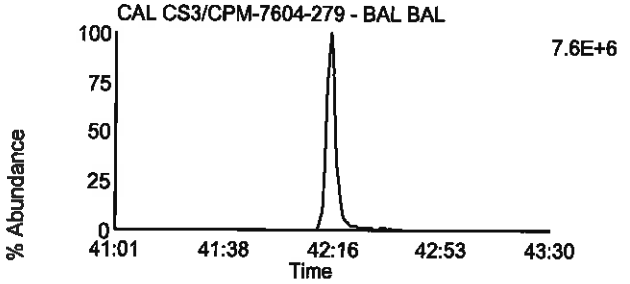
Data File: F130921A_16 G5 C5 - 443.7398
CAL CS3/CPM-7604-279 - BAL BAL



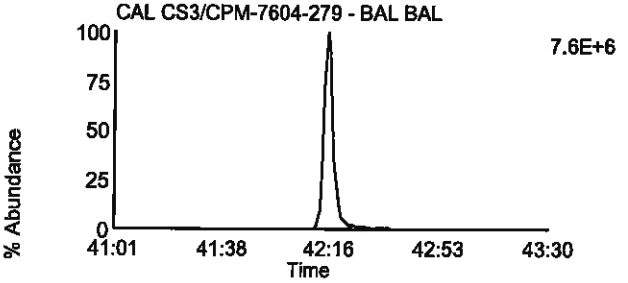
Data File: F130921A_16 G5 C9 - 459.7347
CAL CS3/CPM-7604-279 - BAL BAL



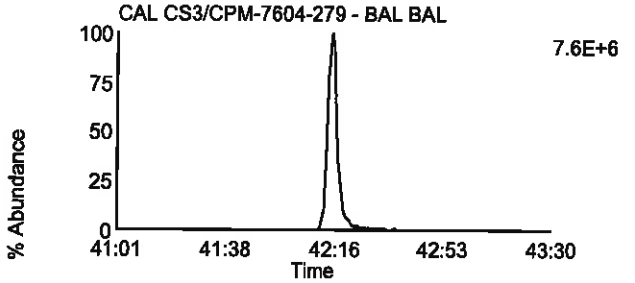
Data File: F130921A_16 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - BAL BAL



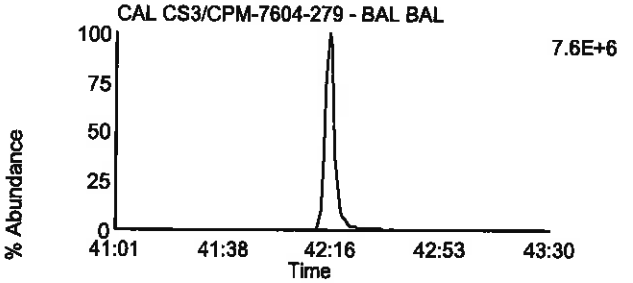
Data File: F130921A_16 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - BAL BAL



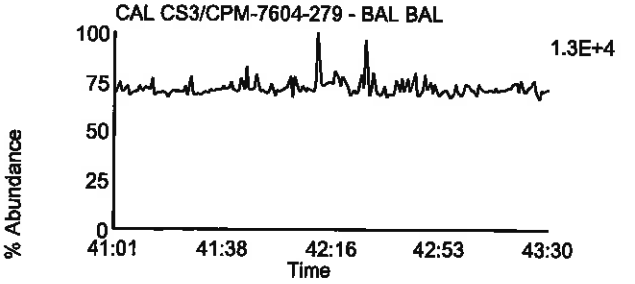
Data File: F130921A_16 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - BAL BAL



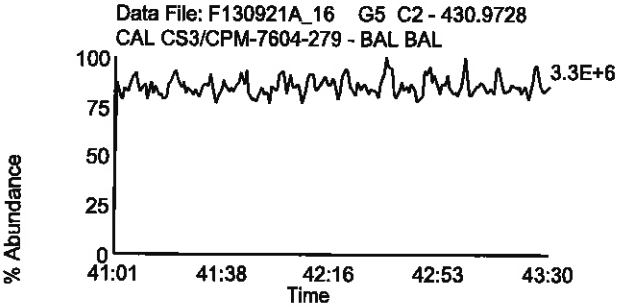
Data File: F130921A_16 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G5 C13 - 513.6775
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G5 C2 - 430.9728
CAL CS3/CPM-7604-279 - BAL BAL

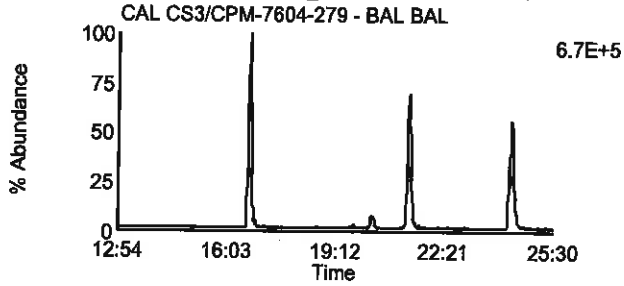


Homologue Group: Tetras

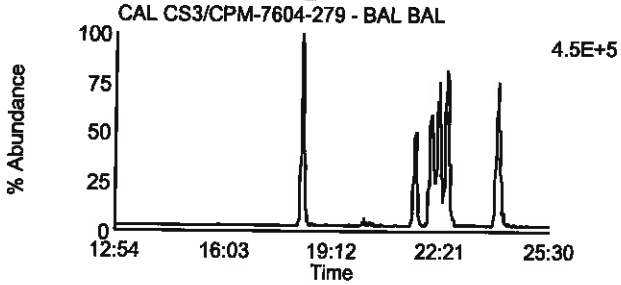
Data File Name: F130921B_16
Date Acquired: 9/22/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

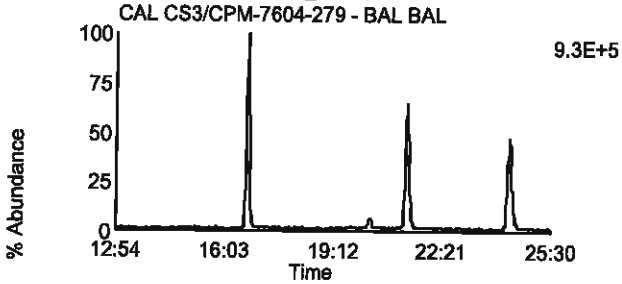
Data File: F130921B_16 G1 C1 - 303.9016
CAL CS3/CPM-7604-279 - BAL BAL



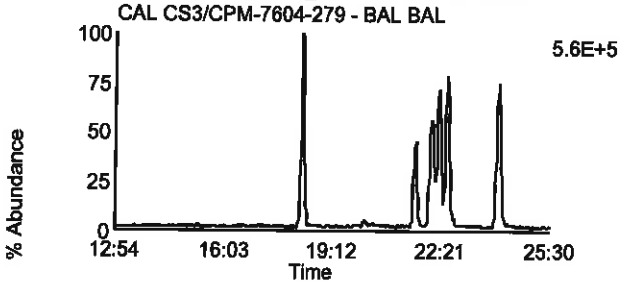
Data File: F130921B_16 G1 C7 - 319.8965
CAL CS3/CPM-7604-279 - BAL BAL



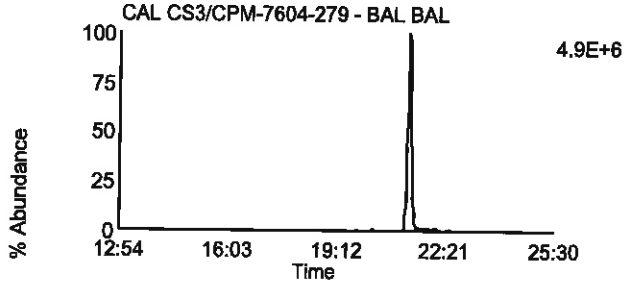
Data File: F130921B_16 G1 C2 - 305.8987
CAL CS3/CPM-7604-279 - BAL BAL



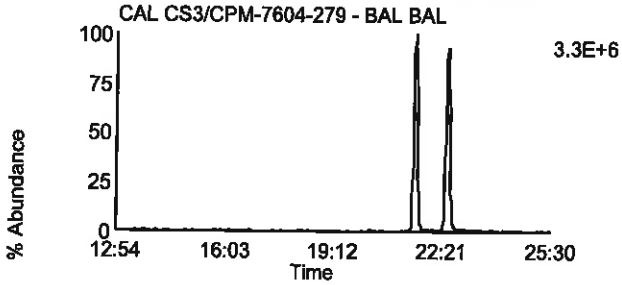
Data File: F130921B_16 G1 C8 - 321.8936
CAL CS3/CPM-7604-279 - BAL BAL



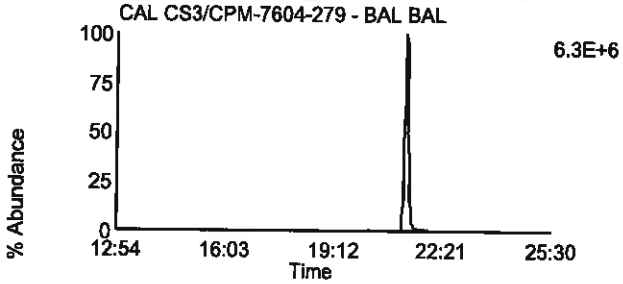
Data File: F130921B_16 G1 C3 - 315.9418
CAL CS3/CPM-7604-279 - BAL BAL



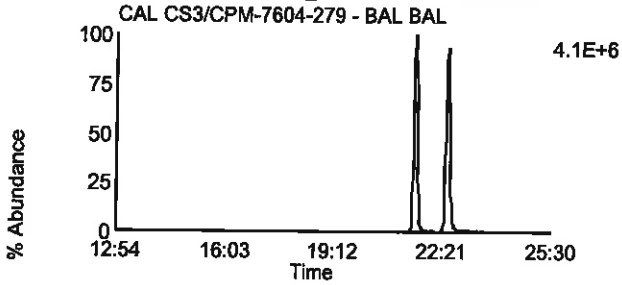
Data File: F130921B_16 G1 C10 - 331.9367
CAL CS3/CPM-7604-279 - BAL BAL



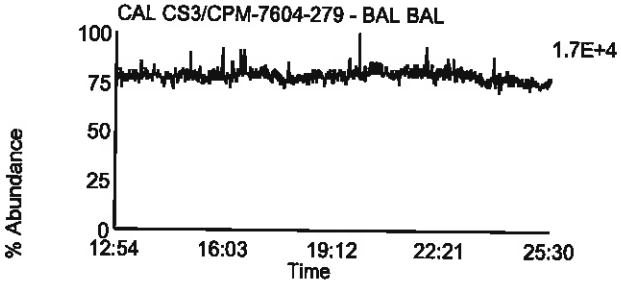
Data File: F130921B_16 G1 C4 - 317.9389
CAL CS3/CPM-7604-279 - BAL BAL



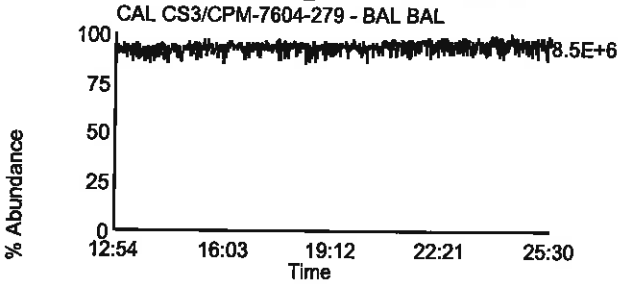
Data File: F130921B_16 G1 C11 - 333.9338
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G1 C14 - 375.8364
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - BAL BAL

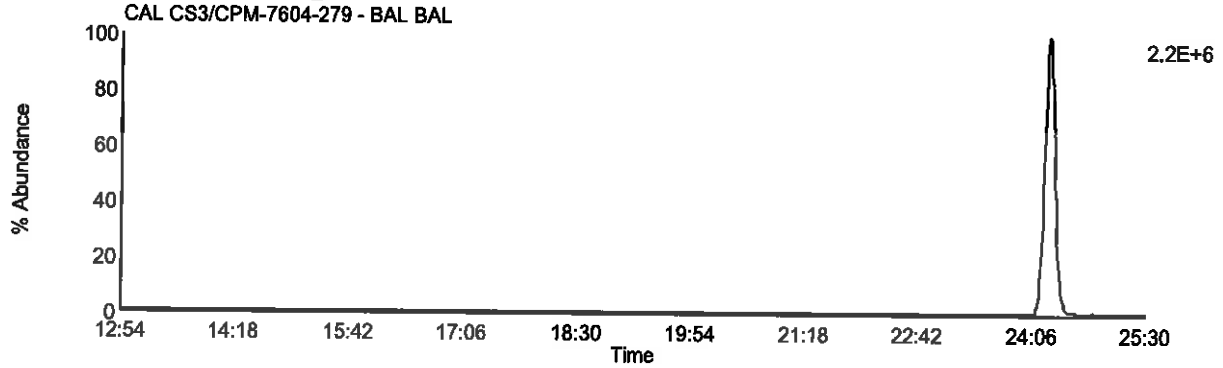


Homologue Group: Penta & Cleanup

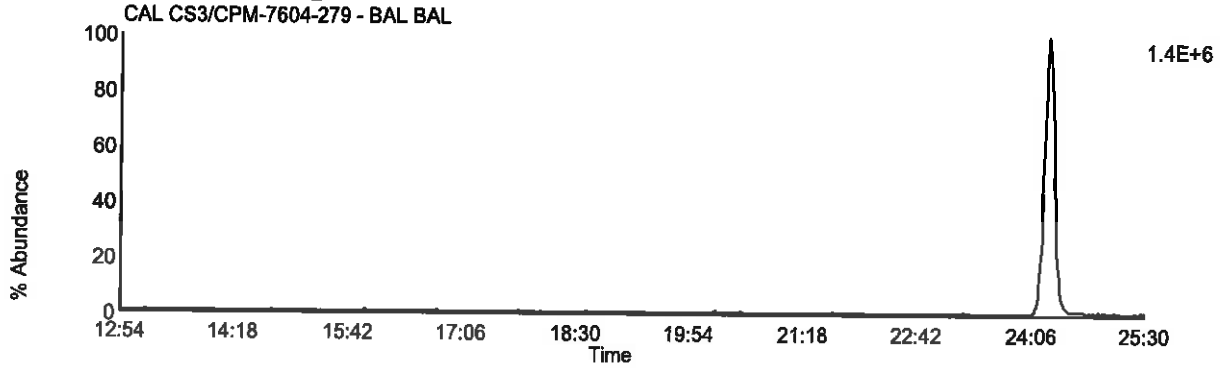
Data File Name: F130921B_16
Date Acquired: 9/22/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

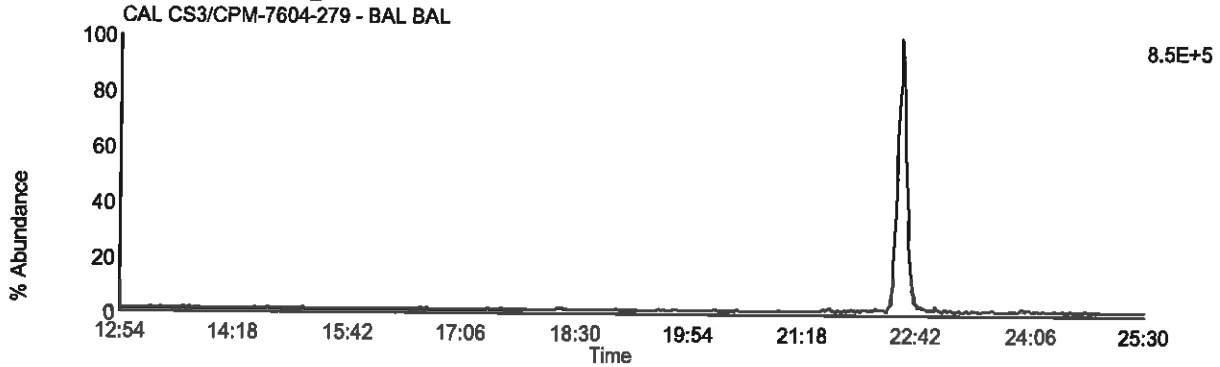
Data File: F130921B_16 G1 C12 - 339.8597
CAL CS3/CPM-7604-279 - BAL BAL



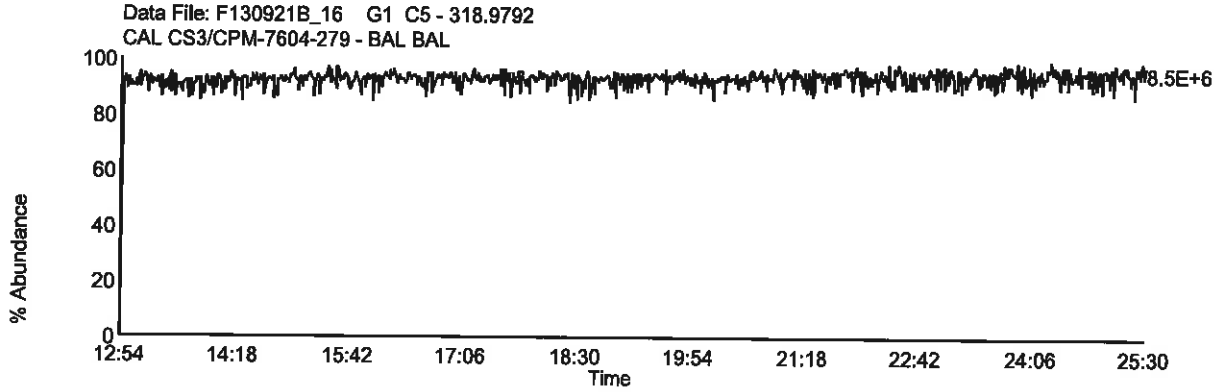
Data File: F130921B_16 G1 C13 - 341.8567
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G1 C9 - 327.8847
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - BAL BAL

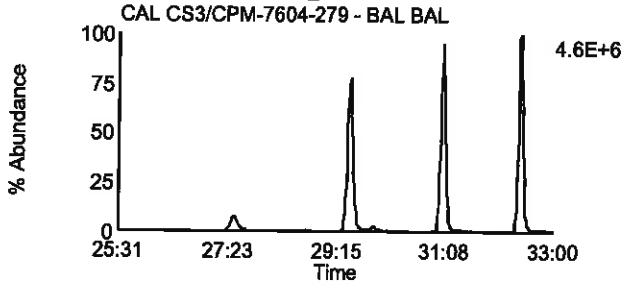


Homologue Group: Pentas

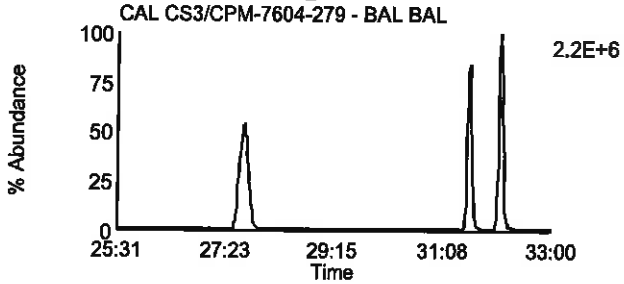
Data File Name: F130921B_16
Date Acquired: 9/22/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

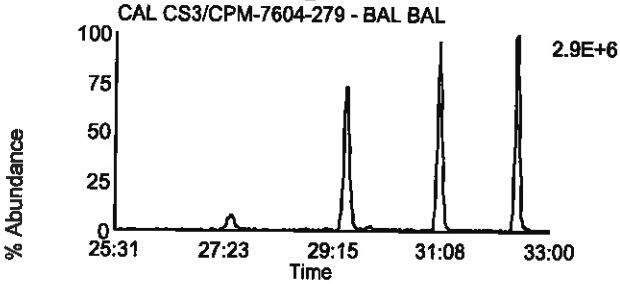
Data File: F130921B_16 G2 C1 - 339.8597
CAL CS3/CPM-7604-279 - BAL BAL



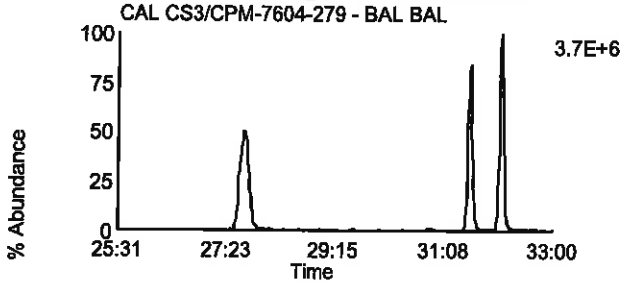
Data File: F130921B_16 G2 C4 - 353.8576
CAL CS3/CPM-7604-279 - BAL BAL



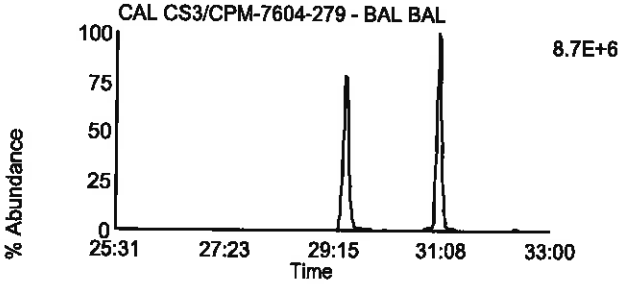
Data File: F130921B_16 G2 C2 - 341.8567
CAL CS3/CPM-7604-279 - BAL BAL



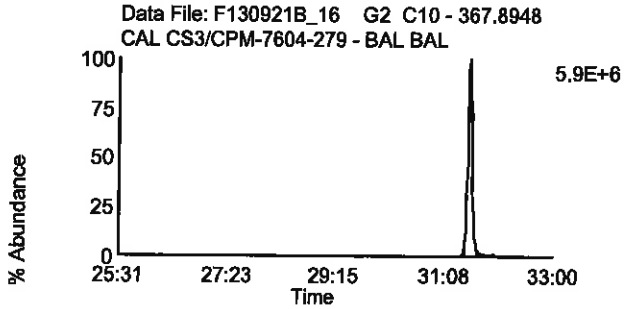
Data File: F130921B_16 G2 C8 - 355.8546
CAL CS3/CPM-7604-279 - BAL BAL



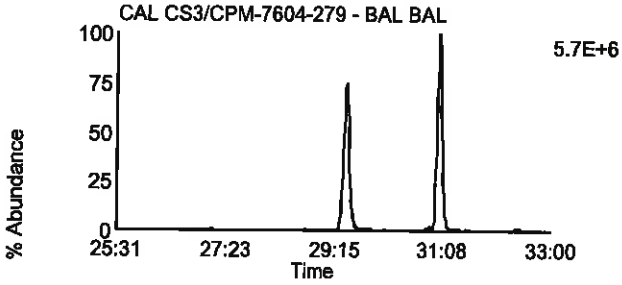
Data File: F130921B_16 G2 C3 - 351.8999
CAL CS3/CPM-7604-279 - BAL BAL



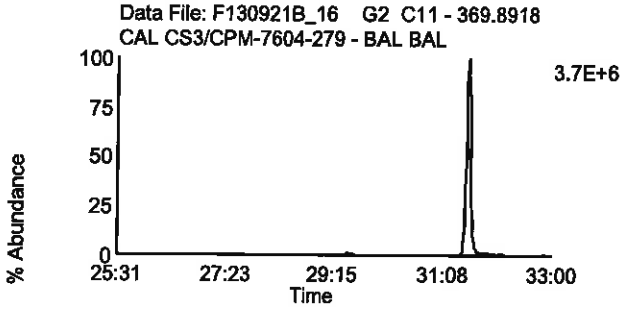
Data File: F130921B_16 G2 C10 - 367.8948
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G2 C5 - 353.8969
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G2 C11 - 369.8918
CAL CS3/CPM-7604-279 - BAL BAL



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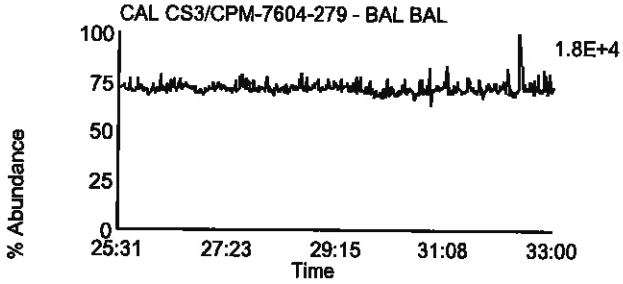
CAL CS3/CPM-7604-279 - BAL BAL



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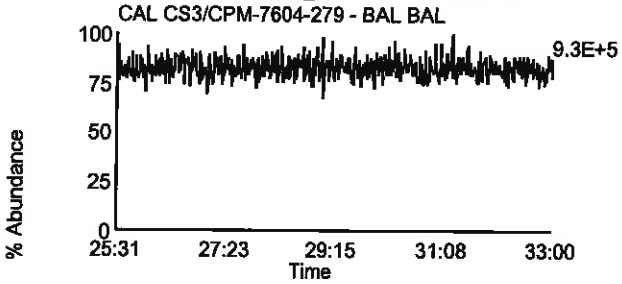
CAL CS3/CPM-7604-279 - BAL BAL

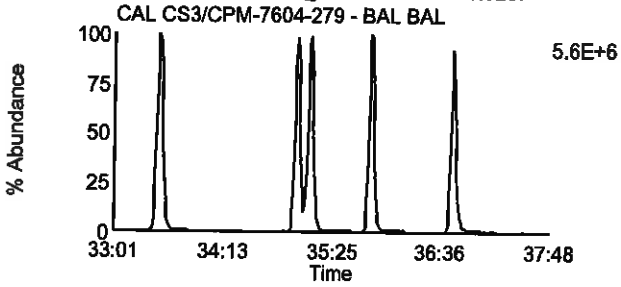


Homologue Group: Hexas

Data File Name: F130921B_16
Date Acquired: 9/22/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

Data File: F130921B_16 G3 C1 - 373.8207
CAL CS3/CPM-7604-279 - BAL BAL



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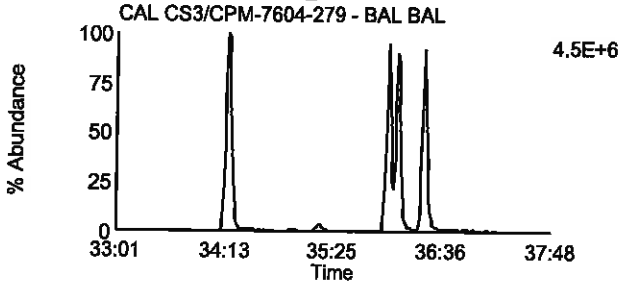
CAL CS3/CPM-7604-279 - BAL BAL



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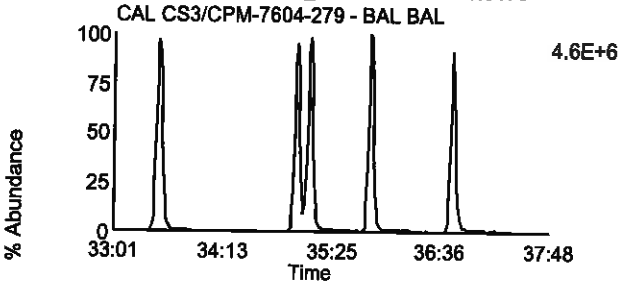
CAL CS3/CPM-7604-279 - BAL BAL



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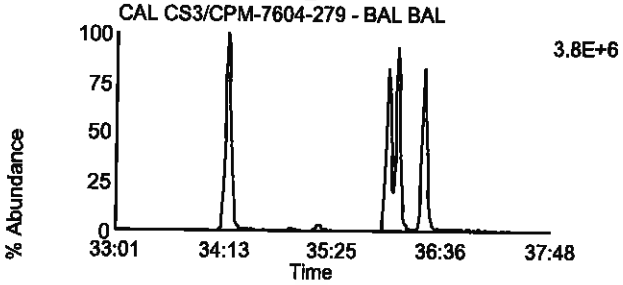
CAL CS3/CPM-7604-279 - BAL BAL



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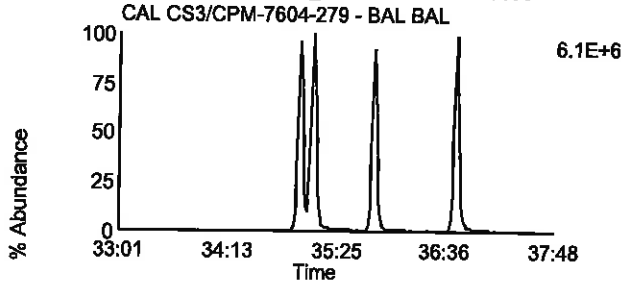
CAL CS3/CPM-7604-279 - BAL BAL



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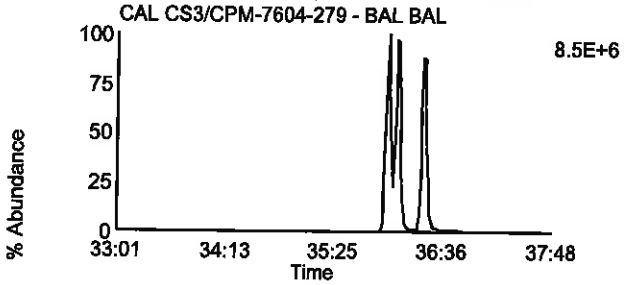
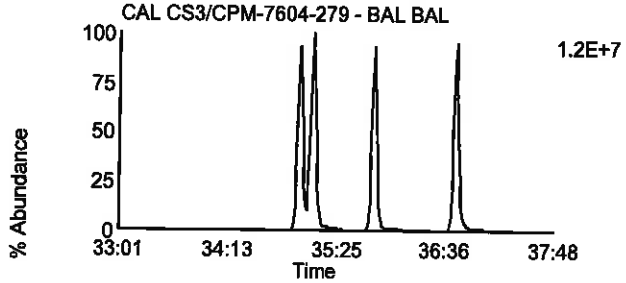
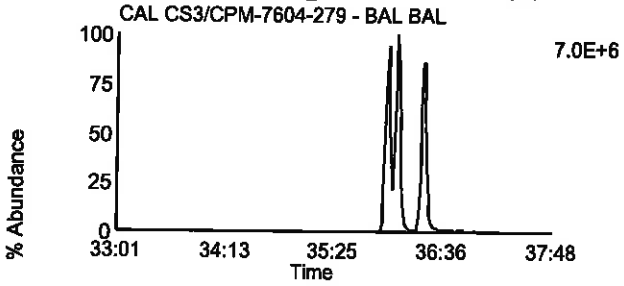
CAL CS3/CPM-7604-279 - BAL BAL



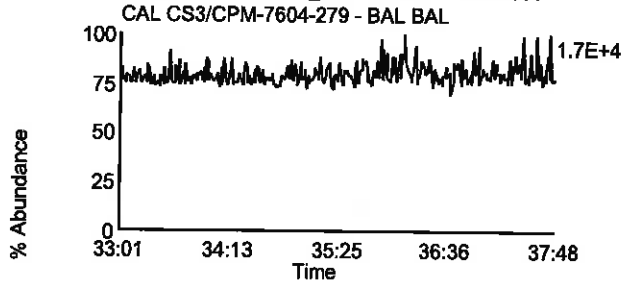
Data File: F130921B_16 G3 C6 - 385.861
CAL CS3/CPM-7604-279 - BAL BAL



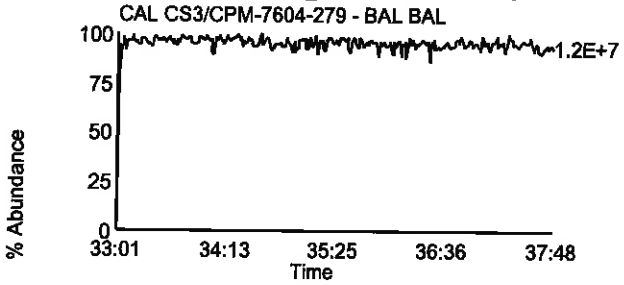
Data File: F130921B_16 G3 C10 - 403.8529
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G3 C11 - 445.7555
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G3 C3 - 380.976
CAL CS3/CPM-7604-279 - BAL BAL

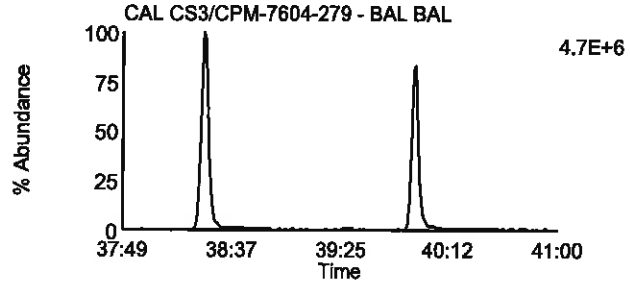


Homologue Group: Heptas

Data File Name: F130921B_16
Date Acquired: 9/22/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

Data File: F130921B_16 G4 C3 - 407.7818
CAL CS3/CPM-7604-279 - BAL BAL



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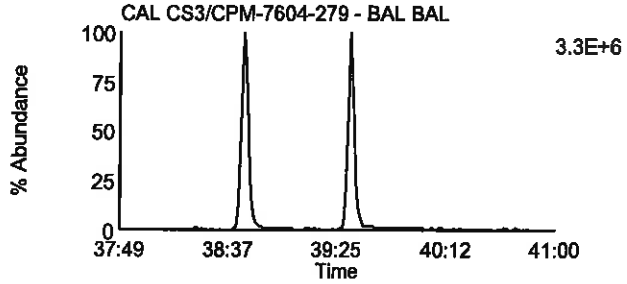
CAL CS3/CPM-7604-279 - BAL BAL



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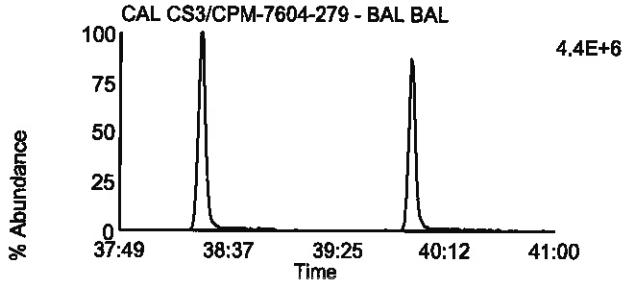
CAL CS3/CPM-7604-279 - BAL BAL



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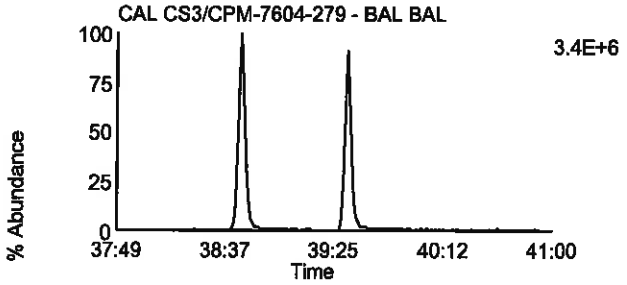
CAL CS3/CPM-7604-279 - BAL BAL



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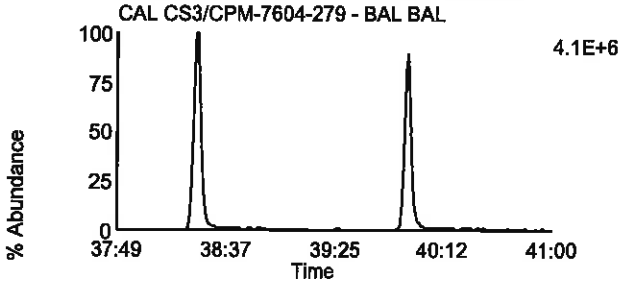

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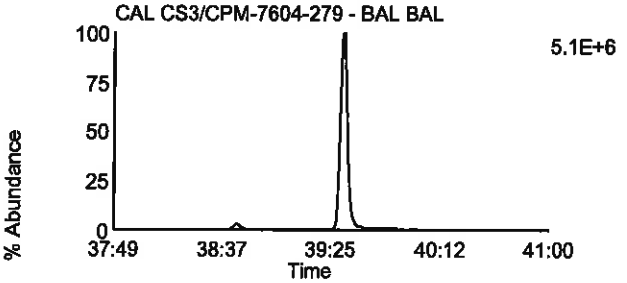
CAL CS3/CPM-7604-279 - BAL BAL



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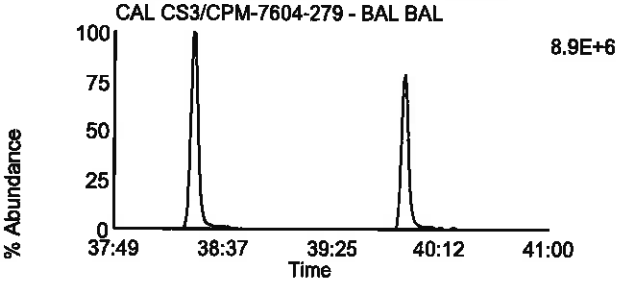
CAL CS3/CPM-7604-279 - BAL BAL



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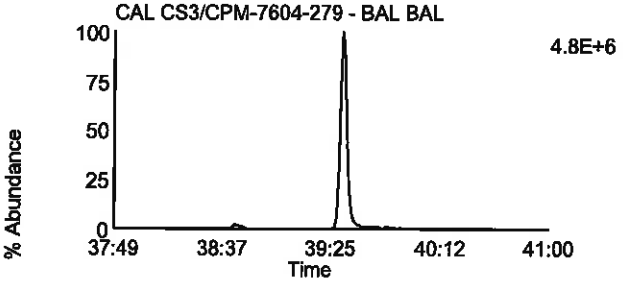
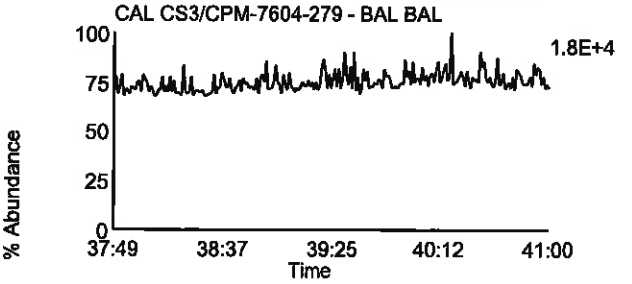
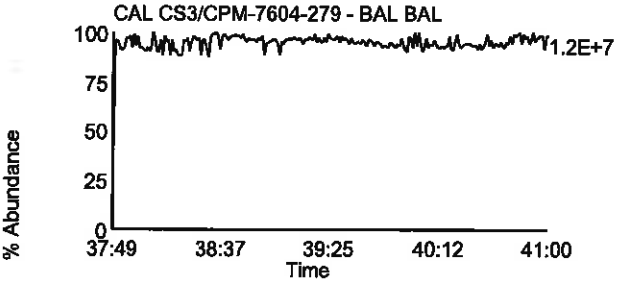
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G4 C13 - 479.7165
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G4 C1 - 380.976
CAL CS3/CPM-7604-279 - BAL BAL

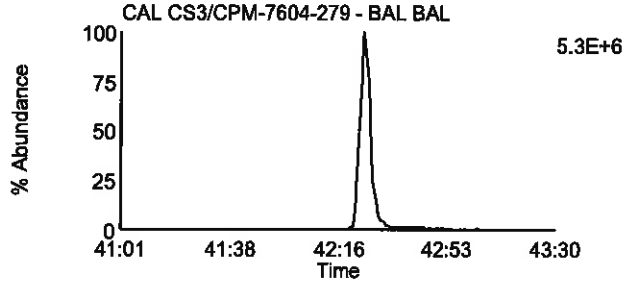


Homologue Group: Octas

Data File Name: F130921B_16
Date Acquired: 9/22/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

Data File: F130921B_16 G5 C4 - 441.7428
CAL CS3/CPM-7604-279 - BAL BAL



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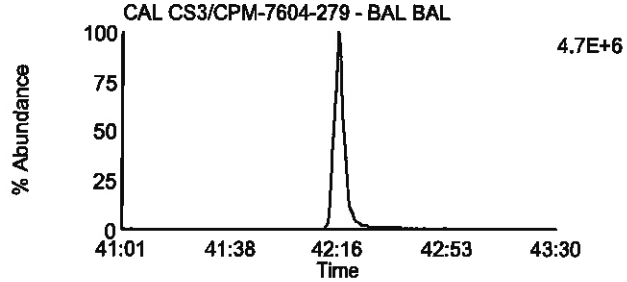
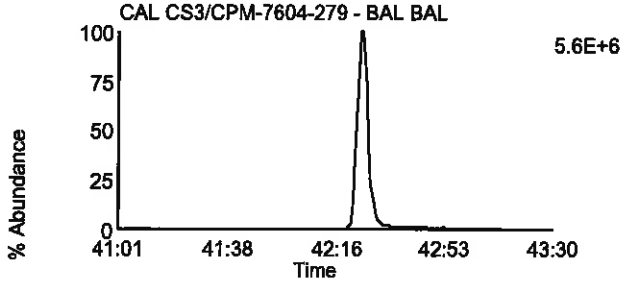
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G5 C5 - 443.7398
CAL CS3/CPM-7604-279 - BAL BAL



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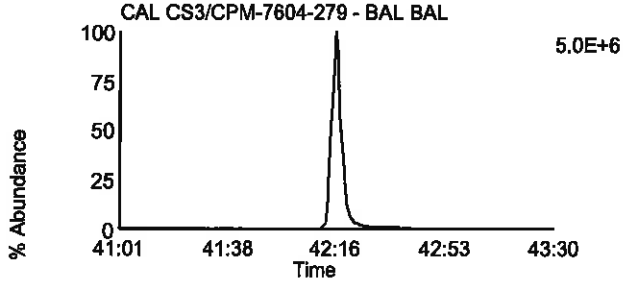
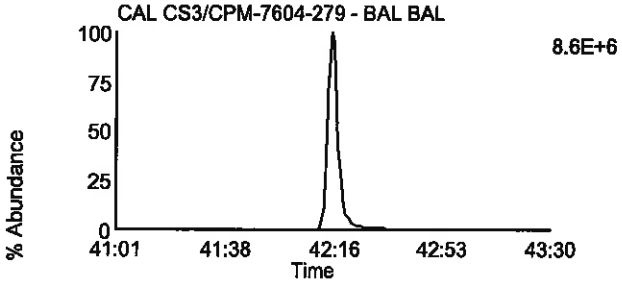
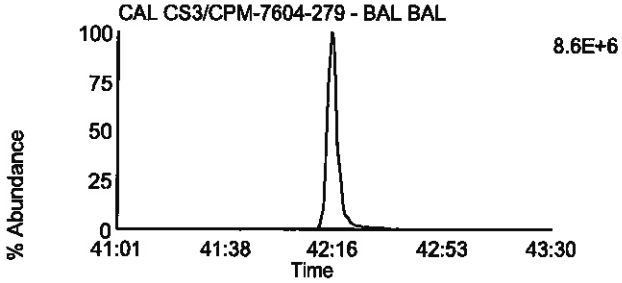
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - BAL BAL



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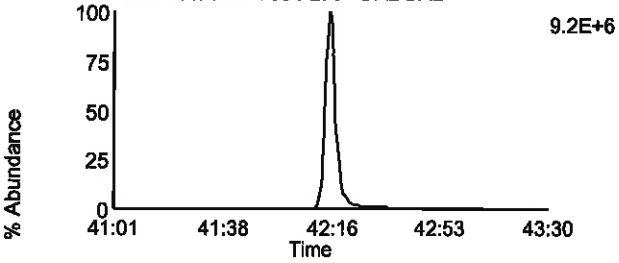
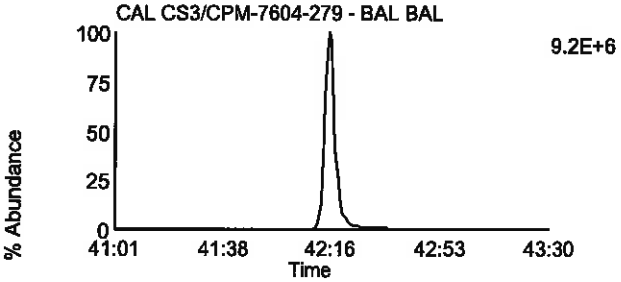
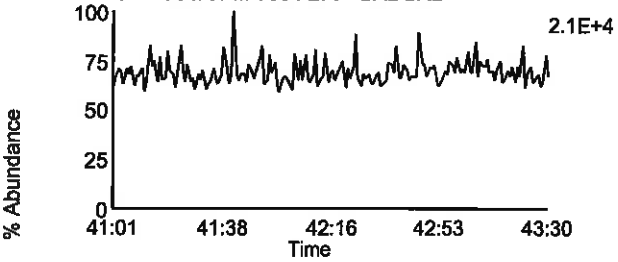
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G5 C13 - 513.6775
CAL CS3/CPM-7604-279 - BAL BAL



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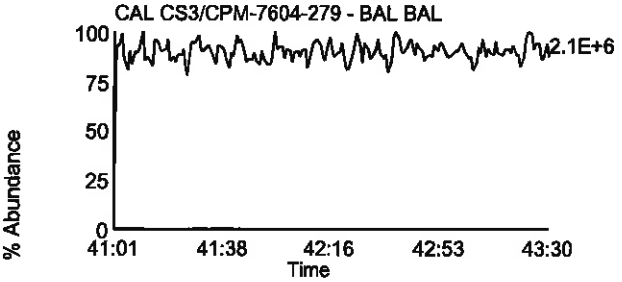
CAL CS3/CPM-7604-279 - BAL BAL



Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS1-7604-273	Instrument ID	10MSHR05 (F)
Filename	F130918B_04	GC Column ID	USD174324H
Analyzed	09/18/2013 18:22	ICAL ID	F130918

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:18	6.02e7	7.45e7	9.61e6	1.15e7	----	----	0.81	
2,3,7,8-TCDF	21:20	3.09e5	3.69e5	4.68e4	5.91e4	1.675e3	1.368e3	0.84	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:33	3.77e7	4.66e7	5.65e6	6.91e6	----	----	0.81	
2,3,7,8-TCDD-13C	22:28	3.43e7	4.22e7	4.95e6	6.00e6	----	----	0.81	
2,3,7,8-TCDD-37Cl4	22:30	3.82e5		5.80e4		----	----		
2,3,7,8-TCDD	22:29	2.00e5	2.31e5	3.19e4	3.79e4	7.628e2	8.716e2	0.86	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:27	7.12e7	4.40e7	1.14e7	7.23e6	----	----	1.62	
2,3,4,7,8-PeCDF-13C	31:03	7.06e7	4.34e7	1.48e7	9.29e6	----	----	1.63	
1,2,3,7,8-PeCDF	29:27	1.91e6	1.21e6	3.20e5	2.27e5	2.526e3	1.051e3	1.57	
2,3,4,7,8-PeCDF	31:04	1.93e6	1.28e6	3.61e5	2.38e5	4.564e3	1.951e3	1.51	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:32	3.88e7	2.44e7	7.80e6	4.98e6	----	----	1.59	
1,2,3,7,8-PeCDD	31:34	6.89e5	1.04e6	1.26e5	2.32e5	3.031e3	1.980e3	0.66	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	34:60	3.45e7	6.56e7	9.02e6	1.72e7	----	----	0.53	
1,2,3,6,7,8-HxCDF-13C	35:09	3.86e7	7.13e7	1.00e7	1.77e7	----	----	0.54	
2,3,4,6,7,8-HxCDF-13C	35:49	3.68e7	6.98e7	1.03e7	1.93e7	----	----	0.53	
1,2,3,7,8,9-HxCDF-13C	36:43	3.33e7	6.19e7	8.95e6	1.65e7	----	----	0.54	
1,2,3,4,7,8-HxCDF	35:01	1.80e6	1.38e6	5.30e5	3.99e5	1.117e3	4.226e2	1.30	
1,2,3,6,7,8-HxCDF	35:09	1.98e6	1.54e6	5.20e5	4.01e5	1.700e3	3.871e2	1.29	
2,3,4,6,7,8-HxCDF	35:50	1.80e6	1.42e6	5.14e5	3.77e5	1.036e3	1.030e2	1.26	
1,2,3,7,8,9-HxCDF	36:45	1.48e6	1.26e6	3.83e5	3.37e5	8.472e2	8.312e2	1.18	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS1-7604-273	Instrument ID	10MSHR05 (F)
Filename	F130918B_04	GC Column ID	USD174324H
Analyzed	09/18/2013 18:22	ICAL ID	F130918

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	35:60	3.60e7	2.73e7	1.07e7	7.77e6	----	----	1.32	
1,2,3,6,7,8-HxCDD-13C	36:07	3.99e7	3.18e7	1.12e7	8.81e6	----	----	1.26	
1,2,3,7,8,9-HxCDD-13C	36:24	3.89e7	3.13e7	1.08e7	8.73e6	----	----	1.24	
1,2,3,4,7,8-HxCDD	36:01	1.03e6	8.06e5	2.81e5	2.34e5	1.517e3	8.183e2	1.27	
1,2,3,6,7,8-HxCDD	36:07	1.04e6	8.57e5	3.26e5	2.31e5	1.624e3	9.024e2	1.21	
1,2,3,7,8,9-HxCDD	36:25	9.92e5	8.04e5	2.45e5	2.30e5	1.368e3	1.755e3	1.23	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:24	1.78e7	4.05e7	4.64e6	1.12e7	----	----	0.44	
1,2,3,4,7,8,9-HpCDF-13C	39:56	1.35e7	3.19e7	3.81e6	9.31e6	----	----	0.42	
1,2,3,4,6,7,8-HpCDF	38:25	1.01e6	9.29e5	2.78e5	2.68e5	6.039e2	4.329e2	1.09	
1,2,3,4,7,8,9-HpCDF	39:57	7.34e5	7.87e5	2.45e5	2.13e5	1.025e3	5.003e2	0.93	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:29	2.09e7	1.82e7	6.07e6	5.55e6	----	----	1.14	
1,2,3,4,6,7,8-HpCDD	39:30	5.72e5	5.32e5	1.66e5	1.60e5	8.367e2	5.856e2	1.08	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:24	1.69e6	1.84e6	4.13e5	4.71e5	6.889e2	3.526e2	0.91	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:15	4.85e7	5.33e7	1.23e7	1.31e7	----	----	0.91	
OCDD	42:16	1.25e6	1.36e6	3.10e5	3.33e5	2.237e2	7.351e1	0.92	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS2-7604-276	Instrument ID	10MSHR05 (F)
Filename	F130918B_03	GC Column ID	USD174324H
Analyzed	09/18/2013 17:38	ICAL ID	F130918

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:17	6.74e7	8.42e7	1.03e7	1.29e7	-----	-----	0.80	
2,3,7,8-TCDF	21:18	1.42e6	1.81e6	2.37e5	2.68e5	-----	-----	0.78	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:32	4.39e7	5.48e7	6.91e6	8.39e6	-----	-----	0.80	
2,3,7,8-TCDD-13C	22:28	4.02e7	5.00e7	5.76e6	7.04e6	-----	-----	0.81	
2,3,7,8-TCDD-37Cl4	22:30	2.00e6		2.94e5		-----	-----		
2,3,7,8-TCDD	22:29	7.98e5	1.10e6	1.21e5	1.69e5	-----	-----	0.73	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:26	8.51e7	5.20e7	1.37e7	8.25e6	-----	-----	1.64	
2,3,4,7,8-PeCDF-13C	31:02	8.27e7	5.17e7	1.66e7	1.02e7	-----	-----	1.60	
1,2,3,7,8-PeCDF	29:27	9.60e6	5.94e6	1.55e6	9.24e5	-----	-----	1.62	
2,3,4,7,8-PeCDF	31:04	9.62e6	5.92e6	1.86e6	1.17e6	-----	-----	1.63	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:31	4.59e7	2.90e7	1.02e7	6.25e6	-----	-----	1.58	
1,2,3,7,8-PeCDD	31:32	3.28e6	5.12e6	7.00e5	1.06e6	-----	-----	0.64	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	34:59	4.09e7	7.74e7	1.14e7	2.08e7	-----	-----	0.53	
1,2,3,6,7,8-HxCDF-13C	35:08	4.80e7	8.59e7	1.20e7	2.17e7	-----	-----	0.56	
2,3,4,6,7,8-HxCDF-13C	35:48	4.24e7	7.64e7	1.15e7	2.11e7	-----	-----	0.55	
1,2,3,7,8,9-HxCDF-13C	36:43	4.01e7	7.56e7	1.07e7	1.94e7	-----	-----	0.53	
1,2,3,4,7,8-HxCDF	35:01	8.36e6	6.56e6	2.21e6	1.81e6	-----	-----	1.27	
1,2,3,6,7,8-HxCDF	35:09	9.15e6	7.36e6	2.40e6	1.86e6	-----	-----	1.24	
2,3,4,6,7,8-HxCDF	35:49	9.03e6	7.10e6	2.47e6	1.91e6	-----	-----	1.27	
1,2,3,7,8,9-HxCDF	36:44	7.53e6	5.97e6	2.08e6	1.60e6	-----	-----	1.26	

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Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS2-7604-276	Instrument ID	10MSHR05 (F)
Filename	F130918B_03	GC Column ID	USD174324H
Analyzed	09/18/2013 17:38	ICAL ID	F130918

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	35:60	4.47e7	3.50e7	1.27e7	9.82e6	----	----	1.28	
1,2,3,6,7,8-HxCDD-13C	36:06	4.91e7	3.93e7	1.31e7	1.06e7	----	----	1.25	
1,2,3,7,8,9-HxCDD-13C	36:24	4.67e7	3.71e7	1.20e7	9.45e6	----	----	1.26	
1,2,3,4,7,8-HxCDD	36:01	5.04e6	3.95e6	1.48e6	1.24e6	----	----	1.28	
1,2,3,6,7,8-HxCDD	36:07	5.49e6	4.19e6	1.51e6	1.14e6	----	----	1.31	
1,2,3,7,8,9-HxCDD	36:25	5.08e6	4.08e6	1.41e6	1.13e6	----	----	1.24	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:23	2.14e7	4.57e7	6.36e6	1.32e7	----	----	0.47	
1,2,3,4,7,8,9-HpCDF-13C	39:56	1.79e7	3.77e7	5.76e6	1.23e7	----	----	0.47	
1,2,3,4,6,7,8-HpCDF	38:24	4.82e6	4.85e6	1.34e6	1.32e6	----	----	0.99	
1,2,3,4,7,8,9-HpCDF	39:57	3.81e6	3.56e6	1.13e6	1.06e6	----	----	1.07	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:29	2.48e7	2.44e7	6.76e6	6.94e6	----	----	1.01	
1,2,3,4,6,7,8-HpCDD	39:30	2.77e6	2.82e6	7.76e5	8.19e5	----	----	0.98	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:24	8.79e6	9.35e6	2.30e6	2.39e6	----	----	0.94	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:15	6.30e7	6.91e7	1.53e7	1.69e7	----	----	0.91	
OCDD	42:15	6.56e6	7.35e6	1.78e6	1.90e6	----	----	0.89	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR05 (F)
Filename	F130918B_02	GC Column ID	USD174324H
Analyzed	09/18/2013 16:50	ICAL ID	F130918

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:18	9.61e7	1.20e8	1.46e7	1.83e7	----	----	0.80	
2,3,7,8-TCDF	21:19	1.09e7	1.34e7	1.64e6	2.06e6	----	----	0.81	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:34	5.71e7	7.00e7	8.57e6	1.09e7	----	----	0.82	
2,3,7,8-TCDD-13C	22:29	5.81e7	7.15e7	8.31e6	1.05e7	----	----	0.81	
2,3,7,8-TCDD-37Cl4	22:31	1.47e7		2.09e6		----	----		
2,3,7,8-TCDD	22:31	6.62e6	8.36e6	9.32e5	1.16e6	----	----	0.79	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:27	1.26e8	7.77e7	2.14e7	1.34e7	----	----	1.62	
2,3,4,7,8-PeCDF-13C	31:03	1.32e8	7.98e7	2.64e7	1.62e7	----	----	1.65	
1,2,3,7,8-PeCDF	29:28	7.04e7	4.48e7	1.16e7	7.37e6	----	----	1.57	
2,3,4,7,8-PeCDF	31:05	7.59e7	4.69e7	1.47e7	9.09e6	----	----	1.62	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:32	7.40e7	4.57e7	1.56e7	9.58e6	----	----	1.62	
1,2,3,7,8-PeCDD	31:34	2.69e7	4.17e7	5.56e6	8.48e6	----	----	0.64	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	34:60	6.31e7	1.18e8	1.80e7	3.31e7	----	----	0.53	
1,2,3,6,7,8-HxCDF-13C	35:09	6.88e7	1.29e8	1.80e7	3.38e7	----	----	0.53	
2,3,4,6,7,8-HxCDF-13C	35:49	6.58e7	1.21e8	1.93e7	3.50e7	----	----	0.54	
1,2,3,7,8,9-HxCDF-13C	36:43	6.67e7	1.24e8	1.75e7	3.27e7	----	----	0.54	
1,2,3,4,7,8-HxCDF	35:01	6.49e7	4.97e7	1.79e7	1.39e7	----	----	1.31	
1,2,3,6,7,8-HxCDF	35:09	6.94e7	5.48e7	1.85e7	1.43e7	----	----	1.27	
2,3,4,6,7,8-HxCDF	35:50	6.97e7	5.44e7	1.99e7	1.54e7	----	----	1.28	
1,2,3,7,8,9-HxCDF	36:45	6.38e7	4.90e7	1.69e7	1.30e7	----	----	1.30	

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Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR05 (F)
Filename	F130918B_02	GC Column ID	USD174324H
Analyzed	09/18/2013 16:50	ICAL ID	F130918

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:01	6.64e7	5.20e7	2.02e7	1.55e7	----	----	1.28	
1,2,3,6,7,8-HxCDD-13C	36:07	7.69e7	6.17e7	2.08e7	1.68e7	----	----	1.25	
1,2,3,7,8,9-HxCDD-13C	36:24	7.33e7	5.74e7	1.98e7	1.51e7	----	----	1.28	
1,2,3,4,7,8-HxCDD	36:01	3.93e7	3.04e7	1.16e7	8.88e6	----	----	1.30	
1,2,3,6,7,8-HxCDD	36:07	4.19e7	3.27e7	1.16e7	9.22e6	----	----	1.28	
1,2,3,7,8,9-HxCDD	36:25	4.16e7	3.31e7	1.14e7	9.02e6	----	----	1.26	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:24	3.39e7	7.35e7	9.84e6	2.07e7	----	----	0.46	
1,2,3,4,7,8,9-HpCDF-13C	39:57	2.60e7	5.64e7	7.80e6	1.58e7	----	----	0.46	
1,2,3,4,6,7,8-HpCDF	38:25	3.61e7	3.53e7	1.00e7	9.66e6	----	----	1.02	
1,2,3,4,7,8,9-HpCDF	39:58	2.87e7	2.94e7	8.62e6	9.07e6	----	----	0.98	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:29	3.90e7	3.60e7	1.25e7	1.13e7	----	----	1.08	
1,2,3,4,6,7,8-HpCDD	39:30	2.23e7	2.19e7	6.22e6	6.32e6	----	----	1.02	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:24	7.10e7	7.54e7	1.77e7	1.93e7	----	----	0.94	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:15	9.54e7	1.05e8	2.45e7	2.65e7	----	----	0.90	
OCDD	42:16	5.13e7	5.73e7	1.31e7	1.46e7	----	----	0.90	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS4-7604-277	Instrument ID	10MSHR05 (F)
Filename	F130918B_06	GC Column ID	USD174324H
Analyzed	09/18/2013 19:54	ICAL ID	F130918

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:17	6.97e7	8.68e7	1.04e7	1.29e7	----	----	0.80	
2,3,7,8-TCDF	21:18	3.16e7	4.00e7	4.84e6	6.11e6	----	----	0.79	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:32	4.33e7	5.46e7	6.62e6	8.08e6	----	----	0.79	
2,3,7,8-TCDD-13C	22:27	4.11e7	5.11e7	5.71e6	7.13e6	----	----	0.80	
2,3,7,8-TCDD-37Cl4	22:29	4.32e7		6.16e6		----	----		
2,3,7,8-TCDD	22:29	1.88e7	2.40e7	2.70e6	3.42e6	----	----	0.78	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:25	8.91e7	5.49e7	1.42e7	8.82e6	----	----	1.62	
2,3,4,7,8-PeCDF-13C	31:02	8.64e7	5.25e7	1.64e7	1.01e7	----	----	1.65	
1,2,3,7,8-PeCDF	29:27	2.06e8	1.28e8	3.31e7	2.10e7	----	----	1.61	
2,3,4,7,8-PeCDF	31:04	2.06e8	1.30e8	3.97e7	2.53e7	----	----	1.59	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:30	4.82e7	3.08e7	9.89e6	6.24e6	----	----	1.57	
1,2,3,7,8-PeCDD	31:32	7.12e7	1.10e8	1.38e7	2.23e7	----	----	0.64	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	34:59	4.27e7	8.16e7	1.12e7	2.26e7	----	----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:08	4.88e7	9.15e7	1.26e7	2.30e7	----	----	0.53	
2,3,4,6,7,8-HxCDF-13C	35:48	4.35e7	7.93e7	1.22e7	2.22e7	----	----	0.55	
1,2,3,7,8,9-HxCDF-13C	36:42	4.21e7	7.76e7	1.09e7	2.07e7	----	----	0.54	
1,2,3,4,7,8-HxCDF	34:60	1.82e8	1.41e8	4.85e7	3.74e7	----	----	1.29	
1;2,3,6,7,8-HxCDF	35:09	2.00e8	1.53e8	5.07e7	3.88e7	----	----	1.30	
2,3,4,6,7,8-HxCDF	35:49	1.91e8	1.46e8	5.35e7	4.09e7	----	----	1.31	
1,2,3,7,8,9-HxCDF	36:44	1.68e8	1.28e8	4.46e7	3.43e7	----	----	1.31	

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Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS4-7604-277	Instrument ID	10MSHR05 (F)
Filename	F130918B_06	GC Column ID	USD174324H
Analyzed	09/18/2013 19:54	ICAL ID	F130918

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	35:60	4.53e7	3.40e7	1.29e7	9.67e6	----	----	1.33	
1,2,3,6,7,8-HxCDD-13C	36:06	5.12e7	4.17e7	1.43e7	1.13e7	----	----	1.23	
1,2,3,7,8,9-HxCDD-13C	36:23	4.69e7	3.73e7	1.30e7	1.00e7	----	----	1.26	
1,2,3,4,7,8-HxCDD	36:01	1.09e8	7.89e7	3.15e7	2.31e7	----	----	1.38	
1,2,3,6,7,8-HxCDD	36:07	1.09e8	8.87e7	3.06e7	2.43e7	----	----	1.23	
1,2,3,7,8,9-HxCDD	36:24	1.10e8	8.45e7	2.92e7	2.35e7	----	----	1.30	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:23	2.17e7	4.81e7	5.95e6	1.29e7	----	----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	39:56	1.85e7	4.11e7	5.87e6	1.23e7	----	----	0.45	
1,2,3,4,6,7,8-HpCDF	38:24	9.59e7	9.42e7	2.73e7	2.50e7	----	----	1.02	
1,2,3,4,7,8,9-HpCDF	39:56	8.50e7	7.81e7	2.48e7	2.50e7	----	----	1.09	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:29	2.81e7	2.52e7	8.61e6	7.37e6	----	----	1.11	
1,2,3,4,6,7,8-HpCDD	39:29	6.64e7	6.30e7	2.15e7	1.95e7	----	----	1.05	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:24	1.98e8	2.11e8	5.18e7	5.14e7	----	----	0.93	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:14	6.43e7	6.89e7	1.66e7	1.75e7	----	----	0.93	
OCDD	42:15	1.42e8	1.60e8	3.54e7	4.03e7	----	----	0.89	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS5-7604-278	Instrument ID	10MSHR05 (F)
Filename	F130918B_05	GC Column ID	USD174324H
Analyzed	09/18/2013 19:08	ICAL ID	F130918

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:18	8.07e7	1.03e8	1.24e7	1.58e7	----	----	0.79	
2,3,7,8-TCDF	21:18	1.86e8	2.33e8	2.87e7	3.51e7	----	----	0.80	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:33	4.95e7	6.21e7	7.54e6	9.48e6	----	----	0.80	
2,3,7,8-TCDD-13C	22:28	4.87e7	6.12e7	7.19e6	8.88e6	----	----	0.80	
2,3,7,8-TCDD-37Cl4	22:30	2.56e8		3.70e7		----	----		
2,3,7,8-TCDD	22:30	1.13e8	1.43e8	1.62e7	2.14e7	----	----	0.79	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:26	1.06e8	6.57e7	1.65e7	1.05e7	----	----	1.61	
2,3,4,7,8-PeCDF-13C	31:03	1.04e8	6.41e7	2.06e7	1.25e7	----	----	1.62	
1,2,3,7,8-PeCDF	29:27	1.24e9	7.66e8	2.04e8	1.26e8	----	----	1.61	
2,3,4,7,8-PeCDF	31:04	1.25e9	7.76e8	2.56e8	1.58e8	----	----	1.61	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:31	5.95e7	3.71e7	1.26e7	7.71e6	----	----	1.61	
1,2,3,7,8-PeCDD	31:33	4.37e8	6.75e8	9.34e7	1.46e8	----	----	0.65	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	34:60	5.32e7	9.94e7	1.47e7	2.69e7	----	----	0.54	
1,2,3,6,7,8-HxCDF-13C	35:09	6.11e7	1.11e8	1.55e7	2.88e7	----	----	0.55	
2,3,4,6,7,8-HxCDF-13C	35:48	5.33e7	9.96e7	1.50e7	2.82e7	----	----	0.53	
1,2,3,7,8,9-HxCDF-13C	36:43	5.43e7	1.01e8	1.53e7	2.82e7	----	----	0.54	
1,2,3,4,7,8-HxCDF	35:01	1.14e9	8.95e8	3.12e8	2.43e8	----	----	1.27	
1,2,3,6,7,8-HxCDF	35:09	1.24e9	9.68e8	3.23e8	2.48e8	----	----	1.28	
2,3,4,6,7,8-HxCDF	35:50	1.16e9	9.15e8	3.20e8	2.56e8	----	----	1.26	
1,2,3,7,8,9-HxCDF	36:44	1.06e9	8.07e8	2.92e8	2.30e8	----	----	1.31	

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Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS5-7604-278	Instrument ID	10MSHR05 (F)
Filename	F130918B_05	GC Column ID	USD174324H
Analyzed	09/18/2013 19:08	ICAL ID	F130918

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	35:60	5.69e7	4.42e7	1.73e7	1.34e7	----	----	1.29	
1,2,3,6,7,8-HxCDD-13C	36:07	6.46e7	5.05e7	1.74e7	1.36e7	----	----	1.28	
1,2,3,7,8,9-HxCDD-13C	36:24	6.00e7	4.71e7	1.64e7	1.27e7	----	----	1.27	
1,2,3,4,7,8-HxCDD	36:01	6.75e8	5.22e8	2.01e8	1.56e8	----	----	1.29	
1,2,3,6,7,8-HxCDD	36:07	6.89e8	5.34e8	1.85e8	1.46e8	----	----	1.29	
1,2,3,7,8,9-HxCDD	36:25	6.77e8	5.31e8	1.81e8	1.40e8	----	----	1.28	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:24	2.70e7	5.90e7	7.89e6	1.63e7	----	----	0.46	
1,2,3,4,7,8,9-HpCDF-13C	39:56	2.23e7	5.05e7	6.64e6	1.57e7	----	----	0.44	
1,2,3,4,6,7,8-HpCDF	38:24	6.03e8	6.24e8	1.84e8	1.77e8	----	----	0.97	
1,2,3,4,7,8,9-HpCDF	39:57	5.61e8	5.22e8	1.81e8	1.65e8	----	----	1.07	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:29	3.42e7	3.09e7	9.56e6	8.75e6	----	----	1.11	
1,2,3,4,6,7,8-HpCDD	39:30	4.09e8	3.86e8	1.20e8	1.11e8	----	----	1.06	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:24	1.39e9	1.47e9	3.66e8	3.91e8	----	----	0.95	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:15	8.74e7	9.61e7	2.23e7	2.41e7	----	----	0.91	
OCDD	42:15	9.71e8	1.07e9	2.41e8	2.69e8	----	----	0.91	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By_____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS1-7604-273	Instrument ID	10MSHR06 (U)
Filename	U130729B_11	GC Column ID	USD227224H
Analyzed	07/29/2013 23:48	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	22:49	5.76e7	7.40e7	8.39e6	1.11e7	-----	-----	0.78	
2,3,7,8-TCDF	22:53	2.89e5	3.26e5	4.09e4	4.51e4	-----	-----	0.89	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	23:08	3.71e7	4.66e7	5.27e6	6.57e6	-----	-----	0.80	
2,3,7,8-TCDD-13C	24:07	3.70e7	4.76e7	5.21e6	6.42e6	-----	-----	0.78	
2,3,7,8-TCDD-37Cl4	24:07	4.71e5		7.50e4		-----	-----		
2,3,7,8-TCDD	24:09	2.10e5	2.82e5	2.76e4	4.45e4	-----	-----	0.74	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	30:27	5.99e7	3.83e7	1.12e7	7.18e6	-----	-----	1.56	
2,3,4,7,8-PeCDF-13C	31:54	5.90e7	3.74e7	1.20e7	7.73e6	-----	-----	1.58	
1,2,3,7,8-PeCDF	30:29	1.24e6	8.50e5	2.51e5	1.68e5	-----	-----	1.46	
2,3,4,7,8-PeCDF	31:56	1.33e6	9.30e5	2.82e5	2.19e5	-----	-----	1.43	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:22	3.74e7	2.36e7	8.17e6	5.12e6	-----	-----	1.58	
1,2,3,7,8-PeCDD	32:23	6.28e5	1.02e6	1.34e5	2.07e5	-----	-----	0.62	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:47	2.36e7	4.52e7	6.57e6	1.23e7	-----	-----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:55	2.86e7	5.51e7	7.15e6	1.37e7	-----	-----	0.52	
2,3,4,6,7,8-HxCDF-13C	36:37	2.68e7	5.12e7	6.51e6	1.29e7	-----	-----	0.52	
1,2,3,7,8,9-HxCDF-13C	37:36	2.37e7	4.47e7	5.55e6	1.05e7	-----	-----	0.53	
1,2,3,4,7,8-HxCDF	35:48	1.02e6	8.85e5	3.05e5	2.43e5	-----	-----	1.15	
1,2,3,6,7,8-HxCDF	35:56	1.17e6	9.33e5	3.09e5	2.50e5	-----	-----	1.25	
2,3,4,6,7,8-HxCDF	36:39	1.07e6	8.87e5	3.11e5	2.69e5	-----	-----	1.21	
1,2,3,7,8,9-HxCDF	37:37	8.74e5	7.51e5	2.04e5	1.96e5	-----	-----	1.16	

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Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS1-7604-273	Instrument ID	10MSHR06 (U)
Filename	U130729B_11	GC Column ID	USD227224H
Analyzed	07/29/2013 23:48	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:49	3.07e7	2.41e7	9.32e6	7.13e6	-----	-----	1.27	
1,2,3,6,7,8-HxCDD-13C	36:56	3.78e7	2.98e7	9.38e6	7.44e6	-----	-----	1.27	
1,2,3,7,8,9-HxCDD-13C	37:14	3.56e7	2.82e7	8.26e6	6.71e6	-----	-----	1.26	
1,2,3,4,7,8-HxCDD	36:51	7.87e5	6.85e5	2.19e5	2.04e5	-----	-----	1.15	
1,2,3,6,7,8-HxCDD	36:57	8.83e5	7.72e5	2.35e5	1.82e5	-----	-----	1.14	
1,2,3,7,8,9-HxCDD	37:15	8.71e5	7.38e5	2.01e5	1.70e5	-----	-----	1.18	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	39:15	2.08e7	4.66e7	5.77e6	1.25e7	-----	-----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	40:53	1.68e7	3.75e7	4.51e6	9.86e6	-----	-----	0.45	
1,2,3,4,6,7,8-HpCDF	39:16	1.16e6	1.13e6	3.25e5	3.36e5	-----	-----	1.03	
1,2,3,4,7,8,9-HpCDF	40:54	9.95e5	9.40e5	2.56e5	2.75e5	-----	-----	1.06	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	40:23	2.79e7	2.59e7	7.17e6	6.78e6	-----	-----	1.08	
1,2,3,4,6,7,8-HpCDD	40:23	7.84e5	7.93e5	1.91e5	1.86e5	-----	-----	0.99	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	43:28	1.35e6	1.44e6	3.57e5	3.34e5	-----	-----	0.94	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	43:16	4.44e7	4.88e7	1.05e7	1.15e7	-----	-----	0.91	
OCDD	43:16	1.11e6	1.39e6	2.50e5	3.23e5	-----	-----	0.79	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By_____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS2-7604-276	Instrument ID	10MSHR06 (U)
Filename	U130729B_10	GC Column ID	USD227224H
Analyzed	07/29/2013 23:00	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	22:49	5.19e7	6.80e7	7.11e6	9.25e6	----	----	0.76	
2,3,7,8-TCDF	22:52	9.32e5	1.28e6	1.42e5	1.93e5	----	----	0.73	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	23:08	3.56e7	4.47e7	5.00e6	6.36e6	----	----	0.80	
2,3,7,8-TCDD-13C	24:07	3.51e7	4.48e7	4.86e6	5.99e6	----	----	0.78	
2,3,7,8-TCDD-37Cl4	24:08	1.82e6		2.44e5		----	----		
2,3,7,8-TCDD	24:09	7.28e5	9.24e5	1.01e5	1.29e5	----	----	0.79	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	30:28	5.59e7	3.65e7	1.01e7	6.59e6	----	----	1.53	
2,3,4,7,8-PeCDF-13C	31:54	5.80e7	3.66e7	1.24e7	8.05e6	----	----	1.58	
1,2,3,7,8-PeCDF	30:29	4.87e6	3.18e6	9.66e5	5.95e5	----	----	1.53	
2,3,4,7,8-PeCDF	31:56	5.23e6	3.45e6	1.04e6	7.30e5	----	----	1.52	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:22	3.70e7	2.33e7	7.83e6	5.01e6	----	----	1.59	
1,2,3,7,8-PeCDD	32:23	2.30e6	3.80e6	5.13e5	7.98e5	----	----	0.60	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:47	2.36e7	4.51e7	6.42e6	1.22e7	----	----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:55	2.72e7	5.38e7	6.73e6	1.31e7	----	----	0.51	
2,3,4,6,7,8-HxCDF-13C	36:38	2.49e7	4.75e7	6.45e6	1.24e7	----	----	0.52	
1,2,3,7,8,9-HxCDF-13C	37:36	2.36e7	4.58e7	5.88e6	1.12e7	----	----	0.52	
1,2,3,4,7,8-HxCDF	35:48	4.13e6	3.32e6	1.03e6	8.73e5	----	----	1.24	
1,2,3,6,7,8-HxCDF	35:57	4.44e6	3.62e6	1.14e6	8.91e5	----	----	1.23	
2,3,4,6,7,8-HxCDF	36:39	4.52e6	3.63e6	1.22e6	1.01e6	----	----	1.25	
1,2,3,7,8,9-HxCDF	37:37	3.78e6	2.95e6	9.75e5	7.58e5	----	----	1.28	

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Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS2-7604-276	Instrument ID	10MSHR06 (U)
Filename	U130729B_10	GC Column ID	USD227224H
Analyzed	07/29/2013 23:00	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:49	3.15e7	2.40e7	8.65e6	6.86e6	-----	-----	1.31	
1,2,3,6,7,8-HxCDD-13C	36:56	3.74e7	3.08e7	9.89e6	7.83e6	-----	-----	1.21	
1,2,3,7,8,9-HxCDD-13C	37:15	3.53e7	2.78e7	8.10e6	6.49e6	-----	-----	1.27	
1,2,3,4,7,8-HxCDD	36:50	3.16e6	2.66e6	8.77e5	7.46e5	-----	-----	1.19	
1,2,3,6,7,8-HxCDD	36:57	3.51e6	3.02e6	8.69e5	7.05e5	-----	-----	1.17	
1,2,3,7,8,9-HxCDD	37:15	3.47e6	2.93e6	8.75e5	6.90e5	-----	-----	1.18	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	39:15	2.07e7	4.54e7	6.02e6	1.28e7	-----	-----	0.46	
1,2,3,4,7,8,9-HpCDF-13C	40:53	1.66e7	3.65e7	4.32e6	9.68e6	-----	-----	0.45	
1,2,3,4,6,7,8-HpCDF	39:16	4.58e6	4.49e6	1.25e6	1.23e6	-----	-----	1.02	
1,2,3,4,7,8,9-HpCDF	40:53	3.86e6	3.43e6	1.00e6	9.19e5	-----	-----	1.13	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	40:23	2.80e7	2.61e7	7.12e6	6.80e6	-----	-----	1.07	
1,2,3,4,6,7,8-HpCDD	40:23	2.91e6	2.81e6	7.69e5	7.64e5	-----	-----	1.04	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	43:28	5.28e6	5.89e6	1.24e6	1.39e6	-----	-----	0.90	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	43:16	4.45e7	4.95e7	1.03e7	1.14e7	-----	-----	0.90	
OCDD	43:17	4.63e6	5.25e6	1.07e6	1.22e6	-----	-----	0.88	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS3/CPM-7604-274	Instrument ID	10MSHR06 (U)
Filename	U130729B_09	GC Column ID	USD227224H
Analyzed	07/29/2013 22:12	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	22:51	2.12e8	2.73e8	3.05e7	3.91e7	-----	-----	0.78	
2,3,7,8-TCDF	22:52	1.84e7	2.44e7	2.63e6	3.51e6	-----	-----	0.76	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	23:10	1.41e8	1.79e8	2.03e7	2.58e7	-----	-----	0.79	
2,3,7,8-TCDD-13C	24:08	1.43e8	1.85e8	1.89e7	2.39e7	-----	-----	0.77	
2,3,7,8-TCDD-37Cl4	24:09	3.55e7		4.75e6		-----	-----		
2,3,7,8-TCDD	24:09	1.49e7	2.02e7	1.86e6	2.61e6	-----	-----	0.74	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	30:28	2.36e8	1.50e8	4.38e7	2.91e7	-----	-----	1.57	
2,3,4,7,8-PeCDF-13C	31:55	2.39e8	1.57e8	5.06e7	3.21e7	-----	-----	1.53	
1,2,3,7,8-PeCDF	30:29	1.01e8	6.63e7	1.95e7	1.25e7	-----	-----	1.53	
2,3,4,7,8-PeCDF	31:56	1.06e8	6.98e7	2.25e7	1.52e7	-----	-----	1.52	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:22	1.61e8	1.02e8	3.42e7	2.22e7	-----	-----	1.58	
1,2,3,7,8-PeCDD	32:23	4.76e7	7.89e7	1.08e7	1.73e7	-----	-----	0.60	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:48	9.66e7	1.86e8	2.56e7	5.07e7	-----	-----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:56	1.17e8	2.18e8	2.76e7	5.32e7	-----	-----	0.53	
2,3,4,6,7,8-HxCDF-13C	36:38	6.84e7	1.37e8	1.87e7	3.57e7	-----	-----	0.50	
1,2,3,7,8,9-HxCDF-13C	37:36	9.71e7	1.88e8	2.36e7	4.52e7	-----	-----	0.52	
1,2,3,4,7,8-HxCDF	35:49	7.94e7	6.53e7	2.22e7	1.79e7	-----	-----	1.22	
1,2,3,6,7,8-HxCDF	35:57	9.42e7	7.52e7	2.30e7	1.90e7	-----	-----	1.25	
2,3,4,6,7,8-HxCDF	36:39	5.95e7	4.91e7	1.58e7	1.31e7	-----	-----	1.21	
1,2,3,7,8,9-HxCDF	37:37	7.28e7	5.96e7	1.76e7	1.41e7	-----	-----	1.22	

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Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS3/CPM-7604-274	Instrument ID	10MSHR06 (U)
Filename	U130729B_09	GC Column ID	USD227224H
Analyzed	07/29/2013 22:12	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:50	1.17e8	9.30e7	3.34e7	2.62e7	-----	-----	1.25	
1,2,3,6,7,8-HxCDD-13C	36:57	1.51e8	1.20e8	3.77e7	3.04e7	-----	-----	1.26	
1,2,3,7,8,9-HxCDD-13C	37:15	1.52e8	1.23e8	3.51e7	2.80e7	-----	-----	1.23	
1,2,3,4,7,8-HxCDD	36:51	5.73e7	4.64e7	1.68e7	1.33e7	-----	-----	1.24	
1,2,3,6,7,8-HxCDD	36:58	6.90e7	5.58e7	1.76e7	1.42e7	-----	-----	1.24	
1,2,3,7,8,9-HxCDD	37:16	7.25e7	5.65e7	1.67e7	1.35e7	-----	-----	1.28	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	39:15	8.55e7	1.92e8	2.40e7	5.34e7	-----	-----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	40:54	6.91e7	1.49e8	1.83e7	4.01e7	-----	-----	0.46	
1,2,3,4,6,7,8-HpCDF	39:16	9.14e7	9.08e7	2.58e7	2.53e7	-----	-----	1.01	
1,2,3,4,7,8,9-HpCDF	40:54	7.46e7	7.10e7	1.90e7	1.88e7	-----	-----	1.05	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	40:23	1.17e8	1.10e8	3.25e7	3.05e7	-----	-----	1.06	
1,2,3,4,6,7,8-HpCDD	40:24	6.06e7	5.93e7	1.65e7	1.58e7	-----	-----	1.02	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	43:28	1.03e8	1.16e8	2.53e7	2.76e7	-----	-----	0.89	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	43:16	1.88e8	2.09e8	4.29e7	4.86e7	-----	-----	0.90	
OCDD	43:17	9.16e7	1.03e8	2.13e7	2.45e7	-----	-----	0.89	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By_____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS4-7604-277	Instrument ID	10MSHR06 (U)
Filename	U130729B_13	GC Column ID	USD227224H
Analyzed	07/30/2013 01:25	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	22:50	4.59e7	5.90e7	6.30e6	7.97e6	----	----	0.78	
2,3,7,8-TCDF	22:51	1.60e7	2.15e7	2.26e6	2.94e6	----	----	0.75	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	23:08	3.11e7	3.88e7	4.30e6	5.24e6	----	----	0.80	
2,3,7,8-TCDD-13C	24:07	3.06e7	3.94e7	4.00e6	5.27e6	----	----	0.78	
2,3,7,8-TCDD-37Cl4	24:09	3.11e7		3.94e6		----	----		
2,3,7,8-TCDD	24:08	1.25e7	1.63e7	1.70e6	2.16e6	----	----	0.77	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	30:27	4.93e7	3.12e7	8.98e6	5.87e6	----	----	1.58	
2,3,4,7,8-PeCDF-13C	31:54	4.81e7	3.11e7	1.01e7	6.51e6	----	----	1.55	
1,2,3,7,8-PeCDF	30:29	8.62e7	5.62e7	1.64e7	1.06e7	----	----	1.53	
2,3,4,7,8-PeCDF	31:56	8.83e7	5.68e7	1.91e7	1.23e7	----	----	1.55	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:21	3.13e7	1.97e7	6.67e6	4.22e6	----	----	1.59	
1,2,3,7,8-PeCDD	32:23	3.86e7	6.36e7	8.23e6	1.34e7	----	----	0.61	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:47	1.92e7	3.71e7	5.15e6	1.00e7	----	----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:55	2.30e7	4.33e7	5.75e6	1.11e7	----	----	0.53	
2,3,4,6,7,8-HxCDF-13C	36:38	2.02e7	3.88e7	5.03e6	9.80e6	----	----	0.52	
1,2,3,7,8,9-HxCDF-13C	37:36	1.87e7	3.75e7	4.44e6	8.78e6	----	----	0.50	
1,2,3,4,7,8-HxCDF	35:48	6.58e7	5.43e7	1.75e7	1.47e7	----	----	1.21	
1,2,3,6,7,8-HxCDF	35:56	7.47e7	6.22e7	1.78e7	1.51e7	----	----	1.20	
2,3,4,6,7,8-HxCDF	36:39	7.29e7	5.84e7	1.93e7	1.54e7	----	----	1.25	
1,2,3,7,8,9-HxCDF	37:37	6.00e7	4.74e7	1.48e7	1.20e7	----	----	1.27	

REPORT OF LABORATORY ANALYSIS

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Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS4-7604-277	Instrument ID	10MSHR06 (U)
Filename	U130729B_13	GC Column ID	USD227224H
Analyzed	07/30/2013 01:25	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:49	2.43e7	1.92e7	7.24e6	5.67e6	-----	-----	1.27	
1,2,3,6,7,8-HxCDD-13C	36:56	3.07e7	2.45e7	7.37e6	6.00e6	-----	-----	1.25	
1,2,3,7,8,9-HxCDD-13C	37:14	2.82e7	2.23e7	6.76e6	5.53e6	-----	-----	1.26	
1,2,3,4,7,8-HxCDD	36:50	4.99e7	3.94e7	1.42e7	1.16e7	-----	-----	1.27	
1,2,3,6,7,8-HxCDD	36:57	5.49e7	4.56e7	1.39e7	1.15e7	-----	-----	1.20	
1,2,3,7,8,9-HxCDD	37:15	5.41e7	4.41e7	1.34e7	1.10e7	-----	-----	1.23	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	39:15	1.63e7	3.63e7	4.54e6	1.02e7	-----	-----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	40:54	1.31e7	2.87e7	3.27e6	7.05e6	-----	-----	0.46	
1,2,3,4,6,7,8-HpCDF	39:16	7.40e7	6.88e7	2.06e7	2.00e7	-----	-----	1.08	
1,2,3,4,7,8,9-HpCDF	40:54	5.81e7	5.50e7	1.46e7	1.44e7	-----	-----	1.06	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	40:23	2.15e7	2.02e7	5.72e6	5.54e6	-----	-----	1.07	
1,2,3,4,6,7,8-HpCDD	40:24	4.40e7	4.25e7	1.17e7	1.13e7	-----	-----	1.04	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	43:28	8.61e7	9.66e7	1.92e7	2.23e7	-----	-----	0.89	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	43:16	3.46e7	3.90e7	7.70e6	8.69e6	-----	-----	0.89	
OCDD	43:17	7.04e7	8.08e7	1.59e7	1.77e7	-----	-----	0.87	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS5-7604-278	Instrument ID	10MSHR06 (U)
Filename	U130729B_12	GC Column ID	USD227224H
Analyzed	07/30/2013 00:36	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	22:49	5.21e7	6.79e7	7.27e6	9.34e6	----	----	0.77	
2,3,7,8-TCDF	22:51	9.09e7	1.21e8	1.34e7	1.75e7	----	----	0.75	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	23:09	3.49e7	4.39e7	4.99e6	6.28e6	----	----	0.80	
2,3,7,8-TCDD-13C	24:07	3.58e7	4.54e7	4.82e6	5.97e6	----	----	0.79	
2,3,7,8-TCDD-37Cl4	24:08	1.81e8		2.33e7		----	----		
2,3,7,8-TCDD	24:09	7.37e7	9.46e7	9.39e6	1.21e7	----	----	0.78	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	30:27	5.85e7	3.69e7	1.07e7	7.12e6	----	----	1.59	
2,3,4,7,8-PeCDF-13C	31:54	5.79e7	3.80e7	1.26e7	8.11e6	----	----	1.52	
1,2,3,7,8-PeCDF	30:29	5.20e8	3.38e8	9.90e7	6.35e7	----	----	1.54	
2,3,4,7,8-PeCDF	31:56	5.24e8	3.55e8	1.14e8	7.59e7	----	----	1.48	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:22	3.83e7	2.41e7	8.37e6	5.20e6	----	----	1.59	
1,2,3,7,8-PeCDD	32:23	2.35e8	3.84e8	5.17e7	8.80e7	----	----	0.61	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:47	2.36e7	4.54e7	6.48e6	1.23e7	----	----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:56	2.78e7	5.39e7	6.73e6	1.27e7	----	----	0.52	
2,3,4,6,7,8-HxCDF-13C	36:38	2.44e7	4.64e7	6.32e6	1.21e7	----	----	0.52	
1,2,3,7,8,9-HxCDF-13C	37:36	2.42e7	4.56e7	5.86e6	1.11e7	----	----	0.53	
1,2,3,4,7,8-HxCDF	35:48	4.02e8	3.29e8	1.04e8	8.67e7	----	----	1.22	
1,2,3,6,7,8-HxCDF	35:57	4.70e8	3.81e8	1.14e8	9.25e7	----	----	1.23	
2,3,4,6,7,8-HxCDF	36:39	4.50e8	3.53e8	1.14e8	9.21e7	----	----	1.28	
1,2,3,7,8,9-HxCDF	37:37	3.82e8	3.10e8	9.41e7	7.67e7	----	----	1.23	

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Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS5-7604-278	Instrument ID	10MSHR06 (U)
Filename	U130729B_12	GC Column ID	USD227224H
Analyzed	07/30/2013 00:36	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:50	3.10e7	2.38e7	8.59e6	6.86e6	----	----	1.30	
1,2,3,6,7,8-HxCDD-13C	36:56	3.73e7	3.06e7	9.63e6	7.63e6	----	----	1.22	
1,2,3,7,8,9-HxCDD-13C	37:15	3.47e7	2.80e7	8.48e6	6.65e6	----	----	1.24	
1,2,3,4,7,8-HxCDD	36:51	3.08e8	2.50e8	8.77e7	6.96e7	----	----	1.23	
1,2,3,6,7,8-HxCDD	36:57	3.42e8	2.77e8	8.67e7	7.13e7	----	----	1.23	
1,2,3,7,8,9-HxCDD	37:15	3.42e8	2.82e8	8.18e7	6.70e7	----	----	1.21	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	39:16	2.04e7	4.51e7	5.43e6	1.23e7	----	----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	40:54	1.69e7	3.65e7	4.43e6	9.66e6	----	----	0.46	
1,2,3,4,6,7,8-HpCDF	39:16	4.50e8	4.34e8	1.23e8	1.19e8	----	----	1.04	
1,2,3,4,7,8,9-HpCDF	40:54	3.72e8	3.58e8	9.45e7	8.99e7	----	----	1.04	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	40:23	2.72e7	2.50e7	7.31e6	6.78e6	----	----	1.09	
1,2,3,4,6,7,8-HpCDD	40:24	2.83e8	2.70e8	7.41e7	7.04e7	----	----	1.05	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	43:29	5.96e8	6.61e8	1.36e8	1.51e8	----	----	0.90	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	43:17	4.60e7	5.15e7	1.02e7	1.12e7	----	----	0.89	
OCDD	43:18	4.81e8	5.49e8	1.05e8	1.16e8	----	----	0.88	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

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Client ID		Injected By	SMT
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR06 (U)
Filename	U130917A_06	GC Column ID	USD227224H
Analyzed	09/17/2013 13:13	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:39	5.17e7	6.57e7	7.37e6	9.35e6	----	----	0.79	
2,3,7,8-TCDF	21:40	4.31e6	5.80e6	6.36e5	8.93e5	----	----	0.74	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:54	3.49e7	4.42e7	4.92e6	6.33e6	----	----	0.79	
2,3,7,8-TCDD-13C	22:51	3.32e7	4.26e7	4.38e6	5.59e6	----	----	0.78	
2,3,7,8-TCDD-37Cl4	22:53	8.59e6		1.11e6		----	----		
2,3,7,8-TCDD	22:53	3.65e6	4.83e6	4.79e5	6.26e5	----	----	0.76	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:31	5.06e7	3.30e7	7.97e6	5.33e6	----	----	1.53	
2,3,4,7,8-PeCDF-13C	31:06	5.14e7	3.35e7	1.00e7	6.55e6	----	----	1.53	
1,2,3,7,8-PeCDF	29:34	2.13e7	1.39e7	3.37e6	2.33e6	----	----	1.53	
2,3,4,7,8-PeCDF	31:08	2.21e7	1.48e7	4.19e6	2.88e6	----	----	1.50	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:35	3.39e7	2.12e7	6.61e6	4.05e6	----	----	1.60	
1,2,3,7,8-PeCDD	31:36	1.05e7	1.66e7	2.01e6	3.23e6	----	----	0.63	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:10	2.06e7	4.02e7	5.12e6	1.01e7	----	----	0.51	
1,2,3,6,7,8-HxCDF-13C	35:20	2.46e7	4.85e7	5.37e6	1.04e7	----	----	0.51	
2,3,4,6,7,8-HxCDF-13C	36:02	2.23e7	4.22e7	5.25e6	1.03e7	----	----	0.53	
1,2,3,7,8,9-HxCDF-13C	37:02	1.90e7	3.64e7	4.07e6	7.83e6	----	----	0.52	
1,2,3,4,7,8-HxCDF	35:11	1.67e7	1.39e7	4.11e6	3.36e6	----	----	1.20	
1,2,3,6,7,8-HxCDF	35:21	1.88e7	1.63e7	4.43e6	3.63e6	----	----	1.16	
2,3,4,6,7,8-HxCDF	36:04	1.79e7	1.48e7	4.25e6	3.44e6	----	----	1.21	
1,2,3,7,8,9-HxCDF	37:03	1.38e7	1.15e7	3.05e6	2.65e6	----	----	1.20	

REPORT OF LABORATORY ANALYSIS

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Client ID		Injected By	SMT
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR06 (U)
Filename	U130917A_06	GC Column ID	USD227224H
Analyzed	09/17/2013 13:13	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:15	2.79e7	2.22e7	7.49e6	5.90e6	----	----	1.25	
1,2,3,6,7,8-HxCDD-13C	36:22	3.54e7	2.77e7	8.44e6	6.64e6	----	----	1.28	
1,2,3,7,8,9-HxCDD-13C	36:40	3.05e7	2.45e7	6.70e6	5.46e6	----	----	1.25	
1,2,3,4,7,8-HxCDD	36:15	1.39e7	1.11e7	3.75e6	2.93e6	----	----	1.25	
1,2,3,6,7,8-HxCDD	36:23	1.57e7	1.29e7	3.75e6	3.02e6	----	----	1.22	
1,2,3,7,8,9-HxCDD	36:41	1.45e7	1.21e7	3.27e6	2.65e6	----	----	1.20	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:45	1.84e7	4.10e7	4.88e6	1.06e7	----	----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	40:23	1.35e7	3.00e7	3.45e6	7.79e6	----	----	0.45	
1,2,3,4,6,7,8-HpCDF	38:46	2.05e7	1.96e7	5.39e6	4.96e6	----	----	1.04	
1,2,3,4,7,8,9-HpCDF	40:24	1.47e7	1.44e7	3.83e6	3.63e6	----	----	1.02	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:54	2.22e7	2.06e7	5.59e6	5.18e6	----	----	1.08	
1,2,3,4,6,7,8-HpCDD	39:55	1.21e7	1.13e7	2.87e6	2.68e6	----	----	1.07	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:57	2.23e7	2.59e7	5.15e6	6.10e6	----	----	0.86	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:46	3.88e7	4.28e7	8.49e6	9.42e6	----	----	0.91	
OCDD	42:47	1.93e7	2.17e7	4.45e6	5.09e6	----	----	0.89	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____
Reviewed By _____ Date _____

Client ID		Injected By	SMT
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR06 (U)
Filename	U130917A_22	GC Column ID	USD227224H
Analyzed	09/18/2013 02:01	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:41	6.70e7	8.61e7	9.41e6	1.21e7	-----	-----	0.78	
2,3,7,8-TCDF	21:43	5.75e6	7.43e6	8.05e5	1.07e6	-----	-----	0.77	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:58	4.42e7	5.57e7	6.32e6	7.91e6	-----	-----	0.79	
2,3,7,8-TCDD-13C	22:53	4.31e7	5.53e7	5.77e6	7.27e6	-----	-----	0.78	
2,3,7,8-TCDD-37Cl4	22:55	1.10e7		1.43e6		-----	-----		
2,3,7,8-TCDD	22:55	4.79e6	6.18e6	6.40e5	8.07e5	-----	-----	0.78	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:34	6.78e7	4.38e7	1.20e7	7.74e6	-----	-----	1.55	
2,3,4,7,8-PeCDF-13C	31:08	6.93e7	4.46e7	1.36e7	8.90e6	-----	-----	1.56	
1,2,3,7,8-PeCDF	29:35	2.91e7	1.91e7	4.99e6	3.22e6	-----	-----	1.53	
2,3,4,7,8-PeCDF	31:09	2.94e7	1.97e7	5.94e6	3.94e6	-----	-----	1.49	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:36	4.44e7	2.81e7	8.82e6	5.62e6	-----	-----	1.58	
1,2,3,7,8-PeCDD	31:38	1.38e7	2.26e7	2.71e6	4.81e6	-----	-----	0.61	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:11	2.81e7	5.38e7	7.33e6	1.41e7	-----	-----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:21	3.29e7	6.32e7	8.15e6	1.55e7	-----	-----	0.52	
2,3,4,6,7,8-HxCDF-13C	36:04	2.91e7	5.71e7	7.69e6	1.46e7	-----	-----	0.51	
1,2,3,7,8,9-HxCDF-13C	37:03	2.63e7	5.02e7	6.42e6	1.21e7	-----	-----	0.52	
1,2,3,4,7,8-HxCDF	35:13	2.24e7	1.86e7	5.78e6	4.79e6	-----	-----	1.20	
1,2,3,6,7,8-HxCDF	35:22	2.58e7	2.12e7	6.11e6	5.24e6	-----	-----	1.21	
2,3,4,6,7,8-HxCDF	36:05	2.44e7	2.06e7	6.61e6	5.48e6	-----	-----	1.18	
1,2,3,7,8,9-HxCDF	37:04	1.89e7	1.58e7	4.56e6	3.64e6	-----	-----	1.20	

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Client ID		Injected By	SMT
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR06 (U)
Filename	U130917A_22	GC Column ID	USD227224H
Analyzed	09/18/2013 02:01	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:16	3.67e7	2.97e7	1.06e7	8.35e6	-----	-----	1.24	
1,2,3,6,7,8-HxCDD-13C	36:23	4.64e7	3.68e7	1.16e7	9.17e6	-----	-----	1.26	
1,2,3,7,8,9-HxCDD-13C	36:42	4.07e7	3.23e7	9.30e6	7.52e6	-----	-----	1.26	
1,2,3,4,7,8-HxCDD	36:17	1.86e7	1.50e7	5.32e6	4.03e6	-----	-----	1.24	
1,2,3,6,7,8-HxCDD	36:24	2.05e7	1.71e7	5.19e6	4.44e6	-----	-----	1.20	
1,2,3,7,8,9-HxCDD	36:43	1.93e7	1.58e7	4.58e6	3.77e6	-----	-----	1.22	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:46	2.54e7	5.54e7	6.93e6	1.51e7	-----	-----	0.46	
1,2,3,4,7,8,9-HpCDF-13C	40:24	1.91e7	4.22e7	4.95e6	1.12e7	-----	-----	0.45	
1,2,3,4,6,7,8-HpCDF	38:47	2.79e7	2.66e7	7.38e6	7.26e6	-----	-----	1.05	
1,2,3,4,7,8,9-HpCDF	40:25	2.07e7	2.04e7	5.66e6	5.72e6	-----	-----	1.02	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:55	2.99e7	2.82e7	8.27e6	7.45e6	-----	-----	1.06	
1,2,3,4,6,7,8-HpCDD	39:55	1.63e7	1.56e7	4.52e6	4.24e6	-----	-----	1.05	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:57	3.29e7	3.72e7	8.18e6	9.18e6	-----	-----	0.89	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:47	5.58e7	6.23e7	1.28e7	1.47e7	-----	-----	0.89	
OCDD	42:48	2.77e7	3.12e7	6.67e6	7.59e6	-----	-----	0.89	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____
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Client ID		Injected By	BAL
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR05 (F)
Filename	F130921A_16	GC Column ID	USD174324H
Analyzed	09/21/2013 13:44	ICAL ID	F130918

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:18	3.72e7	4.60e7	5.24e6	6.50e6	-----	-----	0.81	
2,3,7,8-TCDF	21:19	4.15e6	5.24e6	5.81e5	7.06e5	-----	-----	0.79	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:32	1.98e7	2.45e7	2.77e6	3.36e6	-----	-----	0.81	
2,3,7,8-TCDD-13C	22:29	1.98e7	2.50e7	2.68e6	3.19e6	-----	-----	0.79	
2,3,7,8-TCDD-37Cl4	22:31	5.33e6		7.27e5		-----	-----		
2,3,7,8-TCDD	22:31	2.45e6	3.02e6	3.22e5	4.08e5	-----	-----	0.81	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:27	4.82e7	2.98e7	7.37e6	4.65e6	-----	-----	1.62	
2,3,4,7,8-PeCDF-13C	31:04	5.00e7	3.09e7	9.33e6	5.80e6	-----	-----	1.62	
1,2,3,7,8-PeCDF	29:30	2.82e7	1.74e7	4.37e6	2.60e6	-----	-----	1.62	
2,3,4,7,8-PeCDF	31:06	2.95e7	1.86e7	5.50e6	3.46e6	-----	-----	1.59	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:33	2.72e7	1.74e7	5.16e6	3.42e6	-----	-----	1.56	
1,2,3,7,8-PeCDD	31:35	1.04e7	1.67e7	2.07e6	3.38e6	-----	-----	0.62	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:01	2.61e7	4.87e7	6.81e6	1.22e7	-----	-----	0.54	
1,2,3,6,7,8-HxCDF-13C	35:09	3.03e7	5.55e7	7.45e6	1.32e7	-----	-----	0.55	
2,3,4,6,7,8-HxCDF-13C	35:49	2.66e7	4.96e7	6.90e6	1.30e7	-----	-----	0.54	
1,2,3,7,8,9-HxCDF-13C	36:44	2.57e7	4.68e7	6.95e6	1.27e7	-----	-----	0.55	
1,2,3,4,7,8-HxCDF	35:02	2.79e7	2.14e7	7.10e6	5.33e6	-----	-----	1.31	
1,2,3,6,7,8-HxCDF	35:10	3.05e7	2.32e7	7.60e6	5.76e6	-----	-----	1.31	
2,3,4,6,7,8-HxCDF	35:51	2.87e7	2.20e7	7.50e6	5.77e6	-----	-----	1.31	
1,2,3,7,8,9-HxCDF	36:45	2.46e7	1.93e7	6.60e6	4.98e6	-----	-----	1.28	

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Client ID		Injected By	BAL
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR05 (F)
Filename	F130921A_16	GC Column ID	USD174324H
Analyzed	09/21/2013 13:44	ICAL ID	F130918

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:01	2.83e7	2.21e7	8.06e6	6.26e6	----	----	1.28	
1,2,3,6,7,8-HxCDD-13C	36:07	3.23e7	2.50e7	8.62e6	6.81e6	----	----	1.29	
1,2,3,7,8,9-HxCDD-13C	36:24	2.96e7	2.28e7	7.59e6	5.98e6	----	----	1.30	
1,2,3,4,7,8-HxCDD	36:01	1.66e7	1.26e7	4.75e6	3.67e6	----	----	1.32	
1,2,3,6,7,8-HxCDD	36:08	1.74e7	1.36e7	4.63e6	3.56e6	----	----	1.28	
1,2,3,7,8,9-HxCDD	36:26	1.68e7	1.30e7	4.48e6	3.44e6	----	----	1.29	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:25	1.35e7	2.93e7	3.45e6	7.58e6	----	----	0.46	
1,2,3,4,7,8,9-HpCDF-13C	39:57	1.10e7	2.35e7	3.21e6	6.93e6	----	----	0.47	
1,2,3,4,6,7,8-HpCDF	38:25	1.66e7	1.61e7	4.40e6	4.34e6	----	----	1.04	
1,2,3,4,7,8,9-HpCDF	39:57	1.26e7	1.25e7	3.74e6	3.68e6	----	----	1.01	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:29	1.55e7	1.39e7	4.51e6	4.16e6	----	----	1.12	
1,2,3,4,6,7,8-HpCDD	39:30	9.20e6	8.69e6	2.75e6	2.59e6	----	----	1.06	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:24	2.22e7	2.34e7	5.35e6	5.83e6	----	----	0.95	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:15	2.97e7	3.12e7	7.57e6	7.58e6	----	----	0.95	
OCDD	42:16	1.66e7	1.85e7	4.32e6	4.63e6	----	----	0.90	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client ID		Injected By	BAL
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR05 (F)
Filename	F130921B_16	GC Column ID	USD174324H
Analyzed	09/22/2013 01:59	ICAL ID	F130918

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:18	3.82e7	4.81e7	4.90e6	6.24e6	-----	-----	0.80	
2,3,7,8-TCDF	21:19	3.39e6	4.58e6	4.60e5	5.87e5	-----	-----	0.74	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:34	2.46e7	3.01e7	3.32e6	4.11e6	-----	-----	0.82	
2,3,7,8-TCDD-13C	22:30	2.49e7	3.04e7	3.10e6	3.84e6	-----	-----	0.82	
2,3,7,8-TCDD-37Cl4	22:31	6.22e6		8.41e5		-----	-----		
2,3,7,8-TCDD	22:31	2.83e6	3.38e6	3.59e5	4.28e5	-----	-----	0.84	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:27	4.77e7	2.99e7	6.82e6	4.26e6	-----	-----	1.60	
2,3,4,7,8-PeCDF-13C	31:04	4.92e7	3.10e7	8.71e6	5.69e6	-----	-----	1.59	
1,2,3,7,8-PeCDF	29:30	2.36e7	1.49e7	3.57e6	2.10e6	-----	-----	1.58	
2,3,4,7,8-PeCDF	31:06	2.45e7	1.56e7	4.35e6	2.77e6	-----	-----	1.57	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:33	3.17e7	2.00e7	5.91e6	3.70e6	-----	-----	1.58	
1,2,3,7,8-PeCDD	31:35	1.05e7	1.72e7	1.86e6	3.12e6	-----	-----	0.61	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:01	2.42e7	4.56e7	5.88e6	1.09e7	-----	-----	0.53	
1,2,3,6,7,8-HxCDF-13C	35:09	2.64e7	5.02e7	6.14e6	1.17e7	-----	-----	0.53	
2,3,4,6,7,8-HxCDF-13C	35:49	2.36e7	4.46e7	5.67e6	1.10e7	-----	-----	0.53	
1,2,3,7,8,9-HxCDF-13C	36:44	2.31e7	4.33e7	6.06e6	1.12e7	-----	-----	0.53	
1,2,3,4,7,8-HxCDF	35:02	2.26e7	1.78e7	5.52e6	4.41e6	-----	-----	1.27	
1,2,3,6,7,8-HxCDF	35:10	2.47e7	1.96e7	5.54e6	4.54e6	-----	-----	1.26	
2,3,4,6,7,8-HxCDF	35:50	2.30e7	1.88e7	5.60e6	4.63e6	-----	-----	1.22	
1,2,3,7,8,9-HxCDF	36:45	1.99e7	1.58e7	5.18e6	4.24e6	-----	-----	1.26	

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Minneapolis, MN 55414

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Client ID		Injected By	BAL
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR05 (F)
Filename	F130921B_16	GC Column ID	USD174324H
Analyzed	09/22/2013 01:59	ICAL ID	F130918

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:01	2.99e7	2.36e7	8.52e6	6.60e6	-----	-----	1.27	
1,2,3,6,7,8-HxCDD-13C	36:07	3.32e7	2.69e7	8.30e6	7.02e6	-----	-----	1.24	
1,2,3,7,8,9-HxCDD-13C	36:24	3.13e7	2.52e7	7.56e6	5.97e6	-----	-----	1.24	
1,2,3,4,7,8-HxCDD	36:01	1.58e7	1.25e7	4.28e6	3.17e6	-----	-----	1.26	
1,2,3,6,7,8-HxCDD	36:07	1.62e7	1.32e7	4.02e6	3.57e6	-----	-----	1.23	
1,2,3,7,8,9-HxCDD	36:25	1.62e7	1.25e7	4.12e6	3.15e6	-----	-----	1.30	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:25	1.66e7	3.58e7	4.12e6	8.89e6	-----	-----	0.46	
1,2,3,4,7,8,9-HpCDF-13C	39:57	1.31e7	2.71e7	3.67e6	6.97e6	-----	-----	0.48	
1,2,3,4,6,7,8-HpCDF	38:25	1.82e7	1.74e7	4.68e6	4.39e6	-----	-----	1.05	
1,2,3,4,7,8,9-HpCDF	39:58	1.43e7	1.40e7	3.90e6	3.85e6	-----	-----	1.03	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:30	1.95e7	1.71e7	5.06e6	4.77e6	-----	-----	1.14	
1,2,3,4,6,7,8-HpCDD	39:30	1.14e7	1.05e7	3.34e6	3.09e6	-----	-----	1.09	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:24	2.29e7	2.51e7	5.32e6	5.60e6	-----	-----	0.91	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:15	3.71e7	4.01e7	8.58e6	9.17e6	-----	-----	0.93	
OCDD	42:16	1.93e7	2.07e7	4.68e6	4.98e6	-----	-----	0.93	

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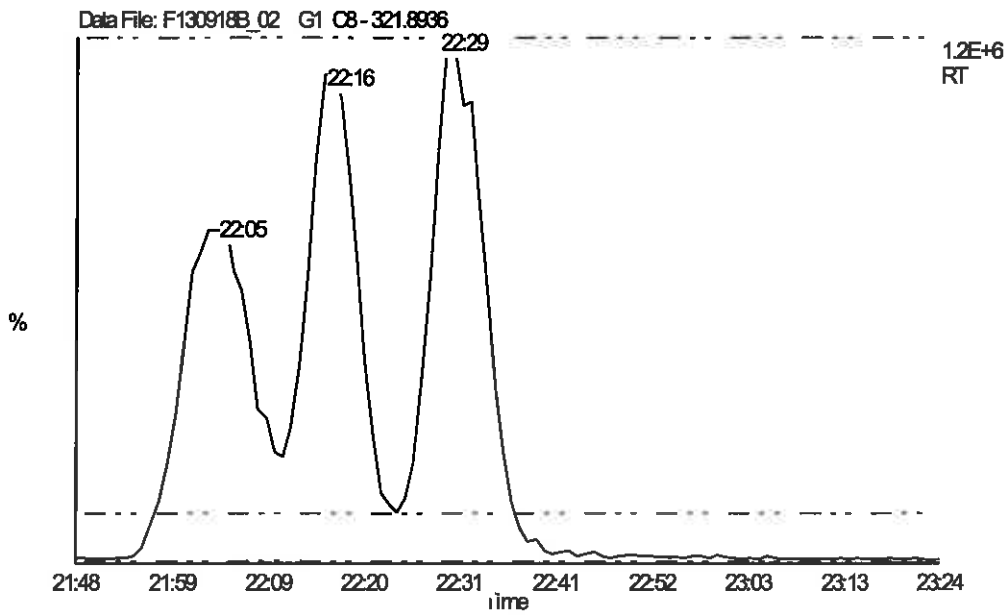
Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID	CS3/CPM-7604-279	Injected By	SMT	
Raw Data File	F130918B_02	Instrument ID	10MSHR05 (F)	
Date Analyzed	9/18/2013	GC Column Type	DB-5MS	0.25 uM
Time Analyzed	16:50	GC Column S/N	USD174324H	
Resolution	**9.1%**			



Group	Mass	First Eluter	Last Eluter
TCDF	305.8987	16:43	24:16
PeCDF	341.8567	24:17	32:25
HxCDF	373.8207	33:29	36:44
HpCDF	407.7818	38:25	39:58
OCDF	441.7428	42:24	42:24
TCDD	321.8936	18:18	23:59
PeCDD	357.8517	27:40	32:06
HxCDD	391.8127	34:14	36:24
HpCDD	425.7737	38:44	39:30
OCDD	459.7347	42:15	42:15
1234-TCDD-13C(RS)	331.9367	21:33	21:33
123789-HxCDD-13C(RS)	401.8559	36:23	36:23

REPORT OF LABORATORY ANALYSIS

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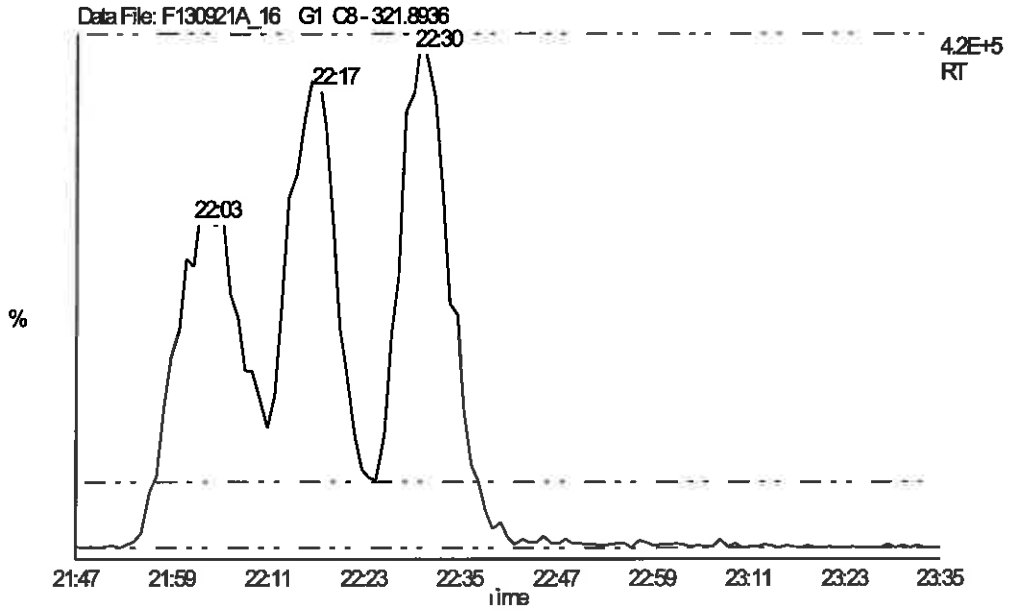
Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID	CS3/CPM-7604-279	Injected By	BAL	
Raw Data File	F130921A_16	Instrument ID	10MSHR05 (F)	
Date Analyzed	12/30/1899	GC Column Type	DB-5MS	0.25 uM
Time Analyzed	13:44	GC Column S/N	USD174324H	
Resolution	**12.9%**			



Group	Mass	First Eluter	Last Eluter
TCDF	305.8987	16:42	24:17
PeCDF	341.8567	24:18	32:25
HxCDF	373.8207	33:31	36:44
HpCDF	407.7818	38:25	39:57
OCDF	441.7428	42:24	0:00
TCDD	321.8936	18:17	23:58
PeCDD	357.8517	27:41	32:06
HxCDD	391.8127	34:14	36:24
HpCDD	425.7737	38:44	39:30
OCDD	459.7347	42:15	0:00
1234-TCDD-13C(RS)	331.9367	21:32	0:00
123789-HxCDD-13C(RS)	401.8559	36:23	0:00

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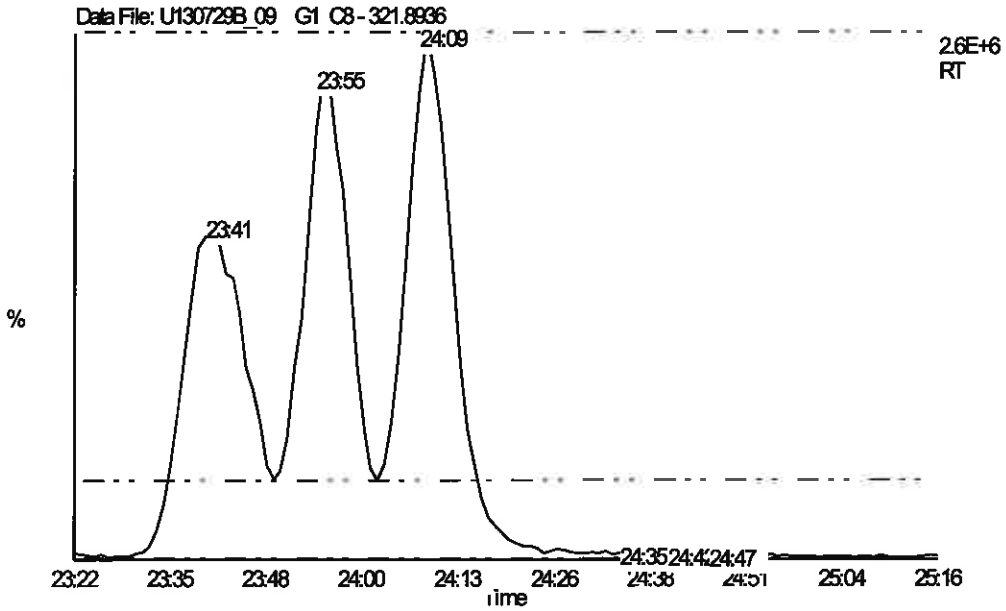
Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID	CS3/CPM-7604-274	Injected By	SMT	
Raw Data File	U130729B_09	Instrument ID	10MSHR06 (U)	
Date Analyzed	7/29/2013	GC Column Type	DB-5MS	0.25 uM
Time Analyzed	22:12	GC Column S/N	USD227224H	
Resolution	**14.9%**			



Group	Mass	First Eluter	Last Eluter
TCDF	305.8987	17:52	26:07
PeCDF	341.8567	26:04	33:15
HxCDF	373.8207	34:15	37:37
HpCDF	407.7818	39:16	40:53
OCDF	441.7428	43:27	0:00
TCDD	321.8936	19:36	25:48
PeCDD	357.8517	28:59	32:55
HxCDD	391.8127	35:00	37:15
HpCDD	425.7737	39:35	40:24
OCDD	459.7347	43:17	0:00
1234-TCDD-13C(RS)	331.9367	23:10	0:00
123789-HxCDD-13C(RS)	401.8559	37:15	0:00

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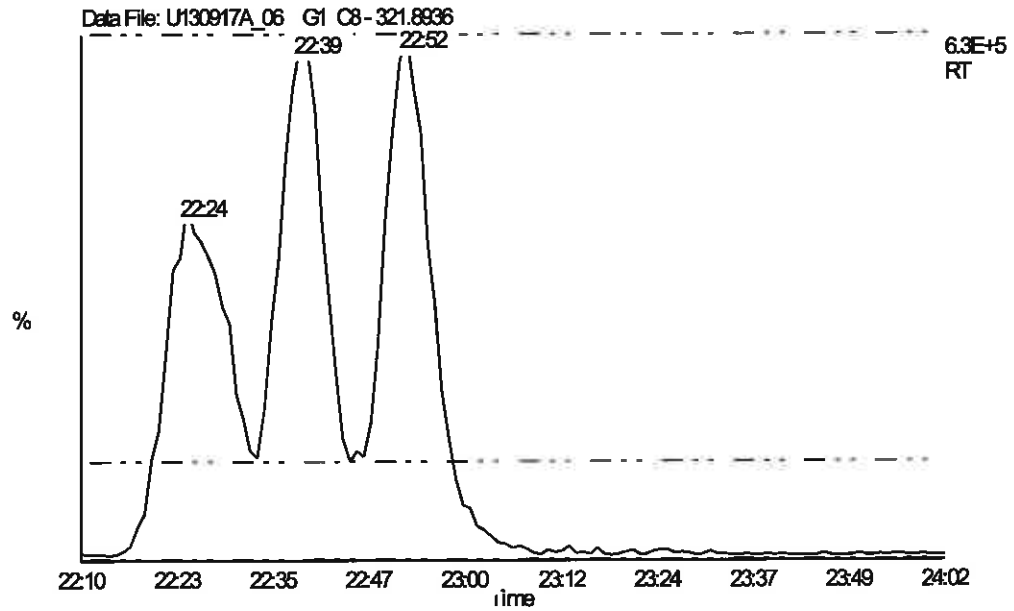
Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID	CS3/CPM-7604-279	Injected By	SMT	
Raw Data File	U130917A_06	Instrument ID	10MSHR06 (U)	
Date Analyzed	9/17/2013	GC Column Type	DB-5MS	0.25 uM
Time Analyzed	13:13	GC Column S/N	USD227224H	
Resolution	**18.6%**			



Group	Mass	First Eluter	Last Eluter
TCDF	305.8987	16:57	24:41
PeCDF	341.8567	24:40	32:29
HxCDF	373.8207	33:35	37:02
HpCDF	407.7818	38:46	40:24
OCDF	441.7428	42:56	0:00
TCDD	321.8936	18:33	24:25
PeCDD	357.8517	27:54	32:09
HxCDD	391.8127	34:21	36:41
HpCDD	425.7737	39:05	39:54
OCDD	459.7347	42:46	0:00
1234-TCDD-13C(RS)	331.9367	21:54	0:00
123789-HxCDD-13C(RS)	401.8559	36:40	0:00

REPORT OF LABORATORY ANALYSIS

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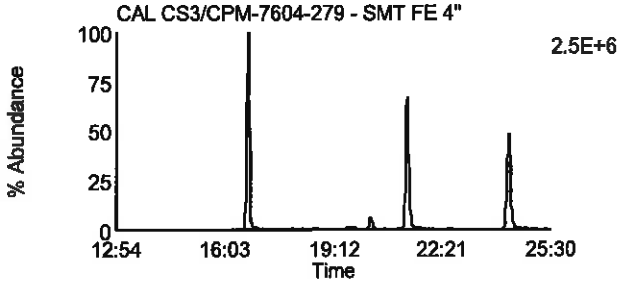
Homologue Group: Tetras

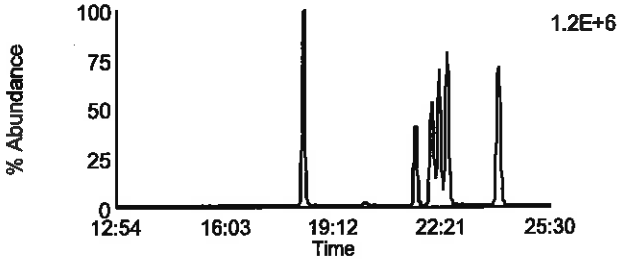
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

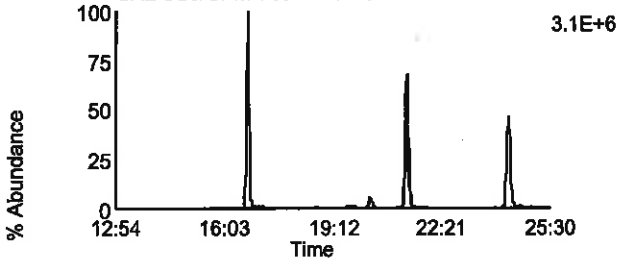
Data File: F130918B_02 G1 C1 - 303.9016
CAL CS3/CPM-7604-279 - SMT FE 4"



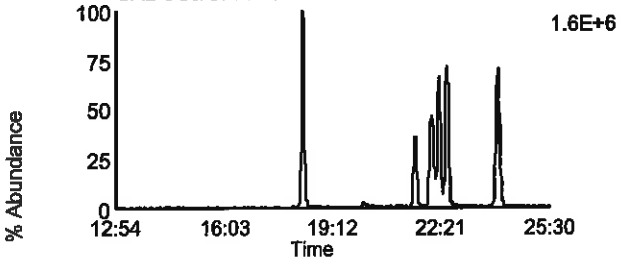
Data File: F130918B_02 G1 C7 - 319.8965
CAL CS3/CPM-7604-279 - SMT FE 4"



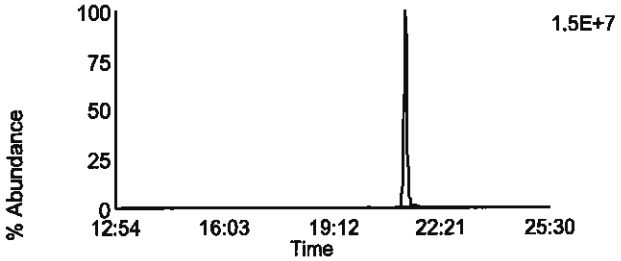
Data File: F130918B_02 G1 C2 - 305.8987
CAL CS3/CPM-7604-279 - SMT FE 4"



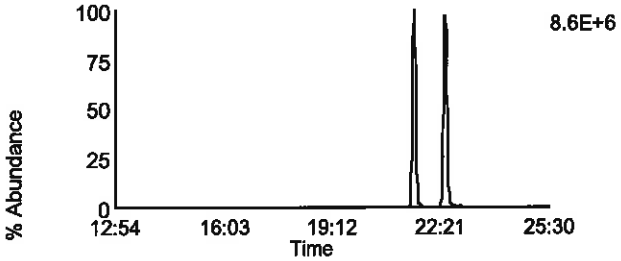
Data File: F130918B_02 G1 C8 - 321.8936
CAL CS3/CPM-7604-279 - SMT FE 4"



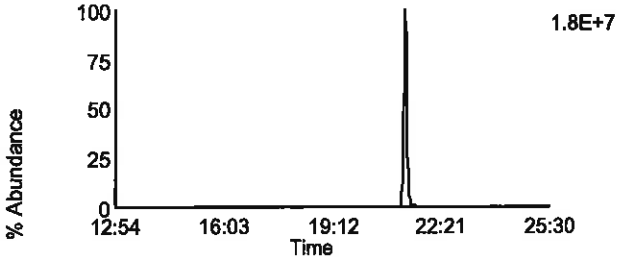
Data File: F130918B_02 G1 C3 - 315.9418
CAL CS3/CPM-7604-279 - SMT FE 4"



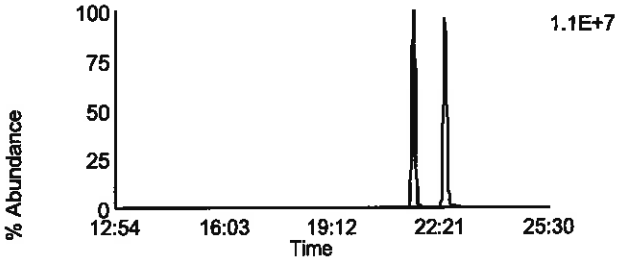
Data File: F130918B_02 G1 C10 - 331.9367
CAL CS3/CPM-7604-279 - SMT FE 4"



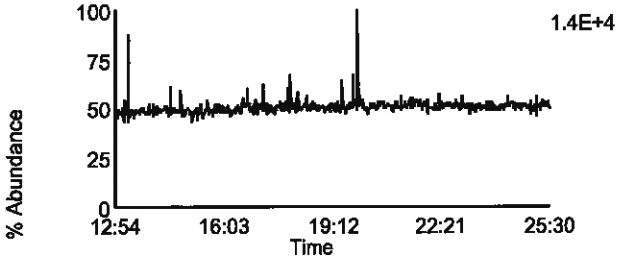
Data File: F130918B_02 G1 C4 - 317.9389
CAL CS3/CPM-7604-279 - SMT FE 4"



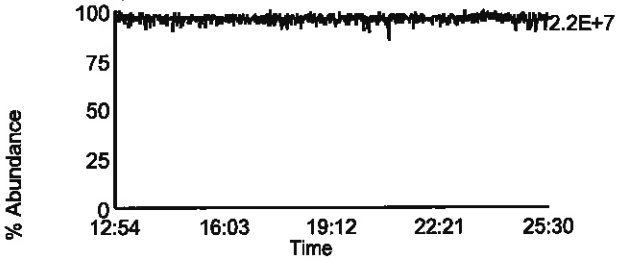
Data File: F130918B_02 G1 C11 - 333.9338
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G1 C14 - 375.8364
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - SMT FE 4"

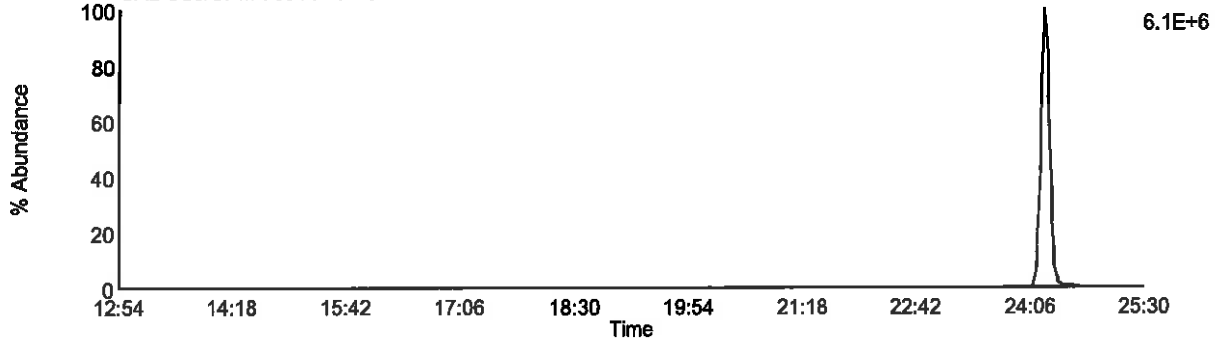


Homologue Group: Penta & Cleanup

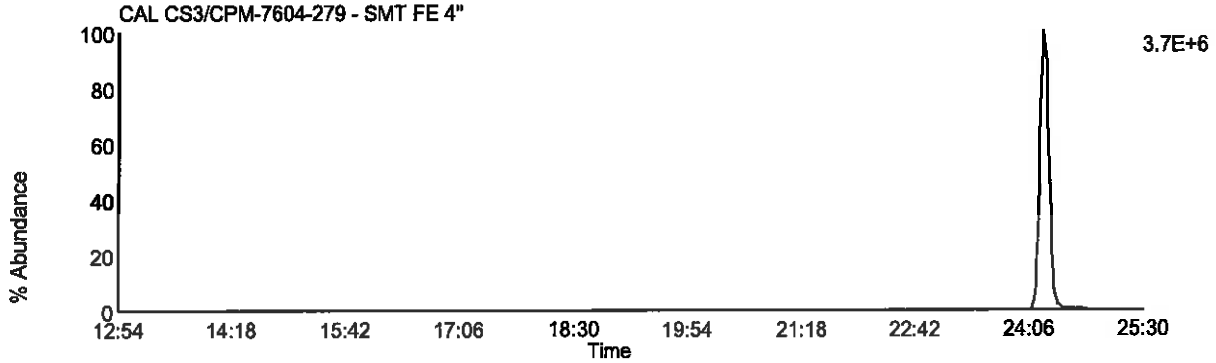
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

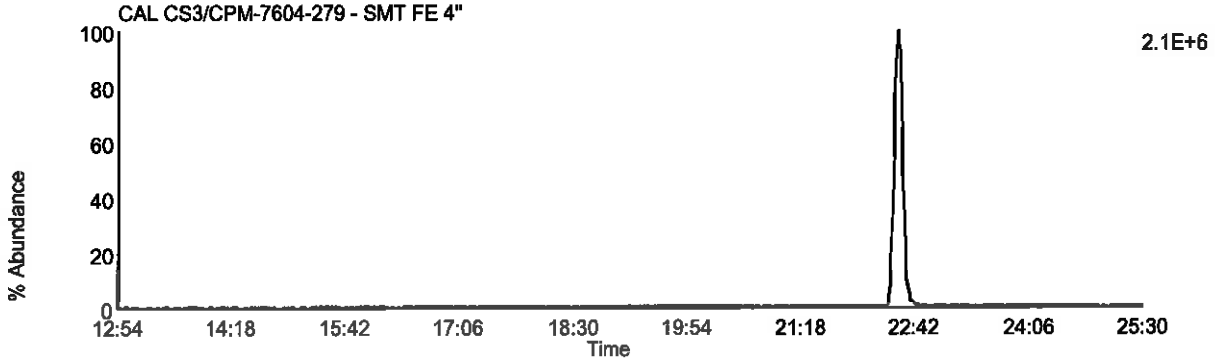
Data File: F130918B_02 G1 C12 - 339.8597
CAL CS3/CPM-7604-279 - SMT FE 4"



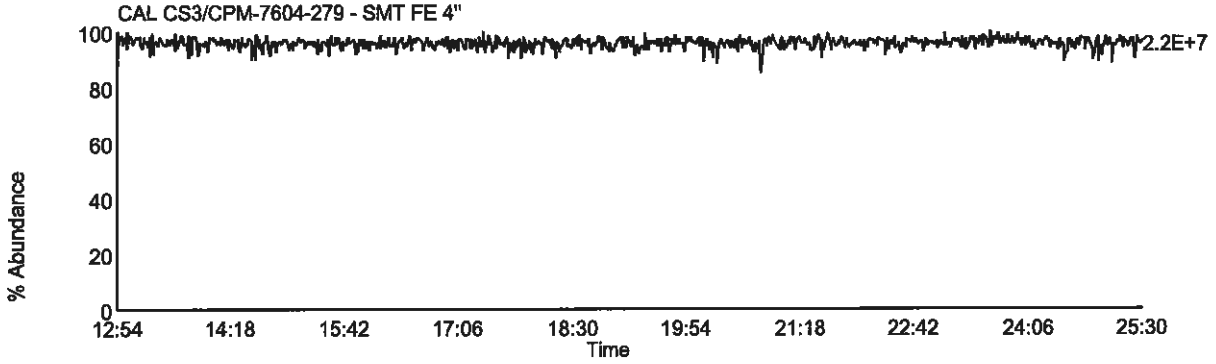
Data File: F130918B_02 G1 C13 - 341.8567
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G1 C9 - 327.8847
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - SMT FE 4"

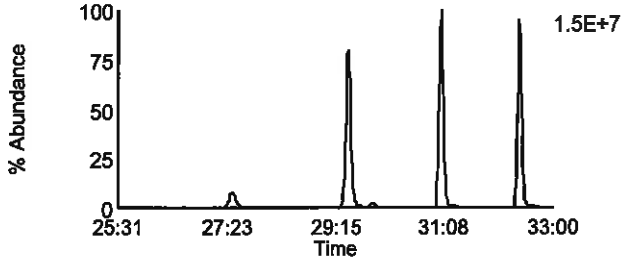


Homologue Group: Pentas

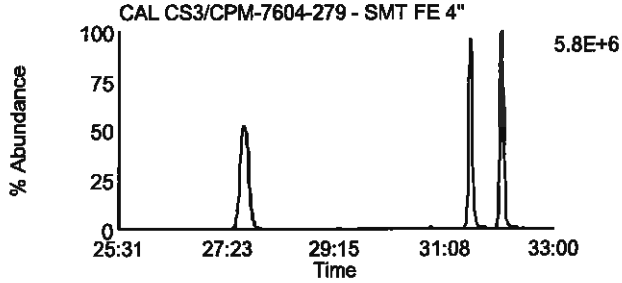
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

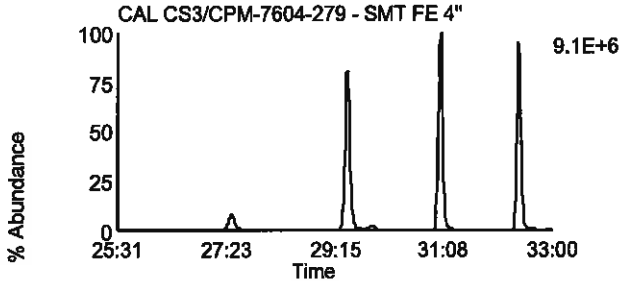
Data File: F130918B_02 G2 C1 - 339.8597
CAL CS3/CPM-7604-279 - SMT FE 4"



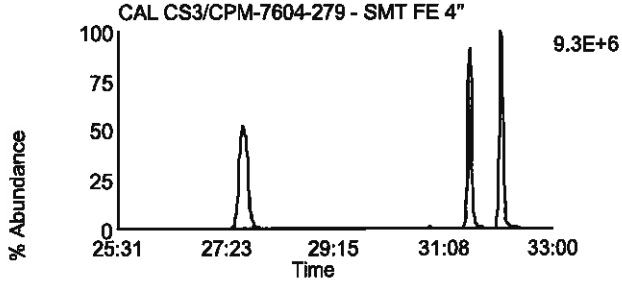
Data File: F130918B_02 G2 C4 - 353.8576
CAL CS3/CPM-7604-279 - SMT FE 4"



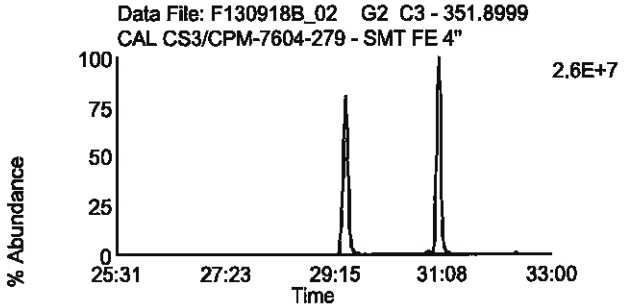
Data File: F130918B_02 G2 C2 - 341.8567
CAL CS3/CPM-7604-279 - SMT FE 4"



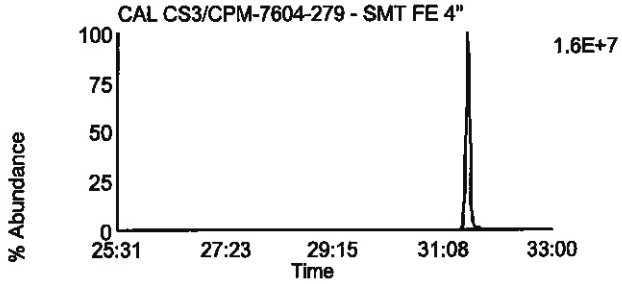
Data File: F130918B_02 G2 C8 - 355.8546
CAL CS3/CPM-7604-279 - SMT FE 4"



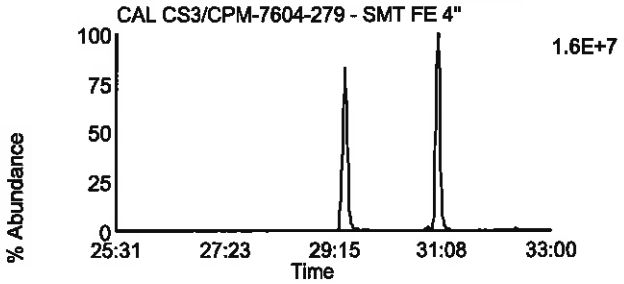
Data File: F130918B_02 G2 C3 - 351.8999
CAL CS3/CPM-7604-279 - SMT FE 4"



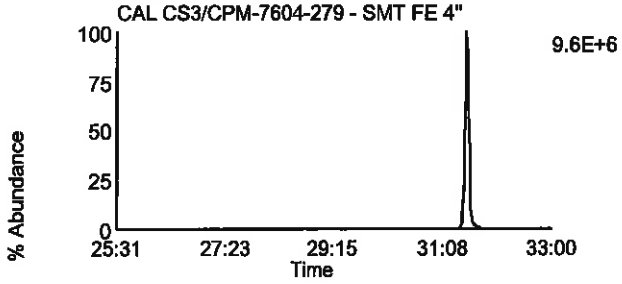
Data File: F130918B_02 G2 C10 - 367.8948
CAL CS3/CPM-7604-279 - SMT FE 4"



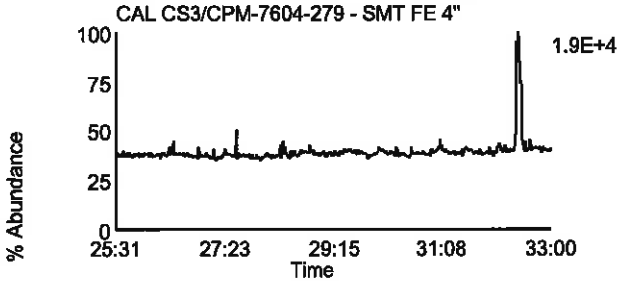
Data File: F130918B_02 G2 C5 - 353.8969
CAL CS3/CPM-7604-279 - SMT FE 4"



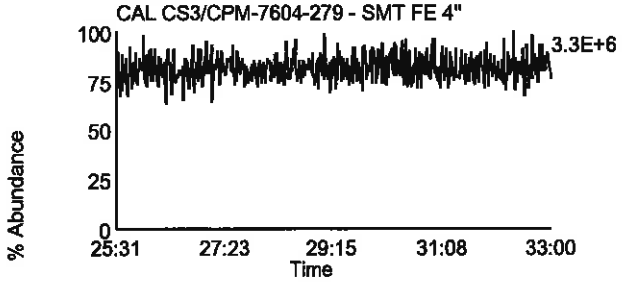
Data File: F130918B_02 G2 C11 - 369.8918
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G2 C12 - 409.7974
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G2 C6 - 354.9792
CAL CS3/CPM-7604-279 - SMT FE 4"

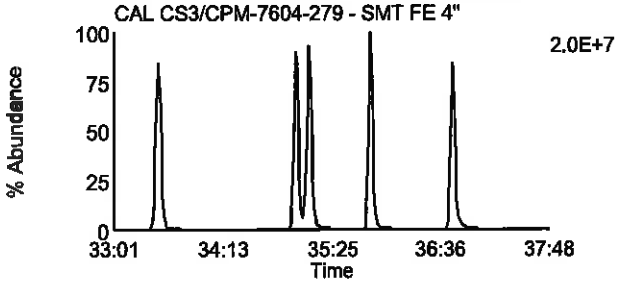


Homologue Group: Hexas

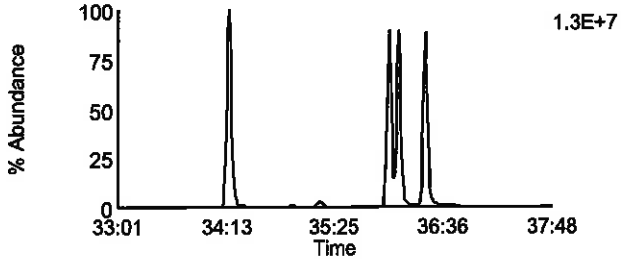
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

Data File: F130918B_02 G3 C1 - 373.8207
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G3 C7 - 389.8156
CAL CS3/CPM-7604-279 - SMT FE 4"



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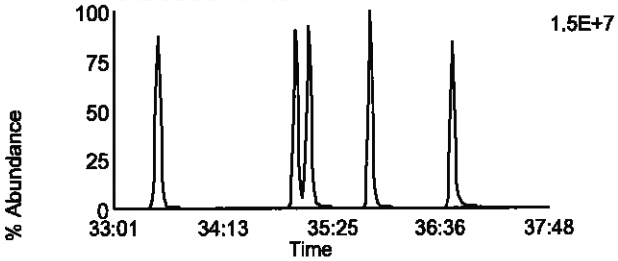
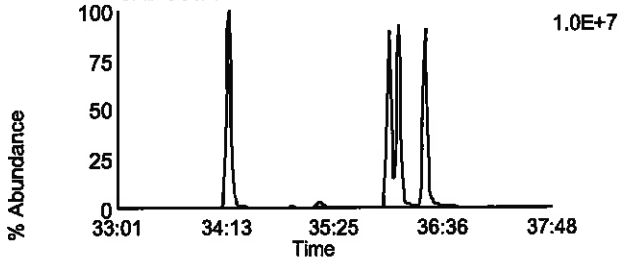
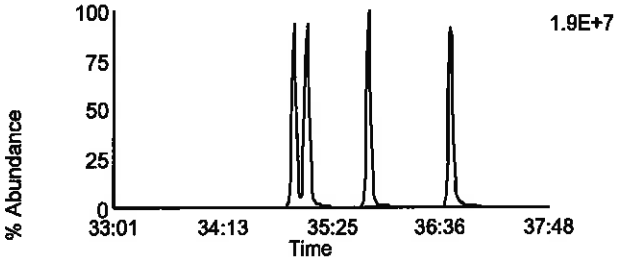
CAL CS3/CPM-7604-279 - SMT FE 4"



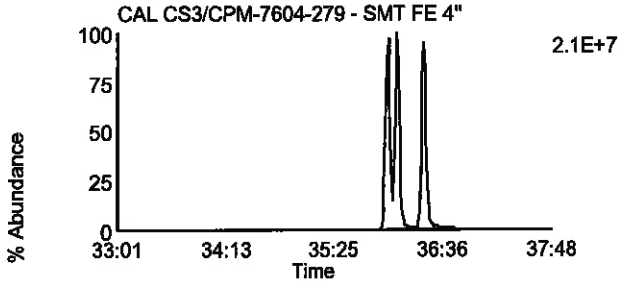
Data File: F130918B_02 G3 C8 - 391.8127
CAL CS3/CPM-7604-279 - SMT FE 4"



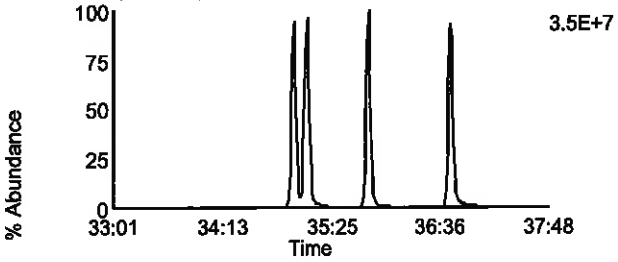
Data File: F130918B_02 G3 C5 - 383.8639
CAL CS3/CPM-7604-279 - SMT FE 4"



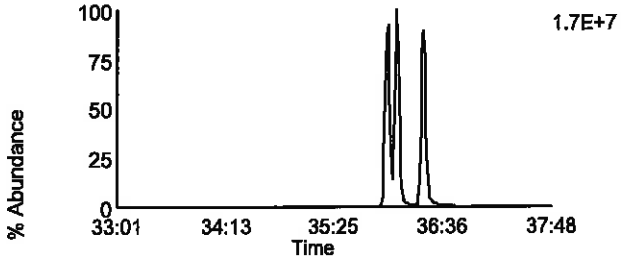
Data File: F130918B_02 G3 C9 - 401.8559
CAL CS3/CPM-7604-279 - SMT FE 4"



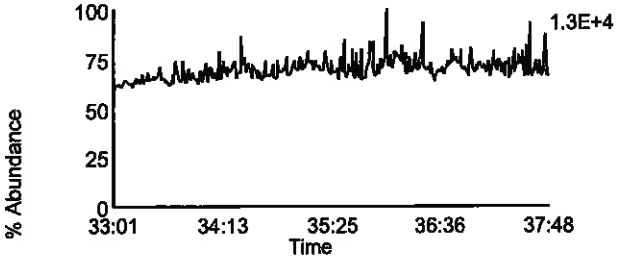
Data File: F130918B_02 G3 C6 - 385.861
CAL CS3/CPM-7604-279 - SMT FE 4"



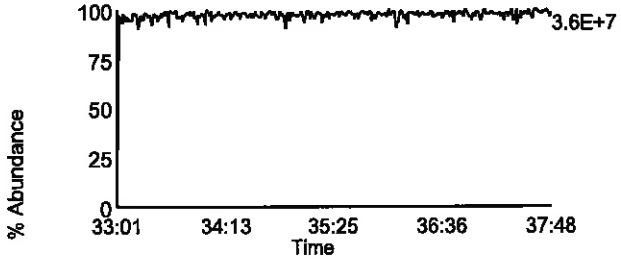
Data File: F130918B_02 G3 C10 - 403.8529
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G3 C11 - 445.7555
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G3 C3 - 380.976
CAL CS3/CPM-7604-279 - SMT FE 4"

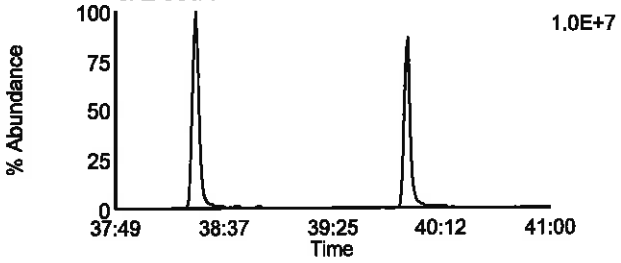


Homologue Group: Heptas

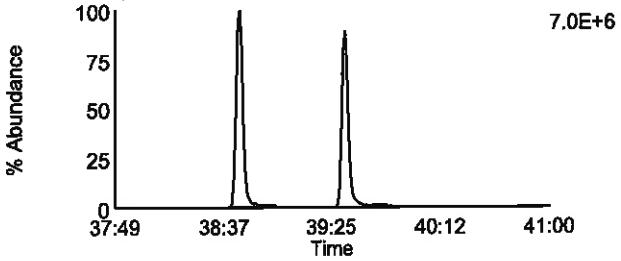
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

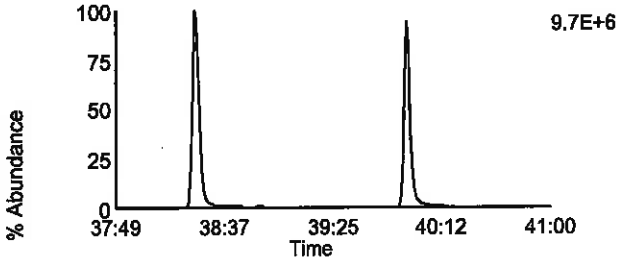
Data File: F130918B_02 G4 C3 - 407.7818
CAL CS3/CPM-7604-279 - SMT FE 4"



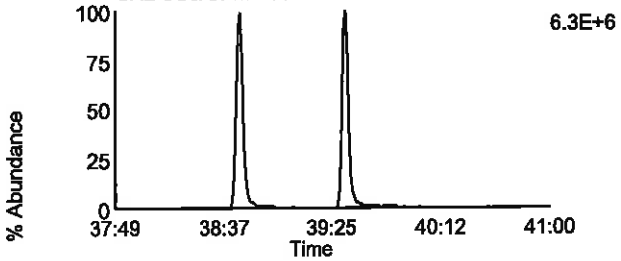
Data File: F130918B_02 G4 C8 - 423.7767
CAL CS3/CPM-7604-279 - SMT FE 4"



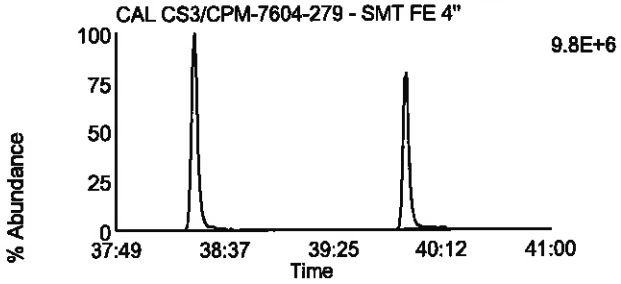
Data File: F130918B_02 G4 C4 - 409.7788
CAL CS3/CPM-7604-279 - SMT FE 4"



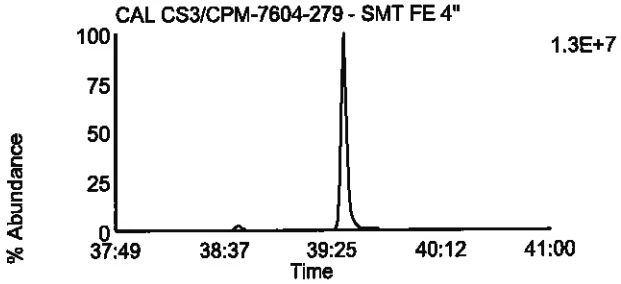
Data File: F130918B_02 G4 C9 - 425.7737
CAL CS3/CPM-7604-279 - SMT FE 4"



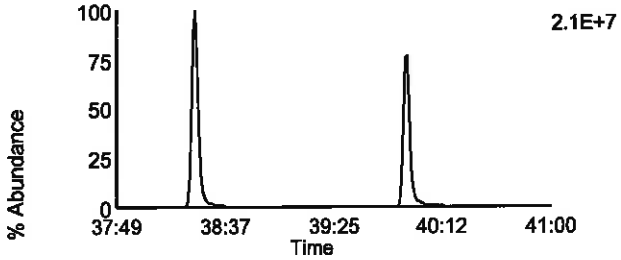
Data File: F130918B_02 G4 C6 - 417.825
CAL CS3/CPM-7604-279 - SMT FE 4"



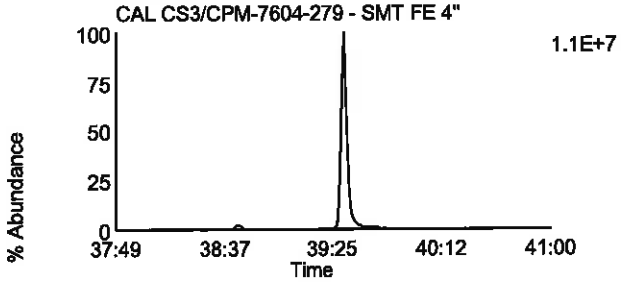
Data File: F130918B_02 G4 C11 - 435.8169
CAL CS3/CPM-7604-279 - SMT FE 4"



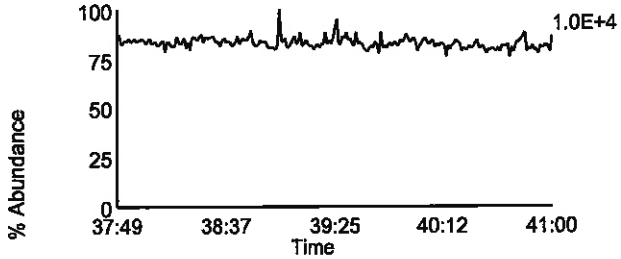
Data File: F130918B_02 G4 C7 - 419.822
CAL CS3/CPM-7604-279 - SMT FE 4"



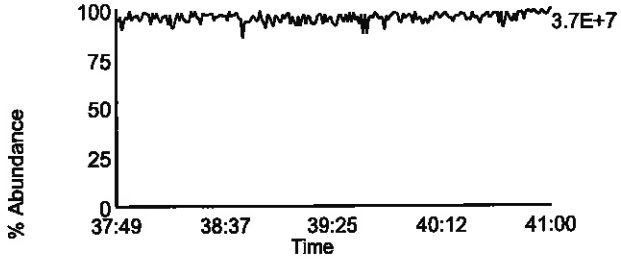
Data File: F130918B_02 G4 C12 - 437.814
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G4 C13 - 479.7165
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G4 C1 - 380.976
CAL CS3/CPM-7604-279 - SMT FE 4"

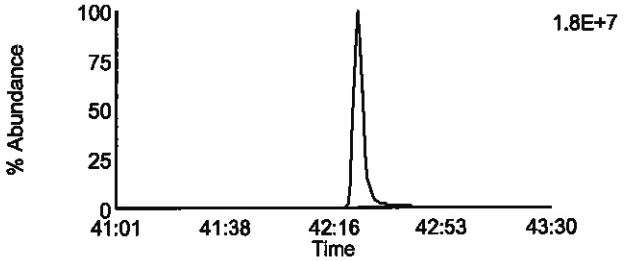


Homologue Group: Octas

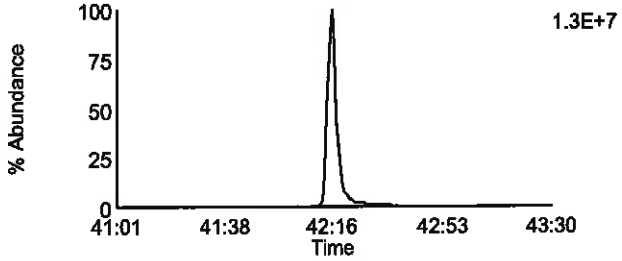
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

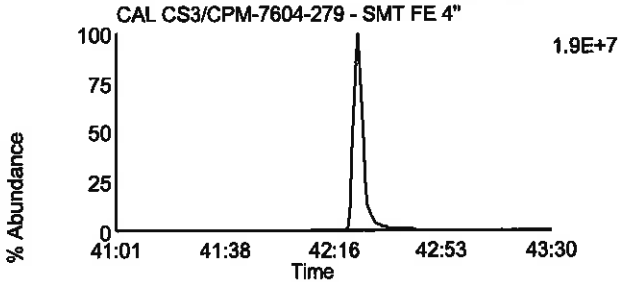
Data File: F130918B_02 G5 C4 - 441.7428
CAL CS3/CPM-7604-279 - SMT FE 4"



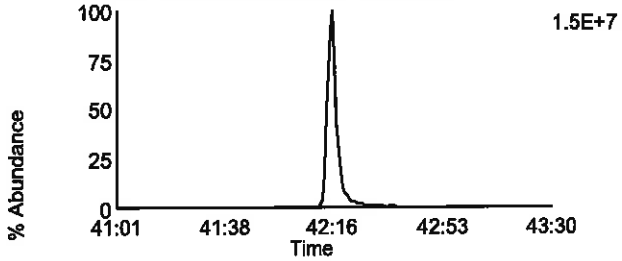
Data File: F130918B_02 G5 C8 - 457.7377
CAL CS3/CPM-7604-279 - SMT FE 4"



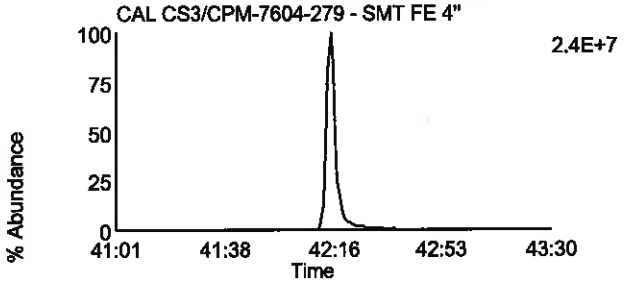
Data File: F130918B_02 G5 C5 - 443.7398
CAL CS3/CPM-7604-279 - SMT FE 4"



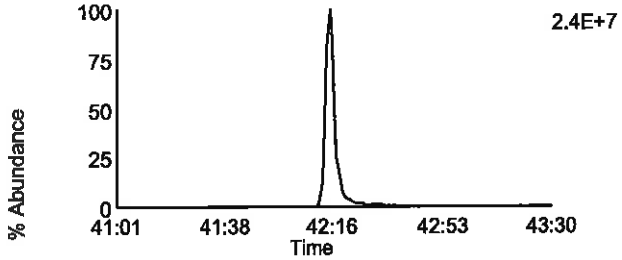
Data File: F130918B_02 G5 C9 - 459.7347
CAL CS3/CPM-7604-279 - SMT FE 4"



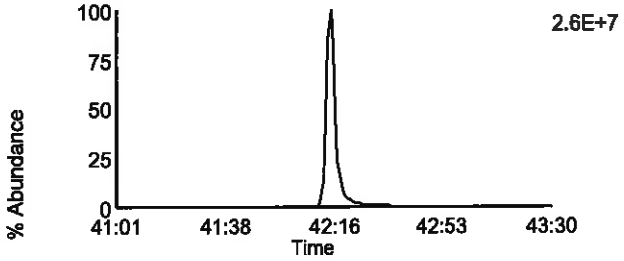
Data File: F130918B_02 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - SMT FE 4"



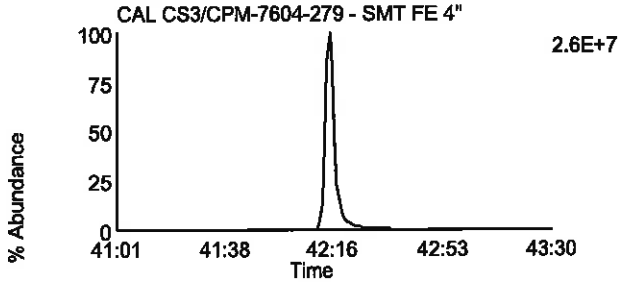
Data File: F130918B_02 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - SMT FE 4"



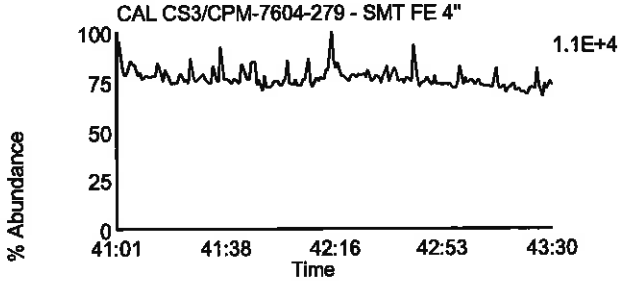
Data File: F130918B_02 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - SMT FE 4"



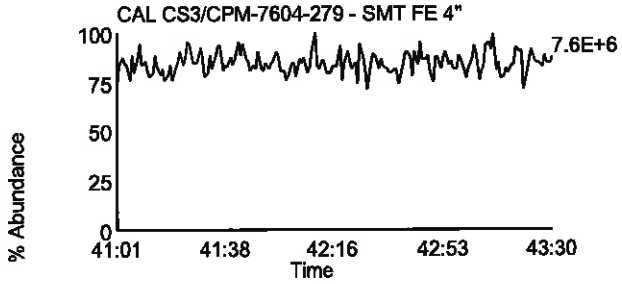
Data File: F130918B_02 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G5 C13 - 513.6775
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G5 C2 - 430.9728
CAL CS3/CPM-7604-279 - SMT FE 4"

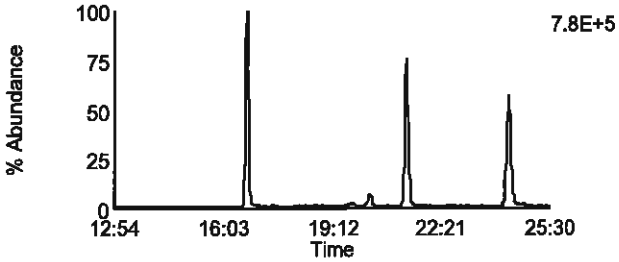


Homologue Group: Tetras

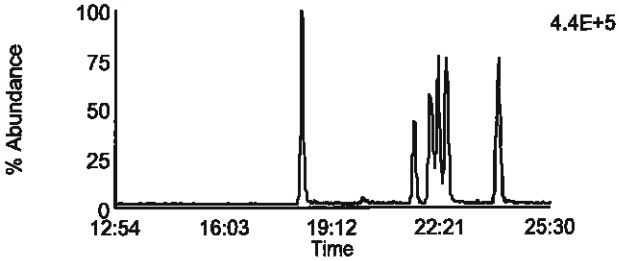
Data File Name: F130921A_16
Date Acquired: 12/30/1899
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

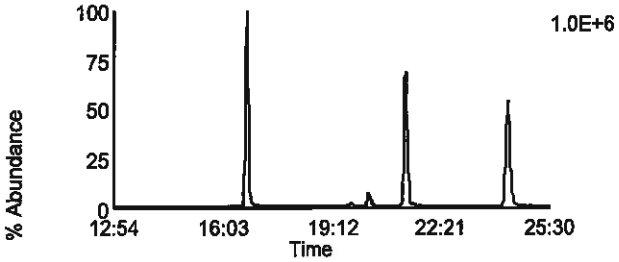
Data File: F130921A_16 G1 C1 - 303.9016
CAL CS3/CPM-7604-279 - BAL BAL



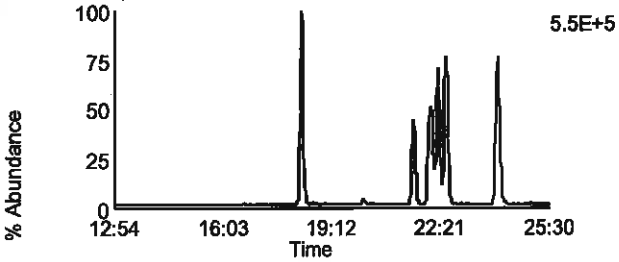
Data File: F130921A_16 G1 C7 - 319.8965
CAL CS3/CPM-7604-279 - BAL BAL



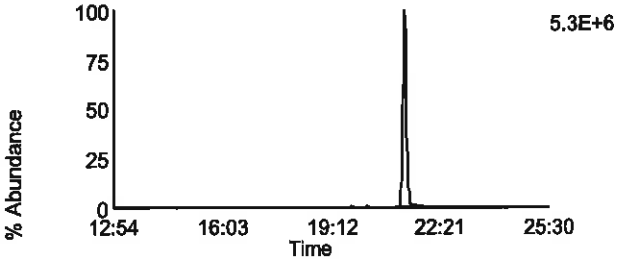
Data File: F130921A_16 G1 C2 - 305.8987
CAL CS3/CPM-7604-279 - BAL BAL



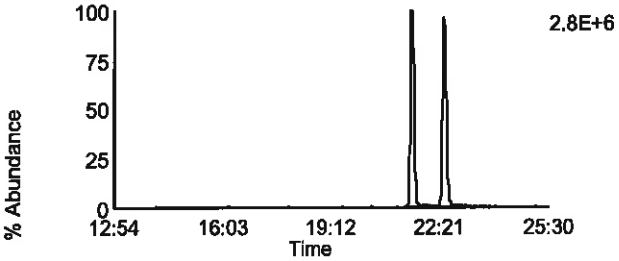
Data File: F130921A_16 G1 C8 - 321.8936
CAL CS3/CPM-7604-279 - BAL BAL



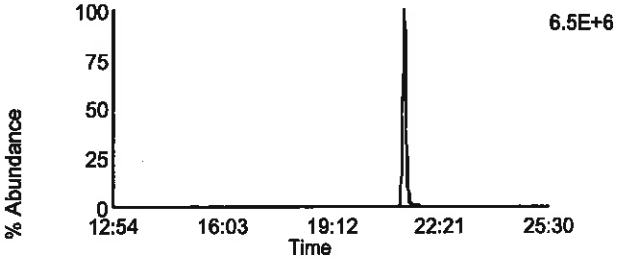
Data File: F130921A_16 G1 C3 - 315.9418
CAL CS3/CPM-7604-279 - BAL BAL



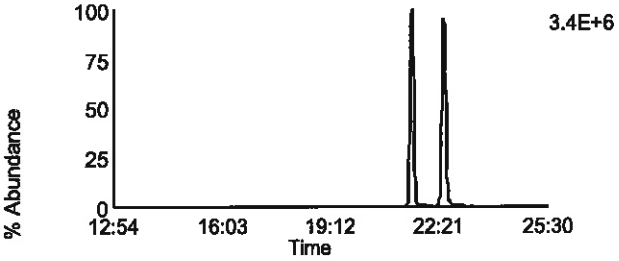
Data File: F130921A_16 G1 C10 - 331.9367
CAL CS3/CPM-7604-279 - BAL BAL



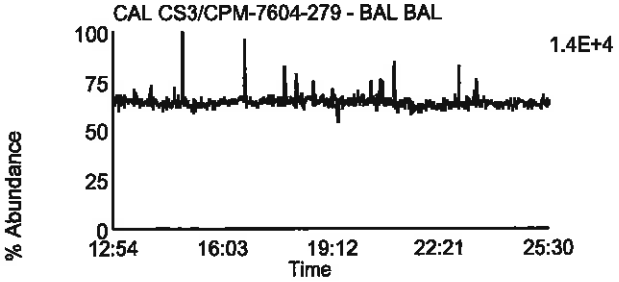
Data File: F130921A_16 G1 C4 - 317.9389
CAL CS3/CPM-7604-279 - BAL BAL



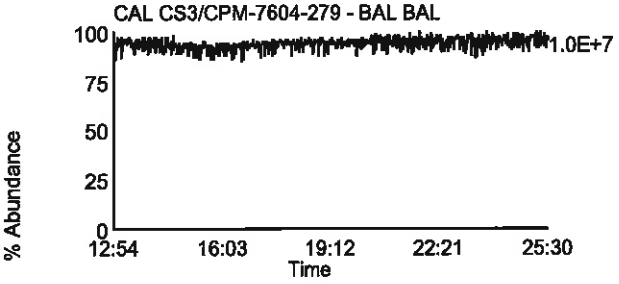
Data File: F130921A_16 G1 C11 - 333.9338
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G1 C14 - 375.8364
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - BAL BAL

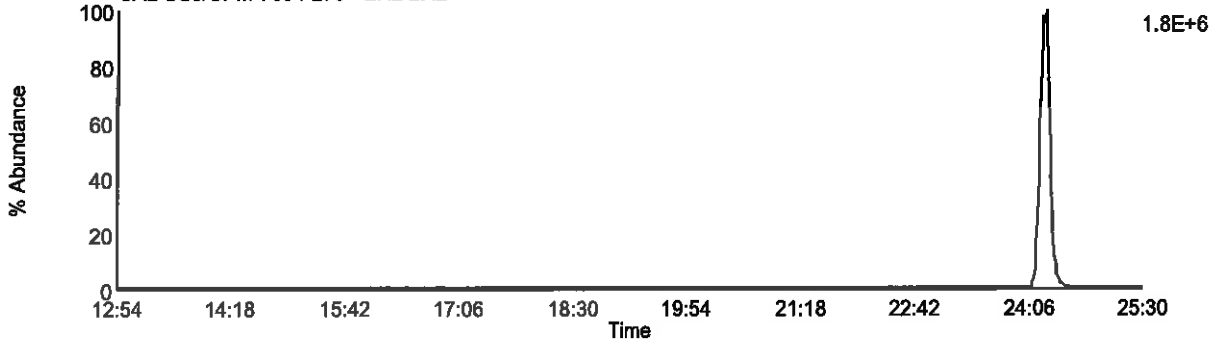


Homologue Group: Penta & Cleanup

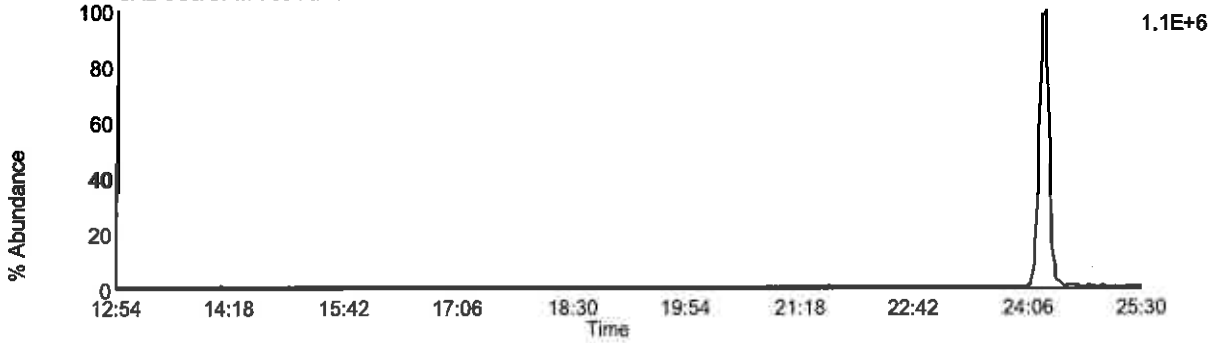
Data File Name: F130921A_16
Date Acquired: 12/30/1899
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

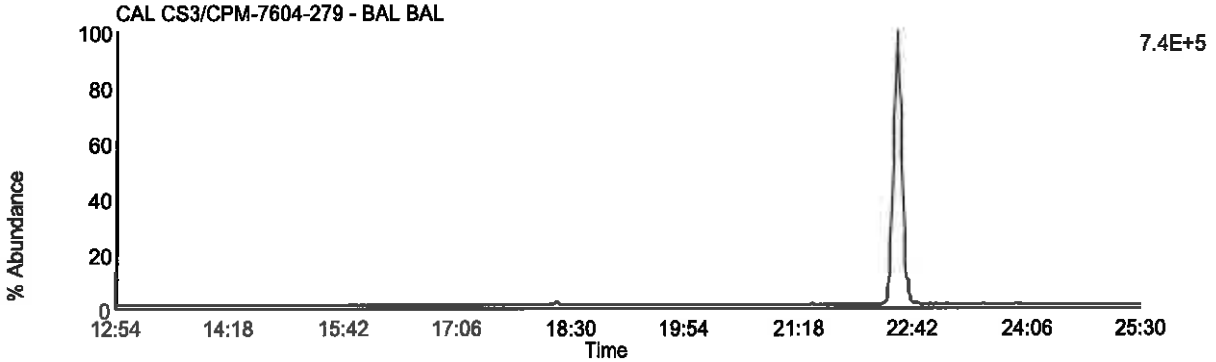
Data File: F130921A_16 G1 C12 - 339.8597
CAL CS3/CPM-7604-279 - BAL BAL



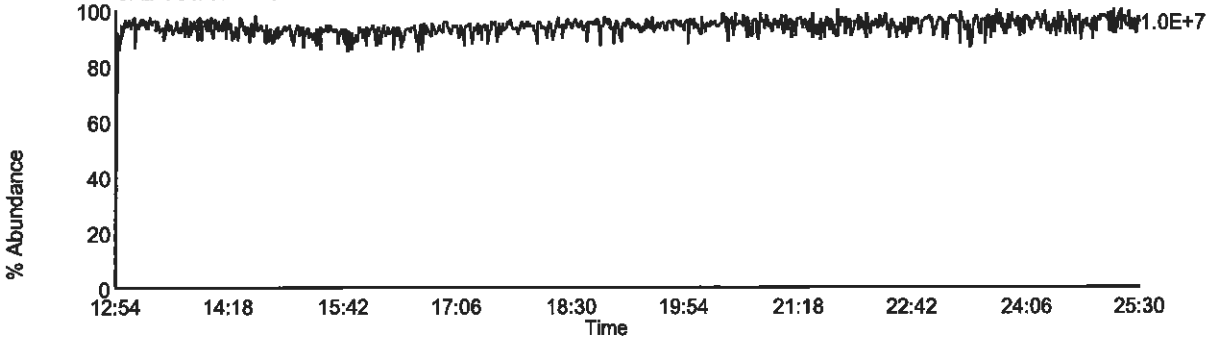
Data File: F130921A_16 G1 C13 - 341.8567
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G1 C9 - 327.8847
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - BAL BAL

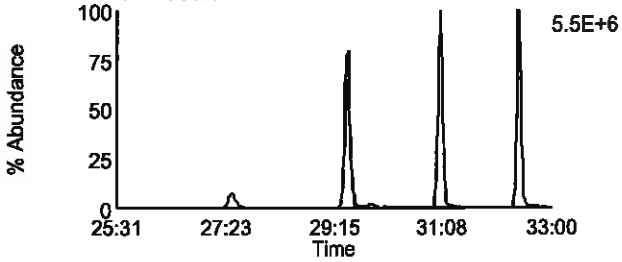


Homologue Group: Pentas

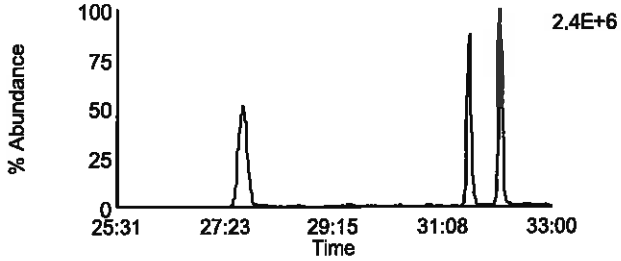
Data File Name: F130921A_16
Date Acquired: 12/30/1899
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

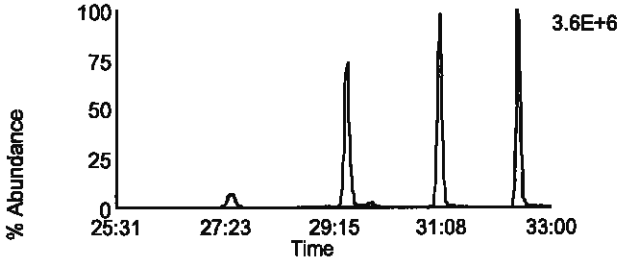
Data File: F130921A_16 G2 C1 - 339.8597
CAL CS3/CPM-7604-279 - BAL BAL



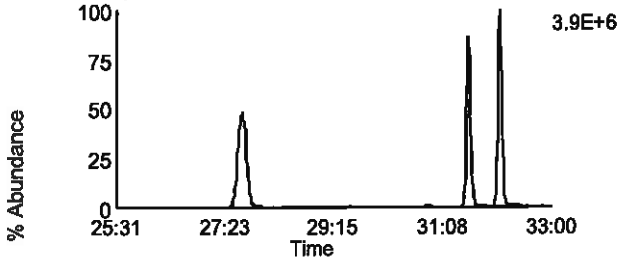
Data File: F130921A_16 G2 C4 - 353.8576
CAL CS3/CPM-7604-279 - BAL BAL



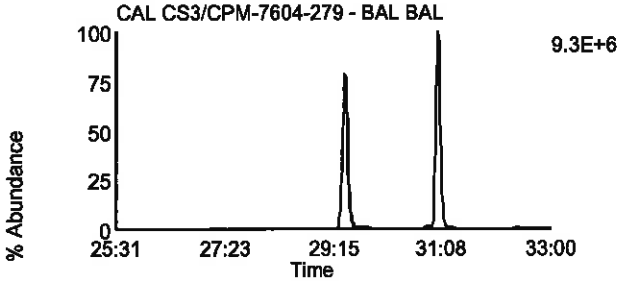
Data File: F130921A_16 G2 C2 - 341.8567
CAL CS3/CPM-7604-279 - BAL BAL



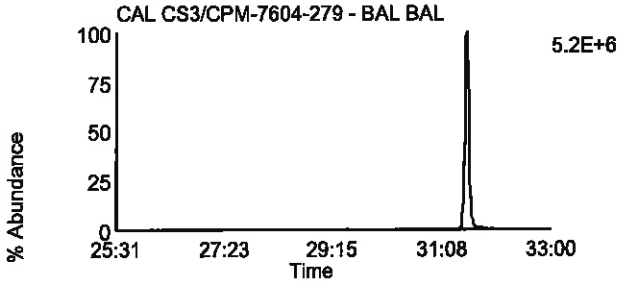
Data File: F130921A_16 G2 C8 - 355.8546
CAL CS3/CPM-7604-279 - BAL BAL



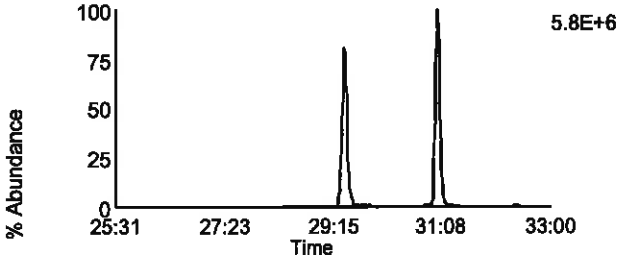
Data File: F130921A_16 G2 C3 - 351.8999
CAL CS3/CPM-7604-279 - BAL BAL



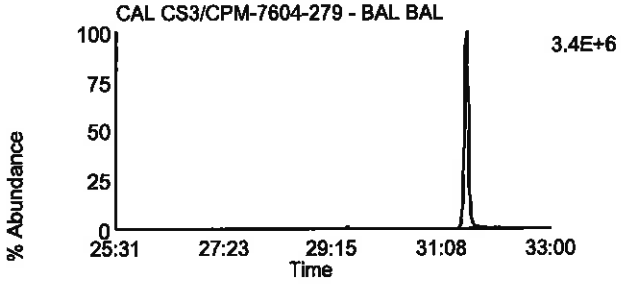
Data File: F130921A_16 G2 C10 - 367.8948
CAL CS3/CPM-7604-279 - BAL BAL



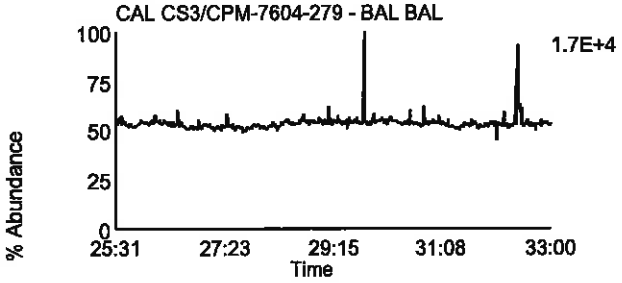
Data File: F130921A_16 G2 C5 - 353.8969
CAL CS3/CPM-7604-279 - BAL BAL



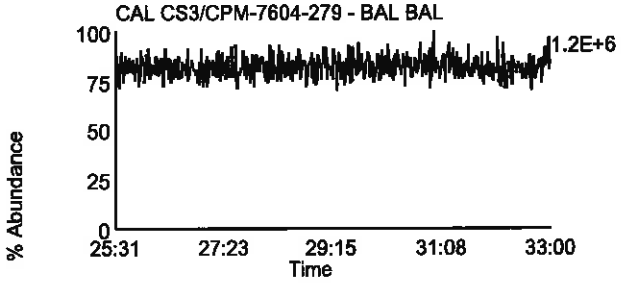
Data File: F130921A_16 G2 C11 - 369.8918
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G2 C12 - 409.7974
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G2 C6 - 354.9792
CAL CS3/CPM-7604-279 - BAL BAL

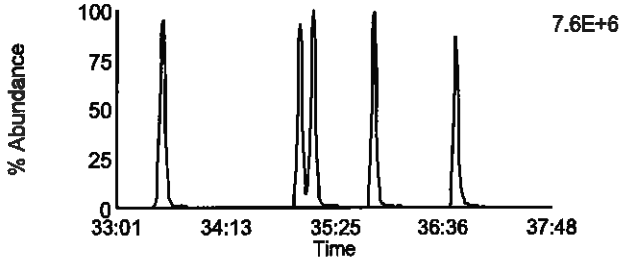


Homologue Group: Hexas

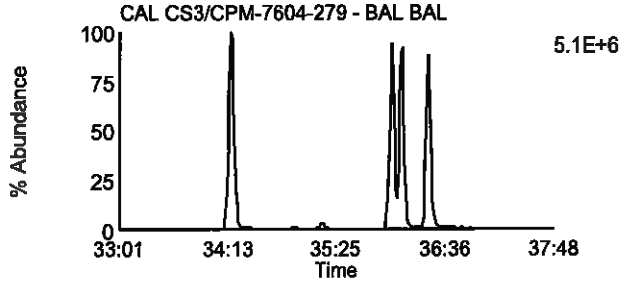
Data File Name: F130921A_16
Date Acquired: 12/30/1899
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

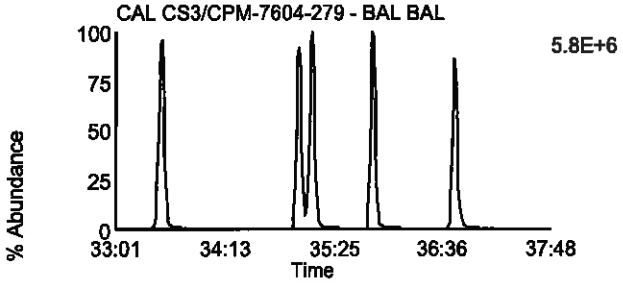
Data File: F130921A_16 G3 C1 - 373.8207
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G3 C7 - 389.8156
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G3 C2 - 375.8178
CAL CS3/CPM-7604-279 - BAL BAL



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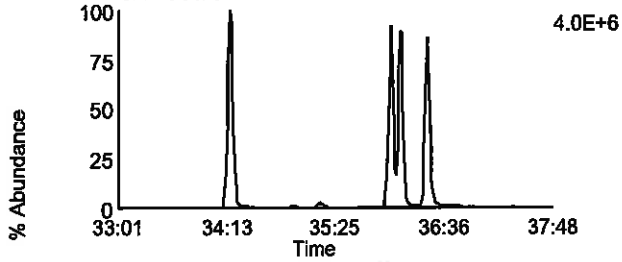
CAL CS3/CPM-7604-279 - BAL BAL



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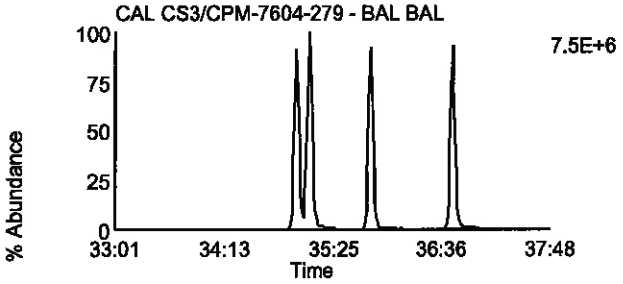
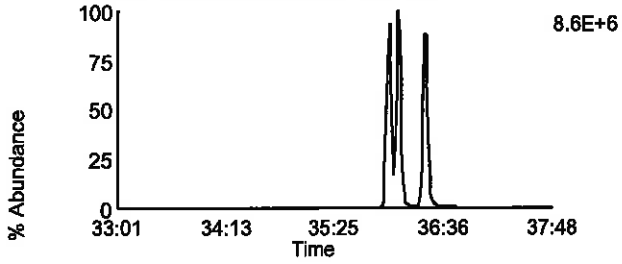
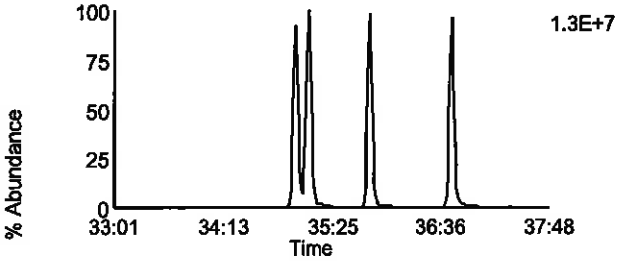
CAL CS3/CPM-7604-279 - BAL BAL



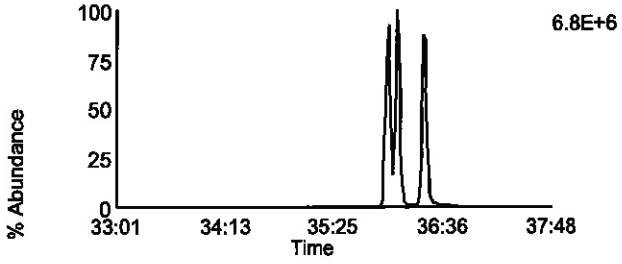
Data File: F130921A_16 G3 C9 - 401.8559
CAL CS3/CPM-7604-279 - BAL BAL



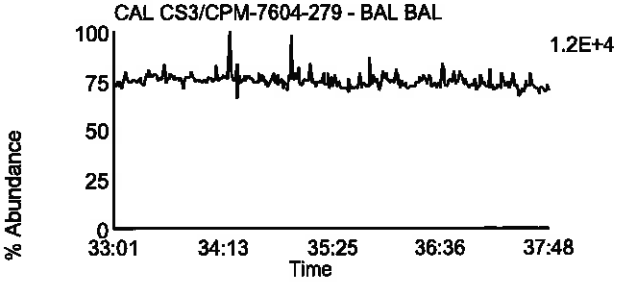
Data File: F130921A_16 G3 C6 - 385.861
CAL CS3/CPM-7604-279 - BAL BAL



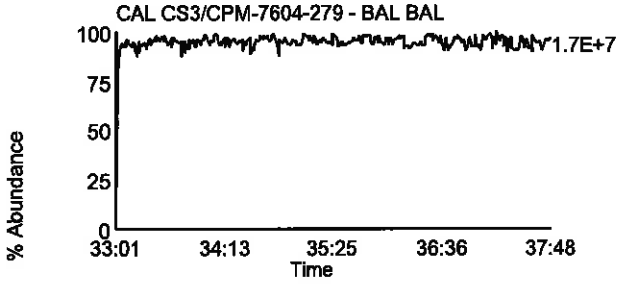
Data File: F130921A_16 G3 C10 - 403.8529
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G3 C11 - 445.7555
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G3 C3 - 380.976
CAL CS3/CPM-7604-279 - BAL BAL

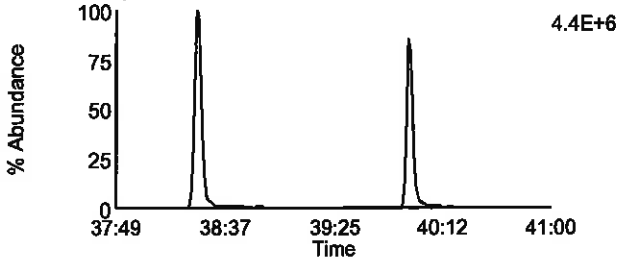


Homologue Group: Heptas

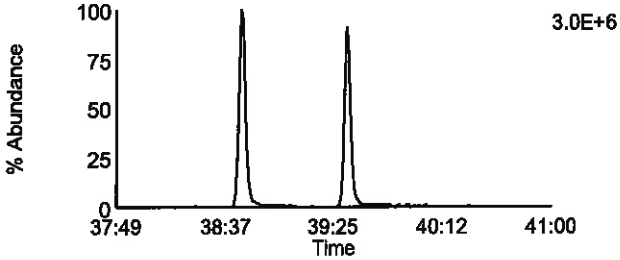
Data File Name: F130921A_16
Date Acquired: 12/30/1899
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

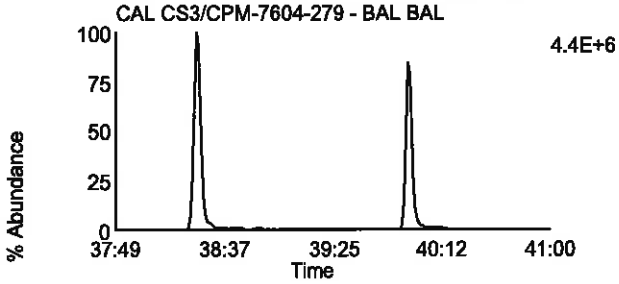
Data File: F130921A_16 G4 C3 - 407.7818
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G4 C8 - 423.7767
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G4 C4 - 409.7788
CAL CS3/CPM-7604-279 - BAL BAL



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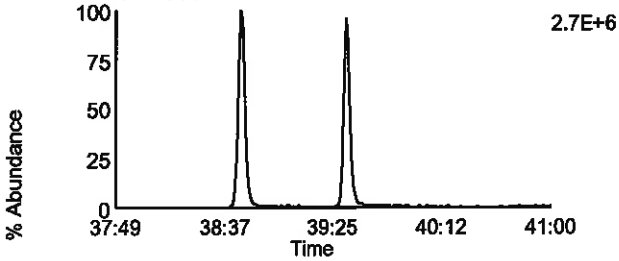
CAL CS3/CPM-7604-279 - BAL BAL



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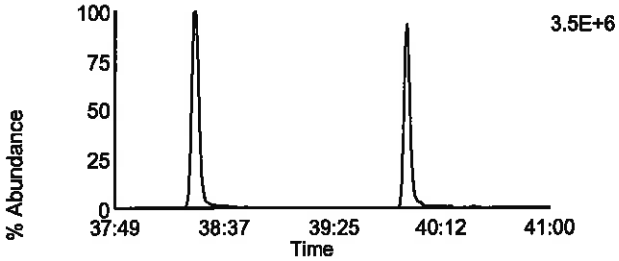
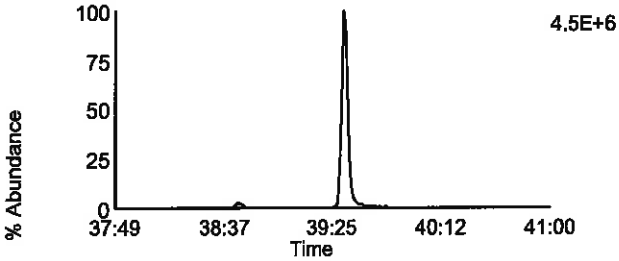
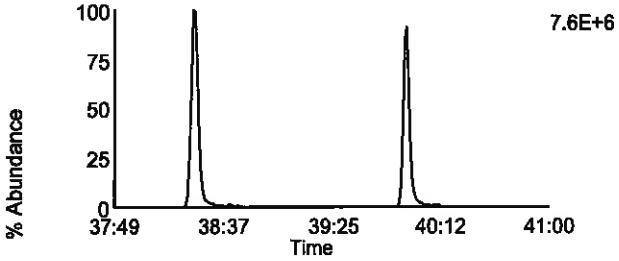
CAL CS3/CPM-7604-279 - BAL BAL



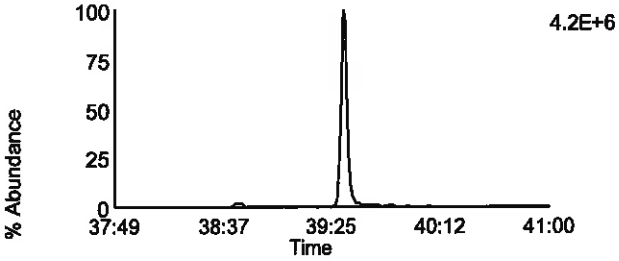
Data File: F130921A_16 G4 C11 - 435.8169
CAL CS3/CPM-7604-279 - BAL BAL



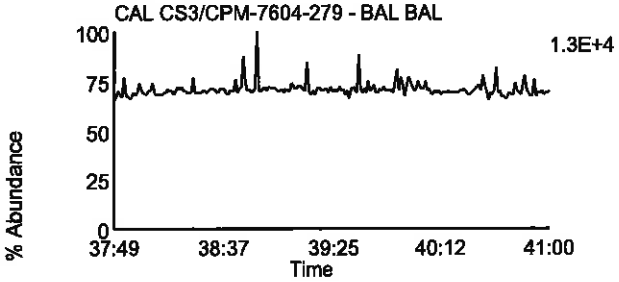
Data File: F130921A_16 G4 C7 - 419.822
CAL CS3/CPM-7604-279 - BAL BAL



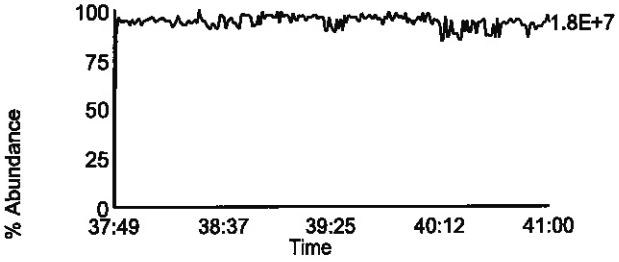
Data File: F130921A_16 G4 C12 - 437.814
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G4 C13 - 479.7165
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G4 C1 - 380.976
CAL CS3/CPM-7604-279 - BAL BAL

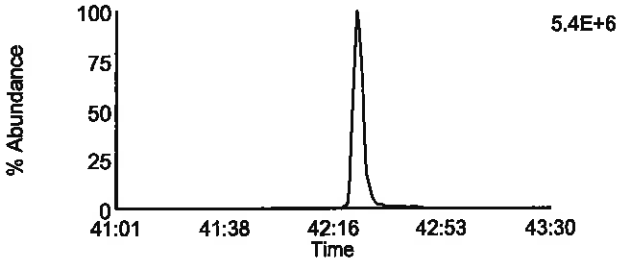


Homologue Group: Octas

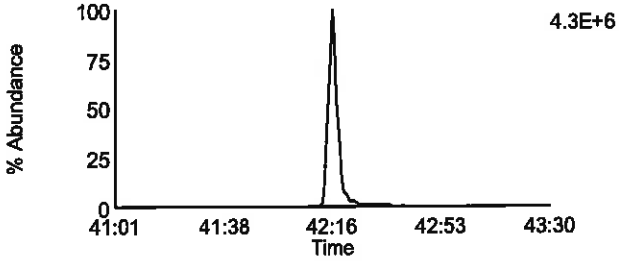
Data File Name: F130921A_16
Date Acquired: 12/30/1899
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

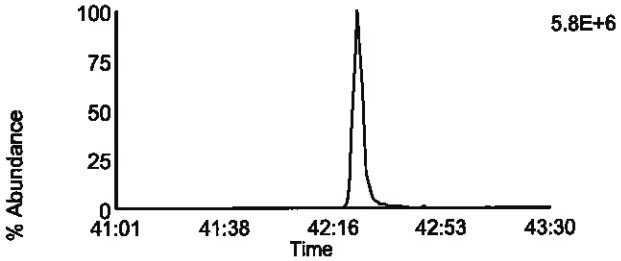
Data File: F130921A_16 G5 C4 - 441.7428
CAL CS3/CPM-7604-279 - BAL BAL



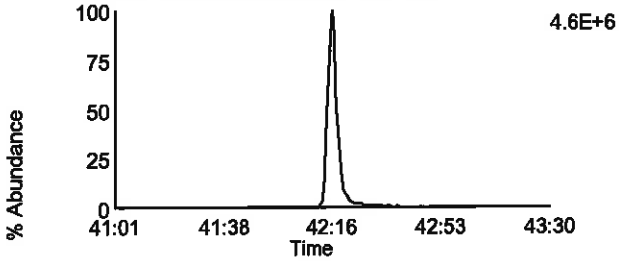
Data File: F130921A_16 G5 C8 - 457.7377
CAL CS3/CPM-7604-279 - BAL BAL



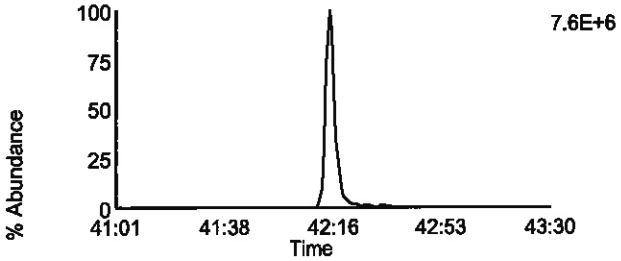
Data File: F130921A_16 G5 C5 - 443.7398
CAL CS3/CPM-7604-279 - BAL BAL



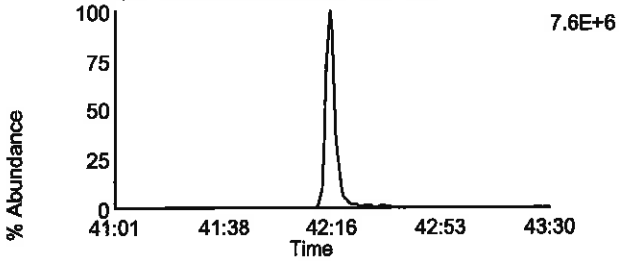
Data File: F130921A_16 G5 C9 - 459.7347
CAL CS3/CPM-7604-279 - BAL BAL



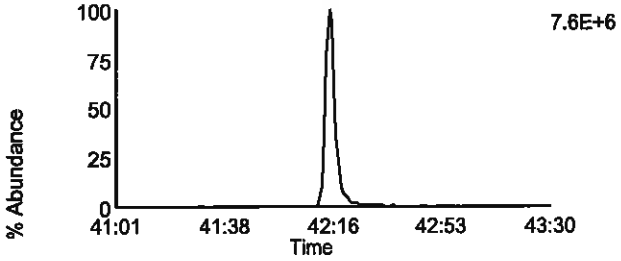
Data File: F130921A_16 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - BAL BAL



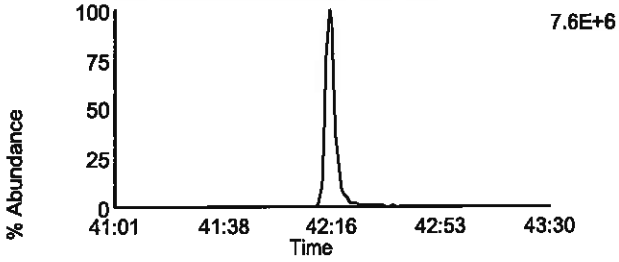
Data File: F130921A_16 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - BAL BAL



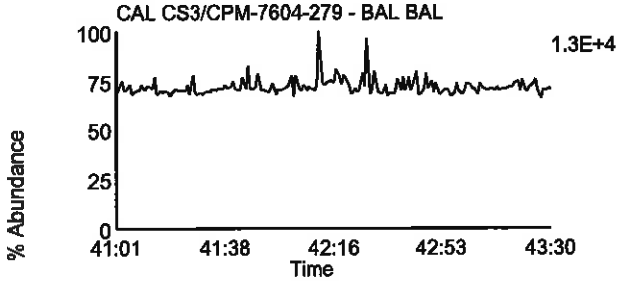
Data File: F130921A_16 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - BAL BAL



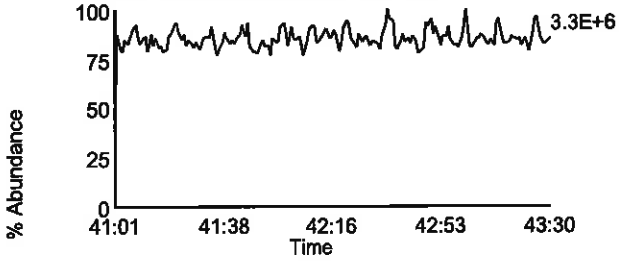
Data File: F130921A_16 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G5 C13 - 513.6775
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G5 C2 - 430.9728
CAL CS3/CPM-7604-279 - BAL BAL

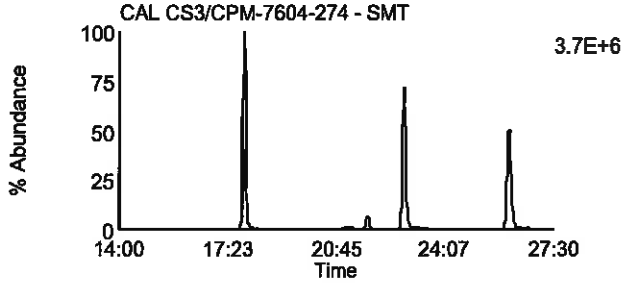


Homologue Group: Tetras

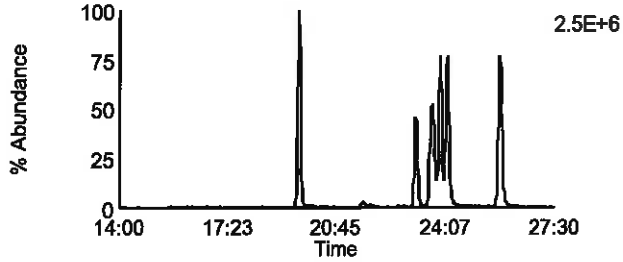
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

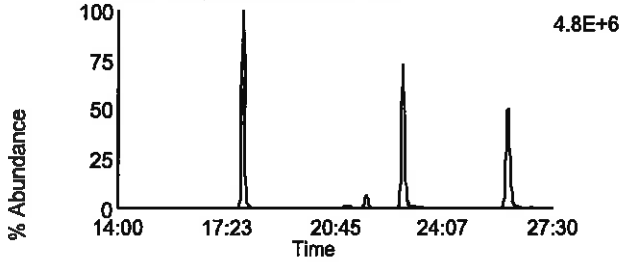
Data File: U130729B_09 G1 C1 - 303.9016
CAL CS3/CPM-7604-274 - SMT



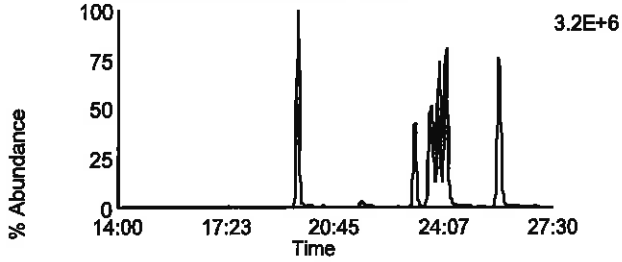
Data File: U130729B_09 G1 C7 - 319.8965
CAL CS3/CPM-7604-274 - SMT



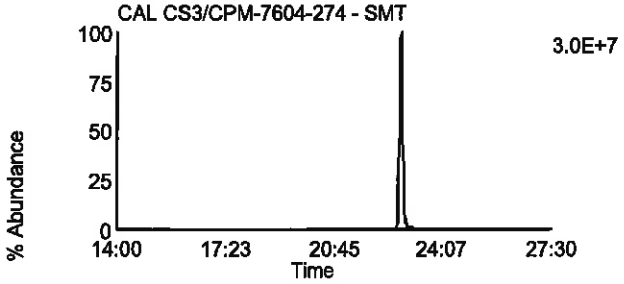
Data File: U130729B_09 G1 C2 - 305.8987
CAL CS3/CPM-7604-274 - SMT



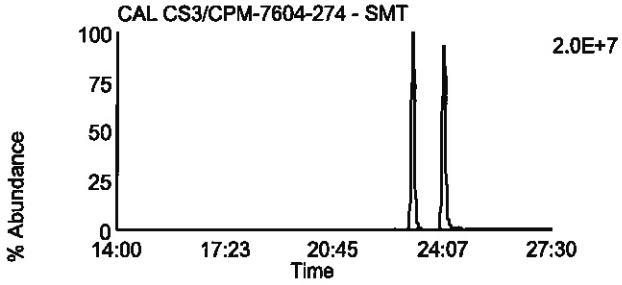
Data File: U130729B_09 G1 C8 - 321.8936
CAL CS3/CPM-7604-274 - SMT



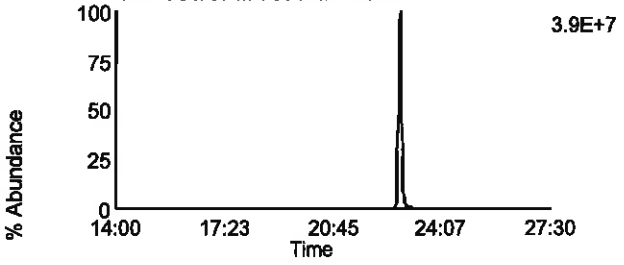
Data File: U130729B_09 G1 C3 - 315.9418
CAL CS3/CPM-7604-274 - SMT



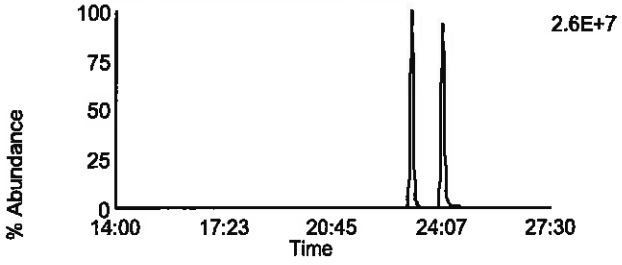
Data File: U130729B_09 G1 C10 - 331.9367
CAL CS3/CPM-7604-274 - SMT



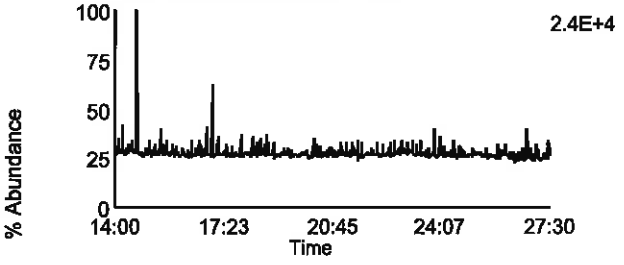
Data File: U130729B_09 G1 C4 - 317.9389
CAL CS3/CPM-7604-274 - SMT



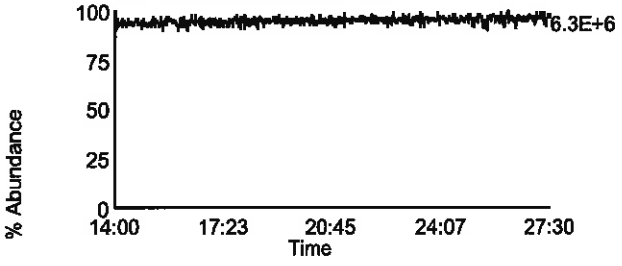
Data File: U130729B_09 G1 C11 - 333.9338
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G1 C14 - 375.8364
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G1 C5 - 318.9792
CAL CS3/CPM-7604-274 - SMT

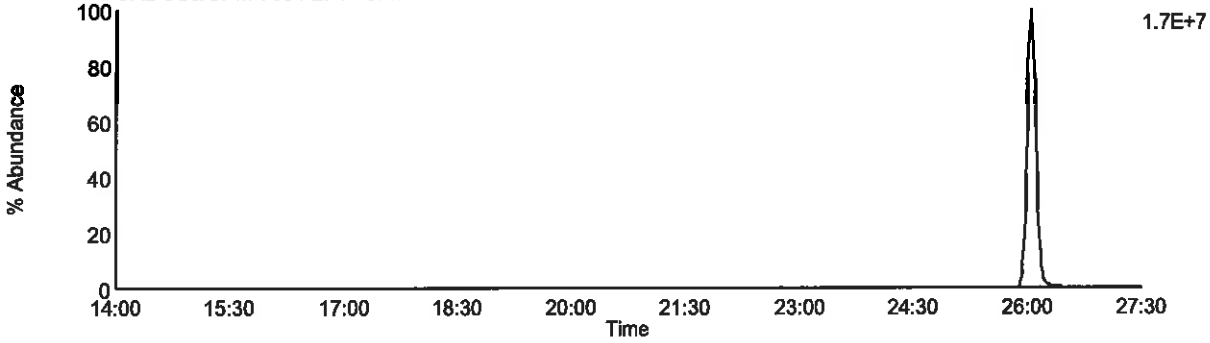


Homologue Group: Penta & Cleanup

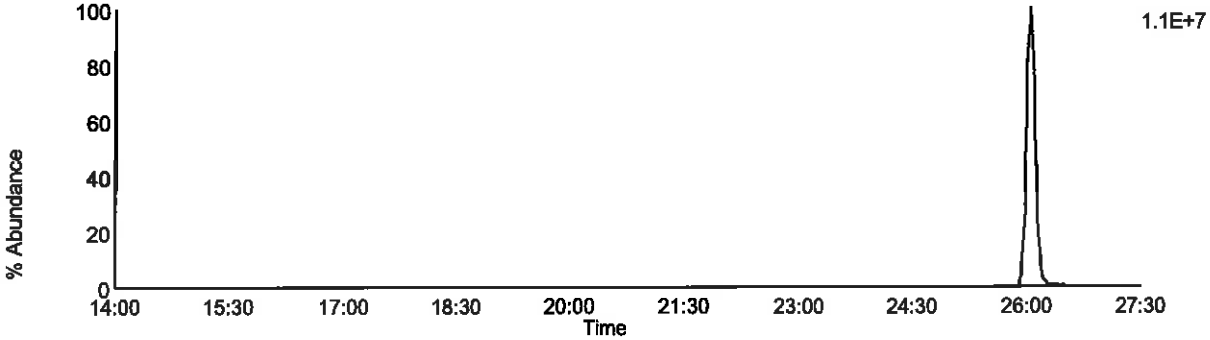
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

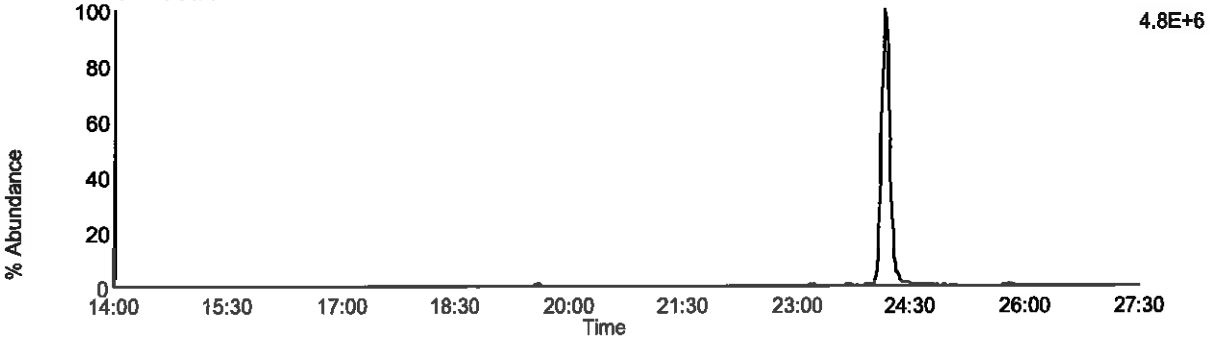
Data File: U130729B_09 G1 C12 - 339.8597
CAL CS3/CPM-7604-274 - SMT



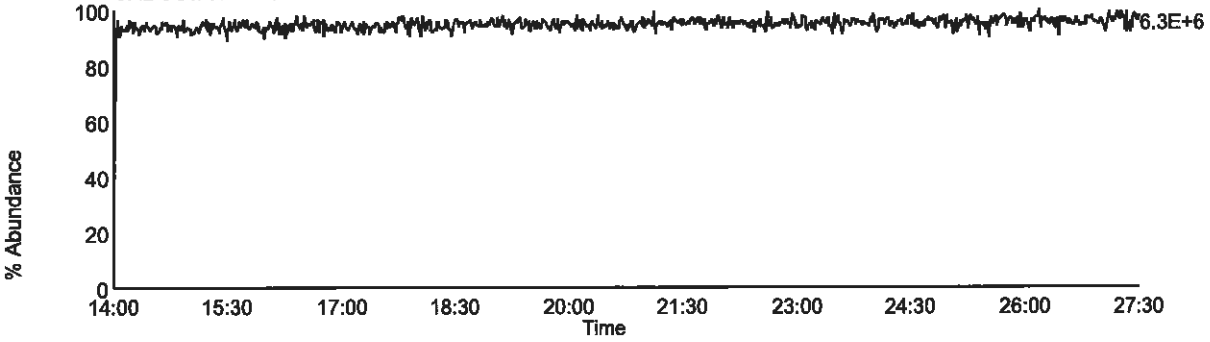
Data File: U130729B_09 G1 C13 - 341.8567
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G1 C9 - 327.8847
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G1 C5 - 318.9792
CAL CS3/CPM-7604-274 - SMT

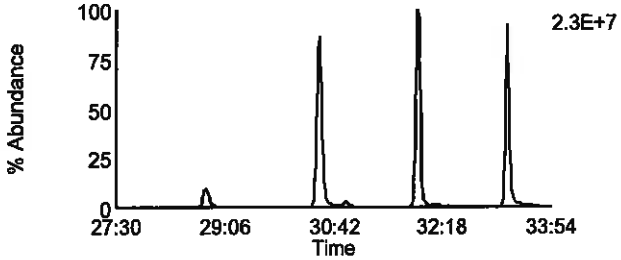


Homologue Group: Pentas

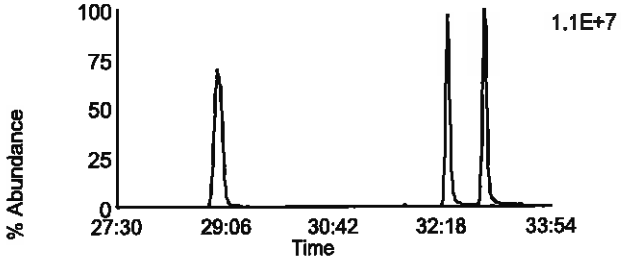
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

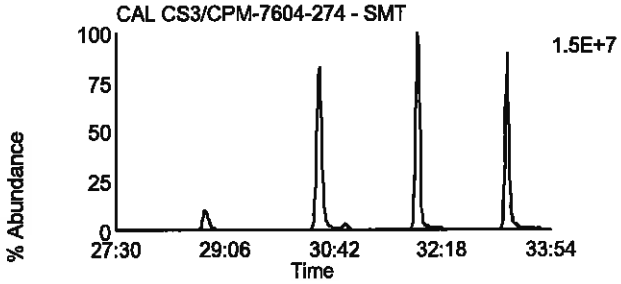
Data File: U130729B_09 G2 C1 - 339.8597
CAL CS3/CPM-7604-274 - SMT



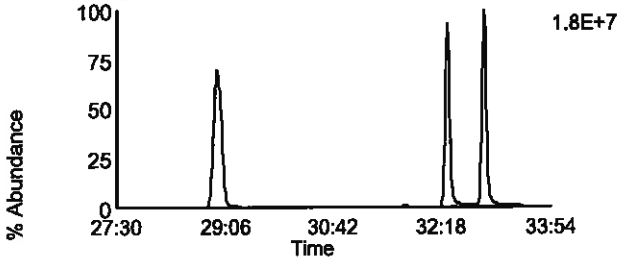
Data File: U130729B_09 G2 C4 - 353.8576
CAL CS3/CPM-7604-274 - SMT



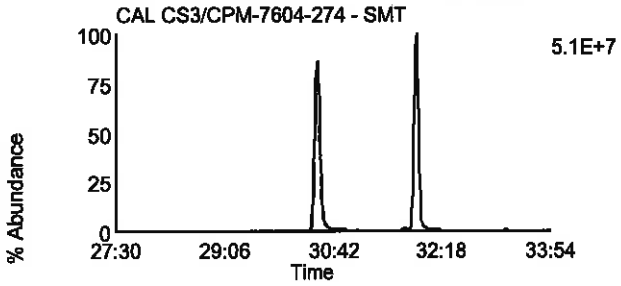
Data File: U130729B_09 G2 C2 - 341.8567
CAL CS3/CPM-7604-274 - SMT



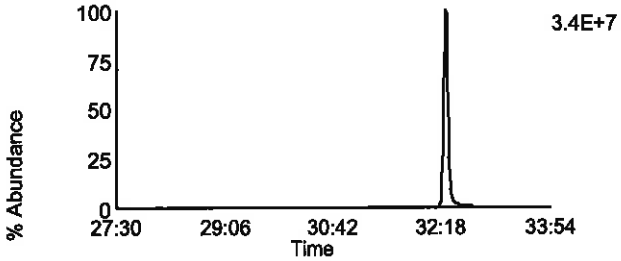
Data File: U130729B_09 G2 C8 - 355.8546
CAL CS3/CPM-7604-274 - SMT



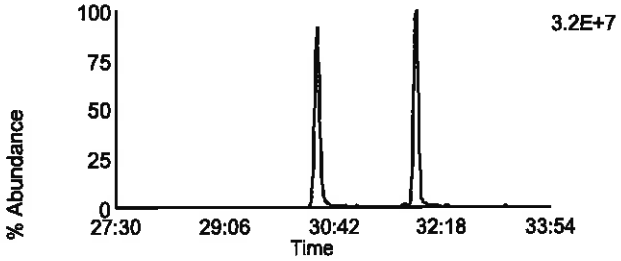
Data File: U130729B_09 G2 C3 - 351.8999
CAL CS3/CPM-7604-274 - SMT



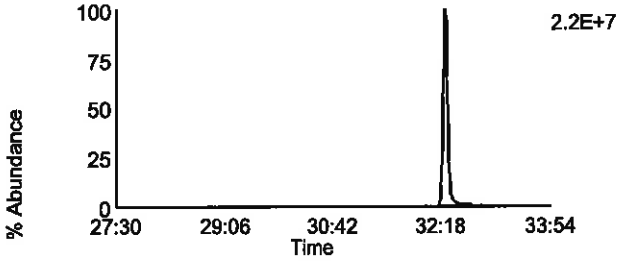
Data File: U130729B_09 G2 C10 - 367.8948
CAL CS3/CPM-7604-274 - SMT



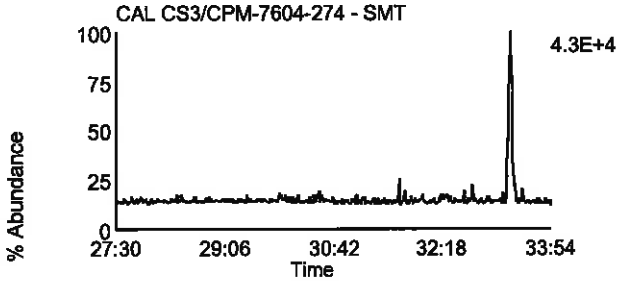
Data File: U130729B_09 G2 C5 - 353.8969
CAL CS3/CPM-7604-274 - SMT



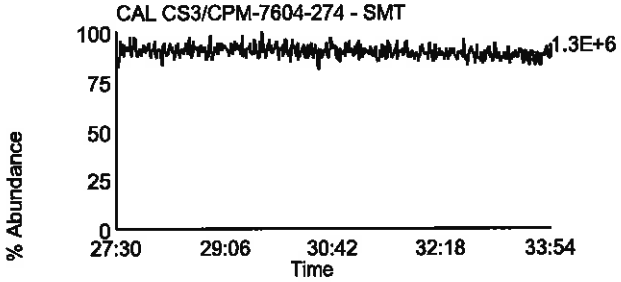
Data File: U130729B_09 G2 C11 - 369.8918
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G2 C12 - 409.7974
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G2 C6 - 354.9792
CAL CS3/CPM-7604-274 - SMT

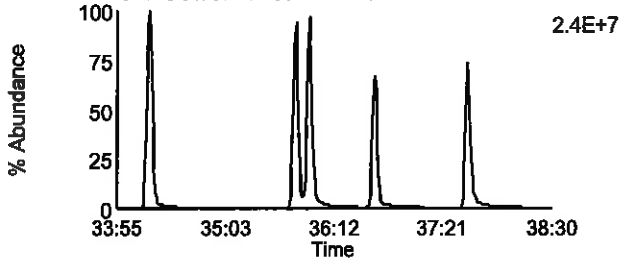


Homologue Group: Hexas

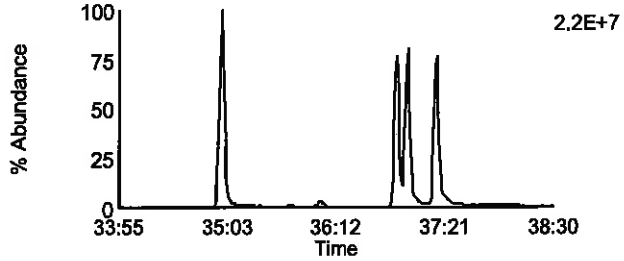
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

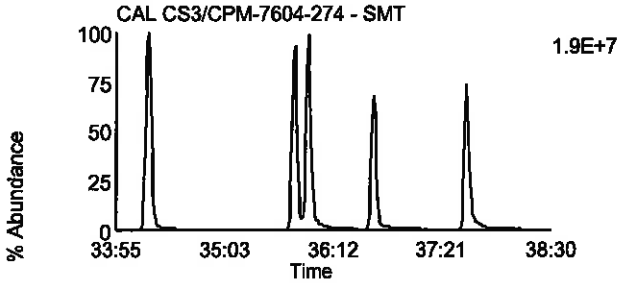
Data File: U130729B_09 G3 C1 - 373.8207
CAL CS3/CPM-7604-274 - SMT



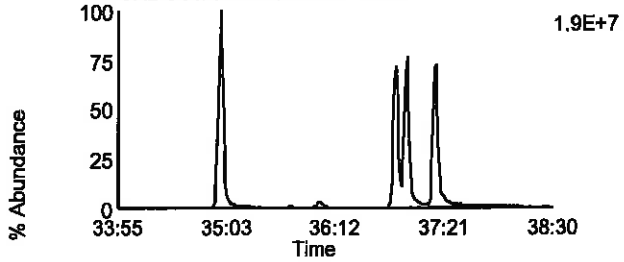
Data File: U130729B_09 G3 C7 - 389.8156
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G3 C2 - 375.8178
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G3 C8 - 391.8127
CAL CS3/CPM-7604-274 - SMT



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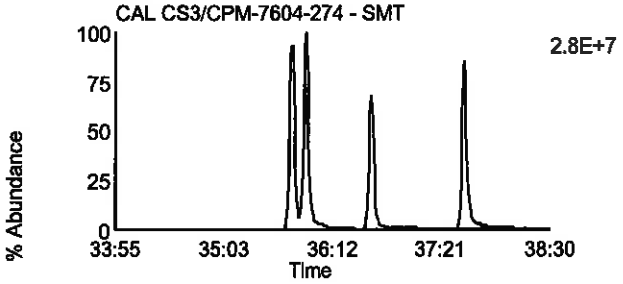
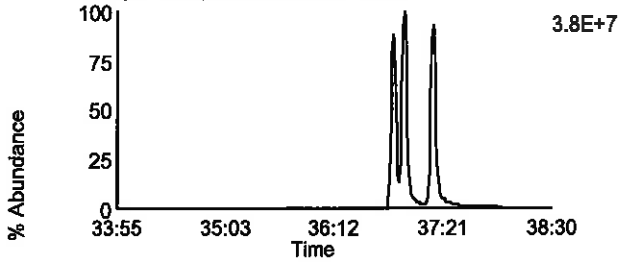
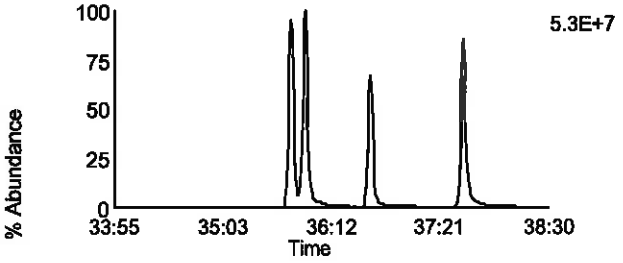
CAL CS3/CPM-7604-274 - SMT



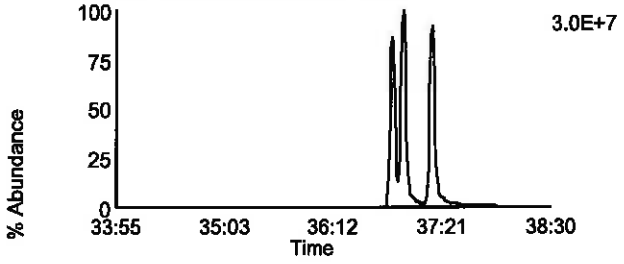
Data File: U130729B_09 G3 C9 - 401.8559
CAL CS3/CPM-7604-274 - SMT



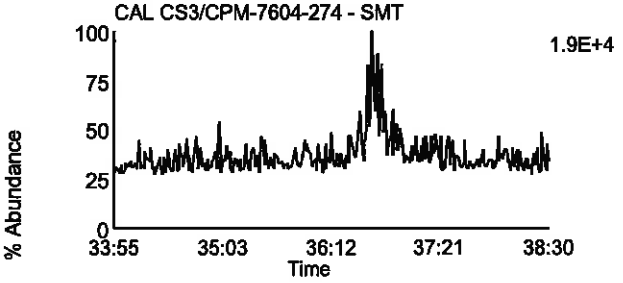
Data File: U130729B_09 G3 C6 - 385.861
CAL CS3/CPM-7604-274 - SMT



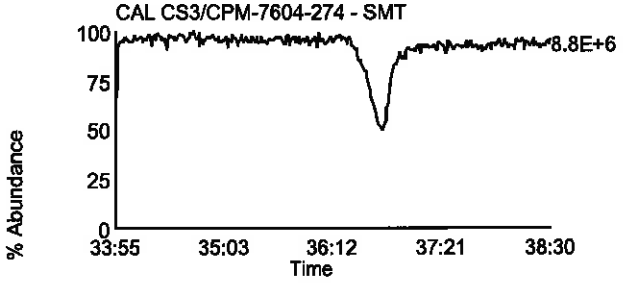
Data File: U130729B_09 G3 C10 - 403.8529
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G3 C11 - 445.7555
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G3 C3 - 380.976
CAL CS3/CPM-7604-274 - SMT

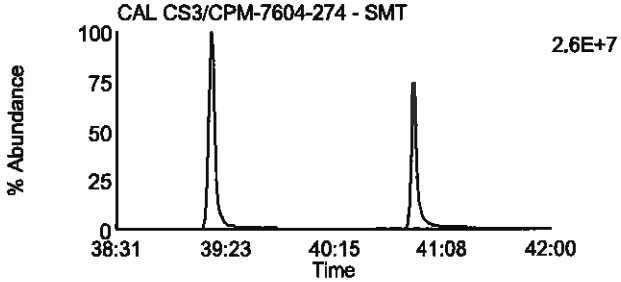


Homologue Group: Heptas

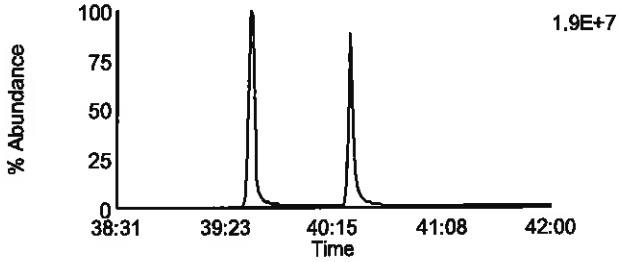
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

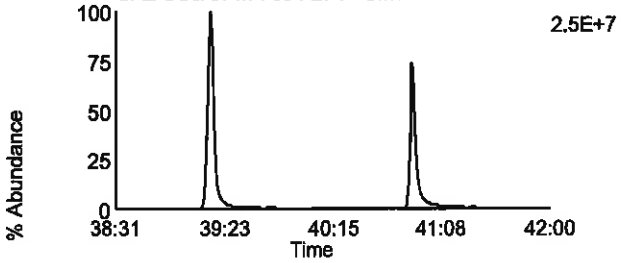
Data File: U130729B_09 G4 C3 - 407.7818
CAL CS3/CPM-7604-274 - SMT



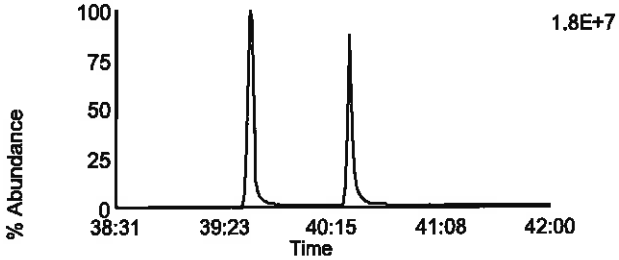
Data File: U130729B_09 G4 C8 - 423.7767
CAL CS3/CPM-7604-274 - SMT



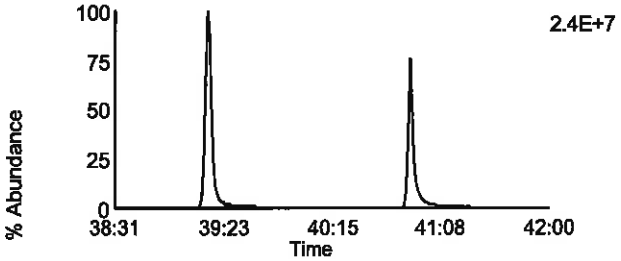
Data File: U130729B_09 G4 C4 - 409.7788
CAL CS3/CPM-7604-274 - SMT



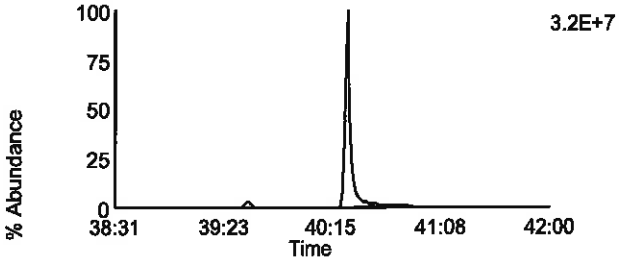
Data File: U130729B_09 G4 C9 - 425.7737
CAL CS3/CPM-7604-274 - SMT



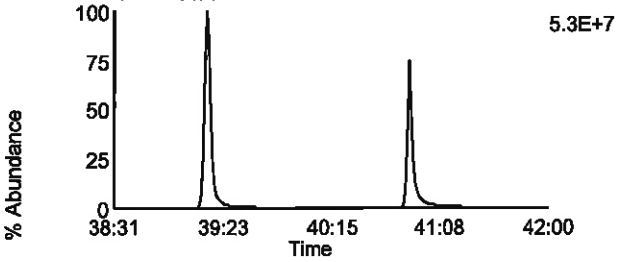
Data File: U130729B_09 G4 C6 - 417.825
CAL CS3/CPM-7604-274 - SMT



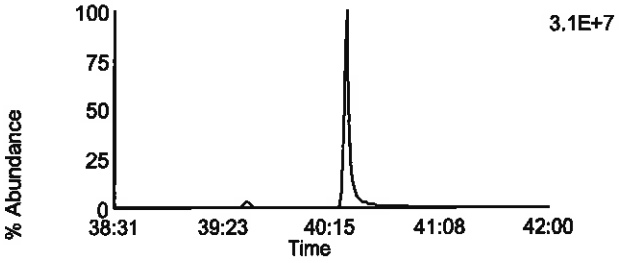
Data File: U130729B_09 G4 C11 - 435.8169
CAL CS3/CPM-7604-274 - SMT



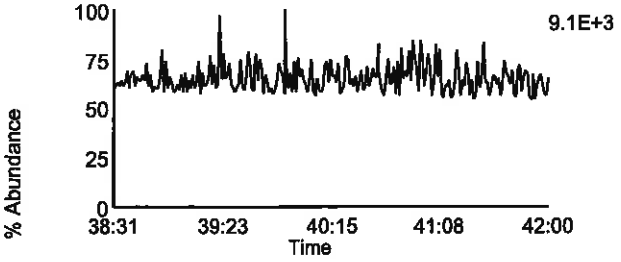
Data File: U130729B_09 G4 C7 - 419.822
CAL CS3/CPM-7604-274 - SMT



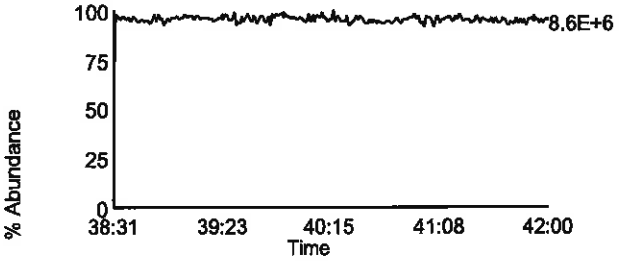
Data File: U130729B_09 G4 C12 - 437.814
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G4 C13 - 479.7165
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G4 C1 - 380.976
CAL CS3/CPM-7604-274 - SMT

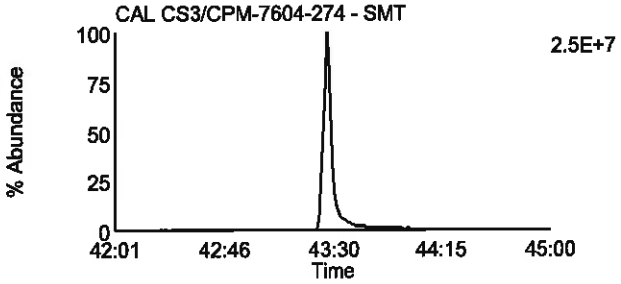


Homologue Group: Octas

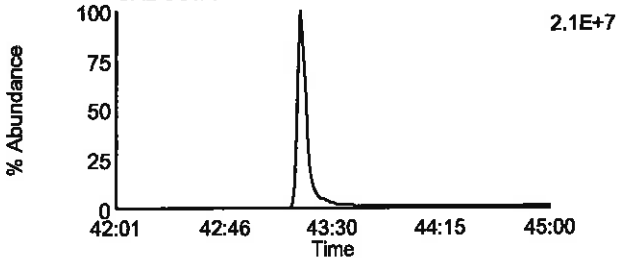
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

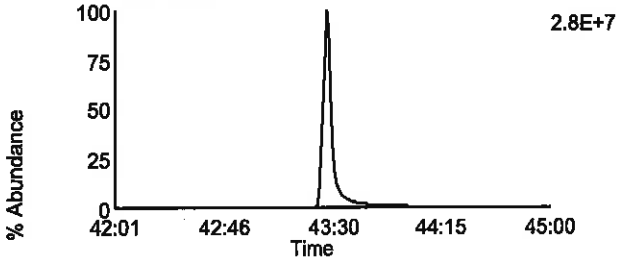
Data File: U130729B_09 G5 C4 - 441.7428
CAL CS3/CPM-7604-274 - SMT



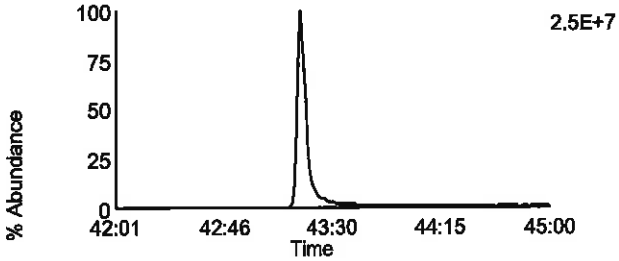
Data File: U130729B_09 G5 C8 - 457.7377
CAL CS3/CPM-7604-274 - SMT



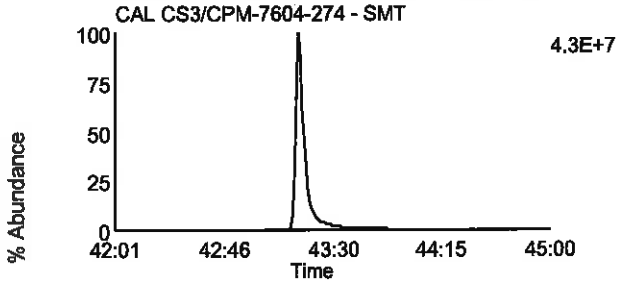
Data File: U130729B_09 G5 C5 - 443.7398
CAL CS3/CPM-7604-274 - SMT



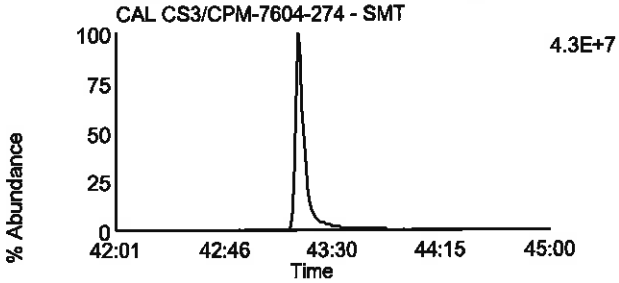
Data File: U130729B_09 G5 C9 - 459.7347
CAL CS3/CPM-7604-274 - SMT



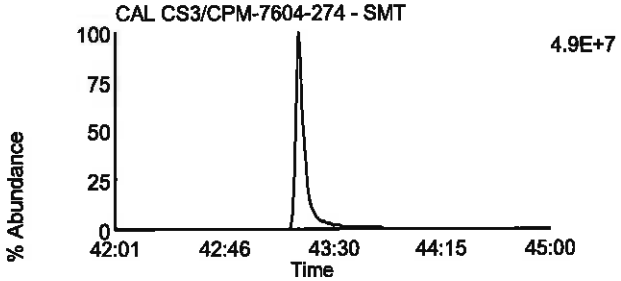
Data File: U130729B_09 G5 C11 - 469.7779
CAL CS3/CPM-7604-274 - SMT



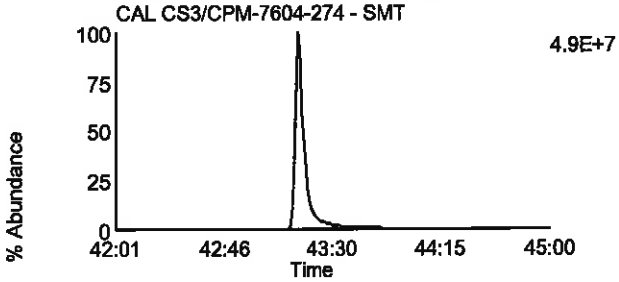
Data File: U130729B_09 G5 C11 - 469.7779
CAL CS3/CPM-7604-274 - SMT



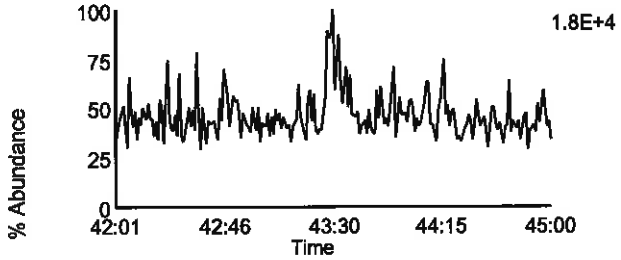
Data File: U130729B_09 G5 C12 - 471.7749
CAL CS3/CPM-7604-274 - SMT



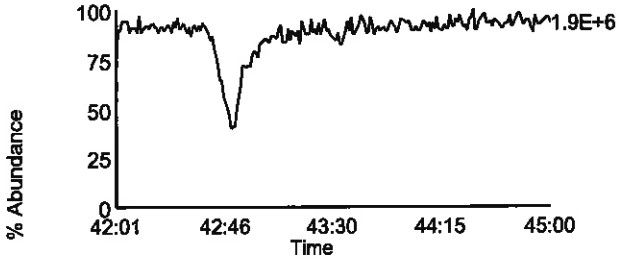
Data File: U130729B_09 G5 C12 - 471.7749
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G5 C13 - 513.6775
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G5 C2 - 430.9728
CAL CS3/CPM-7604-274 - SMT

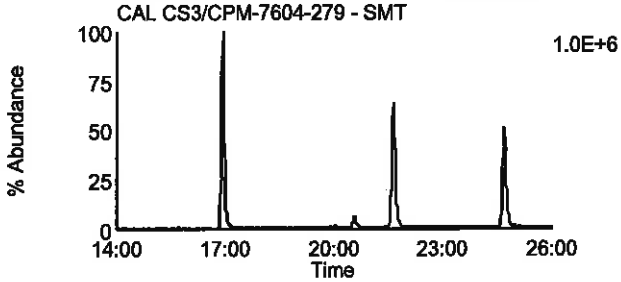


Homologue Group: Tetras

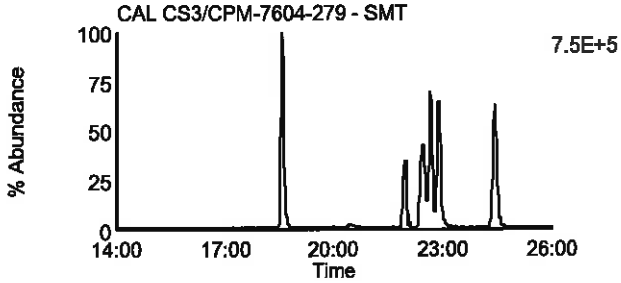
Data File Name: U130917A_06
Date Acquired: 9/17/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

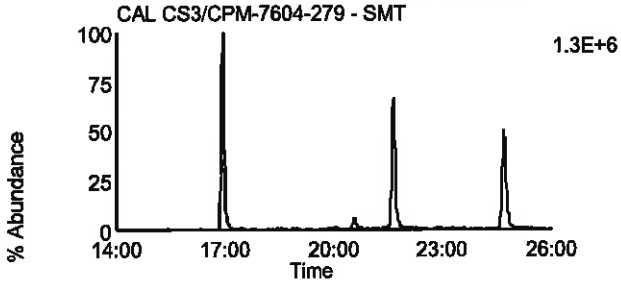
Data File: U130917A_06 G1 C1 - 303.9016
CAL CS3/CPM-7604-279 - SMT



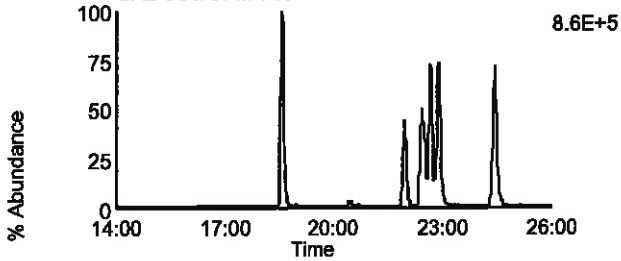
Data File: U130917A_06 G1 C7 - 319.8965
CAL CS3/CPM-7604-279 - SMT



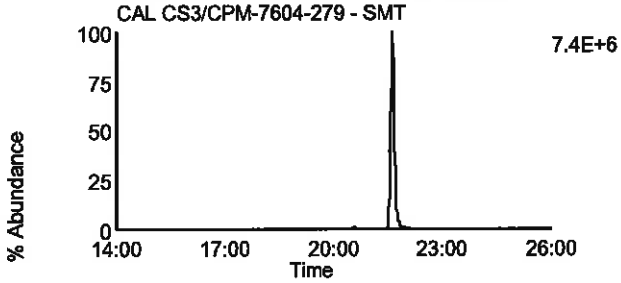
Data File: U130917A_06 G1 C2 - 305.8987
CAL CS3/CPM-7604-279 - SMT



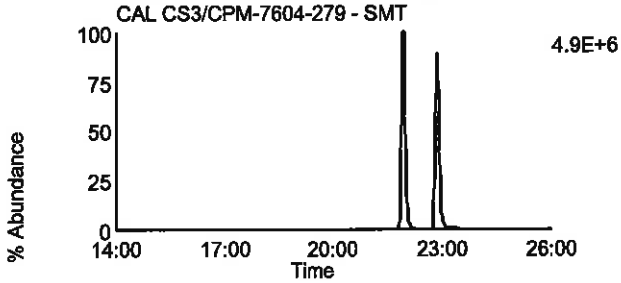
Data File: U130917A_06 G1 C8 - 321.8936
CAL CS3/CPM-7604-279 - SMT



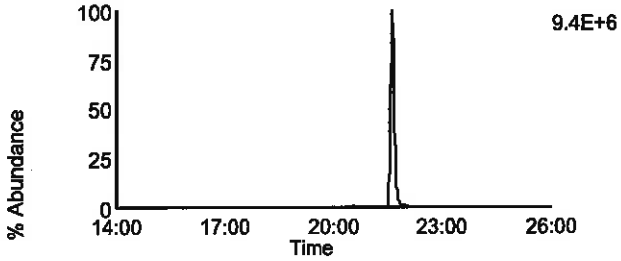
Data File: U130917A_06 G1 C3 - 315.9418
CAL CS3/CPM-7604-279 - SMT



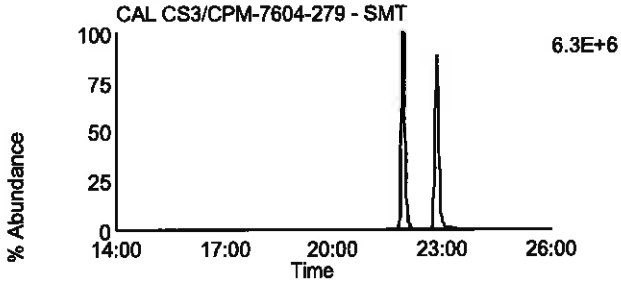
Data File: U130917A_06 G1 C10 - 331.9367
CAL CS3/CPM-7604-279 - SMT



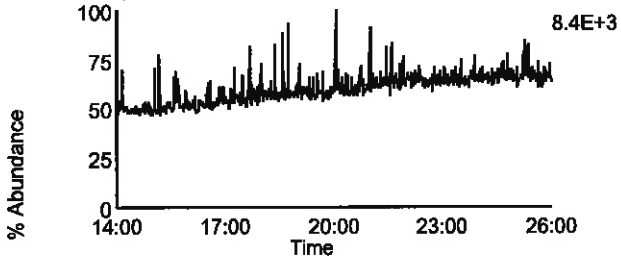
Data File: U130917A_06 G1 C4 - 317.9389
CAL CS3/CPM-7604-279 - SMT



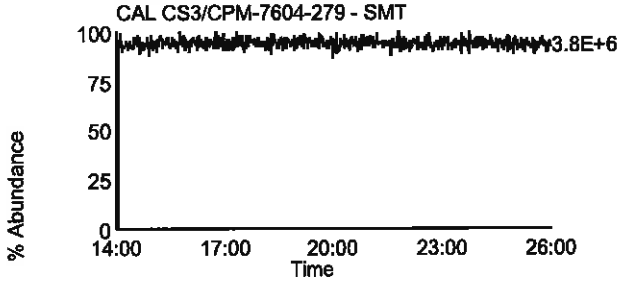
Data File: U130917A_06 G1 C11 - 333.9338
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_06 G1 C14 - 375.8364
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_06 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - SMT

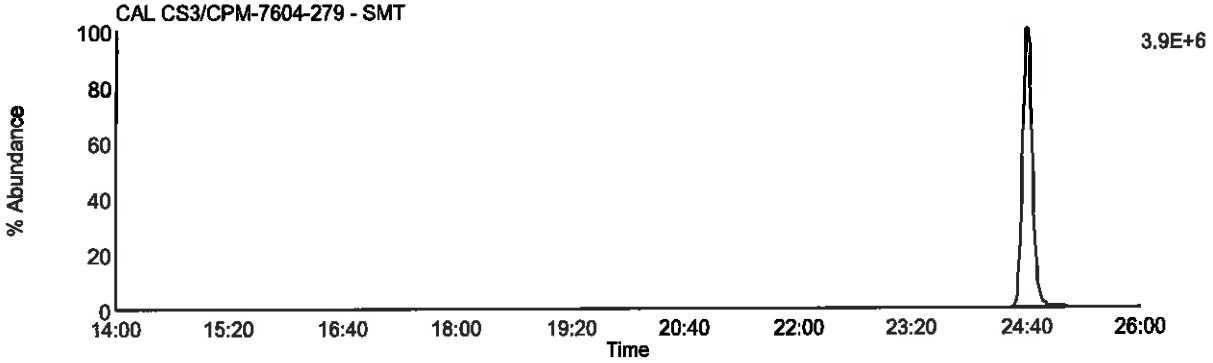


Homologue Group: Penta & Cleanup

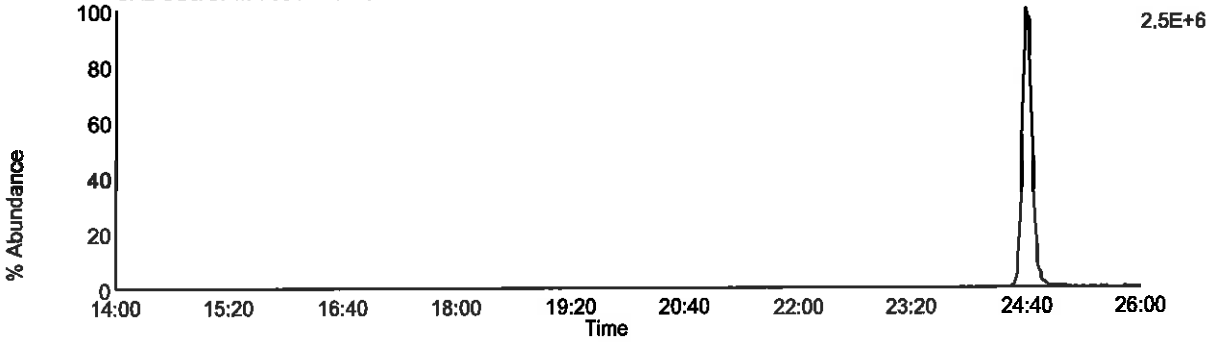
Data File Name: U130917A_06
Date Acquired: 9/17/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

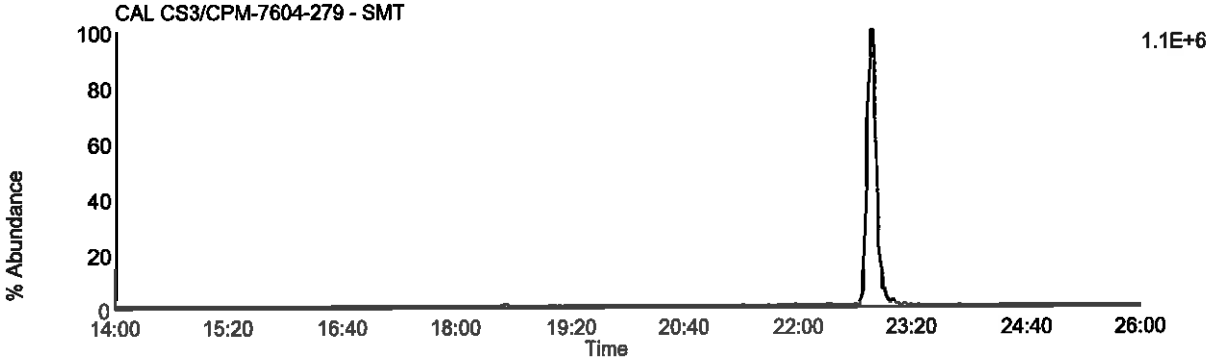
Data File: U130917A_06 G1 C12 - 339.8597
CAL CS3/CPM-7604-279 - SMT



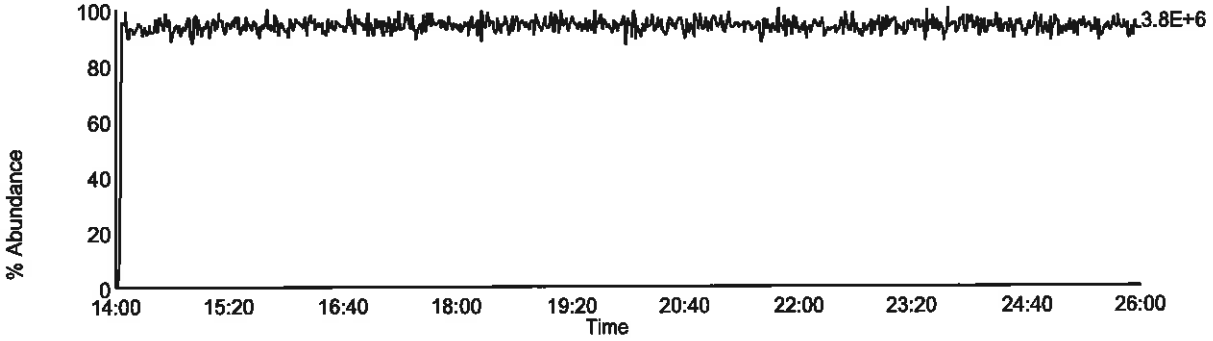
Data File: U130917A_06 G1 C13 - 341.8567
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_06 G1 C9 - 327.8847
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_06 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - SMT

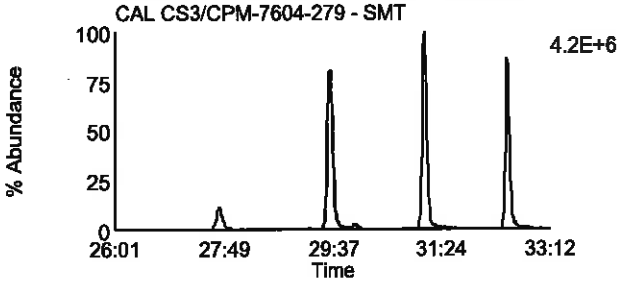


Homologue Group: Pentas

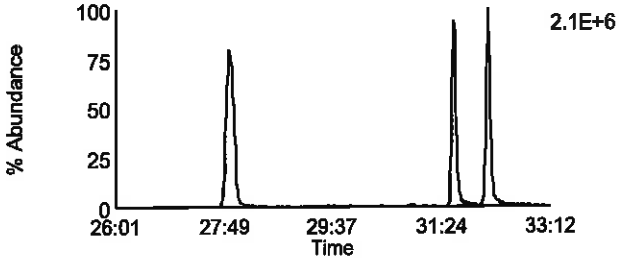
Data File Name: U130917A_06
Date Acquired: 9/17/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

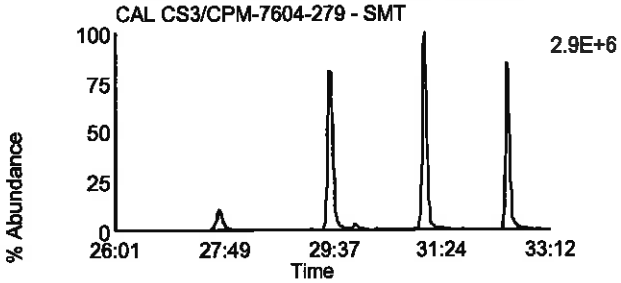
Data File: U130917A_06 G2 C1 - 339.8597
CAL CS3/CPM-7604-279 - SMT



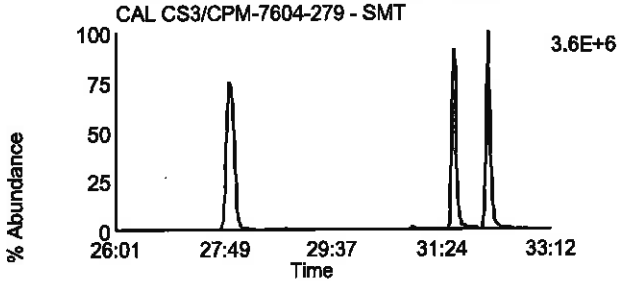
Data File: U130917A_06 G2 C4 - 353.8576
CAL CS3/CPM-7604-279 - SMT



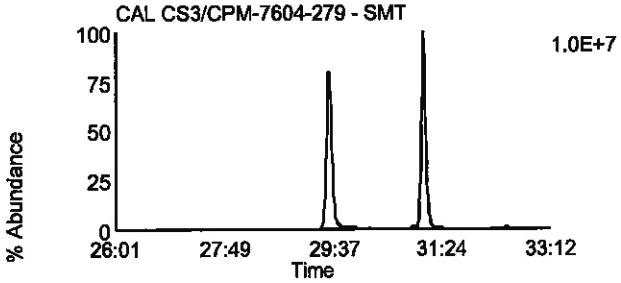
Data File: U130917A_06 G2 C2 - 341.8567
CAL CS3/CPM-7604-279 - SMT



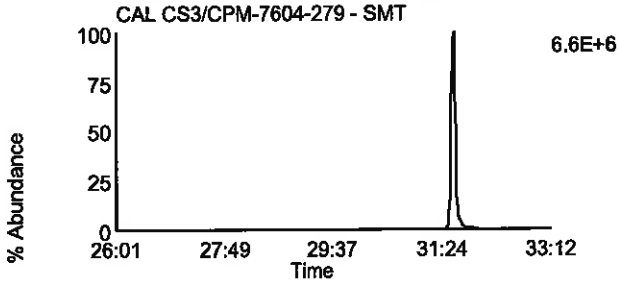
Data File: U130917A_06 G2 C8 - 355.8546
CAL CS3/CPM-7604-279 - SMT



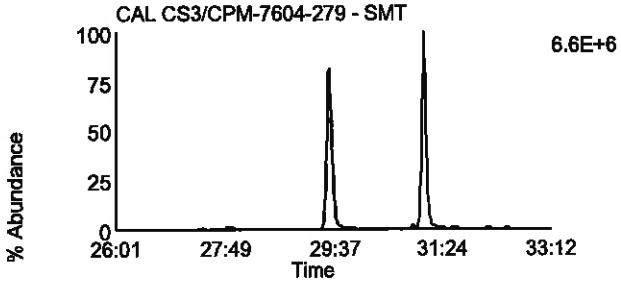
Data File: U130917A_06 G2 C3 - 351.8999
CAL CS3/CPM-7604-279 - SMT



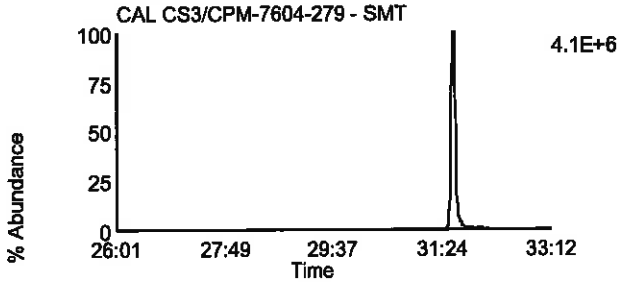
Data File: U130917A_06 G2 C10 - 367.8948
CAL CS3/CPM-7604-279 - SMT



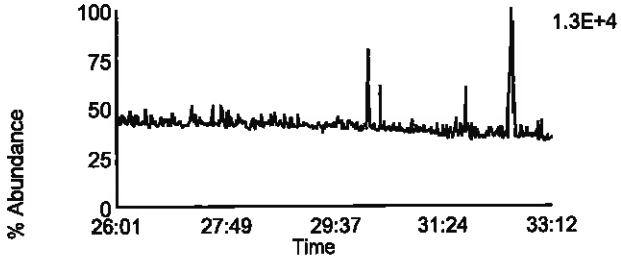
Data File: U130917A_06 G2 C5 - 353.8969
CAL CS3/CPM-7604-279 - SMT



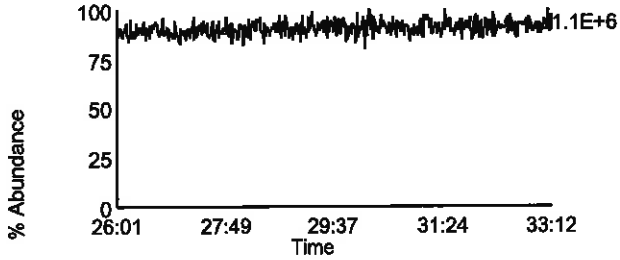
Data File: U130917A_06 G2 C11 - 369.8918
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_06 G2 C12 - 409.7974
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_06 G2 C6 - 354.9792
CAL CS3/CPM-7604-279 - SMT

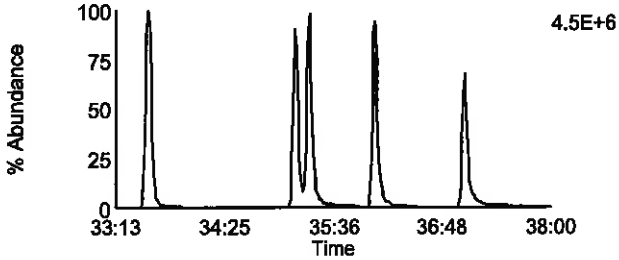


Homologue Group: Hexas

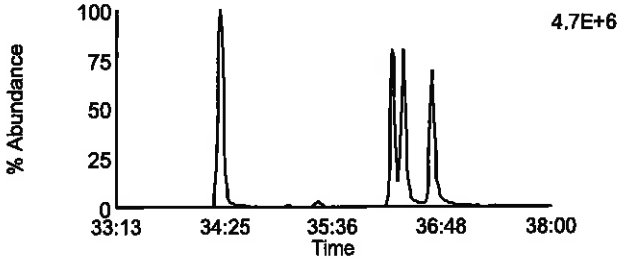
Data File Name: U130917A_06
Date Acquired: 9/17/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

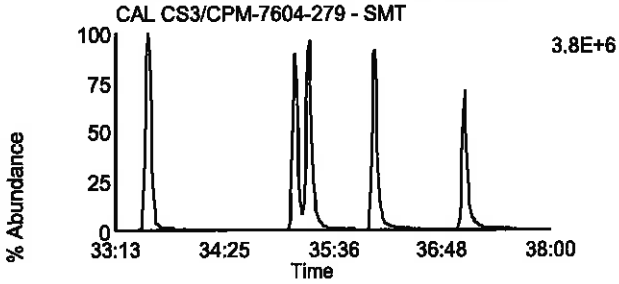
Data File: U130917A_06 G3 C1 - 373.8207
CAL CS3/CPM-7604-279 - SMT



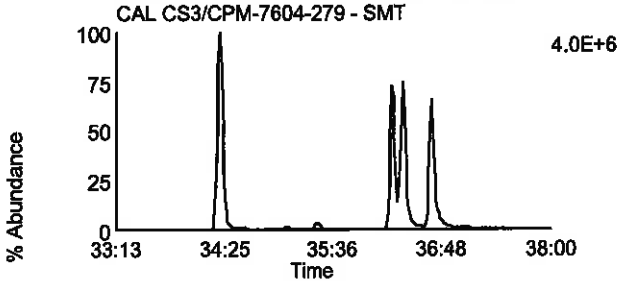
Data File: U130917A_06 G3 C7 - 389.8156
CAL CS3/CPM-7604-279 - SMT



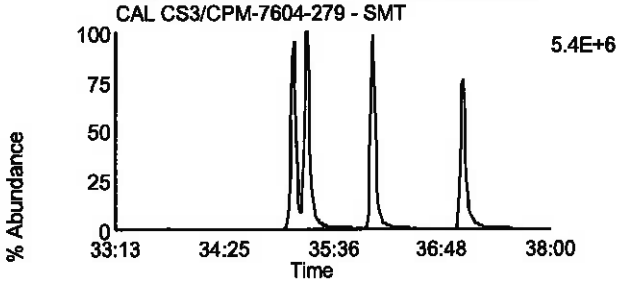
Data File: U130917A_06 G3 C2 - 375.8178
CAL CS3/CPM-7604-279 - SMT



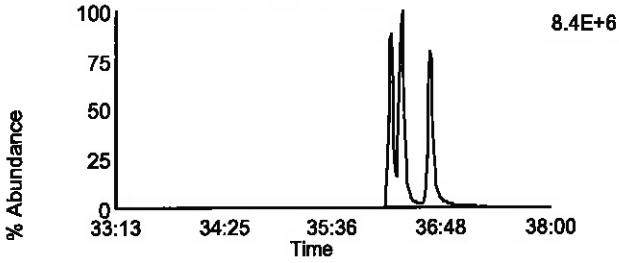
Data File: U130917A_06 G3 C8 - 391.8127
CAL CS3/CPM-7604-279 - SMT



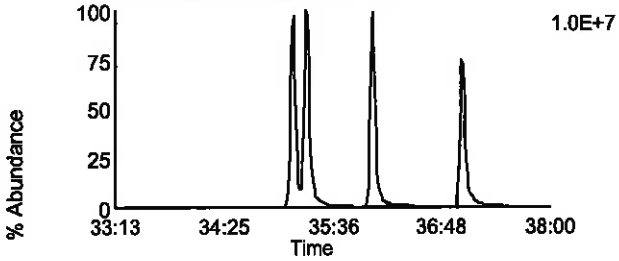
Data File: U130917A_06 G3 C5 - 383.8639
CAL CS3/CPM-7604-279 - SMT



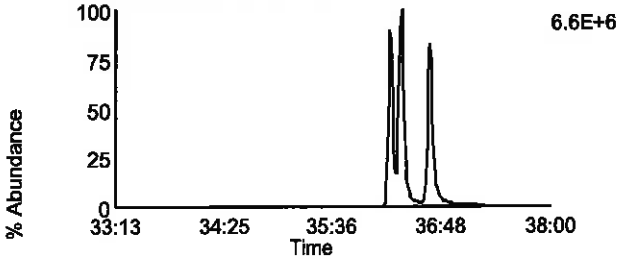
Data File: U130917A_06 G3 C9 - 401.8559
CAL CS3/CPM-7604-279 - SMT



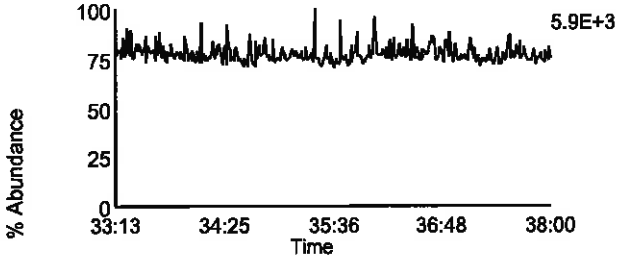
Data File: U130917A_06 G3 C6 - 385.861
CAL CS3/CPM-7604-279 - SMT



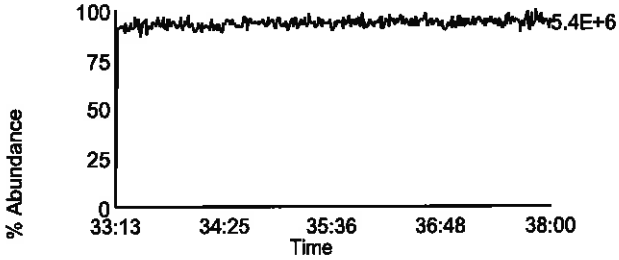
Data File: U130917A_06 G3 C10 - 403.8529
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_06 G3 C11 - 445.7555
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_06 G3 C3 - 380.976
CAL CS3/CPM-7604-279 - SMT

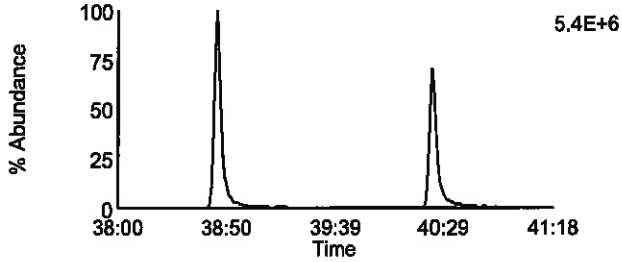


Homologue Group: Heptas

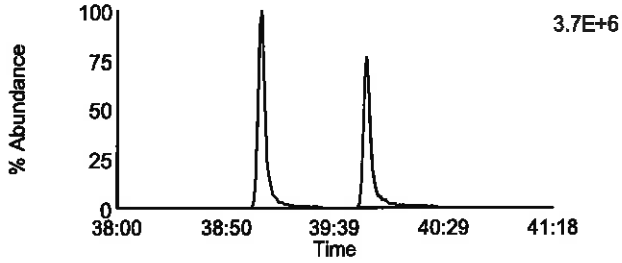
Data File Name: U130917A_06
Date Acquired: 9/17/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

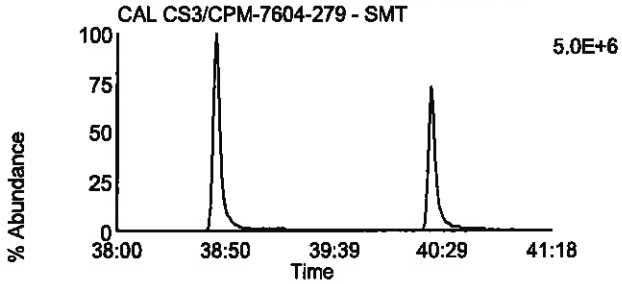
Data File: U130917A_06 G4 C3 - 407.7818
CAL CS3/CPM-7604-279 - SMT



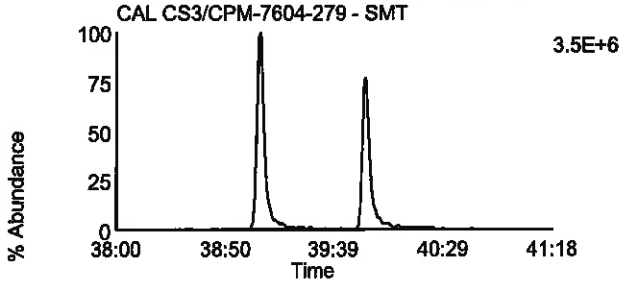
Data File: U130917A_06 G4 C8 - 423.7767
CAL CS3/CPM-7604-279 - SMT



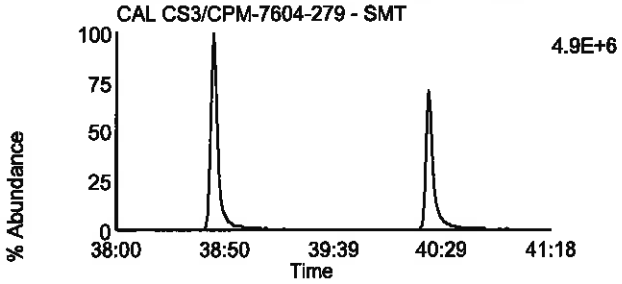
Data File: U130917A_06 G4 C4 - 409.7788
CAL CS3/CPM-7604-279 - SMT



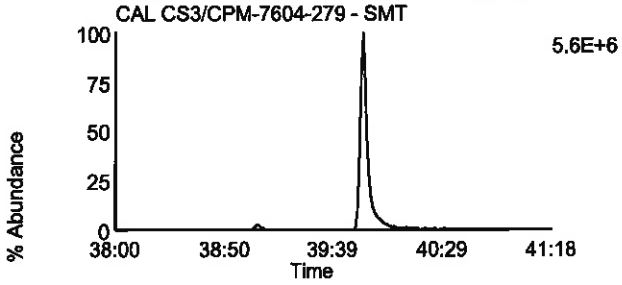
Data File: U130917A_06 G4 C9 - 425.7737
CAL CS3/CPM-7604-279 - SMT



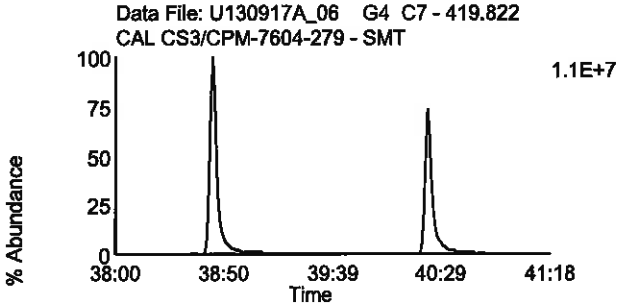
Data File: U130917A_06 G4 C6 - 417.825
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_06 G4 C11 - 435.8169
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_06 G4 C7 - 419.822
CAL CS3/CPM-7604-279 - SMT



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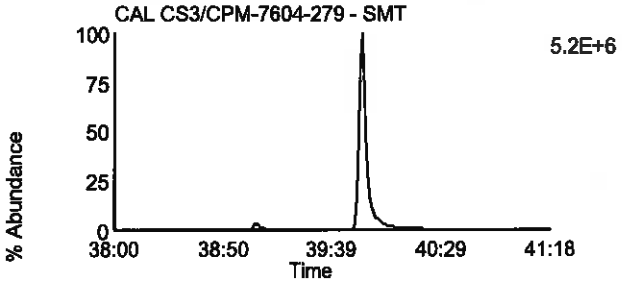

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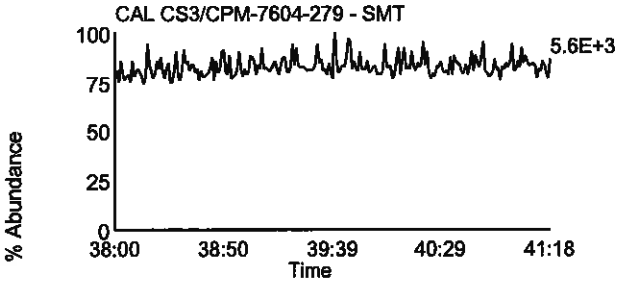

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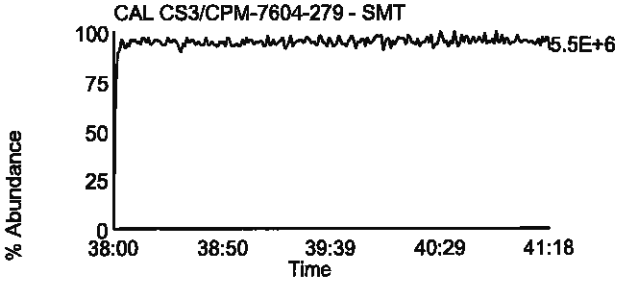
CAL CS3/CPM-7604-279 - SMT

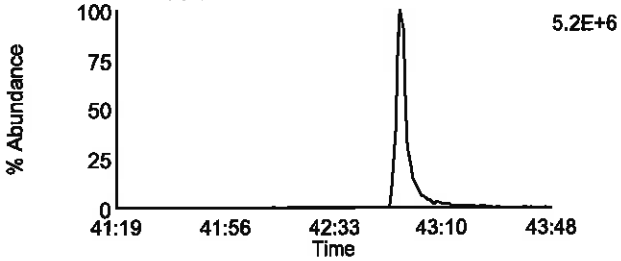


Homologue Group: Octas

Data File Name: U130917A_06
Date Acquired: 9/17/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

Data File: U130917A_06 G5 C4 - 441.7428
CAL CS3/CPM-7604-279 - SMT



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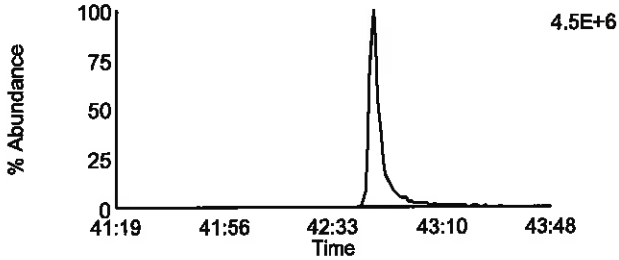

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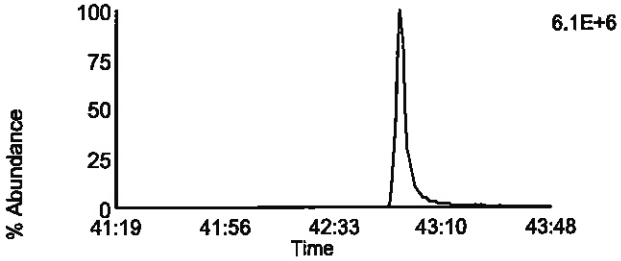

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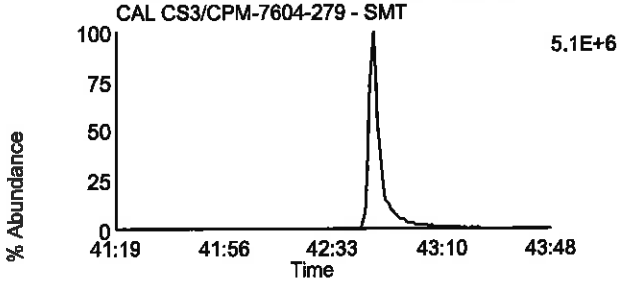

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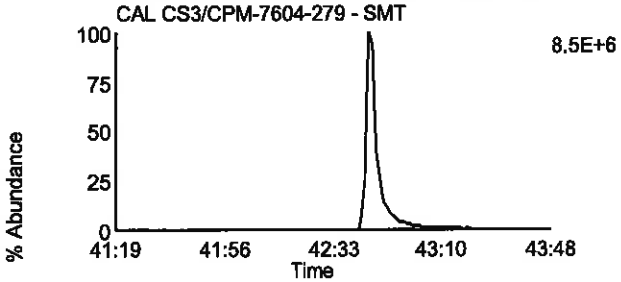
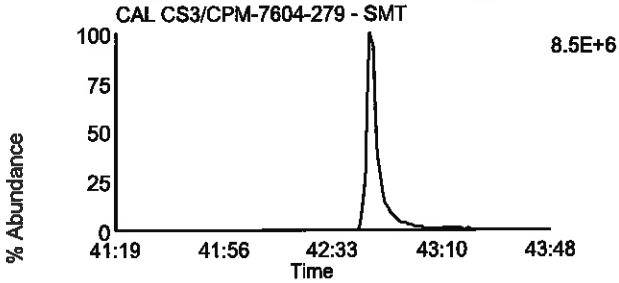


Data File: U130917A_06 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - SMT



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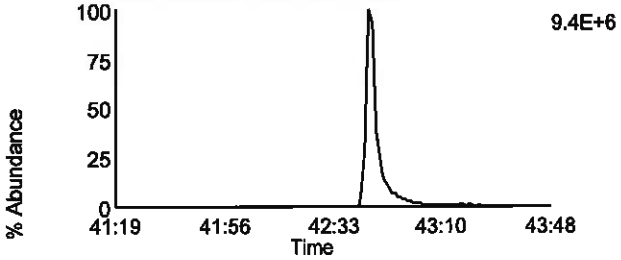
CAL CS3/CPM-7604-279 - SMT



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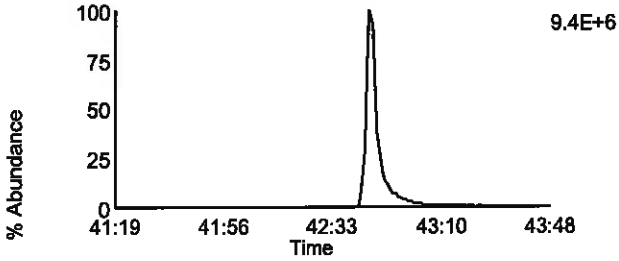

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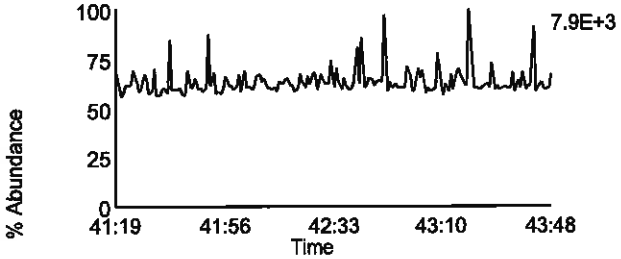
CAL CS3/CPM-7604-279 - SMT



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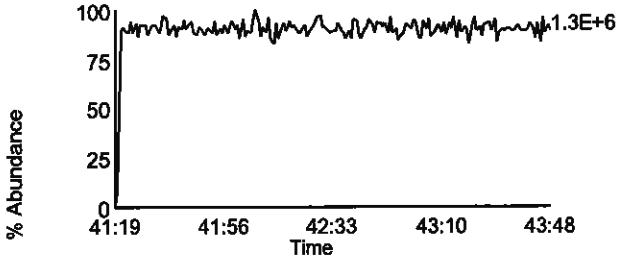
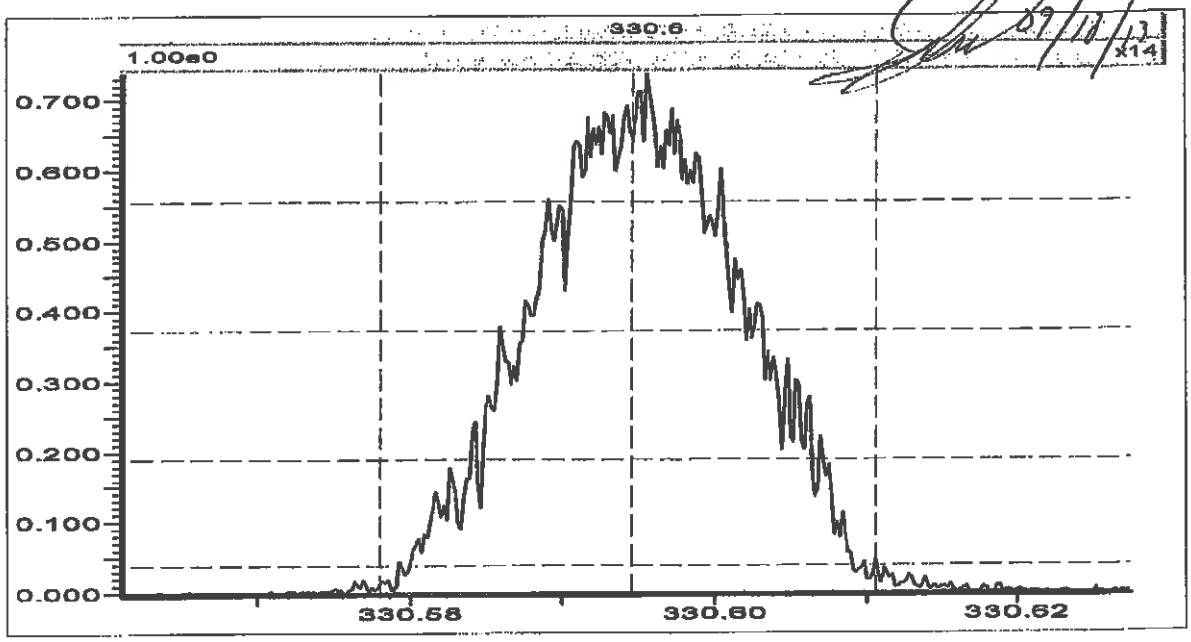
CAL CS3/CPM-7604-279 - SMT



File: C:\MassLynx\Default.pro\Acqudb\M488MW2_10K.ipr

Printed: Wednesday, September 18, 2013 15:55:03 Central Daylight Time



Source (EI+)

Ion Repeller (V)	-13.66
Focus 1	983
Beam Centre	-25.8
Focus 2	3925
Temperature (C)	280
Elec Energy (eV)	36.0
Trap Current (uA)	500.0
Y Deflect 1	-97.6
Z Deflect 1	87.6
Z Deflect 2	31.3
Z Focus 2	2298
Z Focus 3	0
Z Deflect 3	22.0
Y Focus	3484
Rotate 2	-8.6
Curve 2	13.3
Curve 3	-1.2
Rotate 3	-26.2
Rotate 4	-8.2
V Acc (V)	7989.48
Magnet Mass	330.6
Source Slit	25.66
Collector Slit	15.94
MIKES Slit	100.00
Alpha	60.00
Detector Voltage	350
Ion Energy	-4.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

Engineer
No information

AutoSpec Tune Parameters **MassLynx 4.0 SCN480 SCN533**

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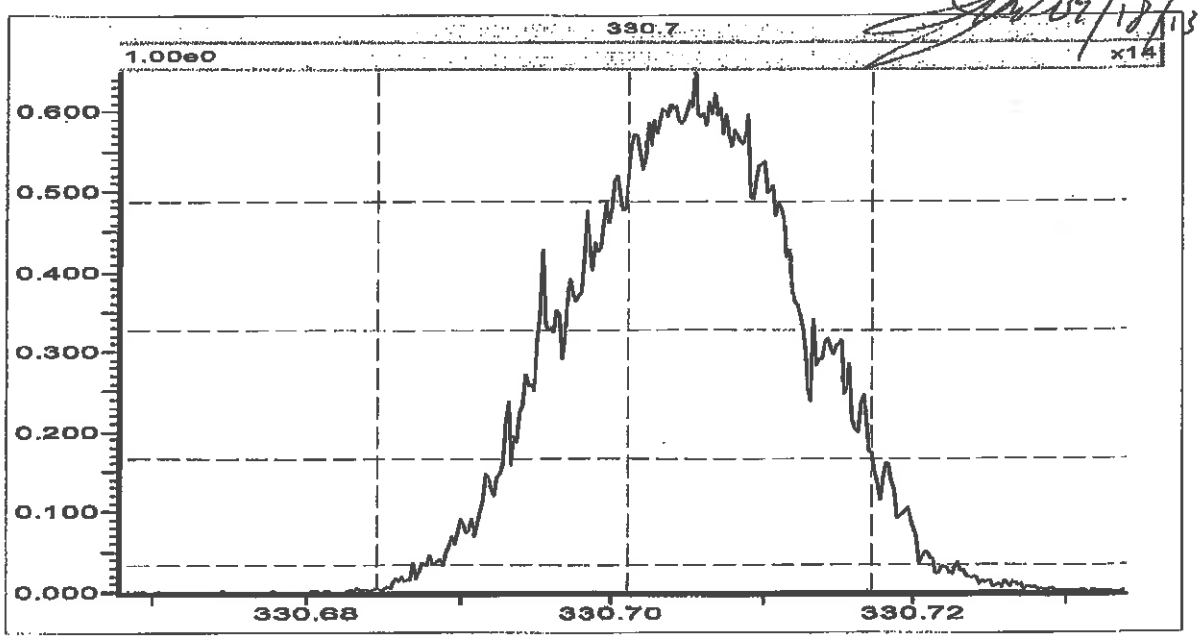

Source (EI+)

Ion Repeller (V)	-13.66
Focus 1	983
Beam Centre	-25.8
Focus 2	3925
Temperature (C)	280
Elec Energy (eV)	36.0
Trap Current (uA)	500.0
Y Deflect 1	-97.6
Z Deflect 1	87.6
Z Deflect 2	31.3
Z Focus 2	2298
Z Focus 3	0
Z Deflect 3	22.0
Y Focus	3484
Rotate 2	-8.6
Curve 2	13.3
Curve 3	-1.2
Rotate 3	-26.2
Rotate 4	-8.2
V Acc (V)	7986.92
Magnet Mass	330.7
Source Slit	25.66
Collector Slit	15.94
MIKES Slit	100.00
Alpha	60.00
Detector Voltage	350
Ion Energy	-4.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

Engineer
No information

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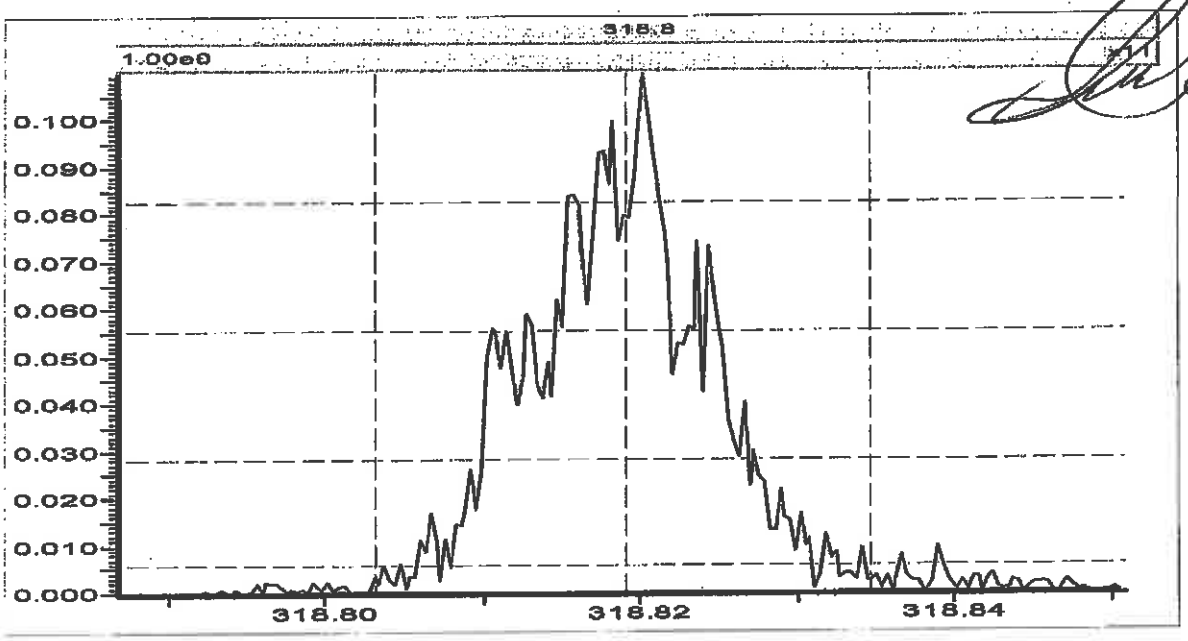
Printed: Saturday, September 21, 2013 11:50:35 Central Daylight Time

BAC 9/21/13

09/23/13



Source (EI+)

Ion Repeller (V)	-12.29
Focus 1	908
Beam Centre	-22.1
Focus 2	3926
Temperature (C)	280
Elec Energy (eV)	36.0
Trap Current (uA)	500.0
Y Deflect 1	-86.5
Z Deflect 1	81.8
Z Deflect 2	37.4
Z Focus 2	2297
Z Focus 3	0
Z Deflect 3	21.3
Y Focus	3541
Rotate 2	-7.3
Curve 2	14.3
Curve 3	0.0
Rotate 3	-24.2
Rotate 4	-1.2
V Acc (V)	7991.73
Magnet Mass	330.8
Source Slit	26.18
Collector Slit	13.64
MIKES Slit	100.00
Alpha	70.00
Detector Voltage	350
Ion Energy	-4.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

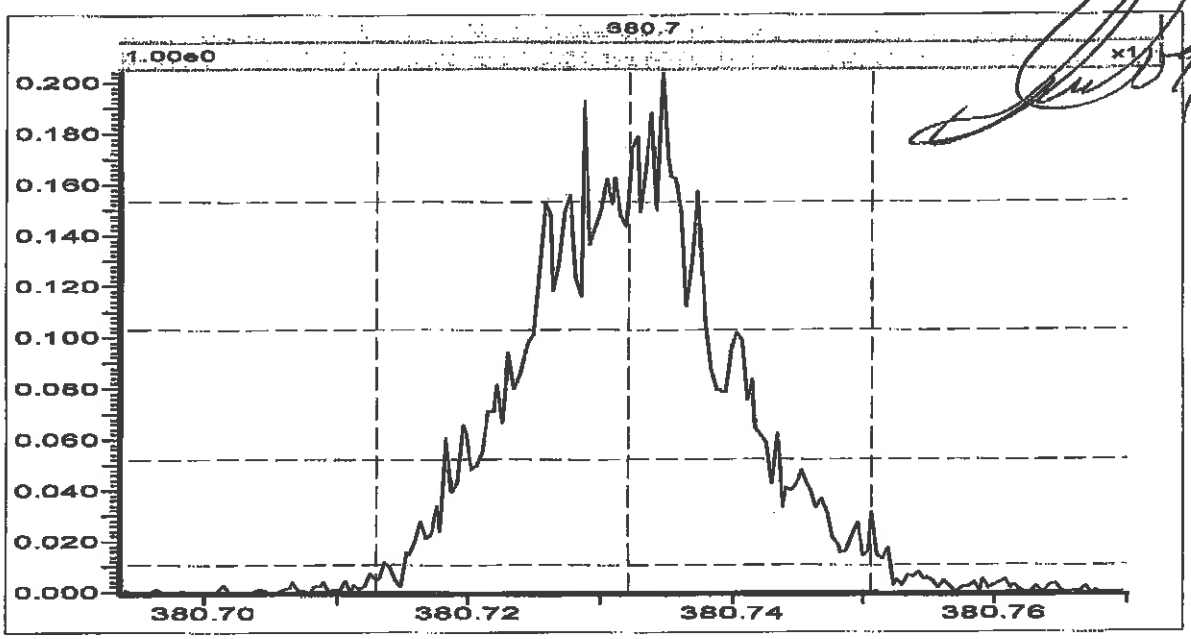
Engineer
No information

File: C:\MassLynx\Default.pro\Acqudb\F10MSHR05.ipr

Printed: Sunday, September 22, 2013 11:44:52 Central Daylight Time

BAL 9/22/13

9/23/13



Source (EI+)

Ion Repeller (V)	-12.29
Focus 1	908
Beam Centre	-22.1
Focus 2	3926
Temperature (C)	280
Elec Energy (eV)	36.0
Trap Current (uA)	500.0
Y Deflect 1	-86.5
Z Deflect 1	81.8
Z Deflect 2	37.4
Z Focus 2	2297
Z Focus 3	0
Z Deflect 3	21.3
Y Focus	3541
Rotate 2	-7.3
Curve 2	14.3
Curve 3	0.0
Rotate 3	-24.2
Rotate 4	-1.2
V Acc (V)	7991.73
Magnet Mass	330.8
Source Slit	26.18
Collector Slit	13.64
MIKES Slit	100.00
Alpha	70.00
Detector Voltage	350
Ion Energy	-4.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

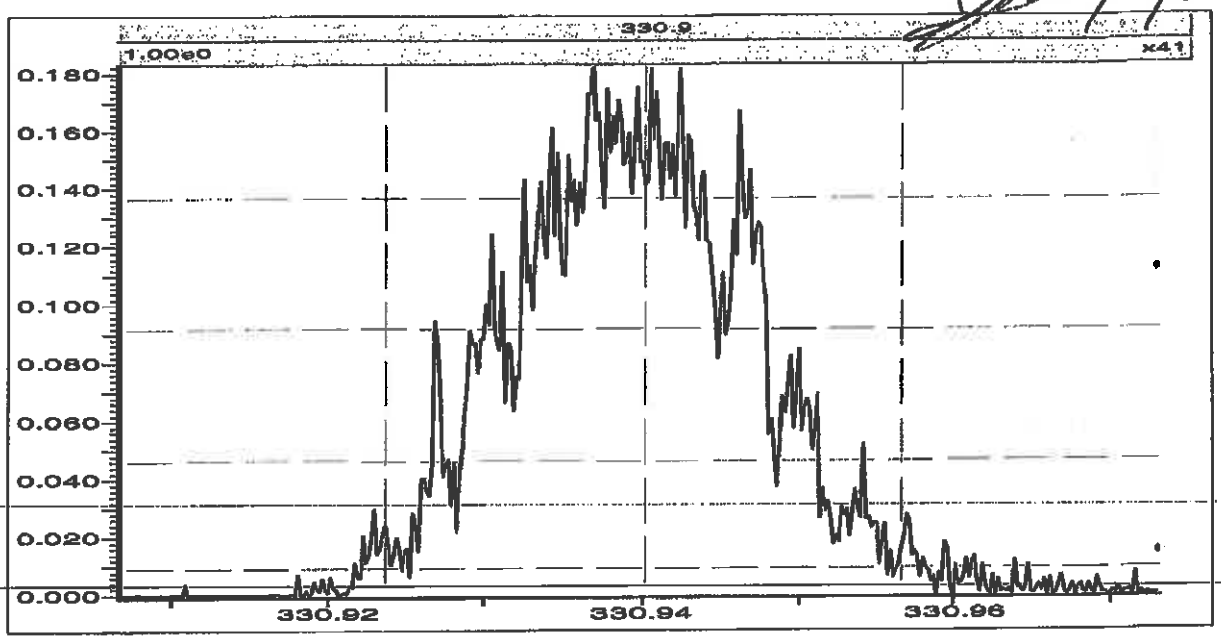
Engineer
No information

AutoSpec Tune Parameters , **MassLynx 4.1 SCN 881**

File: C:\MassLynx\Default.pro\Acqudb\U10MSHR06.IPR

Printed: Monday, July 29, 2013 14:55:25 Central Daylight Time

7/29/13 Sum 7/29/13



Source (EI+)

Ion Repeller (V)	-10.87
Focus 1	686
Beam Centre	8.2
Focus 2	3986
Temperature (C)	280
Elec Energy (eV)	34.3
Trap Current (uA)	500.0
Y Deflect 1	46.4
Z Deflect 1	-43.2
Z Deflect 2	-5.0
Z Focus 2	2204
Z Focus 3	0
Z Deflect 3	13.6
Y Focus	4352
Rotate 2	-13.0
Curve 2	14.0
Curve 3	-1.1
Rotate 3	-1.1
Rotate 4	3.5
V Acc (V)	7987.17
Magnet Mass	330.9
Source Slit	23.08
Collector Slit	36.22
MIKES Slit	100.00
Alpha	70.00
Detector Voltage	350
Ion Energy	-7.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

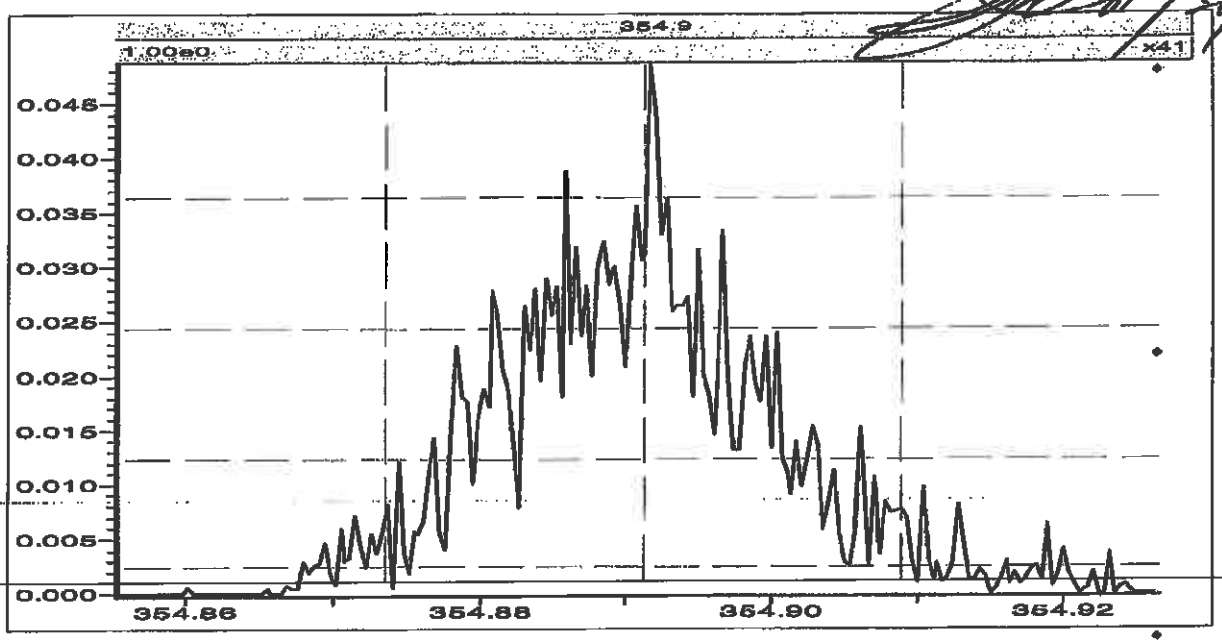
Engineer
No information

File: C:\MassLynx\Default.PRO\ACQUDB\U10MSHR06.IPR

Printed: Tuesday, July 30, 2013 06:47:24 Central Daylight Time

7/30/13

BAL 7/30/13



Source (EI+)

Ion Repeller (V)	-10.87
Focus 1	686
Beam Centre	8.2
Focus 2	3986
Temperature (C)	280
Elec Energy (eV)	34.3
Trap Current (uA)	500.0
Y Deflect 1	46.4
Z Deflect 1	-43.2
Z Deflect 2	-5.0
Z Focus 2	2204
Z Focus 3	0
Z Deflect 3	13.6
Y Focus	4352
Rotate 2	-13.0
Curve 2	14.0
Curve 3	-1.1
Rotate 3	-1.1
Rotate 4	3.5
V Acc (V)	7987.17
Magnet Mass	330.9
Source Slit	23.08
Collector Slit	36.22
MIKES Slit	100.00
Alpha	70.00
Detector Voltage	350
Ion Energy	-7.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

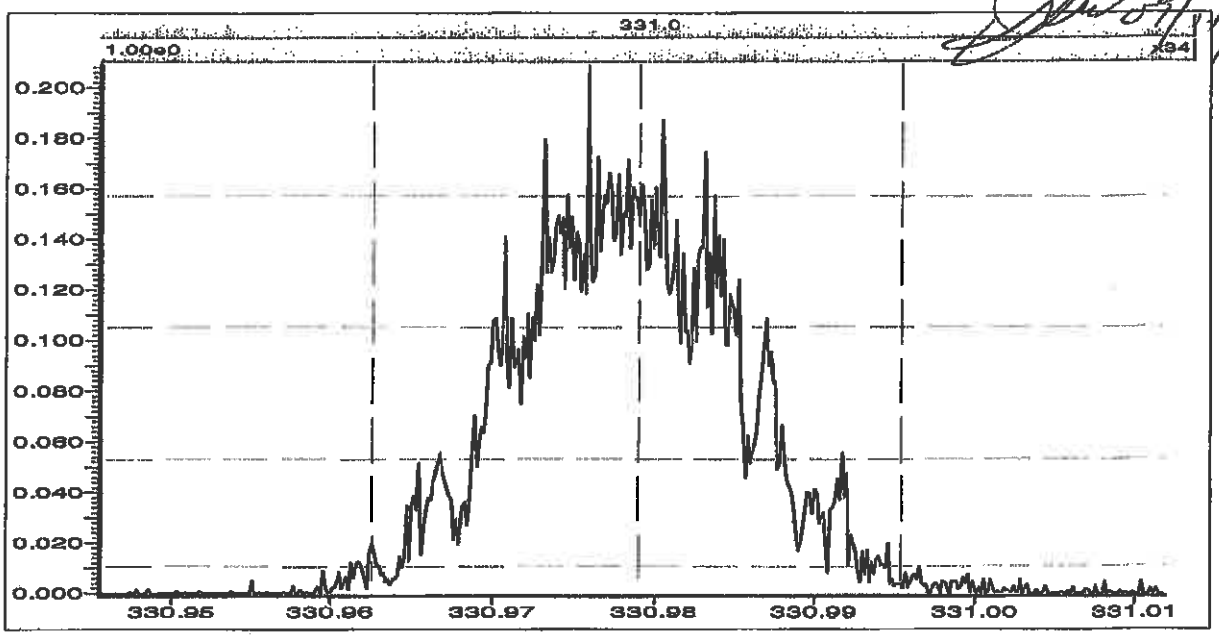
Engineer
No information

File: C:\MassLynx\Default.pro\Acqudb\U10MSHR06.IPR

Printed: Tuesday, September 17, 2013 08:56:55 Central Daylight Time

09/17/13

BAL 9/17/13



Source (EI+)

Ion Repeller (V)	-11.12
Focus 1	764
Beam Centre	71.9
Focus 2	3888
Temperature (C)	280
Elec Energy (eV)	35.0
Trap Current (uA)	500.0
Y Deflect 1	-115.1
Z Deflect 1	25.7
Z Deflect 2	-6.1
Z Focus 2	2577
Z Focus 3	0
Z Deflect 3	-27.2
Y Focus	4400
Rotate 2	-12.2
Curve 2	-8.8
Curve 3	1.0
Rotate 3	3.6
Rotate 4	17.0
V Acc (V)	7991.45
Magnet Mass	331.0
Source Slit	19.44
Collector Slit	36.00
MIKES Slit	100.00
Alpha	65.00
Detector Voltage	350
Ion Energy	-5.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No Information

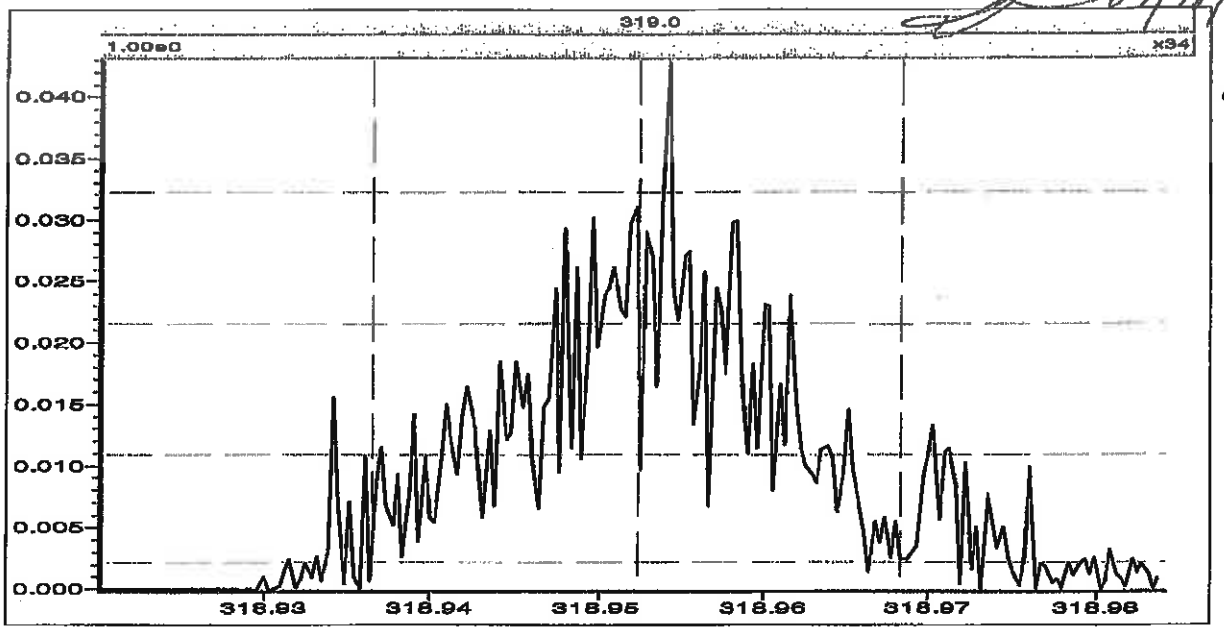
Engineer
No Information

File: C:\MassLynx\Default.PRO\ACQUDB\U10MSHR06.IPR

Printed: Wednesday, September 18, 2013 07:04:31 Central Daylight Time

09/12/13

9/18/13



Source (EI+)

Ion Repeller (V)	-11.12
Focus 1	764
Beam Centre	71.9
Focus 2	3888
Temperature (C)	280
Elec Energy (eV)	35.0
Trap Current (uA)	500.0
Y Deflect 1	-115.1
Z Deflect 1	25.7
Z Deflect 2	-6.1
Z Focus 2	2577
Z Focus 3	0
Z Deflect 3	-27.2
Y Focus	4400
Rotate 2	-12.2
Curve 2	-8.8
Curve 3	1.0
Rotate 3	3.6
Rotate 4	17.0
V Acc (V)	7991.34
Magnet Mass	331.0
Source Slit	19.44
Collector Slit	36.00
MIKES Slit	100.00
Alpha	65.00
Detector Voltage	350
Ion Energy	-5.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

Engineer
No information

Appendix F

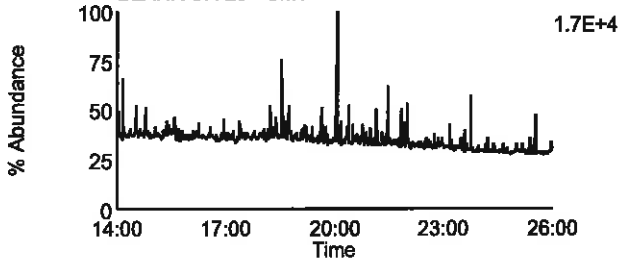
QC Raw Data

Homologue Group: Tetras

Data File Name: U130917A_10
Date Acquired: 9/17/2013
Sample Description: BLANK-37723 - SMT

Lab Sample ID: BLANK-37723
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130917A_10 G1 C1 - 303.9016
BLANK-37723 - SMT



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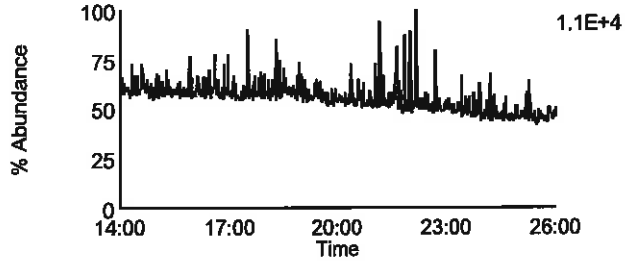
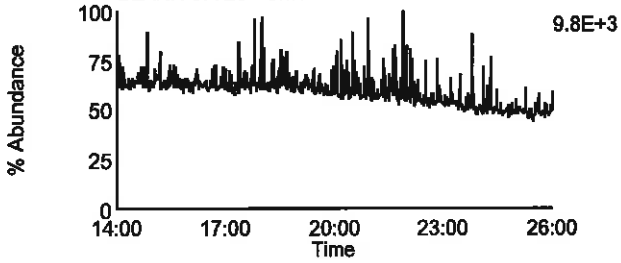
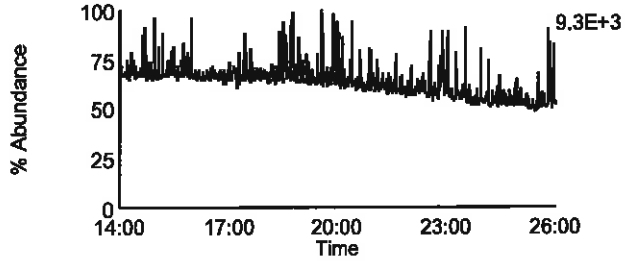
BLANK-37723 - SMT



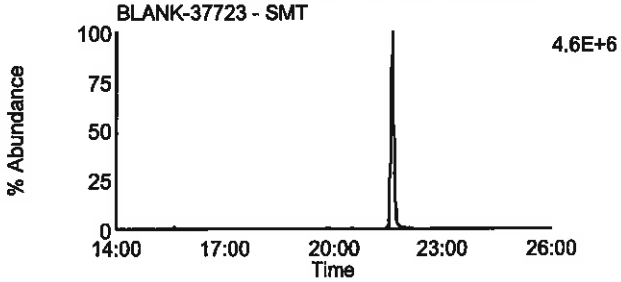
Data File: U130917A_10 G1 C2 - 305.8987
BLANK-37723 - SMT



Data File: U130917A_10 G1 C8 - 321.8936
BLANK-37723 - SMT



Data File: U130917A_10 G1 C3 - 315.9418
BLANK-37723 - SMT



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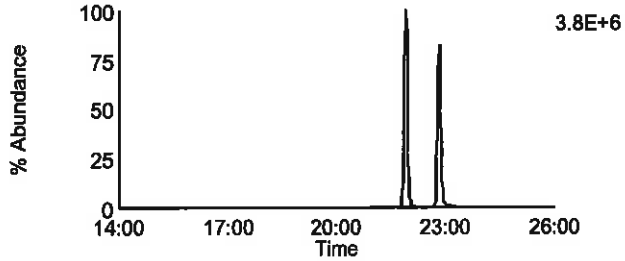
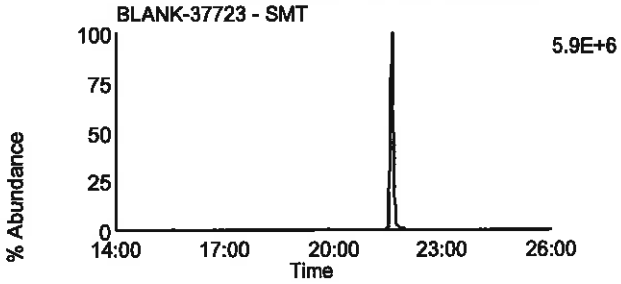
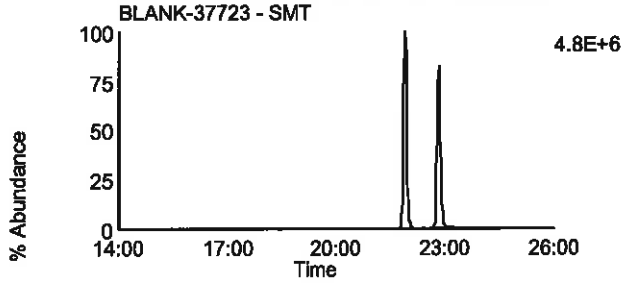
BLANK-37723 - SMT



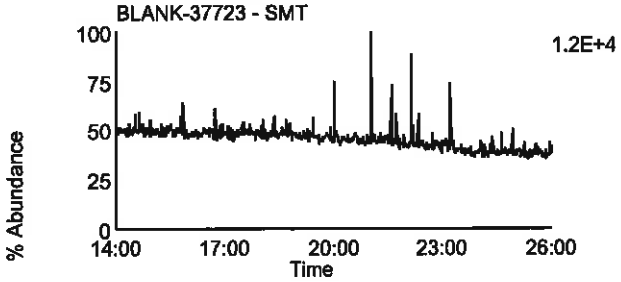
Data File: U130917A_10 G1 C4 - 317.9389
BLANK-37723 - SMT



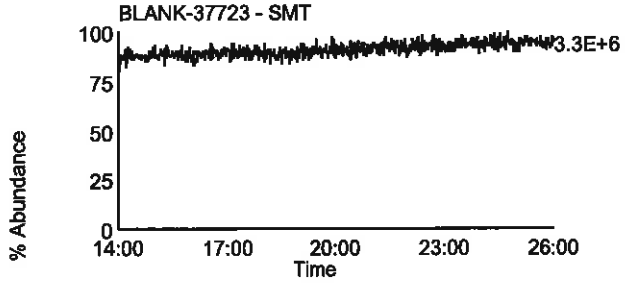
Data File: U130917A_10 G1 C11 - 333.9338
BLANK-37723 - SMT



Data File: U130917A_10 G1 C14 - 375.8364
BLANK-37723 - SMT



Data File: U130917A_10 G1 C5 - 318.9792
BLANK-37723 - SMT

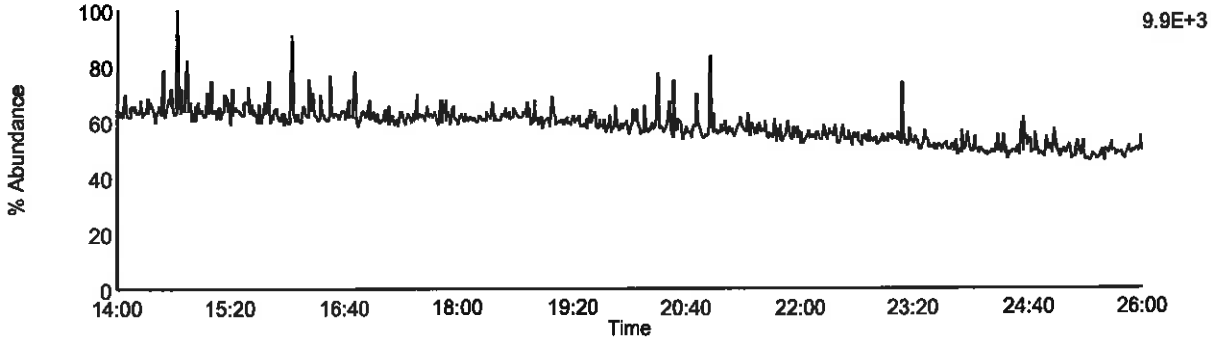


Homologue Group: Penta & Cleanup

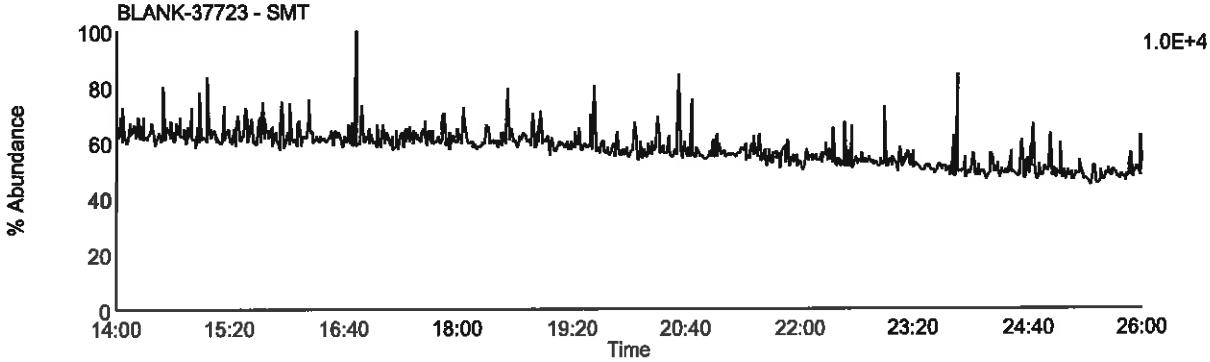
Data File Name: U130917A_10
Date Acquired: 9/17/2013
Sample Description: BLANK-37723 - SMT

Lab Sample ID: BLANK-37723
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130917A_10 G1 C12 - 339.8597
BLANK-37723 - SMT



Data File: U130917A_10 G1 C13 - 341.8567
BLANK-37723 - SMT



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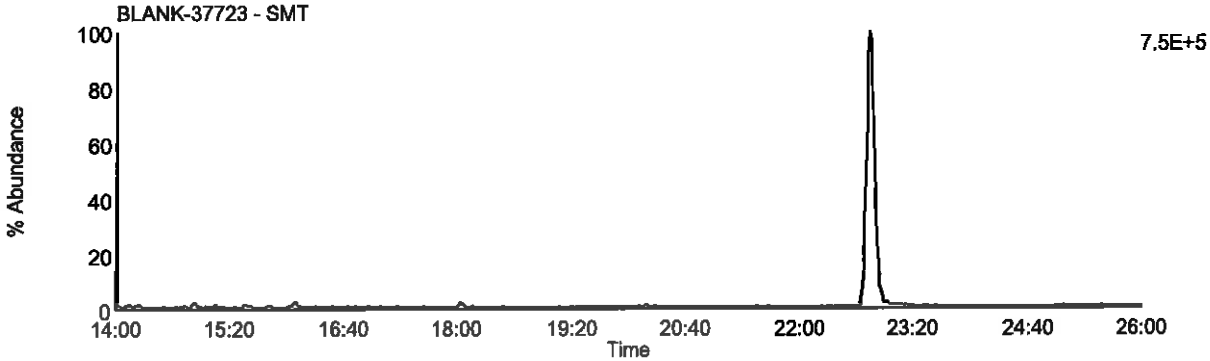
BLANK-37723 - SMT



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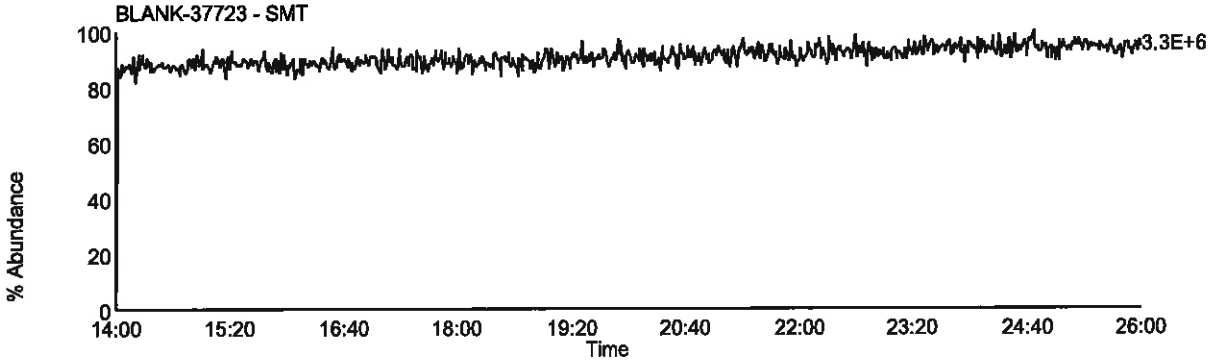
BLANK-37723 - SMT

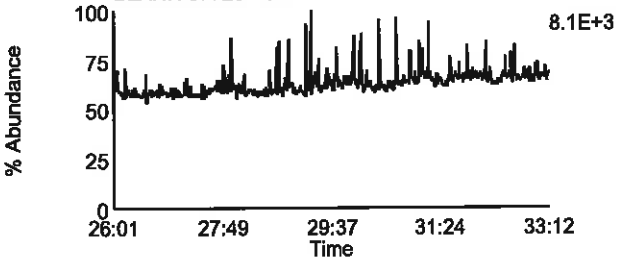


Homologue Group: Pentas

Data File Name: U130917A_10
Date Acquired: 9/17/2013
Sample Description: BLANK-37723 - SMT

Lab Sample ID: BLANK-37723
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130917A_10 G2 C1 - 339.8597
BLANK-37723 - SMT



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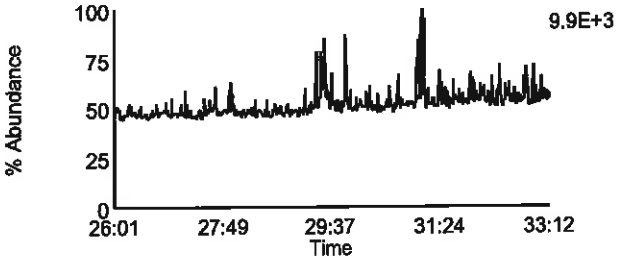
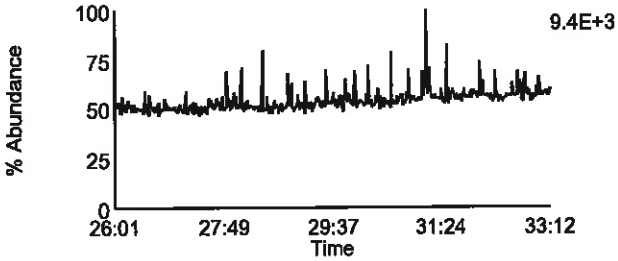
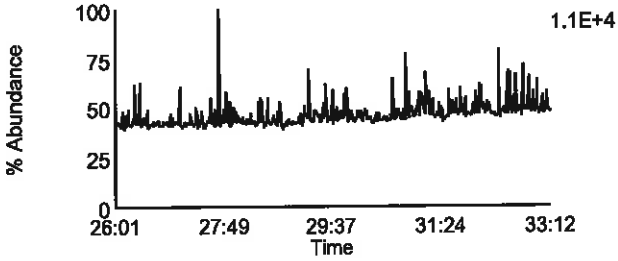
BLANK-37723 - SMT



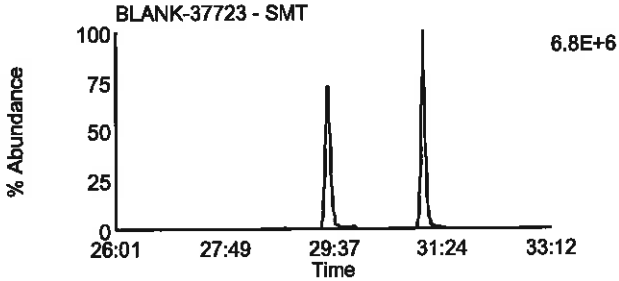
Data File: U130917A_10 G2 C2 - 341.8567
BLANK-37723 - SMT



Data File: U130917A_10 G2 C8 - 355.8546
BLANK-37723 - SMT



Data File: U130917A_10 G2 C3 - 351.8999
BLANK-37723 - SMT



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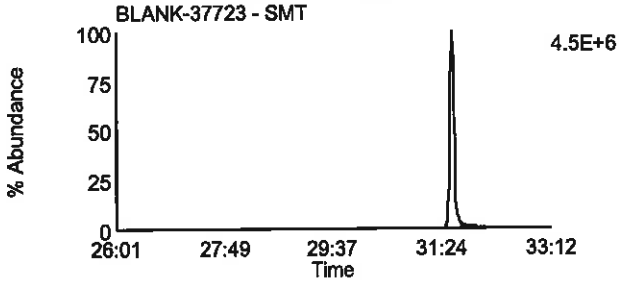
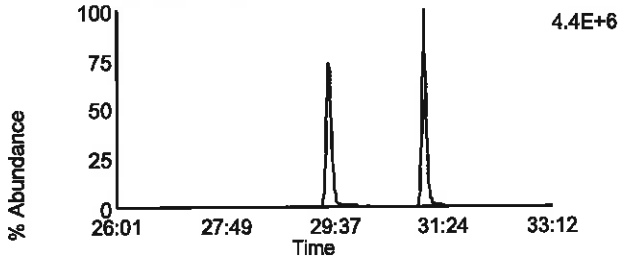
BLANK-37723 - SMT



Data File: U130917A_10 G2 C5 - 353.8969
BLANK-37723 - SMT



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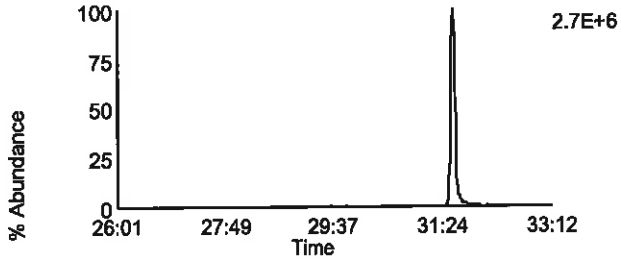
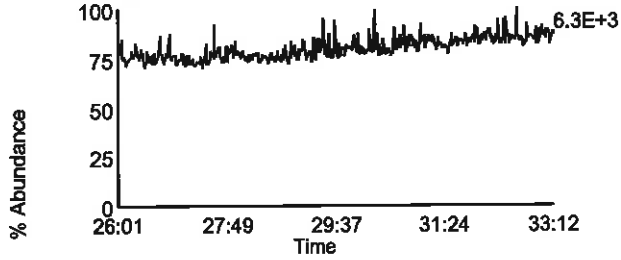
BLANK-37723 - SMT



Data File: U130917A_10 G2 C12 - 409.7974
BLANK-37723 - SMT



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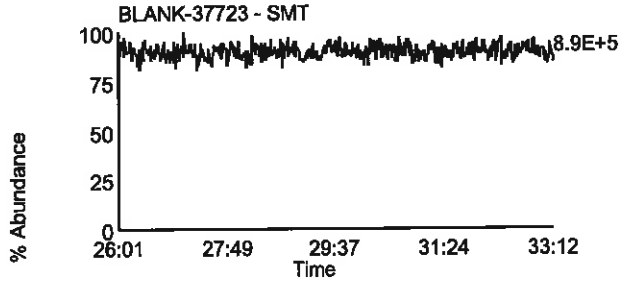
BLANK-37723 - SMT

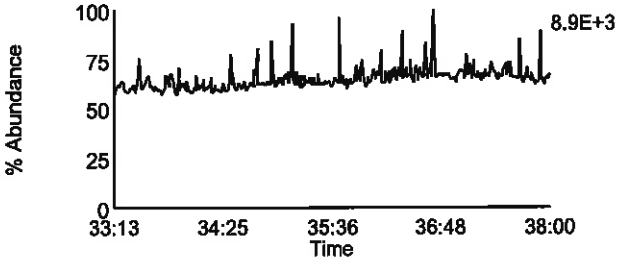


Homologue Group: Hexas

Data File Name: U130917A_10
Date Acquired: 9/17/2013
Sample Description: BLANK-37723 - SMT

Lab Sample ID: BLANK-37723
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130917A_10 G3 C1 - 373.8207
BLANK-37723 - SMT



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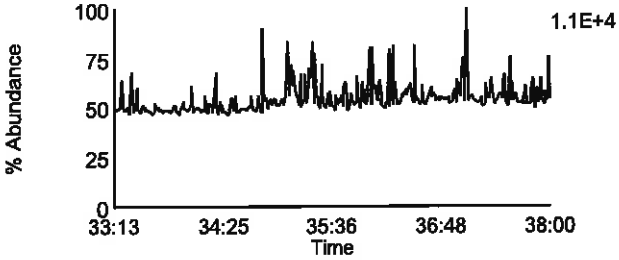
BLANK-37723 - SMT



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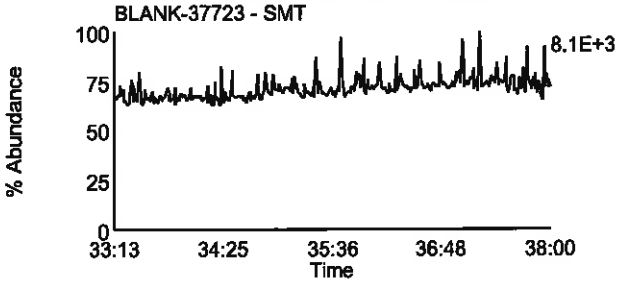
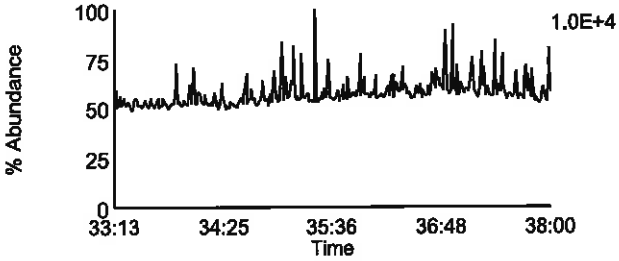
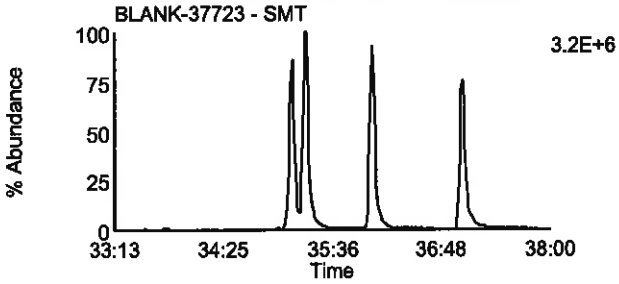
BLANK-37723 - SMT



Data File: U130917A_10 G3 C8 - 391.8127
BLANK-37723 - SMT



Data File: U130917A_10 G3 C5 - 383.8639
BLANK-37723 - SMT



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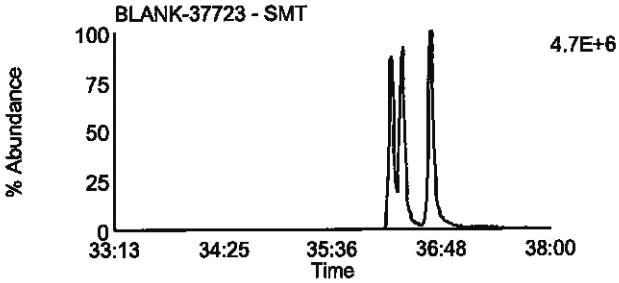
BLANK-37723 - SMT



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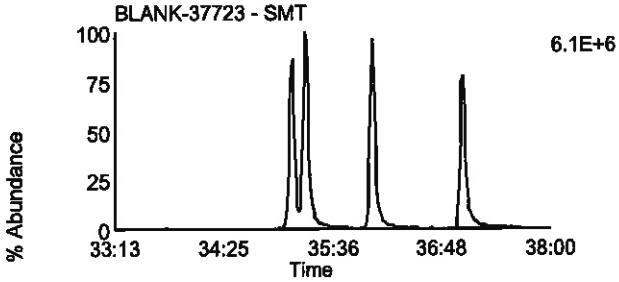
BLANK-37723 - SMT



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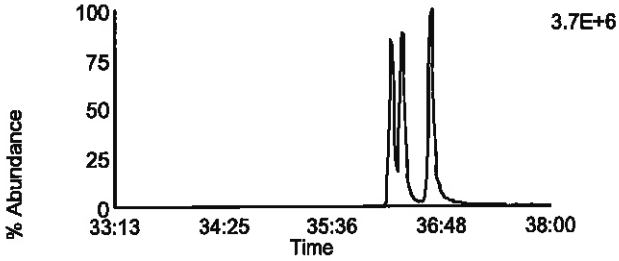
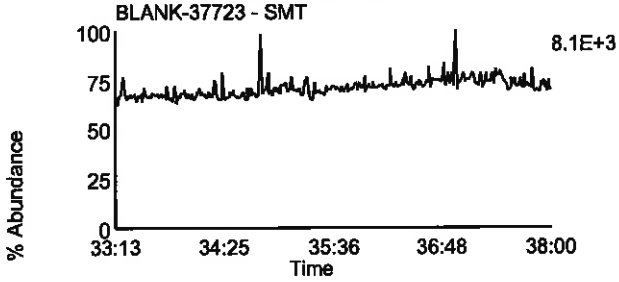
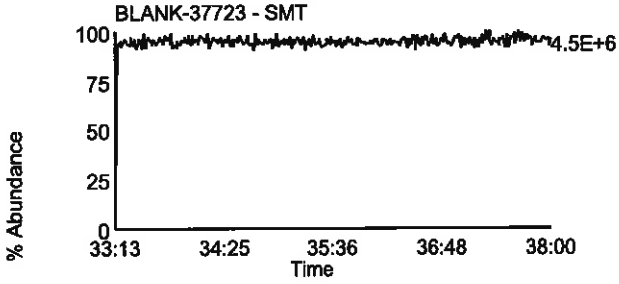
BLANK-37723 - SMT



Data File: U130917A_10 G3 C11 - 445.7555
BLANK-37723 - SMT



Data File: U130917A_10 G3 C3 - 380.976
BLANK-37723 - SMT

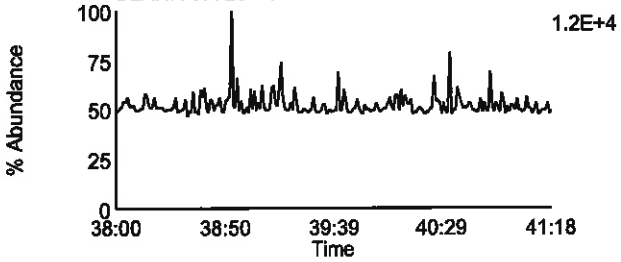


Homologue Group: Heptas

Data File Name: U130917A_10
Date Acquired: 9/17/2013
Sample Description: BLANK-37723 - SMT

Lab Sample ID: BLANK-37723
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130917A_10 G4 C3 - 407.7818
BLANK-37723 - SMT



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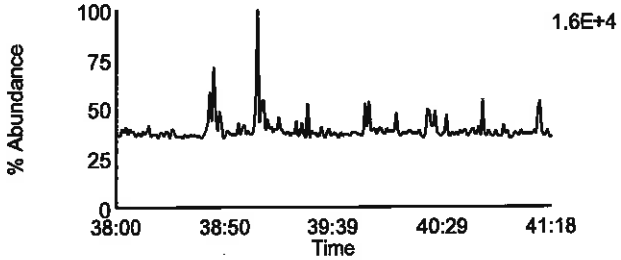
BLANK-37723 - SMT



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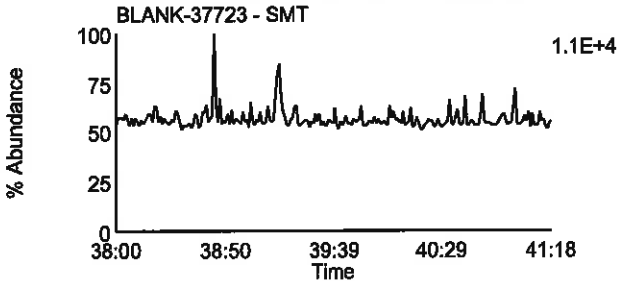
BLANK-37723 - SMT



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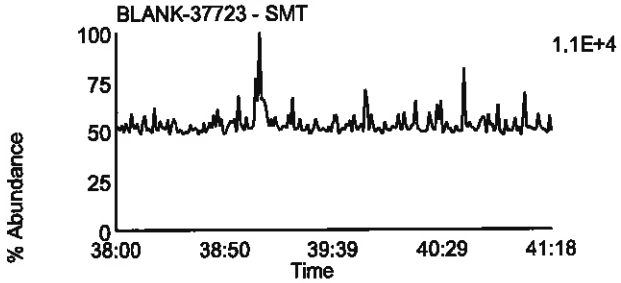
BLANK-37723 - SMT



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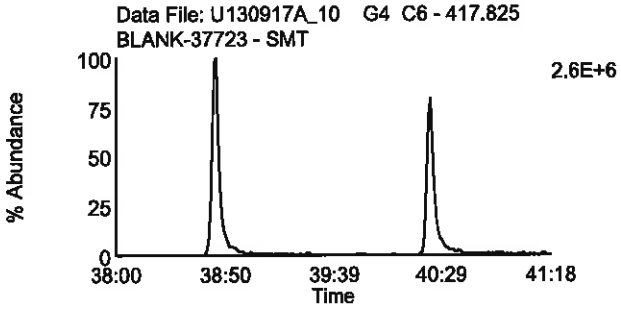
BLANK-37723 - SMT



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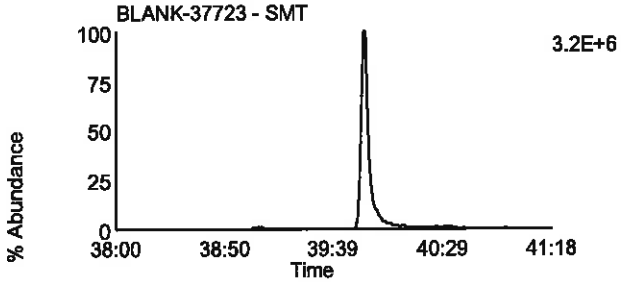
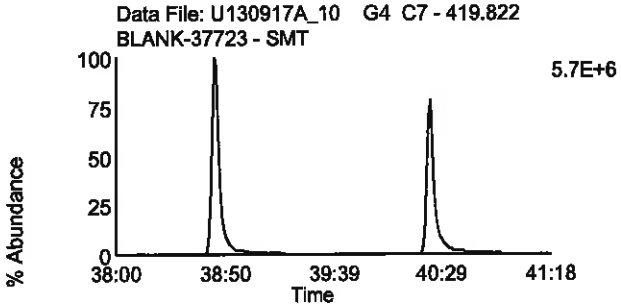
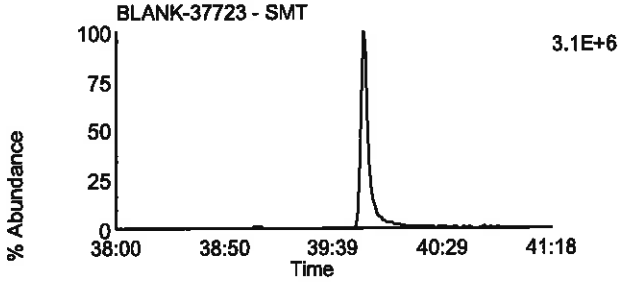
BLANK-37723 - SMT



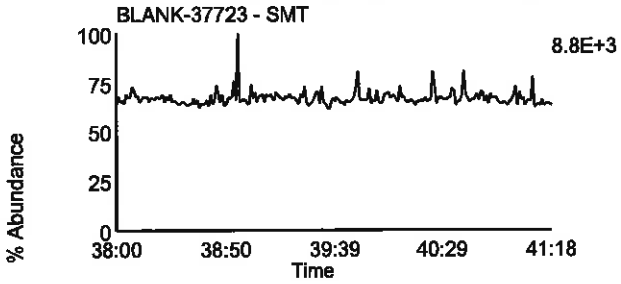
Data File: U130917A_10 G4 C7 - 419.822
BLANK-37723 - SMT



Data File: U130917A_10 G4 C12 - 437.814
BLANK-37723 - SMT



Data File: U130917A_10 G4 C13 - 479.7165
BLANK-37723 - SMT



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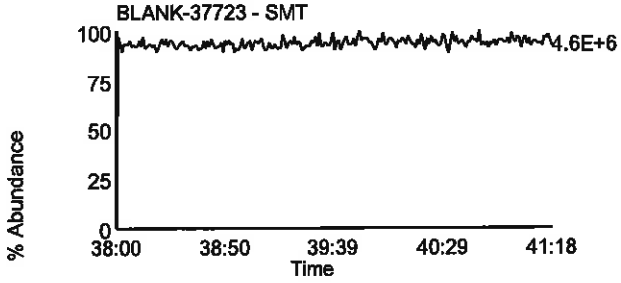
BLANK-37723 - SMT

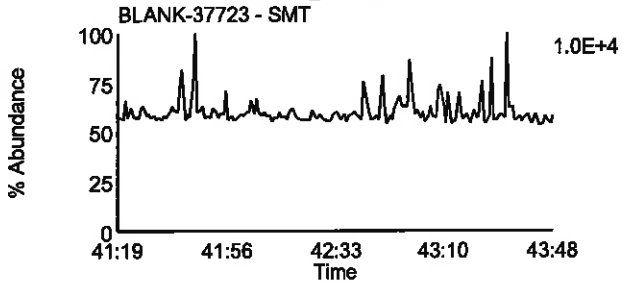


Homologue Group: Octas

Data File Name: U130917A_10
Date Acquired: 9/17/2013
Sample Description: BLANK-37723 - SMT

Lab Sample ID: BLANK-37723
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130917A_10 G5 C4 - 441.7428
BLANK-37723 - SMT



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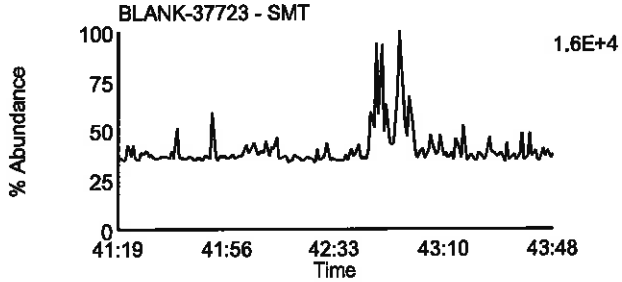
BLANK-37723 - SMT



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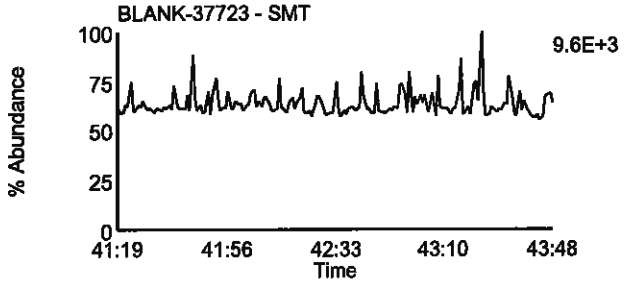
BLANK-37723 - SMT



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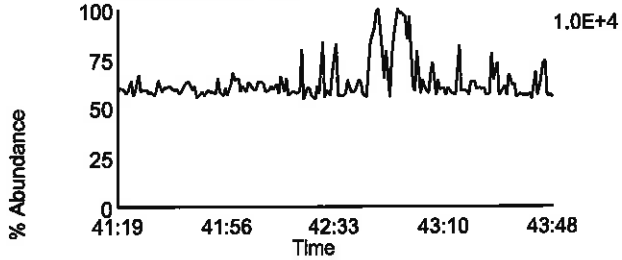
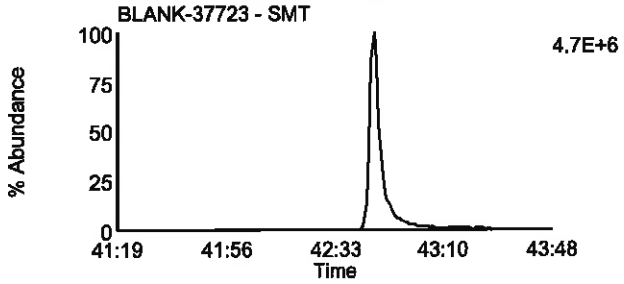
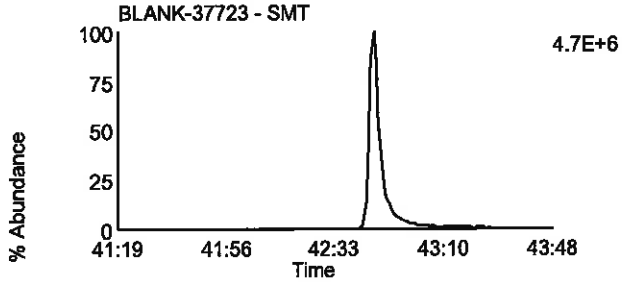
BLANK-37723 - SMT



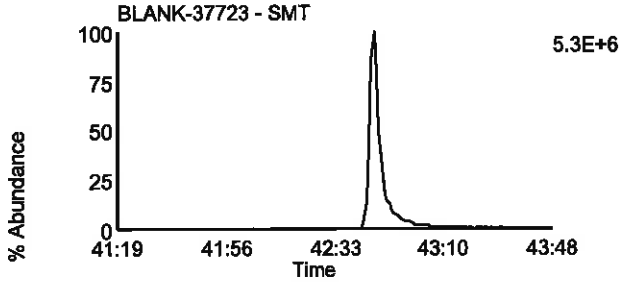
Data File: U130917A_10 G5 C11 - 469.7779
BLANK-37723 - SMT



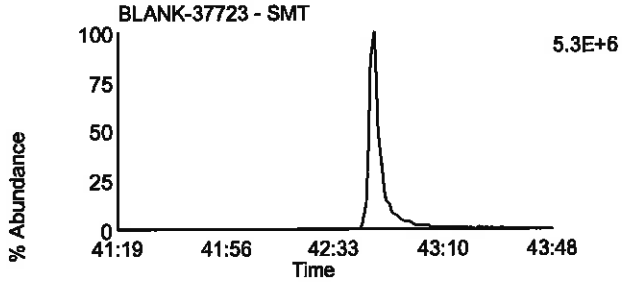
Data File: U130917A_10 G5 C11 - 469.7779
BLANK-37723 - SMT



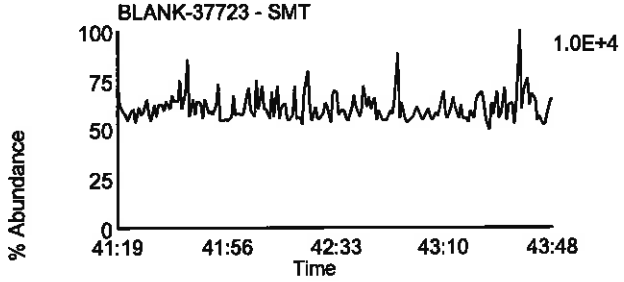
Data File: U130917A_10 G5 C12 - 471.7749
BLANK-37723 - SMT



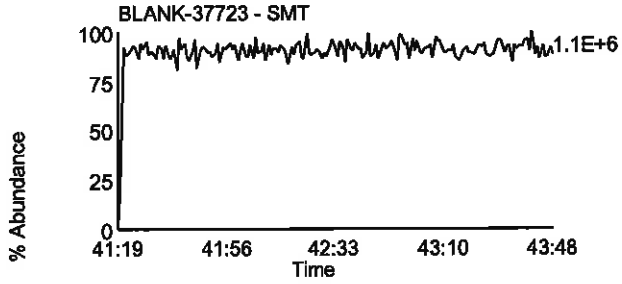
Data File: U130917A_10 G5 C12 - 471.7749
BLANK-37723 - SMT



Data File: U130917A_10 G5 C13 - 513.6775
BLANK-37723 - SMT



Data File: U130917A_10 G5 C2 - 430.9728
BLANK-37723 - SMT

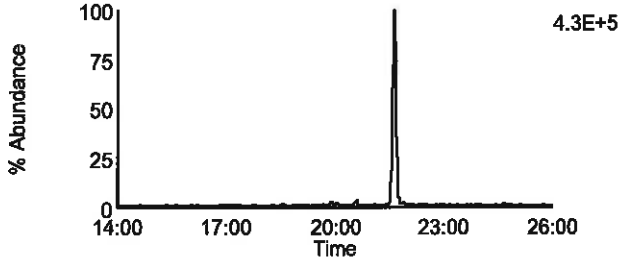


Homologue Group: Tetras

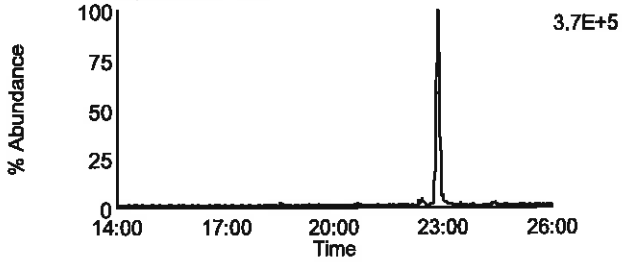
Data File Name: U130917A_07
Date Acquired: 9/17/2013
Sample Description: LCS-37724 - SMT

Lab Sample ID: LCS-37724
Client Sample ID: LCSFM
Instrument: 10MSHR06 (U)

Data File: U130917A_07 G1 C1 - 303.9016
LCS-37724 - SMT



Data File: U130917A_07 G1 C7 - 319.8965
LCS-37724 - SMT



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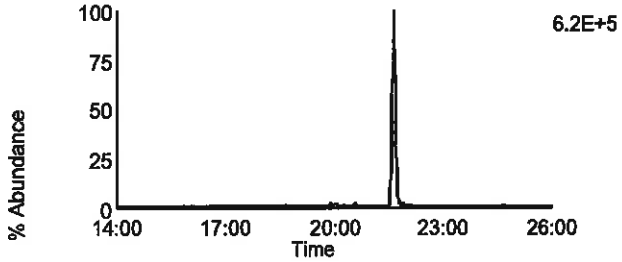
LCS-37724 - SMT



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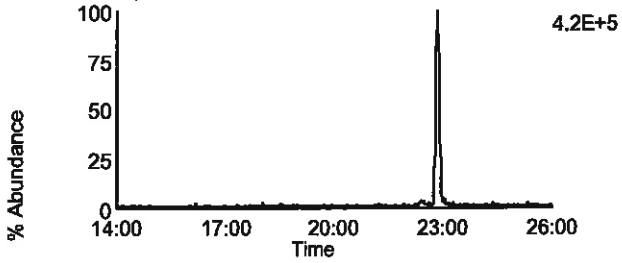
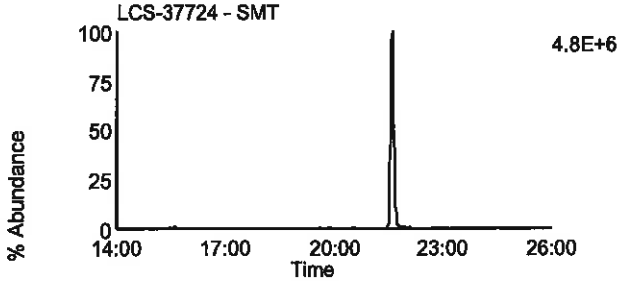
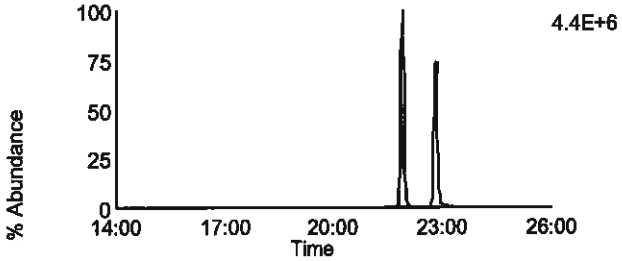
LCS-37724 - SMT



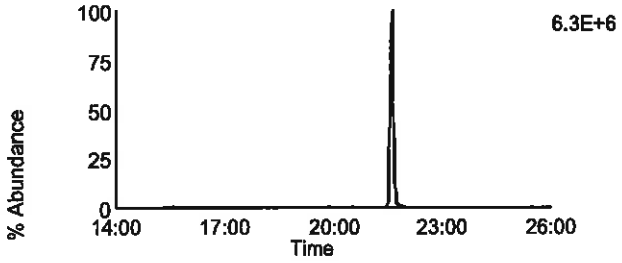
Data File: U130917A_07 G1 C3 - 315.9418
LCS-37724 - SMT



Data File: U130917A_07 G1 C10 - 331.9367
LCS-37724 - SMT



Data File: U130917A_07 G1 C4 - 317.9389
LCS-37724 - SMT



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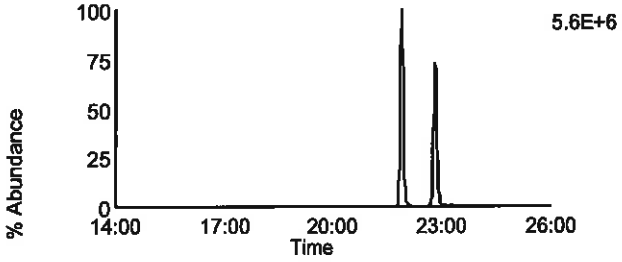
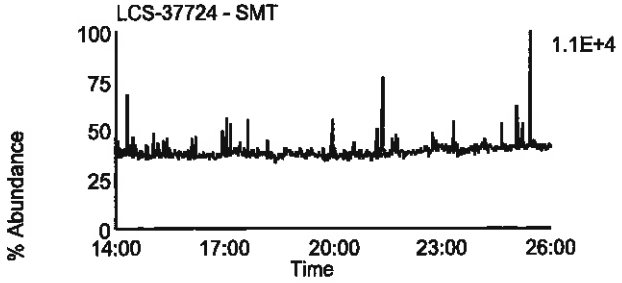
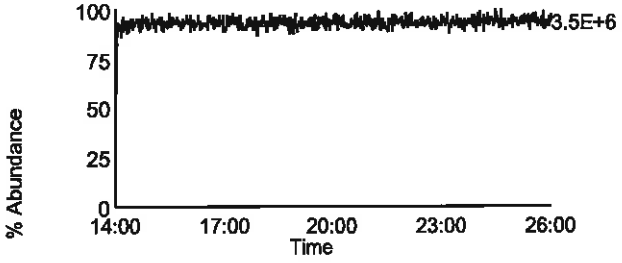
LCS-37724 - SMT



Data File: U130917A_07 G1 C14 - 375.8364
LCS-37724 - SMT



Data File: U130917A_07 G1 C5 - 318.9792
LCS-37724 - SMT

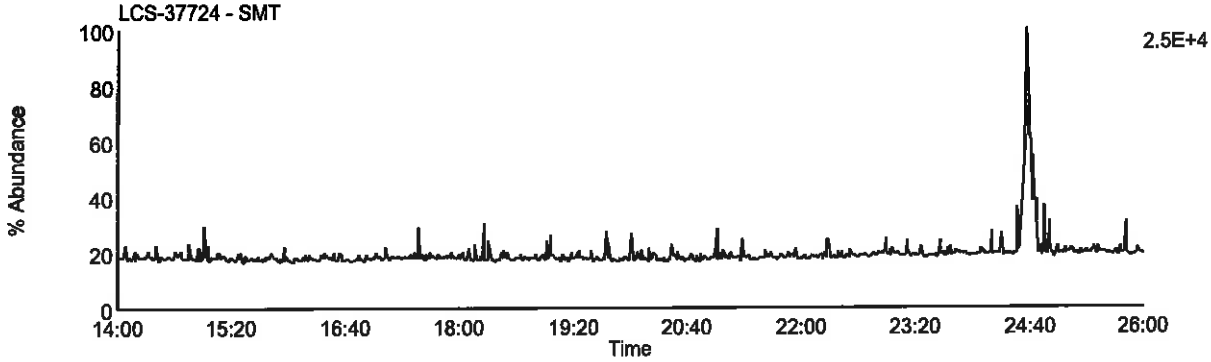


Homologue Group: Penta & Cleanup

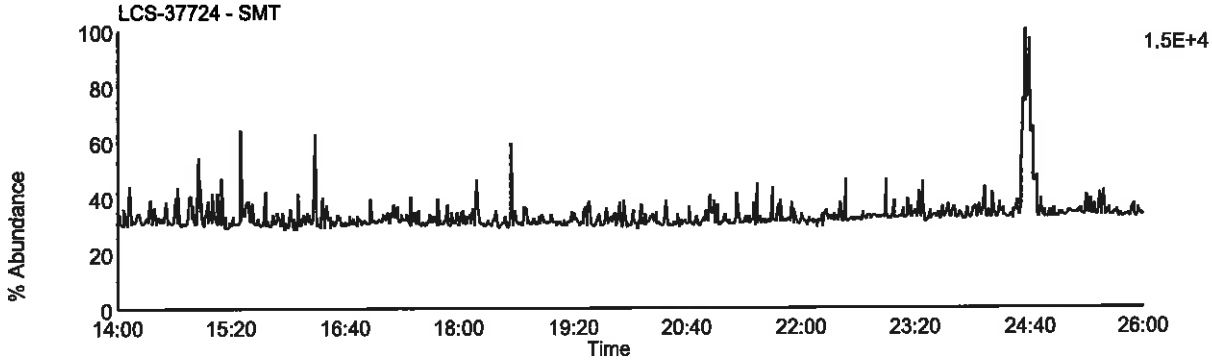
Data File Name: U130917A_07
Date Acquired: 9/17/2013
Sample Description: LCS-37724 - SMT

Lab Sample ID: LCS-37724
Client Sample ID: LCSFM
Instrument: 10MSHR06 (U)

Data File: U130917A_07 G1 C12 - 339.8597
LCS-37724 - SMT



Data File: U130917A_07 G1 C13 - 341.8567
LCS-37724 - SMT



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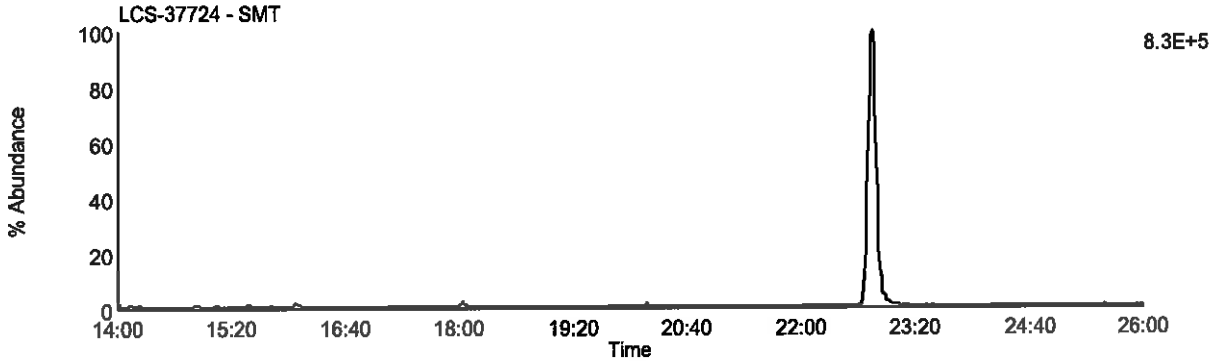
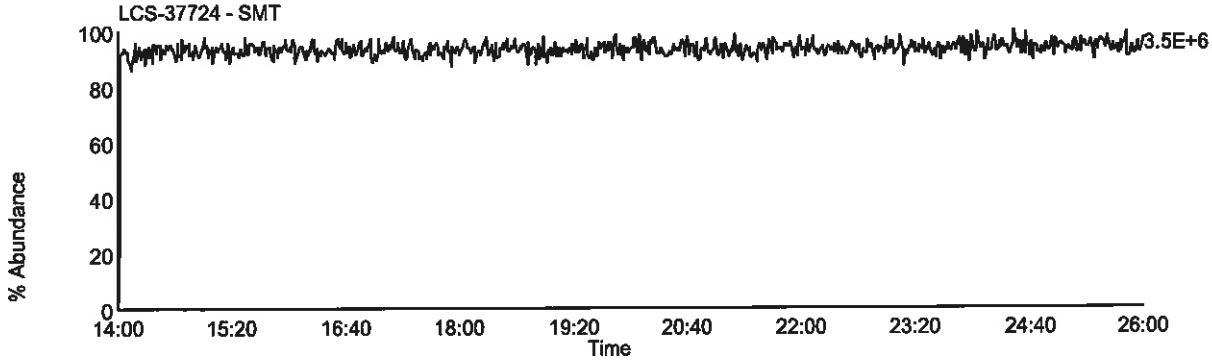
LCS-37724 - SMT



Data File: U130917A_07 G1 C5 - 318.9792
LCS-37724 - SMT

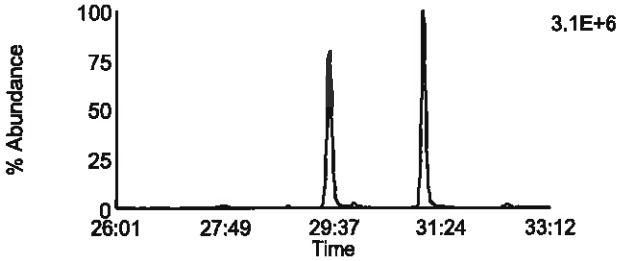


Homologue Group: Pentas

Data File Name: U130917A_07
Date Acquired: 9/17/2013
Sample Description: LCS-37724 - SMT

Lab Sample ID: LCS-37724
Client Sample ID: LCSFM
Instrument: 10MSHR06 (U)

Data File: U130917A_07 G2 C1 - 339.8597
LCS-37724 - SMT



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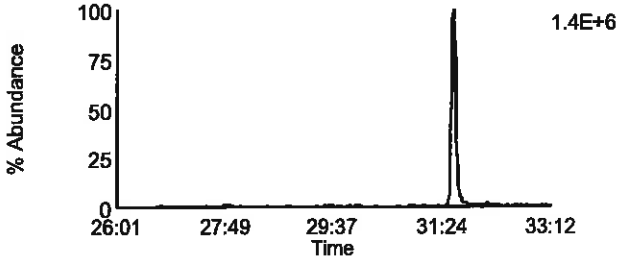
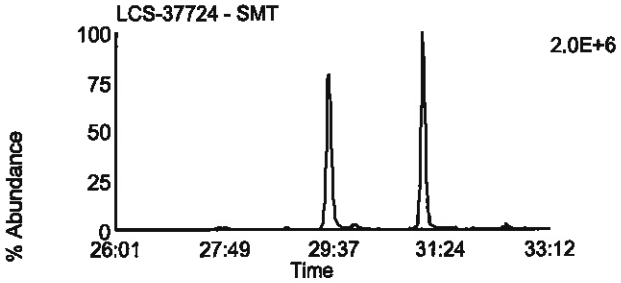
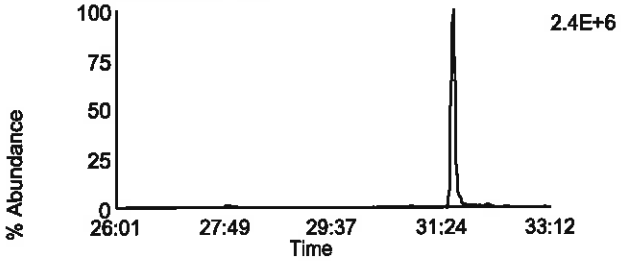
LCS-37724 - SMT



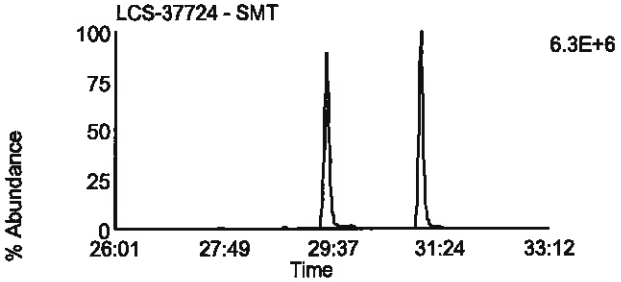
Data File: U130917A_07 G2 C2 - 341.8567
LCS-37724 - SMT



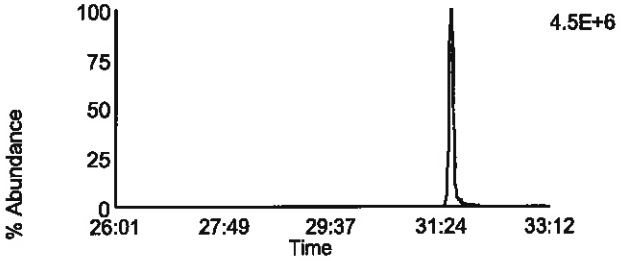
Data File: U130917A_07 G2 C8 - 355.8546
LCS-37724 - SMT



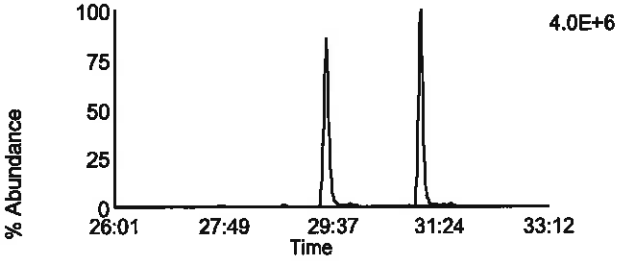
Data File: U130917A_07 G2 C3 - 351.8999
LCS-37724 - SMT



Data File: U130917A_07 G2 C10 - 367.8948
LCS-37724 - SMT



Data File: U130917A_07 G2 C5 - 353.8969
LCS-37724 - SMT



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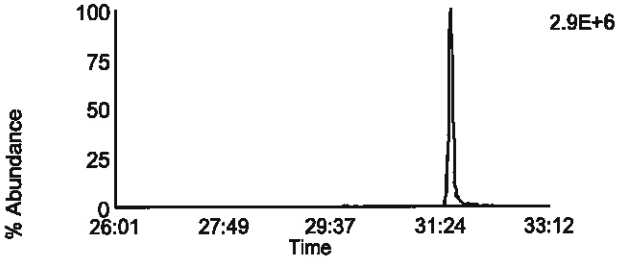
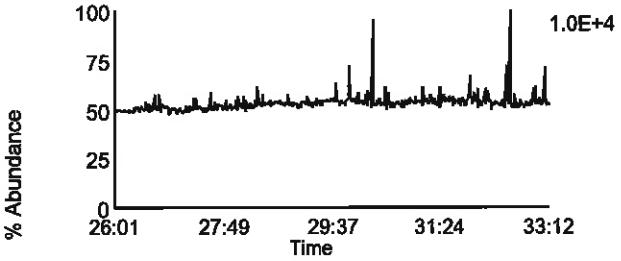
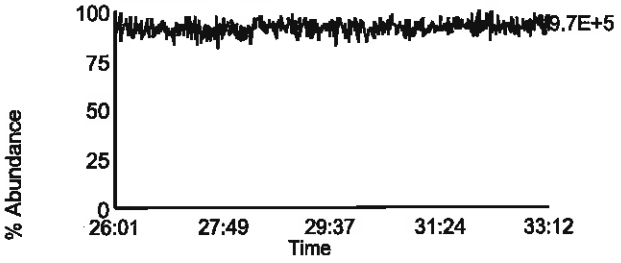
LCS-37724 - SMT



Data File: U130917A_07 G2 C12 - 409.7974
LCS-37724 - SMT



Data File: U130917A_07 G2 C6 - 354.9792
LCS-37724 - SMT

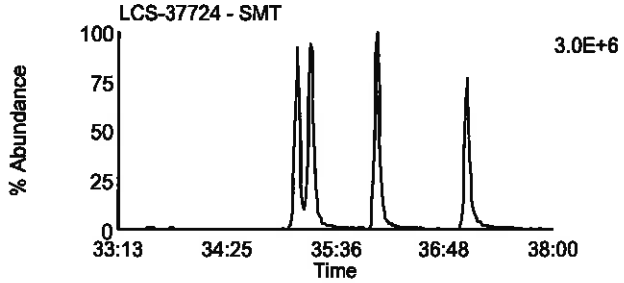


Homologue Group: Hexas

Data File Name: U130917A_07
Date Acquired: 9/17/2013
Sample Description: LCS-37724 - SMT

Lab Sample ID: LCS-37724
Client Sample ID: LCSFM
Instrument: 10MSHR06 (U)

Data File: U130917A_07 G3 C1 - 373.8207
LCS-37724 - SMT



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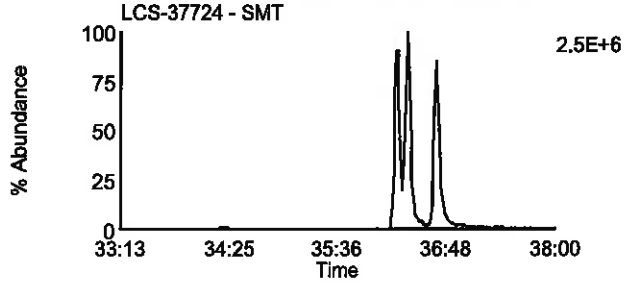
LCS-37724 - SMT



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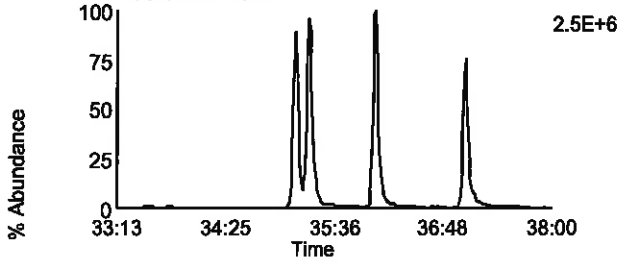
LCS-37724 - SMT



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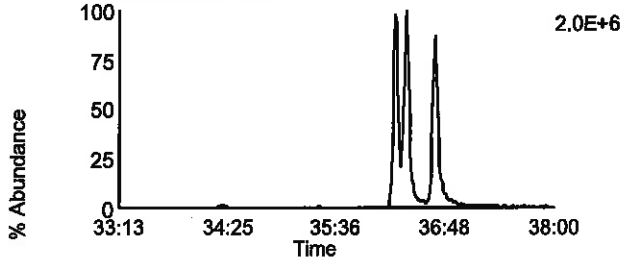
LCS-37724 - SMT



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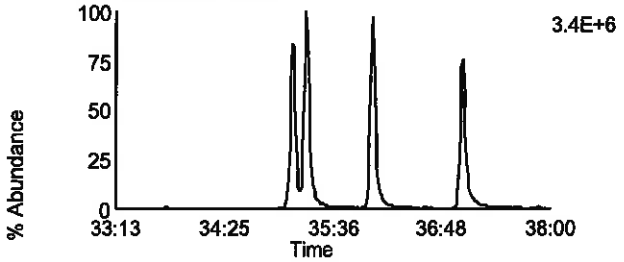
LCS-37724 - SMT



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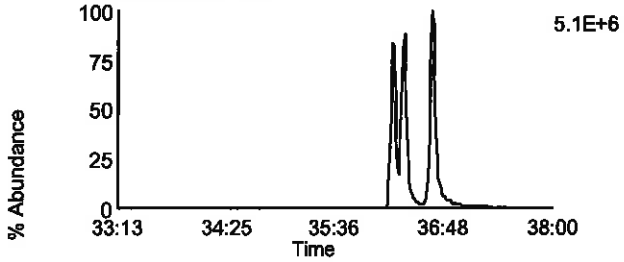
LCS-37724 - SMT



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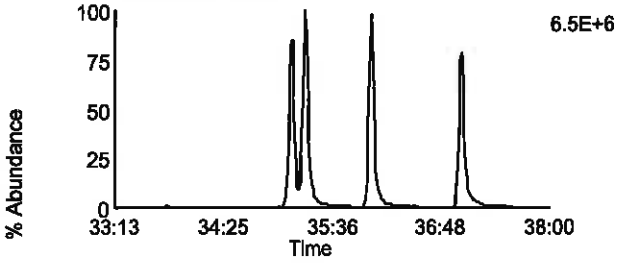
LCS-37724 - SMT



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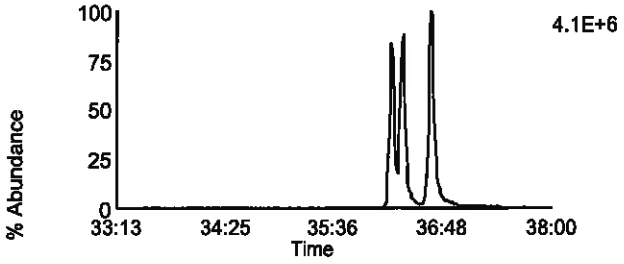
LCS-37724 - SMT



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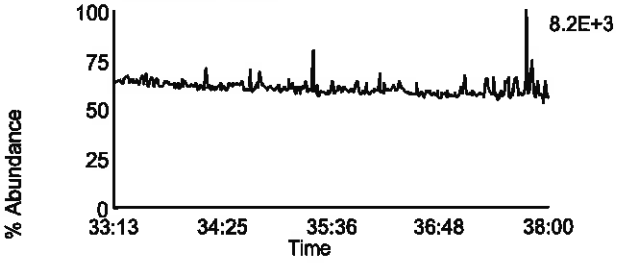
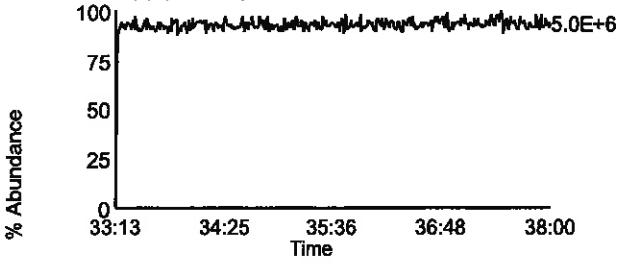
LCS-37724 - SMT



Data File: U130917A_07 G3 C3 - 380.976
LCS-37724 - SMT

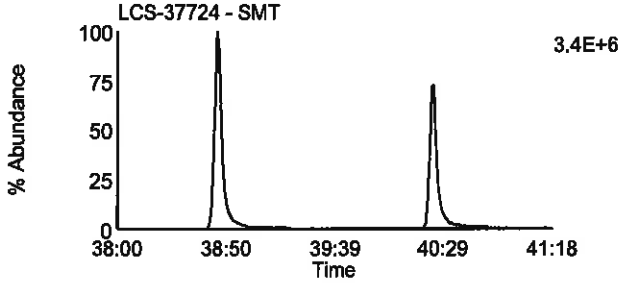


Homologue Group: Heptas

Data File Name: U130917A_07
Date Acquired: 9/17/2013
Sample Description: LCS-37724 - SMT

Lab Sample ID: LCS-37724
Client Sample ID: LCSFM
Instrument: 10MSHR06 (U)

Data File: U130917A_07 G4 C3 - 407.7818
LCS-37724 - SMT



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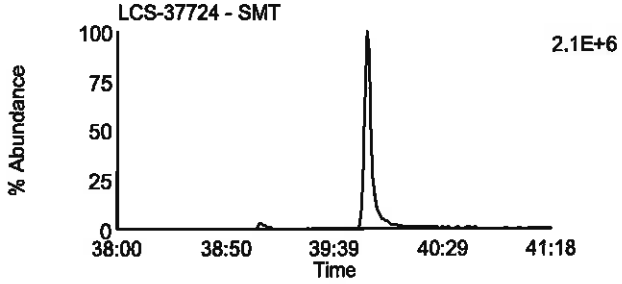
LCS-37724 - SMT



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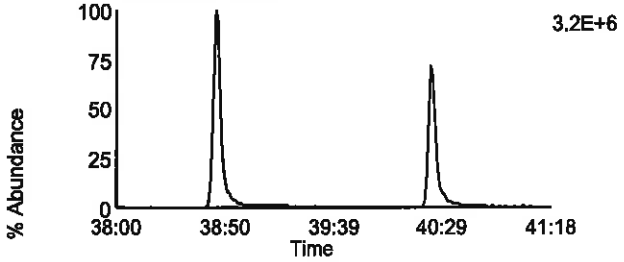
LCS-37724 - SMT



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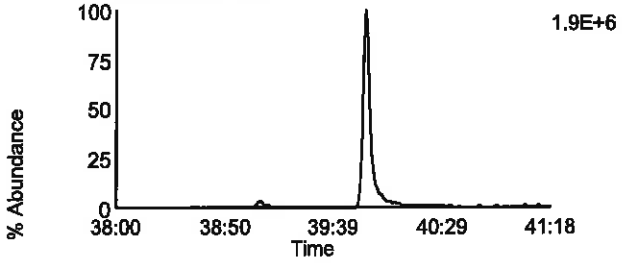
LCS-37724 - SMT



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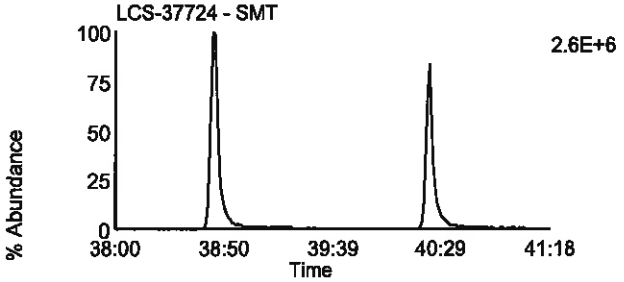
LCS-37724 - SMT



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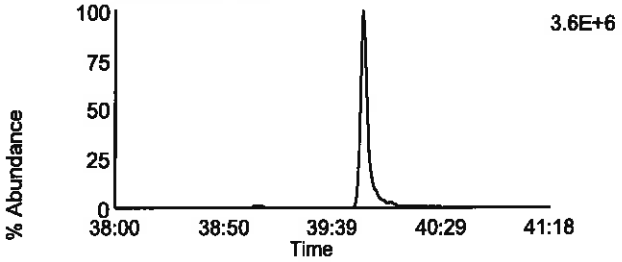
LCS-37724 - SMT



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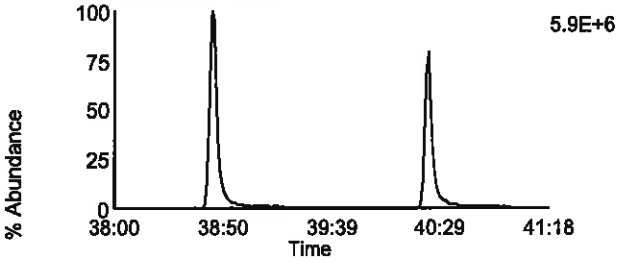
LCS-37724 - SMT



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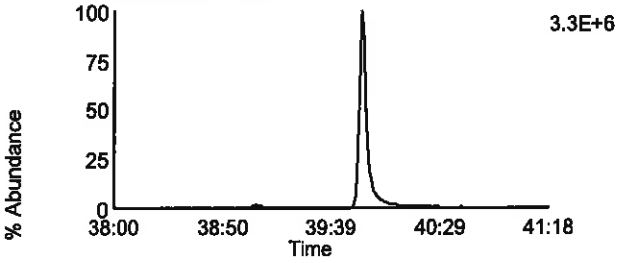
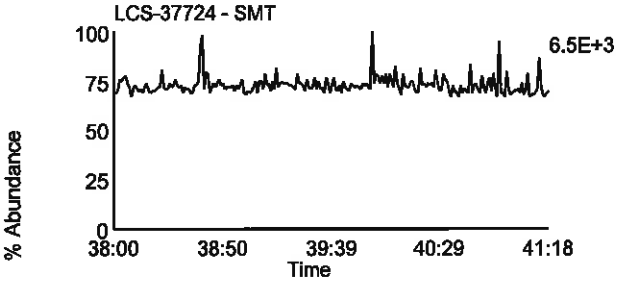
LCS-37724 - SMT



Data File: U130917A_07 G4 C13 - 479.7165
LCS-37724 - SMT



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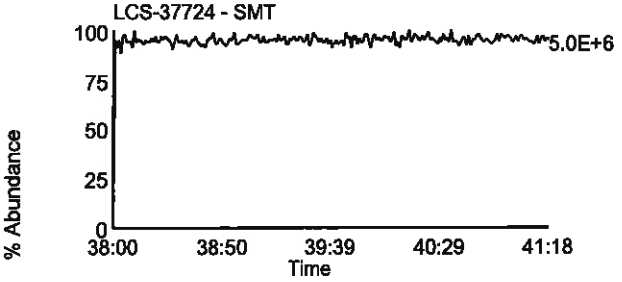
LCS-37724 - SMT

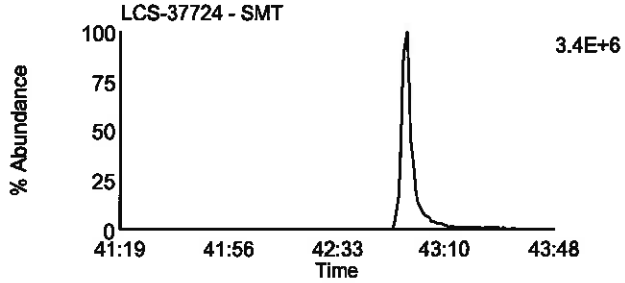


Homologue Group: Octas

Data File Name: U130917A_07
Date Acquired: 9/17/2013
Sample Description: LCS-37724 - SMT

Lab Sample ID: LCS-37724
Client Sample ID: LCSFM
Instrument: 10MSHR06 (U)

Data File: U130917A_07 G5 C4 - 441.7428
LCS-37724 - SMT



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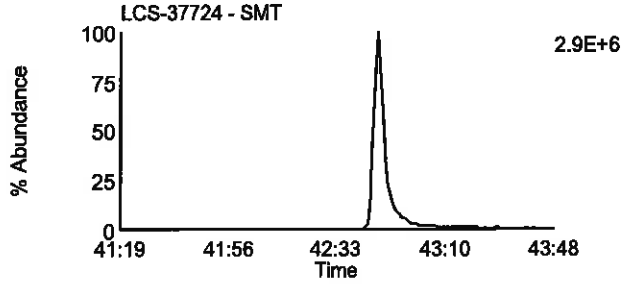
LCS-37724 - SMT



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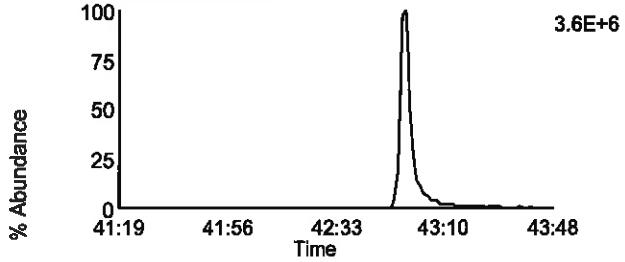
LCS-37724 - SMT



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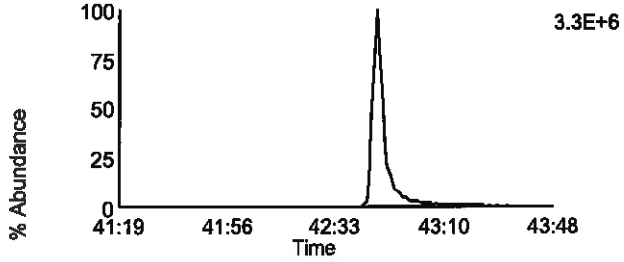
LCS-37724 - SMT



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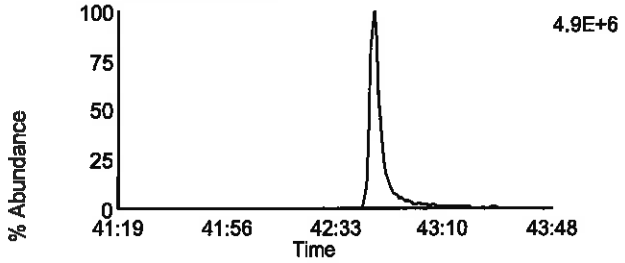
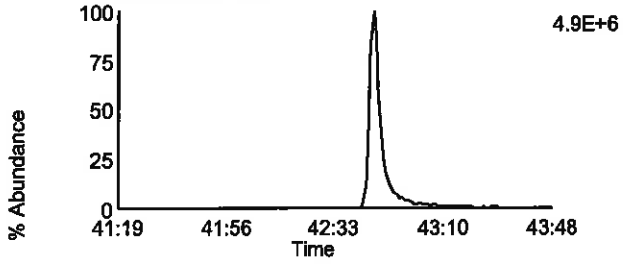
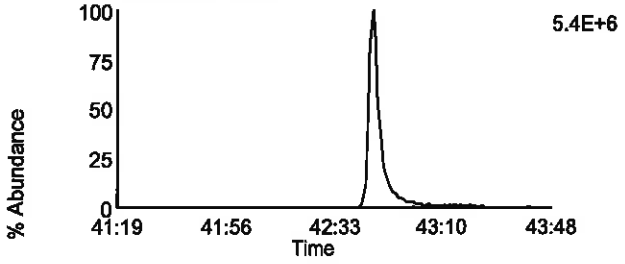
LCS-37724 - SMT



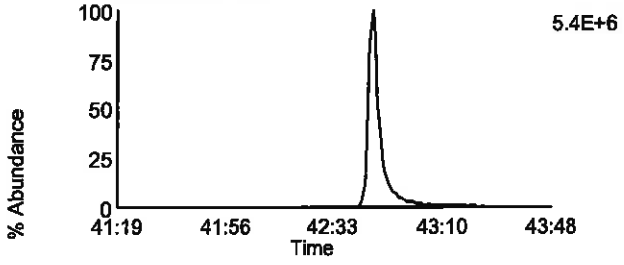
Data File: U130917A_07 G5 C11 - 469.7779
LCS-37724 - SMT



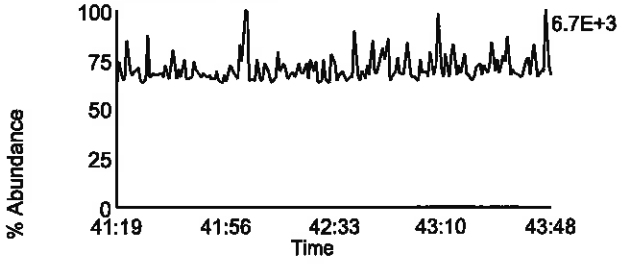
Data File: U130917A_07 G5 C12 - 471.7749
LCS-37724 - SMT



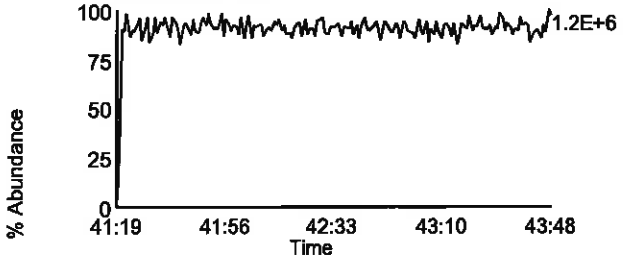
Data File: U130917A_07 G5 C12 - 471.7749
LCS-37724 - SMT



Data File: U130917A_07 G5 C13 - 513.6775
LCS-37724 - SMT



Data File: U130917A_07 G5 C2 - 430.9728
LCS-37724 - SMT

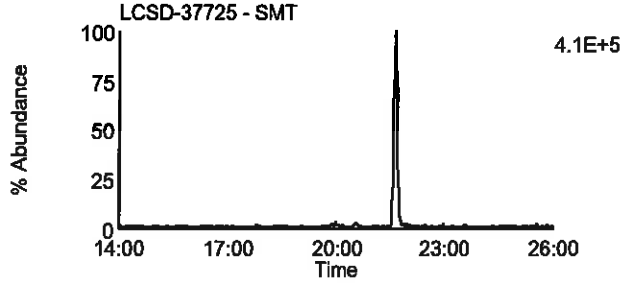


Homologue Group: Tetras

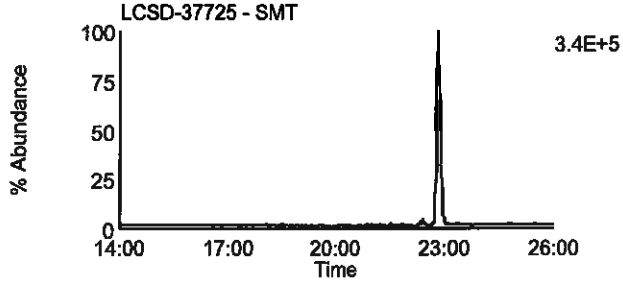
Data File Name: U130917A_08
Date Acquired: 9/17/2013
Sample Description: LCSD-37725 - SMT

Lab Sample ID: LCSD-37725
Client Sample ID: LCSFN
Instrument: 10MSHR06 (U)

Data File: U130917A_08 G1 C1 - 303.9016
LCSD-37725 - SMT



Data File: U130917A_08 G1 C7 - 319.8965
LCSD-37725 - SMT



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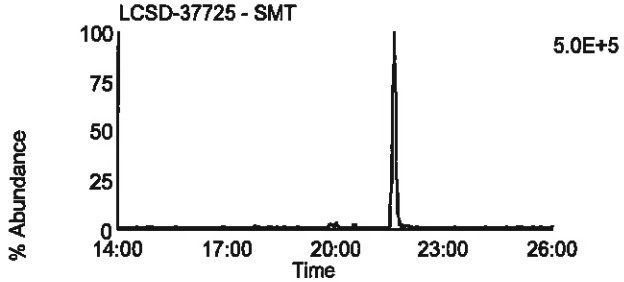
LCSD-37725 - SMT



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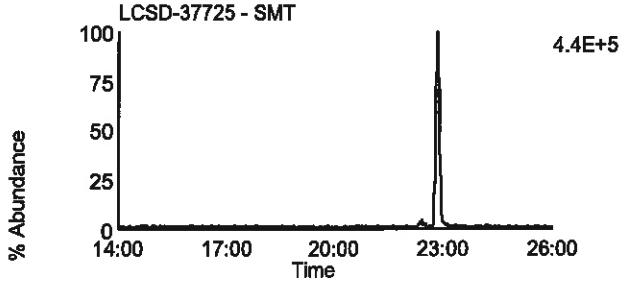
LCSD-37725 - SMT



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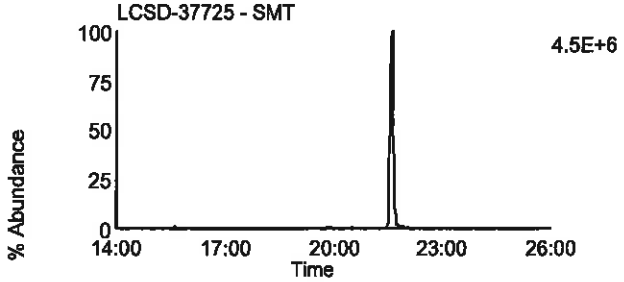
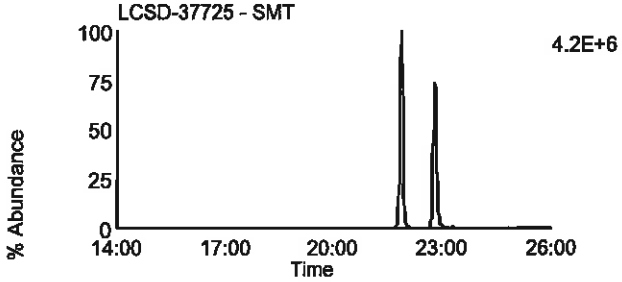
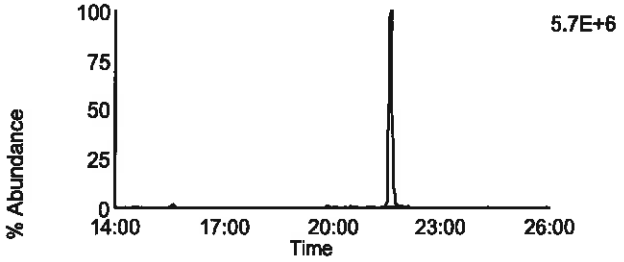
LCSD-37725 - SMT



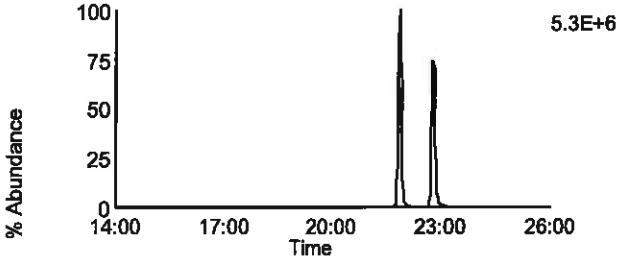
Data File: U130917A_08 G1 C10 - 331.9367
LCSD-37725 - SMT



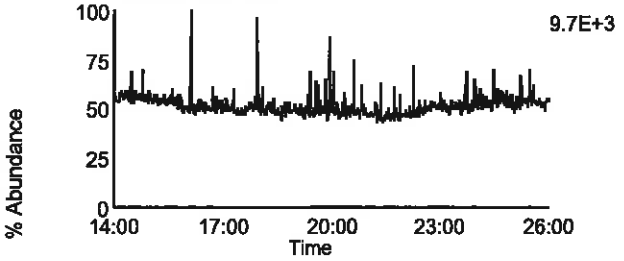
Data File: U130917A_08 G1 C4 - 317.9389
LCSD-37725 - SMT



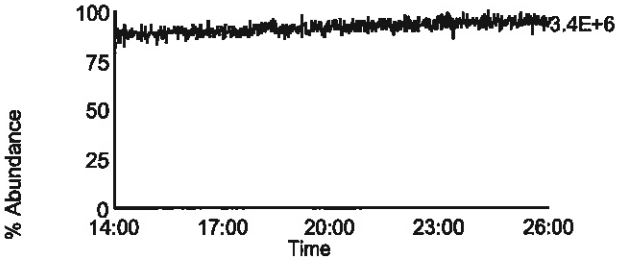
Data File: U130917A_08 G1 C11 - 333.9338
LCSD-37725 - SMT



Data File: U130917A_08 G1 C14 - 375.8364
LCSD-37725 - SMT

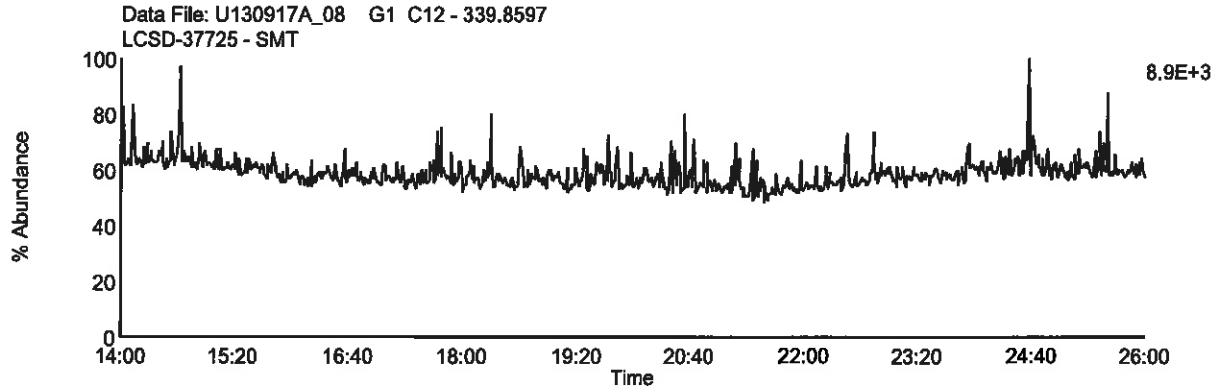


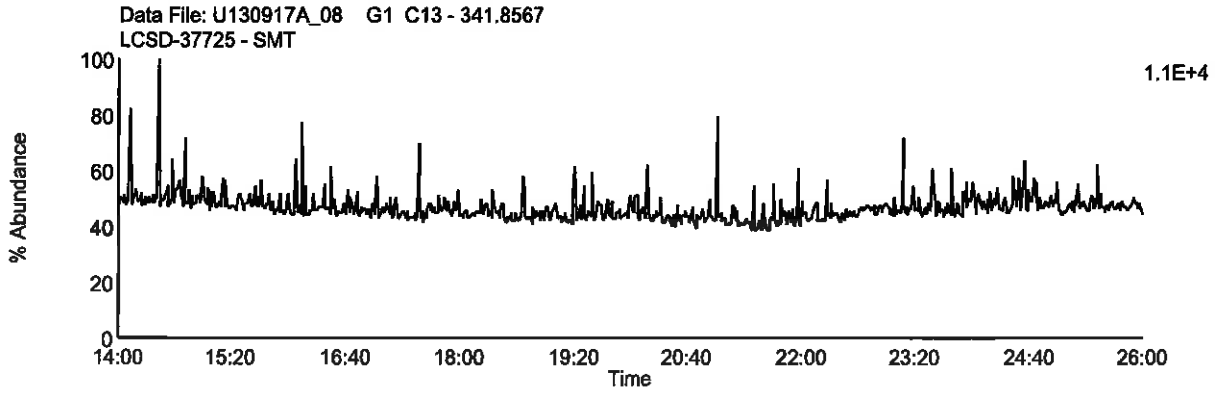
Data File: U130917A_08 G1 C5 - 318.9792
LCSD-37725 - SMT

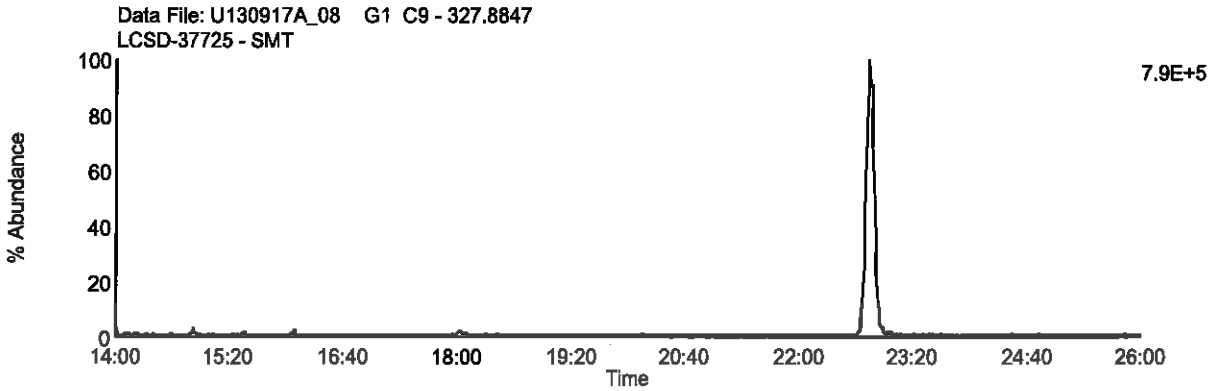


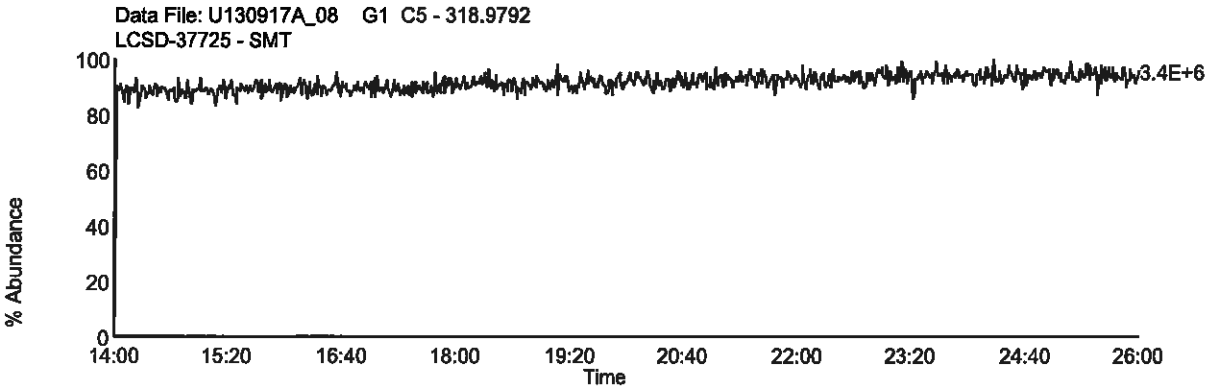
Homologue Group: Penta & Cleanup

Data File Name: U130917A_08	Lab Sample ID: LCSD-37725
Date Acquired: 9/17/2013	Client Sample ID: LCSFN
Sample Description: LCSD-37725 - SMT	Instrument: 10MSHR06 (U)







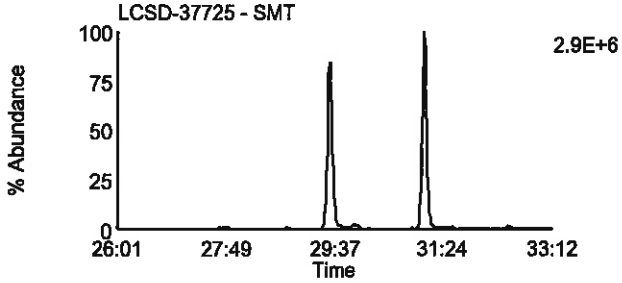


Homologue Group: Pentas

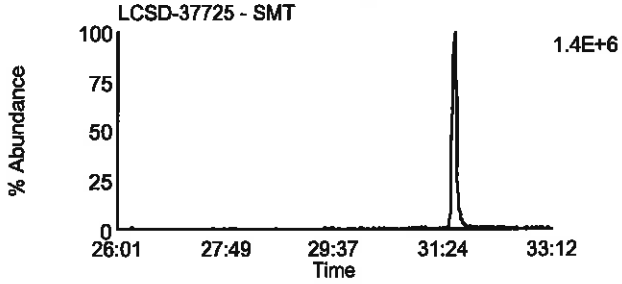
Data File Name: U130917A_08
Date Acquired: 9/17/2013
Sample Description: LCSD-37725 - SMT

Lab Sample ID: LCSD-37725
Client Sample ID: LCSFN
Instrument: 10MSHR06 (U)

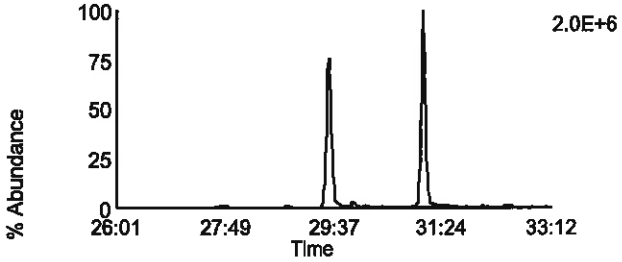
Data File: U130917A_08 G2 C1 - 339.8597
LCSD-37725 - SMT



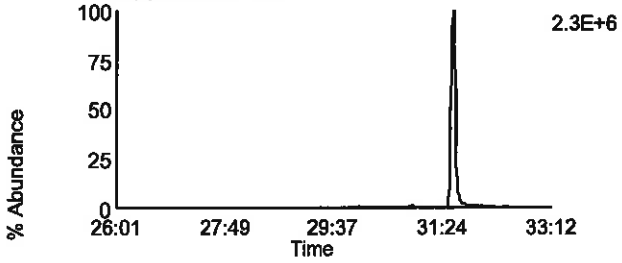
Data File: U130917A_08 G2 C4 - 353.8576
LCSD-37725 - SMT



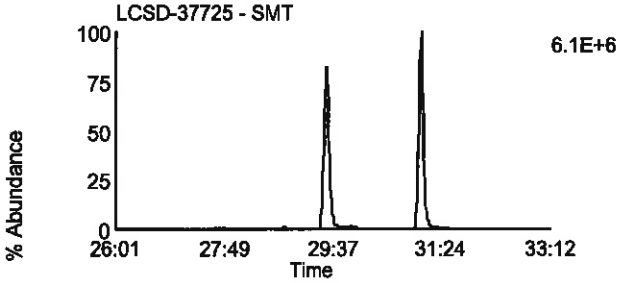
Data File: U130917A_08 G2 C2 - 341.8567
LCSD-37725 - SMT



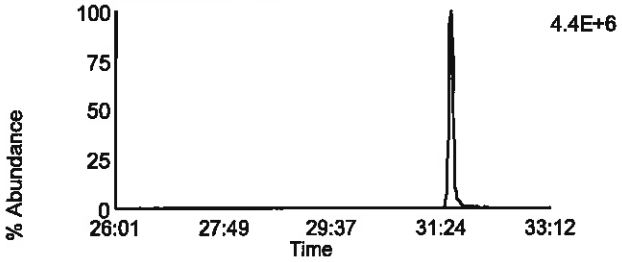
Data File: U130917A_08 G2 C8 - 355.8546
LCSD-37725 - SMT



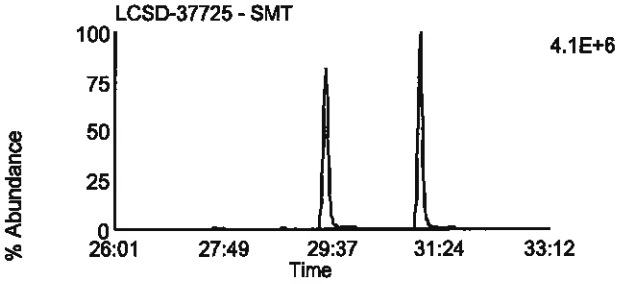
Data File: U130917A_08 G2 C3 - 351.8999
LCSD-37725 - SMT



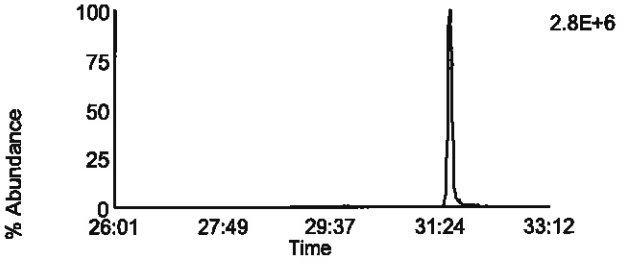
Data File: U130917A_08 G2 C10 - 367.8948
LCSD-37725 - SMT



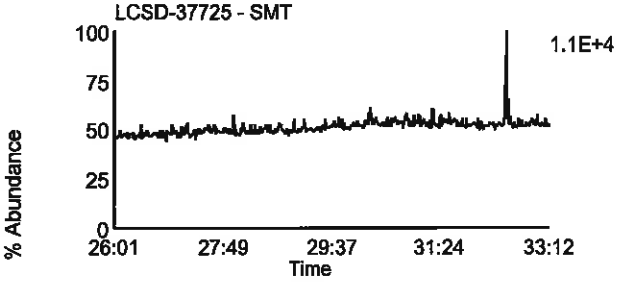
Data File: U130917A_08 G2 C5 - 353.8969
LCSD-37725 - SMT



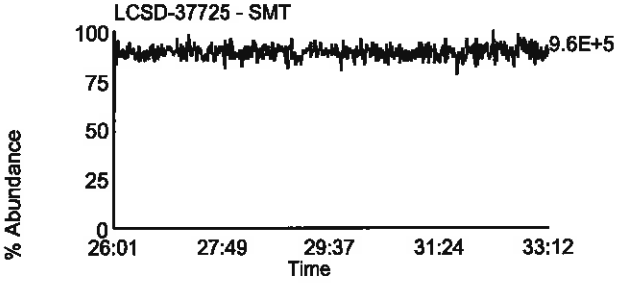
Data File: U130917A_08 G2 C11 - 369.8918
LCSD-37725 - SMT



Data File: U130917A_08 G2 C12 - 409.7974
LCSD-37725 - SMT



Data File: U130917A_08 G2 C6 - 354.9792
LCSD-37725 - SMT

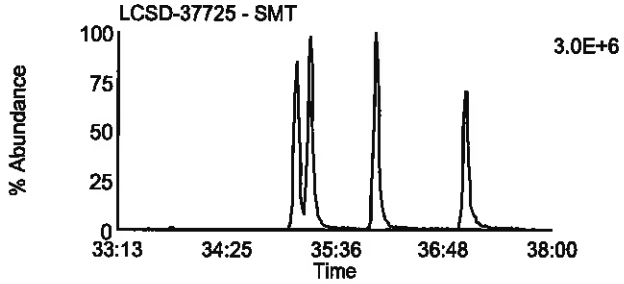


Homologue Group: Hexas

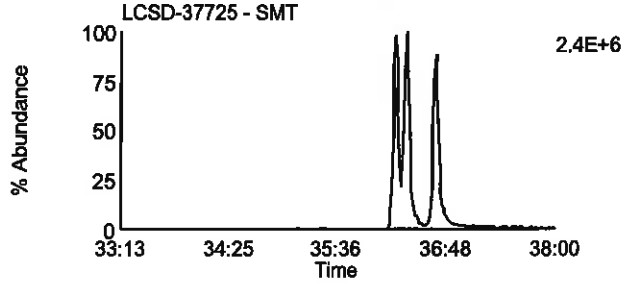
Data File Name: U130917A_08
Date Acquired: 9/17/2013
Sample Description: LCSD-37725 - SMT

Lab Sample ID: LCSD-37725
Client Sample ID: LCSFN
Instrument: 10MSHR06 (U)

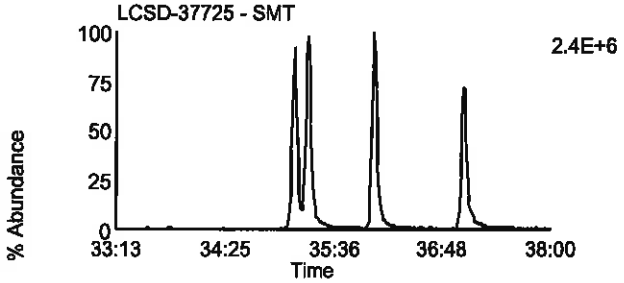
Data File: U130917A_08 G3 C1 - 373.8207
LCSD-37725 - SMT



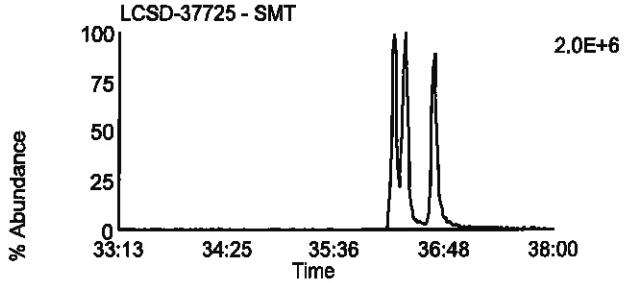
Data File: U130917A_08 G3 C7 - 389.8156
LCSD-37725 - SMT



Data File: U130917A_08 G3 C2 - 375.8178
LCSD-37725 - SMT



Data File: U130917A_08 G3 C8 - 391.8127
LCSD-37725 - SMT



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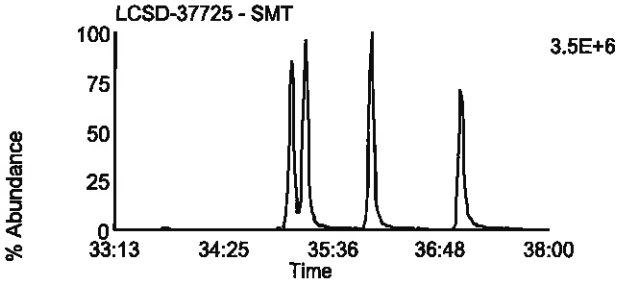
LCSD-37725 - SMT



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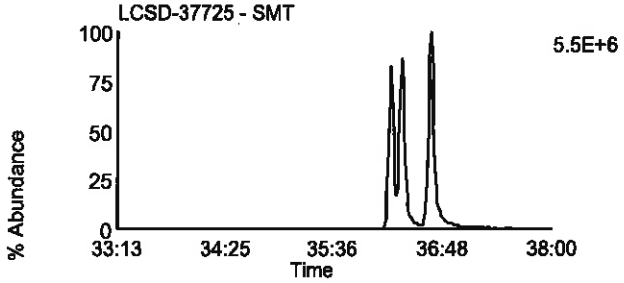
LCSD-37725 - SMT



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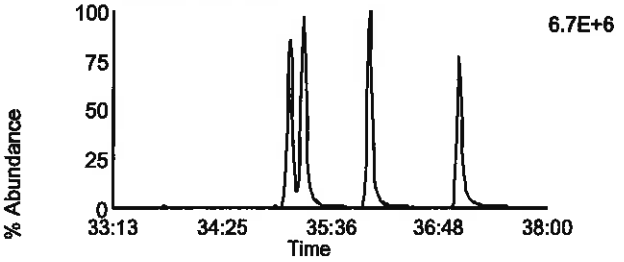
LCSD-37725 - SMT



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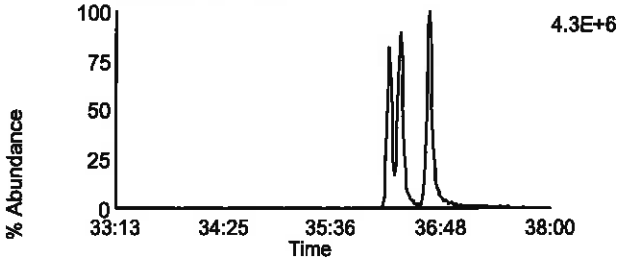
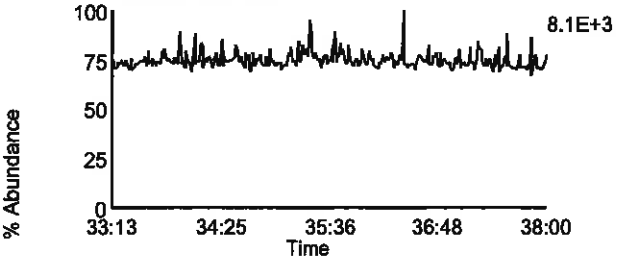
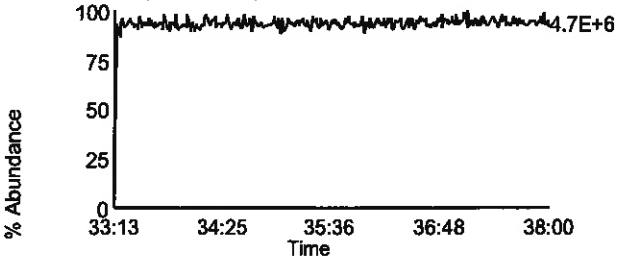
LCSD-37725 - SMT



Data File: U130917A_08 G3 C11 - 445.7555
LCSD-37725 - SMT



Data File: U130917A_08 G3 C3 - 380.976
LCSD-37725 - SMT

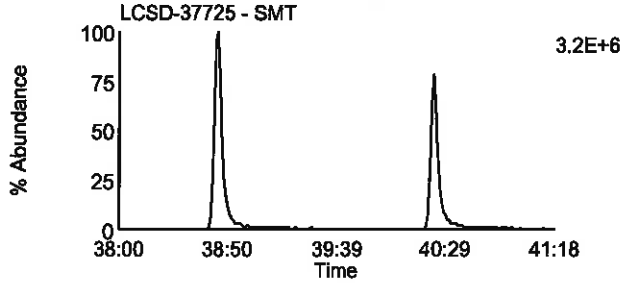


Homologue Group: Heptas

Data File Name: U130917A_08
Date Acquired: 9/17/2013
Sample Description: LCSD-37725 - SMT

Lab Sample ID: LCSD-37725
Client Sample ID: LCSFN
Instrument: 10MSHR06 (U)

Data File: U130917A_08 G4 C3 - 407.7818
LCSD-37725 - SMT



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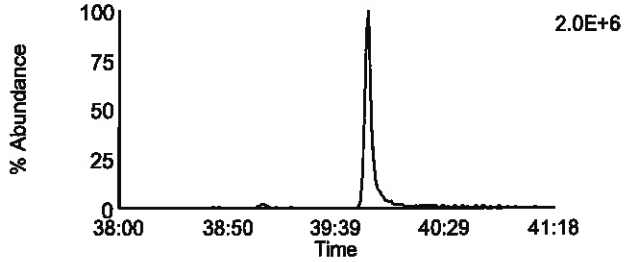
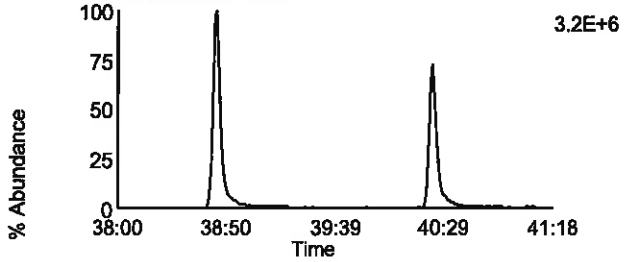
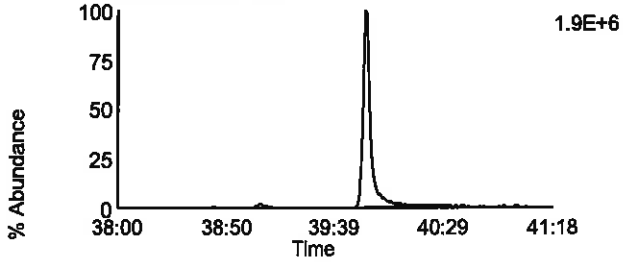
LCSD-37725 - SMT



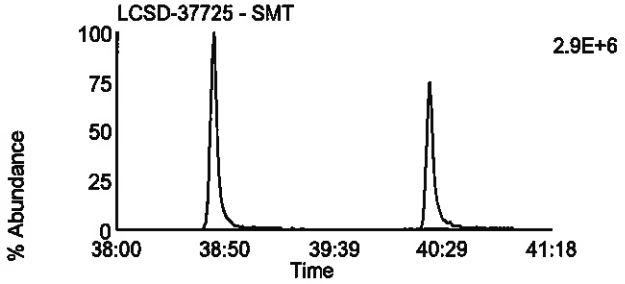
Data File: U130917A_08 G4 C4 - 409.7788
LCSD-37725 - SMT



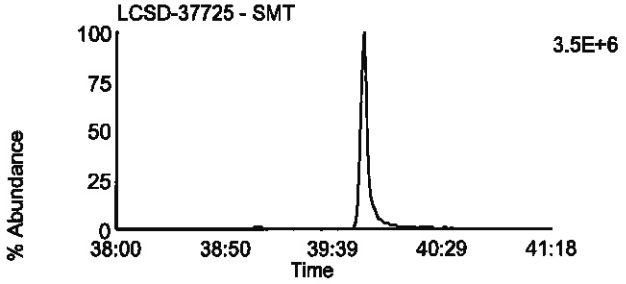
Data File: U130917A_08 G4 C9 - 425.7737
LCSD-37725 - SMT



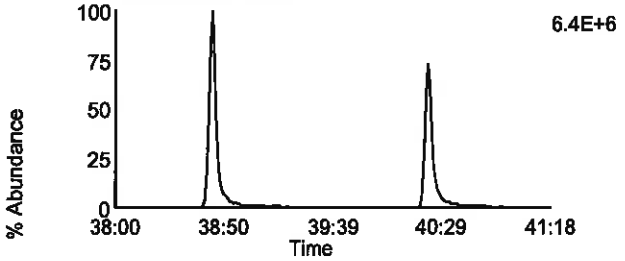
Data File: U130917A_08 G4 C6 - 417.825
LCSD-37725 - SMT



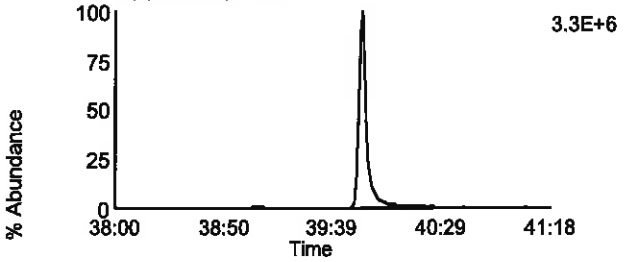
Data File: U130917A_08 G4 C11 - 435.8169
LCSD-37725 - SMT



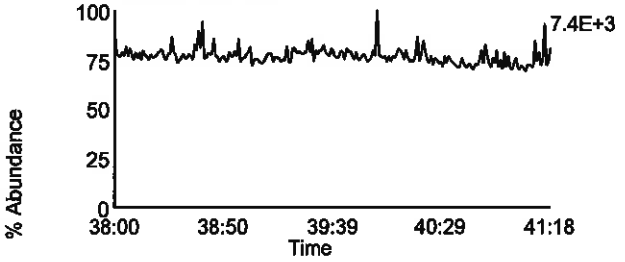
Data File: U130917A_08 G4 C7 - 419.822
LCSD-37725 - SMT



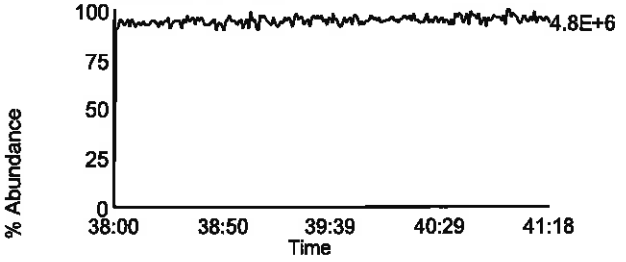
Data File: U130917A_08 G4 C12 - 437.814
LCSD-37725 - SMT



Data File: U130917A_08 G4 C13 - 479.7165
LCSD-37725 - SMT



Data File: U130917A_08 G4 C1 - 380.976
LCSD-37725 - SMT

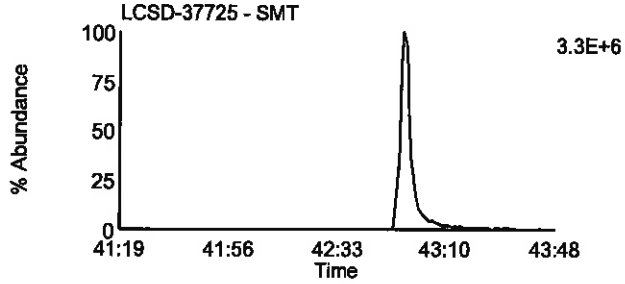


Homologue Group: Octas

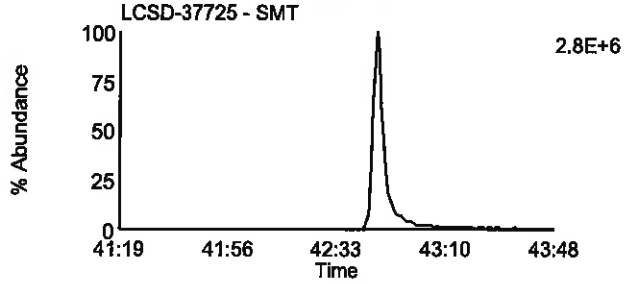
Data File Name: U130917A_08
Date Acquired: 9/17/2013
Sample Description: LCSD-37725 - SMT

Lab Sample ID: LCSD-37725
Client Sample ID: LCSFN
Instrument: 10MSHR06 (U)

Data File: U130917A_08 G5 C4 - 441.7428
LCSD-37725 - SMT



Data File: U130917A_08 G5 C8 - 457.7377
LCSD-37725 - SMT



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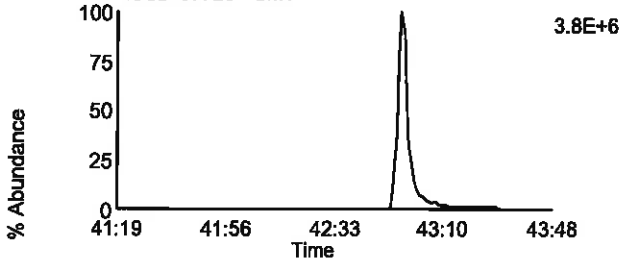
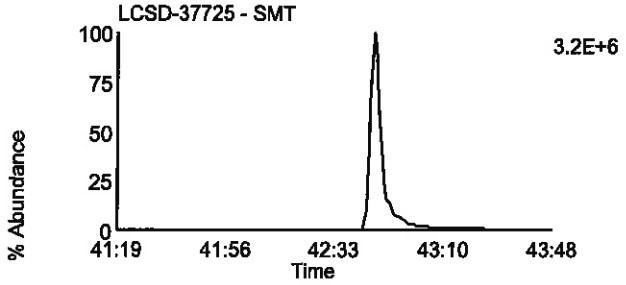
LCSD-37725 - SMT



Data File: U130917A_08 G5 C9 - 459.7347
LCSD-37725 - SMT



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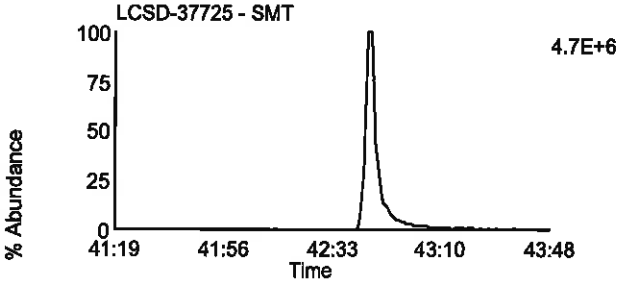
LCSD-37725 - SMT



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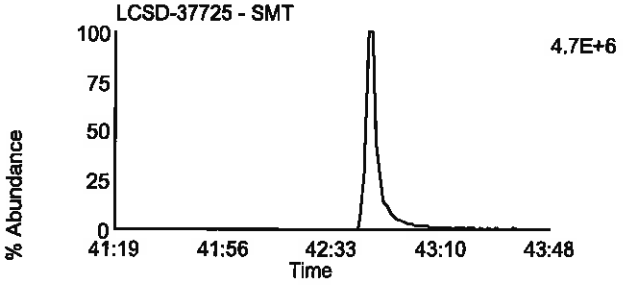
LCSD-37725 - SMT



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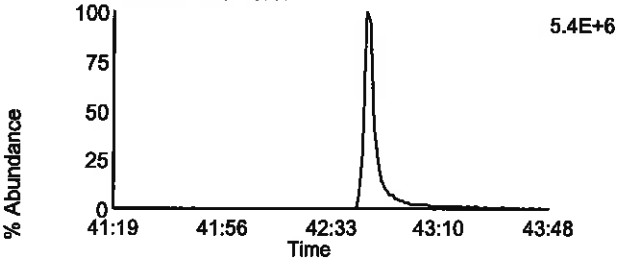
LCSD-37725 - SMT



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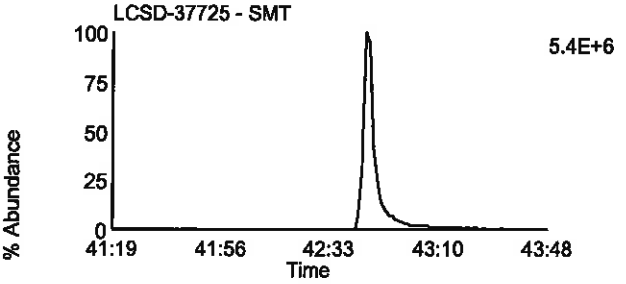
LCSD-37725 - SMT



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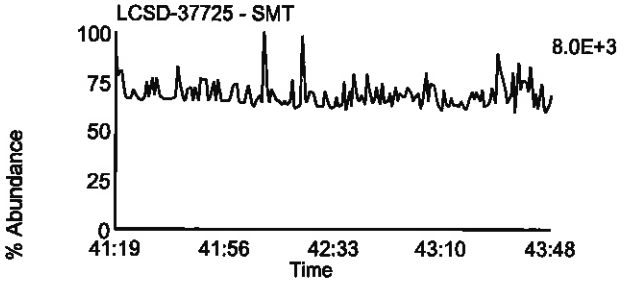
LCSD-37725 - SMT



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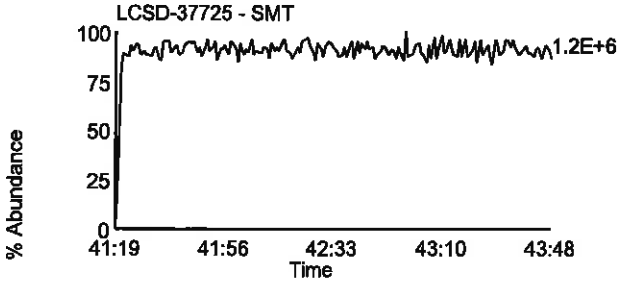
LCSD-37725 - SMT



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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By_____ Date _____

Client ID		Injected By	SMT
Lab ID	BLANK-37723	Instrument ID	10MSHR06 (U)
Filename	U130917A_10	GC Column ID	USD227224H
Analyzed	09/17/2013 16:38	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:37	2.85e7	3.59e7	4.63e6	5.88e6	7.875e3	7.446e3	0.79	
2,3,7,8-TCDF	21:38	ND	ND	ND	ND	1.219e3	8.316e2		

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:54	2.46e7	3.08e7	3.80e6	4.78e6	7.347e3	1.130e3	0.80	
2,3,7,8-TCDD-13C	22:49	2.07e7	2.67e7	3.13e6	3.93e6	4.678e3	4.621e3	0.78	
2,3,7,8-TCDD-37Cl4	22:51	5.10e6		7.47e5		1.884e3	-----		
2,3,7,8-TCDD	22:51	ND	ND	ND	ND	8.724e2	5.435e2		

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:32	3.05e7	2.00e7	4.87e6	3.21e6	2.584e4	2.062e3	1.53	
2,3,4,7,8-PeCDF-13C	31:06	3.16e7	2.07e7	6.75e6	4.41e6	1.248e4	6.451e3	1.53	
1,2,3,7,8-PeCDF	29:35	ND	ND	ND	ND	6.607e2	5.722e2		
2,3,4,7,8-PeCDF	31:07	ND	ND	ND	ND	4.198e2	4.849e2		

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:34	2.26e7	1.43e7	4.47e6	2.70e6	2.614e3	4.142e3	1.59	
1,2,3,7,8-PeCDD	31:35	ND	ND	ND	ND	8.377e2	8.880e2		

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:10	1.13e7	2.18e7	2.79e6	5.28e6	4.834e2	1.493e3	0.52	
1,2,3,6,7,8-HxCDF-13C	35:19	1.53e7	2.90e7	3.24e6	6.07e6	6.921e2	3.587e4	0.53	
2,3,4,6,7,8-HxCDF-13C	36:03	1.36e7	2.59e7	3.02e6	5.85e6	1.035e3	2.371e4	0.52	
1,2,3,7,8,9-HxCDF-13C	37:02	1.13e7	2.18e7	2.44e6	4.67e6	6.330e3	1.731e4	0.52	
1,2,3,4,7,8-HxCDF	35:11	ND	ND	ND	ND	4.916e2	5.459e2		
1,2,3,6,7,8-HxCDF	35:20	ND	ND	ND	ND	6.647e2	5.611e2		
2,3,4,6,7,8-HxCDF	36:05	ND	ND	ND	ND	5.876e2	4.664e2		
1,2,3,7,8,9-HxCDF	37:03	ND	ND	ND	ND	6.210e2	4.399e2		

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Client ID		Injected By	SMT
Lab ID	BLANK-37723	Instrument ID	10MSHR06 (U)
Filename	U130917A_10	GC Column ID	USD227224H
Analyzed	09/17/2013 16:38	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:15	1.58e7	1.25e7	4.07e6	3.15e6	5.148e3	6.239e3	1.27	
1,2,3,6,7,8-HxCDD-13C	36:22	1.87e7	1.47e7	4.30e6	3.28e6	1.151e3	6.089e3	1.28	
1,2,3,7,8,9-HxCDD-13C	36:40	2.25e7	1.73e7	4.63e6	3.70e6	1.304e4	1.335e4	1.30	
1,2,3,4,7,8-HxCDD	36:15	ND	ND	ND	ND	7.378e2	6.653e2		
1,2,3,6,7,8-HxCDD	36:23	ND	ND	ND	ND	8.282e2	7.893e2		
1,2,3,7,8,9-HxCDD	36:41	ND	ND	ND	ND	7.660e2	7.404e2		

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:46	1.05e7	2.27e7	2.61e6	5.71e6	6.931e3	5.452e3	0.46	
1,2,3,4,7,8,9-HpCDF-13C	40:24	8.28e6	1.82e7	2.08e6	4.47e6	4.728e3	5.207e3	0.45	
1,2,3,4,6,7,8-HpCDF	38:47	ND	ND	ND	ND	9.557e2	6.356e2		
1,2,3,4,7,8,9-HpCDF	40:25	ND	ND	ND	ND	1.074e3	9.700e2		

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:54	1.33e7	1.27e7	3.17e6	3.04e6	3.023e3	2.221e4	1.05	
1,2,3,4,6,7,8-HpCDD	39:55	ND	ND	ND	ND	1.009e3	1.014e3		

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:57	ND	ND	ND	ND	7.908e2	1.136e3		

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:47	2.10e7	2.37e7	4.71e6	5.31e6	2.751e2	4.481e2	0.88	
OCDD	42:48	3.35e4	2.05e4	8.98e3	3.86e3	1.194e3	8.443e2	1.63	I

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client ID	LCSFM	Injected By	SMT
Lab ID	LCS-37724	Instrument ID	10MSHR06 (U)
Filename	U130917A_07	GC Column ID	USD227224H
Analyzed	09/17/2013 14:00	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:36	3.01e7	3.87e7	4.81e6	6.28e6	----	----	0.78	
2,3,7,8-TCDF	21:38	2.77e6	3.67e6	4.24e5	6.12e5	----	----	0.75	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:53	2.70e7	3.39e7	4.41e6	5.62e6	----	----	0.80	
2,3,7,8-TCDD-13C	22:49	2.23e7	2.76e7	3.24e6	4.07e6	----	----	0.81	
2,3,7,8-TCDD-37Cl4	22:51	5.73e6		8.29e5		----	----		
2,3,7,8-TCDD	22:51	2.44e6	3.02e6	3.68e5	4.12e5	----	----	0.81	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:31	3.20e7	2.06e7	5.56e6	3.42e6	----	----	1.55	
2,3,4,7,8-PeCDF-13C	31:06	3.30e7	2.14e7	6.25e6	3.98e6	----	----	1.54	
1,2,3,7,8-PeCDF	29:32	1.43e7	9.66e6	2.42e6	1.59e6	----	----	1.48	
2,3,4,7,8-PeCDF	31:06	1.53e7	1.01e7	3.05e6	2.01e6	----	----	1.51	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:34	2.38e7	1.50e7	4.54e6	2.90e6	----	----	1.59	
1,2,3,7,8-PeCDD	31:35	7.15e6	1.16e7	1.35e6	2.38e6	----	----	0.61	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:10	1.20e7	2.29e7	2.86e6	5.46e6	----	----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:19	1.57e7	2.95e7	3.43e6	6.46e6	----	----	0.53	
2,3,4,6,7,8-HxCDF-13C	36:03	1.46e7	2.76e7	3.33e6	6.33e6	----	----	0.53	
1,2,3,7,8,9-HxCDF-13C	37:02	1.22e7	2.34e7	2.58e6	5.05e6	----	----	0.52	
1,2,3,4,7,8-HxCDF	35:11	1.07e7	9.01e6	2.74e6	2.18e6	----	----	1.18	
1,2,3,6,7,8-HxCDF	35:20	1.32e7	1.08e7	2.80e6	2.35e6	----	----	1.23	
2,3,4,6,7,8-HxCDF	36:04	1.25e7	1.06e7	2.96e6	2.45e6	----	----	1.18	
1,2,3,7,8,9-HxCDF	37:03	1.01e7	8.04e6	2.28e6	1.86e6	----	----	1.25	

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Client ID	LCSFM	Injected By	SMT
Lab ID	LCS-37724	Instrument ID	10MSHR06 (U)
Filename	U130917A_07	GC Column ID	USD227224H
Analyzed	09/17/2013 14:00	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:14	1.71e7	1.34e7	4.29e6	3.39e6	----	----	1.27	
1,2,3,6,7,8-HxCDD-13C	36:22	1.99e7	1.58e7	4.56e6	3.60e6	----	----	1.26	
1,2,3,7,8,9-HxCDD-13C	36:40	2.36e7	1.95e7	5.14e6	4.08e6	----	----	1.21	
1,2,3,4,7,8-HxCDD	36:15	9.12e6	7.72e6	2.23e6	1.99e6	----	----	1.18	
1,2,3,6,7,8-HxCDD	36:23	1.08e7	9.03e6	2.46e6	2.02e6	----	----	1.20	
1,2,3,7,8,9-HxCDD	36:41	9.69e6	8.56e6	2.11e6	1.76e6	----	----	1.13	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:45	1.13e7	2.48e7	2.61e6	5.86e6	----	----	0.46	
1,2,3,4,7,8,9-HpCDF-13C	40:24	8.53e6	1.87e7	2.17e6	4.68e6	----	----	0.46	
1,2,3,4,6,7,8-HpCDF	38:46	1.37e7	1.33e7	3.40e6	3.20e6	----	----	1.03	
1,2,3,4,7,8,9-HpCDF	40:25	9.94e6	9.59e6	2.46e6	2.29e6	----	----	1.04	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:54	1.40e7	1.32e7	3.56e6	3.29e6	----	----	1.06	
1,2,3,4,6,7,8-HpCDD	39:55	8.04e6	7.61e6	2.05e6	1.92e6	----	----	1.06	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:57	1.46e7	1.64e7	3.41e6	3.60e6	----	----	0.89	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:47	2.19e7	2.44e7	4.87e6	5.38e6	----	----	0.90	
OCDD	42:48	1.30e7	1.41e7	2.88e6	3.26e6	----	----	0.92	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____
Reviewed By _____ Date _____

Client ID	LCSFN	Injected By	SMT
Lab ID	LCSD-37725	Instrument ID	10MSHR06 (U)
Filename	U130917A_08	GC Column ID	USD227224H
Analyzed	09/17/2013 14:45	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:36	2.88e7	3.65e7	4.52e6	5.73e6	-----	-----	0.79	
2,3,7,8-TCDF	21:38	2.66e6	3.34e6	4.06e5	4.97e5	-----	-----	0.80	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:53	2.66e7	3.31e7	4.22e6	5.34e6	-----	-----	0.80	
2,3,7,8-TCDD-13C	22:48	2.09e7	2.67e7	3.12e6	3.92e6	-----	-----	0.78	
2,3,7,8-TCDD-37Cl4	22:50	5.41e6		7.86e5		-----	-----		
2,3,7,8-TCDD	22:50	2.31e6	2.95e6	3.33e5	4.30e5	-----	-----	0.78	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:31	3.03e7	2.00e7	5.06e6	3.33e6	-----	-----	1.52	
2,3,4,7,8-PeCDF-13C	31:06	3.21e7	2.11e7	6.10e6	4.08e6	-----	-----	1.52	
1,2,3,7,8-PeCDF	29:32	1.40e7	9.06e6	2.47e6	1.54e6	-----	-----	1.54	
2,3,4,7,8-PeCDF	31:06	1.50e7	9.75e6	2.92e6	2.04e6	-----	-----	1.54	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:34	2.34e7	1.48e7	4.38e6	2.84e6	-----	-----	1.58	
1,2,3,7,8-PeCDD	31:35	6.92e6	1.12e7	1.38e6	2.27e6	-----	-----	0.62	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:10	1.21e7	2.35e7	3.00e6	5.67e6	-----	-----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:19	1.56e7	3.09e7	3.35e6	6.49e6	-----	-----	0.50	
2,3,4,6,7,8-HxCDF-13C	36:02	1.47e7	2.78e7	3.50e6	6.65e6	-----	-----	0.53	
1,2,3,7,8,9-HxCDF-13C	37:01	1.21e7	2.32e7	2.48e6	5.11e6	-----	-----	0.52	
1,2,3,4,7,8-HxCDF	35:10	1.07e7	9.12e6	2.52e6	2.26e6	-----	-----	1.17	
1,2,3,6,7,8-HxCDF	35:20	1.28e7	1.11e7	2.90e6	2.39e6	-----	-----	1.15	
2,3,4,6,7,8-HxCDF	36:03	1.24e7	1.03e7	2.95e6	2.44e6	-----	-----	1.20	
1,2,3,7,8,9-HxCDF	37:02	1.00e7	8.46e6	2.07e6	1.75e6	-----	-----	1.18	

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Client ID	LCSFN	Injected By	SMT
Lab ID	LCSD-37725	Instrument ID	10MSHR06 (U)
Filename	U130917A_08	GC Column ID	USD227224H
Analyzed	09/17/2013 14:45	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:14	1.69e7	1.34e7	4.48e6	3.47e6	----	----	1.27	
1,2,3,6,7,8-HxCDD-13C	36:21	2.07e7	1.63e7	4.70e6	3.79e6	----	----	1.27	
1,2,3,7,8,9-HxCDD-13C	36:40	2.53e7	2.00e7	5.45e6	4.25e6	----	----	1.26	
1,2,3,4,7,8-HxCDD	36:15	9.23e6	7.52e6	2.35e6	1.93e6	----	----	1.23	
1,2,3,6,7,8-HxCDD	36:22	1.09e7	8.98e6	2.41e6	1.95e6	----	----	1.21	
1,2,3,7,8,9-HxCDD	36:41	1.03e7	8.17e6	2.13e6	1.74e6	----	----	1.26	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:45	1.13e7	2.51e7	2.88e6	6.38e6	----	----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	40:23	8.70e6	1.88e7	2.15e6	4.62e6	----	----	0.46	
1,2,3,4,6,7,8-HpCDF	38:46	1.37e7	1.34e7	3.20e6	3.17e6	----	----	1.03	
1,2,3,4,7,8,9-HpCDF	40:24	9.68e6	9.46e6	2.53e6	2.29e6	----	----	1.02	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:54	1.41e7	1.34e7	3.53e6	3.32e6	----	----	1.05	
1,2,3,4,6,7,8-HpCDD	39:55	7.71e6	7.75e6	2.01e6	1.92e6	----	----	1.00	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:57	1.48e7	1.69e7	3.33e6	3.81e6	----	----	0.88	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:46	2.25e7	2.54e7	4.73e6	5.42e6	----	----	0.88	
OCDD	42:47	1.28e7	1.45e7	2.84e6	3.15e6	----	----	0.88	

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Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

www.pacelabs.com

Report Prepared for:

Rachelle Arada
Advanced Technology Labs
3275 Walnut Avenue
Signal Hill CA 90807

REPORT OF LABORATORY ANALYSIS FOR PCDD/PCDF

Report Information:

Pace Project #: 10240754
Sample Receipt Date: 09/04/2013
Client Project #: 1302547
Client Sub PO #: SC01868
State Cert #: 01155CA

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 4 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Brittany Hansen, your Pace Project Manager.

This report has been reviewed by:

Brittany J. Hansen

September 25, 2013

Brittany Hansen, Project Manager
(612) 607-6429
(612) 607-6444 (fax)
brittany.hansen@pacelabs.com

ACCREDITED IN ACCORDANCE WITH nelac

Report Prepared Date:
September 25, 2013

Report of Laboratory Analysis

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The results relate only to the samples included in this report.

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analysis performed on one sample submitted by a representative of Advanced Technology Laboratories. The sample was analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using a modified version of USEPA Method 8290. The reporting limits were set to correspond to the lowest calibration points and a nominal 10-gram sample amount.

Second column confirmation analyses of 2,3,7,8-TCDF values obtained from the primary (DB5-MS) column are performed only when specifically requested for a project and only when the values are above the concentration of the lowest calibration standard. Typical resolution for this isomer using the DB5-MS column ranges from 25-30%.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extract ranged from 45-82%. Except for fifteen low values in one of the associated quality control samples, which were flagged "R" on the results table, the labeled standard recoveries obtained for this project were within the 40-135% target range specified in Method 8290. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for variation in recovery and accurate values were obtained. The Total TCDD concentration reported for the field sample included one or more isomers above the calibration range; the value was flagged "E" and should be regarded as an estimate.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank to be free of PCDDs and PCDFs at the reporting limits. These results indicate that the sample processing steps did not significantly impact the results of the field sample determinations.

Laboratory spike samples were also prepared with the sample batch using clean sand that had been fortified with native standard materials. The results show that the spiked native compounds were recovered at 95-126% with relative percent differences of 0.9-11.3%. These results indicate high degrees of accuracy and precision for these determinations. Matrix spikes were not prepared with the sample batch.

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
Alabama	40770	Mississippi	MN00064
Alaska	MN00064	Montana	92
Arizona	AZ0014	Nebraska	
Arkansas	88-0680	Nevada	MN_00064_200
California	01155CA	New Jersey (NE	MN002
Colorado	MN00064	New Mexico	MN00064
Connecticut	PH-0256	New York (NEL	11647
EPA Region 5	WD-15J	North Carolina	27700
EPA Region 8	8TMS-Q	North Dakota	R-036
Florida (NELAP	E87605	Ohio	4150
Georgia (DNR)	959	Oklahoma	D9922
Guam	959	Oregon (ELAP)	MN200001-005
Hawaii	SLD	Oregon (OREL	MN300001-001
Idaho	MN00064	Pennsylvania	68-00563
Illinois	200012	Saipan	MP0003
Indiana	C-MN-01	South Carolina	74003001
Indiana	C-MN-01	Tennesee	2818
Iowa	368	Tennessee	02818
Kansas	E-10167	Texas	T104704192-08
Kentucky	90062	Utah (NELAP)	PAM
Louisiana	03086	Virginia	00251
Maine	2007029	Washington	C755
Maryland	322	West Virginia	9952C
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-Q

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Reporting Flags

A = Reporting Limit based on signal to noise

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

I = Interference present

J = Estimated value

Nn = Value obtained from additional analysis

P = PCDE Interference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

* = See Discussion

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

2,3,7,8-TCDD Equivalency Factors (TEFs) for the Polychlorinated Dibenzo-p-dioxins and Dibenzofurans

89-ITE-Factors

Compound	TEF
2,3,7,8-TCDD	1.000000
1,2,3,7,8-PeCDD	0.500000
1,2,3,4,7,8-HxCDD	0.100000
1,2,3,6,7,8-HxCDD	0.100000
1,2,3,7,8,9-HxCDD	0.100000
1,2,3,4,6,7,8-HpCDD	0.010000
OCDD	0.001000
Total TCDD	0.000000
Total PeCDD	0.000000
Total HxCDD	0.000000
Total HpCDD	0.000000
2,3,7,8-TCDF	0.100000
1,2,3,7,8-PeCDF	0.050000
2,3,4,7,8-PeCDF	0.500000
1,2,3,4,7,8-HxCDF	0.100000
1,2,3,6,7,8-HxCDF	0.100000
2,3,4,6,7,8-HxCDF	0.100000
1,2,3,7,8,9-HxCDF	0.100000
1,2,3,4,6,7,8-HpCDF	0.010000
1,2,3,4,7,8,9-HpCDF	0.010000
OCDF	0.001000
Total TCDF	0.000000
Total PeCDF	0.000000
Total HxCDF	0.000000
Total HpCDF	0.000000

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Appendix A

Sample Management

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Sample ID Cross Reference

Client Sample ID	Pace Sample ID	Date Received	Sample Type
1302547-05 / T-15-14	10240754001-R	09/04/2013	Soil

REPORT OF LABORATORY ANALYSIS

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10240157

ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 1302547

SENDING LABORATORY:

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Phone: 562.989.4045
Fax: 562.989.6348
Project Manager: Rachelle Arada (Rachelle@atlglobal.com)

RECEIVING LABORATORY:

Pace Analytical Services, Inc.
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone :(612) 607-1700
Fax: (612) 607-6444
PO#: SC01868- STANDARD TAT (RA)

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires		Sampled
ATL Lab#: 1302547-05 / T-15-14			**Soil**	**08/21/13 08:45**
8290 [Dioxins and Dibenzofurans]	**09/19/13 17:00**	09/20/13 08:45		
1-Glass Jar - 4 oz				

Comments: NEED LEVEL III DATA PACKAGE

T=0.7°C

Released By	Date	Received By	Date
		CSI / Pace	9/13 9:50

Released By	Date	Received By	Date

Page 1 of 1

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 28Jan2013 Page 1 of 1
	Document No.: F-MN-L-213-rev.06	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Advanced

Project #: 240754

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 7966 0142 8929

Custody Seal on Cooler/Box Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other: **Temp Blank?** ☐ Yes ☑ No

Thermom. Used: ☑ 88A912167504 ☐ 80512447 ☐ 72337080 **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 0.2 **Cooler Temp Corrected (°C):** 0.7 **Biological Tissue Frozen?** ☐ Yes ☐ No

Temp should be above freezing to 6°C **Correction Factor:** +0.5 **Date and Initials of Person Examining Contents:** CS 9.4.13

				Comments:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☐ Yes	☑ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☐ Yes	☑ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: SC	☑ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	☐ Yes	☐ No	☑ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH>12)	☐ Yes	☐ No	☑ N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☐ Yes	☑ No		Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☑ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: BHL **Date:** 9/4/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

DIOXIN EXTRACTION WORKSHEET

Non Aqueous

Pace Analytical Services, Inc.

Extraction Batch : EB-13881

EB-13881

Method 8290 1613B TO9 M23

Matrix PUF XAD Solid Oil

Tissue Other _____

Spiked By _____

Spike Witness _____

Time of Spiking _____

Extraction On (Date/Time): 9/13/2013 10:00:00 PM

Extraction Off (Date/Time): 9/14/2013 2:15:00 PM

	Sample #	Internal Stds	Native Stds	Extracted mL or g	#AcidRinse	Buffer Soln	Glassware Set	Location	Comments
1	BLANK-37754			10.70					
2	LCS-37755			11.40					
3	LCSD-37756			11.00					
4	10240910001			14.20				10 0905 02	8290,T-O;prescreen
5	10240910002			14.80				10 0905 02	8290,T-O;prescreen
6	10240668001-R			11.00				Rcving	1613,T-O,prescreen
7	10240754001-R			11.30				Rcving	Prescreen, 8290 T-O
8	10240798001-R			36.90				Rcving	8290,T-O,prescreen
9	10241234003			1.00				10 0909 01	8290,T-O;prescreen
10	35106542002			11.80				10 0905 02	8290,TD;prescreen;ASAP

Standards:

Internal Std FS-I-9966-028

Native FS-N-9966-024

Cl-37 Std DWCL4-9966-029

Recovery Std FS-R-9966-027

Tridecane

Mineral Oil

Others

☐ **Silica:**

Date 9/14/2013

Initials TDP

Hexane Lot # 134111

Dispenser ID

Neutral Batch # 242N

Basic Batch # 325B

Acid Batch # 489A

☐ **Alumina:**

Date 9/16/2013

Initials ped

Hexane Lot # 130152

Dispenser ID

60% Batch # 1542

Dispenser ID

Alumina Lot

☐ **Carbon:**

Date 9/17/2013

Initials MF

Toluene Lot # 131926

Dispenser ID

75% Batch # 315

Dispenser ID

50% Batch # 430

Dispenser ID

Hexane Lot # 130152

Dispenser ID

Extract Solvents:

Toluene Lot #

Hexane Lot #

MeCl Lot #

☐ **Acid Base:**

H2SO4 Lot #

Buffer Soln #

QC Matrix Lot/Batch# _____

Extracts Relinquished By: _____ **Received By:** _____ **Date:** _____

FH025Rev.01, 05Jan2009

DIOXIN EXTRACTION WORKSHEET

EB-13881

Extraction Batch : EB-13881

Extraction Notes

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Solid Sample Moisture Log

Sample ID	Container Weight	Adjusted Wet Weight	Adjusted Dry Weight	% Moisture	% Solids	Amount Extracted	Assayed
BLANK-37754	0.00	0.00	0.00	0.00	100.00	10.70	12/30/99
LCS-37755	0.00	0.00	0.00	0.00	100.00	11.40	12/30/99
LCSD-37756	0.00	0.00	0.00	0.00	100.00	11.00	12/30/99
10240910001	0.00	0.00	0.00	0.00	100.00	14.20	12/30/99
10240910002	0.00	0.00	0.00	0.00	100.00	14.80	12/30/99
10240668001-R	0.00	0.00	0.00	27.50	100.00	11.00	9/6/13 CMS2
10240754001-R	0.00	0.00	0.00	11.00	~~100.00~~ ①	11.30	9/13/13 JDL
10240798001-R	0.00	0.00	0.00	44.40	100.00	36.90	9/11/13 JDL
10241234003	0.00	0.00	0.00	0.00	100.00	1.00	12/30/99
35106542002	0.00	0.00	0.00	12.40	100.00	11.80	9/4/13 IR00

① [illegible] 9/25/13

REPORT OF LABORATORY ANALYSIS

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Client names have been blacked out on notebook pages in order to preserve client confidentiality

Analysis Key Code List

- = Not used

✔ = Worked up

= See comment # below

Li = Liner, replace or clean

Ba = Baseplate, change

SyB = Syringe, replace – bent

SyP = Syringe, replace – plugged

SyO = Syringe, replace – other

IS = Injector Septum, replace

BS = Batch Septum, replace

Fi = Filament, replace

Co = Contacts, adjust

Ca = re-Calibrate

Tu = Tune

TC = Tune and Calibrate

CC () = Cut Column (length cut)

CO = Carry-Over possible

RRM = ReRun - Matrix

RRLM = ReRun – Lock Mass

RRBI = ReRun – Bad Injection

RRRT = ReRun – Retention Time shift

RR>S = Rerun – need better Sensitivity

Re = Re-extract

AS = Adjust Slits

LC = Leak Check

RB = Re-Boot system

CiS = Cleaned inner Source

CoS = Cleaned outer Source

AiS = Alternate inner Source

AoS = Alternate outer Source

<Y = Adjust Y focus down

>Y = Adjust Y focus up

Di () = Dilution needed (amount needed)

FE = Front End – liner, baseplate and septum

Sample List Report **MassLynx 4.1 SCN 881** 10MSH-206 7/29/13

Sample List: C:\MassLynx\Default.pro\Sampledb\U130729B.SPL
Last Modified: Monday, July 29, 2013 16:57:48 Central Daylight Time
Printed: Monday, July 29, 2013 16:58:11 Central Daylight Time

Page Position (1, 1)

	File Name	File Text	Method	MS File	Inlet File	Vial	Inj
1	U130729B_01	CAL CS3/CPM-7604-274 - SMT TC	8290	dioxfur	dioxfur	Tray1:1	1.000000
2	U130729B_02	LCS STD-37216 - SMT	HOUSE	dioxfur	dioxfur	Tray1:4	1.000000
3	U130729B_03	BLANK NONANE - SMT	HOUSE	dioxfur	dioxfur	Tray1:2	1.000000
4	U130729B_04	BLANK 8515-142-10X - SMT	HOUSE	dioxfur	dioxfur	Tray1:3	1.000000
5	U130729B_05	SAMP 10231732012 - SMT [redacted] co check	8290	dioxfur	dioxfur	Tray1:5	1.000000
6	U130729B_06	SAMP 10231732014 - SMT [redacted] co check	8290	dioxfur	dioxfur	Tray1:6	1.000000
7	U130729B_07	SAMP 3598370001-R - SMT [redacted]	8290	dioxfur	dioxfur	Tray1:7	1.000000
8	U130729B_08	SAMP 3598370002-R - SMT [redacted]	8290	dioxfur	dioxfur	Tray1:8	1.000000
9	U130729B_09	CAL CS3/CPM-7604-274 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000
10	U130729B_10	CAL CS2-7604-276 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:9	1.000000
11	U130729B_11	CAL CS1-7604-273 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:10	1.000000
12	U130729B_12	CAL CS5-7604-278 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:11	1.000000
13	U130729B_13	CAL CS4-7604-277 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:12	1.000000
14	U130729B_14	BLANK NONANE - SMT	HOUSE	dioxfur	dioxfur	Tray1:2	1.000000
15	U130729B_15	CAL STD-37024 - SMT 2nd	8290/1613B	dioxfur	dioxfur	Tray1:13	1.000000
16	U130729B_16	BLANK NONANE - SMT	HOUSE	dioxfur	dioxfur	Tray1:2	1.000000
17	U130729B_17	BLANK NONANE - SMT	HOUSE	dioxfur	dioxfur	Tray1:2	1.000000
18	U130729B_18	SAMP 60149402001 - SMT [redacted]	1613B-TD	dioxfur	dioxfur	Tray1:14	1.000000
19	U130729B_19	SAMP 201107262 - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:15	1.000000
20	U130729B_20	SAMP 1222806001 - SMT [redacted]	1613B-TD/F	dioxfur	dioxfur	Tray1:16	1.000000
21	U130729B_21	SAMP 10236297001 - SMT [redacted]	1613B-TD	dioxfur	dioxfur	Tray1:17	1.000000
22	U130729B_22	SAMP 10236295001 - SMT [redacted]	1613B-TD	dioxfur	dioxfur	Tray1:18	1.000000
23	U130729B_23	BLANK BLANK-37138 - SMT	1613B	dioxfur	dioxfur	Tray1:19	1.000000
24	U130729B_24	CAL CS3/CPM-7604-274 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000

Sum 8/2/13

Sample List Report **MassLynx 4.1 SCN 881** 10MSHR06 9/17/13

Sample List: C:\MassLynx\Default.pro\Sampledb\U130917A.SPL

Last Modified: Wednesday, September 18, 2013 07:15:09 Central Daylight Time

Printed: Wednesday, September 18, 2013 07:15:13 Central Daylight Time

Page Position (1, 1)

	File Name	File Text	Method	MS File	Inlet File	Vial	Inj
1	U130917A_01	CAL CS3/CPM-7604-279 - SMT FE AS TC	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000
2	U130917A_02	SAMP 35106542001-MS - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:4	1.000000
3	U130917A_03	SAMP 35106542001-MSD - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:5	1.000000
4	U130917A_04	BLANK BLANK-8515-142-10X - SMT	HOUSE	dioxfur	dioxfur	Tray1:3	1.000000
5	U130917A_05	LCS LCS-37732 - SMT	8290	dioxfur	dioxfur	Tray1:6	1.000000
6	U130917A_06	CAL CS3/CPM-7604-279 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000
7	U130917A_07	LCS LCS-37724 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:4	1.000000
8	U130917A_08	LCS LCSD-37725 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:5	1.000000
9	U130917A_09	BLANK BLANK-8515-142-10X - SMT	HOUSE	dioxfur	dioxfur	Tray1:3	1.000000
10	U130917A_10	BLANK BLANK-37723 - SMT	8290	dioxfur	dioxfur	Tray1:7	1.000000
11	U130917A_11	SAMP 35106542001 - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:8	1.000000
12	U130917A_12	SAMP 35104661009-R2 - SMT [redacted]	8290	dioxfur	dioxfur	Tray1:9	1.000000
13	U130917A_13	SAMP 35104661011-R2 - SMT [redacted] dec	8290	dioxfur	dioxfur	Tray1:10	1.000000
14	U130917A_14	SAMP 35106543001 - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:11	1.000000
15	U130917A_15	SAMP 35106543002 - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:12	1.000000
16	U130917A_16	SAMP 35106543003 - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:13	1.000000
17	U130917A_17	SAMP 35106543004 - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:14	1.000000
18	U130917A_18	SAMP 35106543005 - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:15	1.000000
19	U130917A_19	SAMP 35106543006 - SMT [redacted]	8290-TD	dioxfur	dioxfur	Tray1:16	1.000000
20	U130917A_20	SAMP 10240757001 - BAL [redacted] xclp	1613B-TD	dioxfur	dioxfur	Tray1:17	1.000000
21	U130917A_21	BLANK NONANE - SMT yellow samps	HOUSE	dioxfur	dioxfur	Tray1:2	1.000000
22	U130917A_22	CAL CS3/CPM-7604-279 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000

pal all

FWH 9/18/13

Sample List Report **MassLynx 4.1 SCN 881** 10MS'HR20 9/6 Sum 9/20/13 9/17/13

Sample List: C:\MassLynx\Default.pro\Sampledb\U130917B.SPL

Last Modified: Wednesday, September 18, 2013 12:53:16 Central Daylight Time

Printed: Wednesday, September 18, 2013 12:56:54 Central Daylight Time

Page Position (1, 1)

	File Name	File Text	Method	MS File	Inlet File	Vial	Inj
1	U130917B_01	✓LCS LCS-37755 - BAL	8290/1613B	dioxfur	dioxfur	Tray1:30	1.000000
2	U130917B_02	✓LCS LCSD-37756 - BAL	8290/1613B	dioxfur	dioxfur	Tray1:31	1.000000
3	U130917B_03	✓BLANK BLANK-8515-142-10X - SMT	HOUSE	dioxfur	dioxfur	Tray1:3	1.000000
4	U130917B_04	✓BLANK BLANK-37653 - BAL	8290	dioxfur	dioxfur	Tray1:6	1.000000
5	U130917B_05	✓BLANK BLANK-37754 - BAL	8290/1613B	dioxfur	dioxfur	Tray1:29	1.000000
6	U130917B_06	✓SAMP 35106542002 - BAL [redacted]	8290-TD	dioxfur	dioxfur	Tray1:32	1.000000
7	U130917B_07	✓SAMP 35104661011-R2 - SMT [redacted] 10X	8290	dioxfur	dioxfur	Tray1:27	1.000000
8	U130917B_08	✓SAMP 10241754001 - SMT [redacted]	8290	dioxfur	dioxfur	Tray1:28	1.000000
9	U130917B_09	✓SAMP 10241752001 - SMT [redacted]	8290	dioxfur	dioxfur	Tray1:29	1.000000
10	U130917B_10	✓SAMP 10241752002 - SMT [redacted]	8290	dioxfur	dioxfur	Tray1:30	1.000000
11	U130917B_11	✓SAMP 10241752003 - SMT [redacted]	8290	dioxfur	dioxfur	Tray1:31	1.000000
12	U130917B_12	✓SAMP 10241752001 - SMT [redacted] 5X	1613B	dioxfur	dioxfur	Tray1:32	1.000000
13	U130917B_13	✓SAMP 10241754001 - SMT [redacted] 5X	1613B	dioxfur	dioxfur	Tray1:33	1.000000
14	U130917B_14	✓LCS LCS-37755 - SMT	1613B	dioxfur	dioxfur	Tray1:34	1.000000
15	U130917B_15	✓CAL CS3/CPM-7604-279 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000

Smt- 9/20/13

Sample List Report **MassLynx 4.0 SCN480 SCN533** 10M314205 9/18/13

Sample List: C:\MassLynx\Default.pro\Sampledb\F130918B.SPL

Last Modified: Wednesday, September 18, 2013 5:06:42 PM Central Daylight Time

Printed: Wednesday, September 18, 2013 5:07:14 PM Central Daylight Time

Page Position (1, 1)

	File Name	File Text	Method	MS File	Inlet File	Vial	Inject
1	F130918B_01	CAL CS3/CPM-7604-279 - SMT TC	8290/1613B	dioxfur	dioxfur	1	1.000000
2	F130918B_02	CAL CS3/CPM-7604-279 - SMT FE 4"	8290/1613B	dioxfur	dioxfur	1	1.000000
3	F130918B_03	CAL CS2-7604-276 - SMT	8290/1613B	dioxfur	dioxfur	20	1.000000
4	F130918B_04	CAL CS1-7604-273 - SMT	8290/1613B	dioxfur	dioxfur	21	1.000000
5	F130918B_05	CAL CS5-7604-278 - SMT	8290/1613B	dioxfur	dioxfur	22	1.000000
6	F130918B_06	CAL CS4-7604-277 - SMT	8290/1613B	dioxfur	dioxfur	23	1.000000
7	F130918B_07	BLANK NONANE - SMT	HOUSE	dioxfur	dioxfur	2	1.000000
8	F130918B_08	CAL LCS-37562 - SMT 2nd	8290/1613B	dioxfur	dioxfur	24	1.000000
9	F130918B_09	LCS LCS-37608 - SMT [redacted] x-cln	1613B	dioxfur	dioxfur	17	1.000000
10	F130918B_10	SAMP 10240642007-MS - SMT [redacted] x-cln	1613B	dioxfur	dioxfur	18	1.000000
11	F130918B_11	SAMP 10240642007-MSD - SMT [redacted] x-cln	1613B	dioxfur	dioxfur	19	1.000000

9/20/13

Sample List Report **MassLynx 4.0 SCN480 SCN533** 10MSHR05 9/21/13

Sample List: C:\MassLynx\Default.pro\Sampledb\F130921A.SPL

Last Modified: Friday, September 20, 2013 6:16:31 PM Central Daylight Time

Printed: Friday, September 20, 2013 6:18:33 PM Central Daylight Time

Page Position (1, 1)

	File Name	File Text	Method	MS File	Inlet File	Vial	Inject
1	F130921A_01	LCS LCS-37801 - BAL	8290/1613T	dioxfur	dioxfur	18	1.000000
2	F130921A_02	LCS LCSD-37802 - BAL	8290/1613T	dioxfur	dioxfur	19	1.000000
3	F130921A_03	BLANK NONANE - BAL	HOUSE	dioxfur	dioxfur	2	1.000000
4	F130921A_04	SAMP 201122364 - BAL [redacted]	8290-TD	dioxfur	dioxfur	20	1.000000
5	F130921A_05	BLANK BLANK-37800 - BAL	8290/1613T	dioxfur	dioxfur	21	1.000000
6	F130921A_06	SAMP 10241495019 - BAL [redacted]	8290	dioxfur	dioxfur	22	1.000000
7	F130921A_07	SAMP 10241526013 - BAL [redacted]	8290	dioxfur	dioxfur	23	1.000000
8	F130921A_08	SAMP 35107374001 - BAL [redacted]	8290	dioxfur	dioxfur	24	1.000000
9	F130921A_09	SAMP 35107374002 - BAL [redacted]	8290	dioxfur	dioxfur	25	1.000000
10	F130921A_10	SAMP 35107374003 - BAL [redacted]	8290	dioxfur	dioxfur	26	1.000000
11	F130921A_11	SAMP 35107374004 - BAL [redacted]	8290	dioxfur	dioxfur	27	1.000000
12	F130921A_12	SAMP 35107374005 - BAL [redacted]	8290	dioxfur	dioxfur	28	1.000000
13	F130921A_13	SAMP 35107374006 - BAL [redacted]	8290	dioxfur	dioxfur	29	1.000000
14	F130921A_14	SAMP 35107374007 - BAL [redacted]	8290	dioxfur	dioxfur	30	1.000000
15	F130921A_15	SAMP 35107374008 - BAL [redacted]	8290	dioxfur	dioxfur	31	1.000000
16	F130921A_16	CAL CS3/CPM-7604-279 - BAL BAL	8290/1613B	dioxfur	dioxfur	1	1.000000

pass 8290 + 1613T

Jm 9/25/13

Sample List Report **MassLynx 4.0 SCN480 SCN533** /0 M 5142.05 9/21/13

Sample List: C:\MassLynx\Default.pro\Sampledb\F130921B.SPL

Last Modified: Saturday, September 21, 2013 3:22:23 PM Central Daylight Time

Printed: Saturday, September 21, 2013 3:22:43 PM Central Daylight Time

Page Position (1, 1)

	File Name	File Text	Method	MS File	Inlet File	Vial	Inject
1	F130921B_01	BLANK NONANE - BAL	HOUSE	dioxfur	dioxfur	2	1.000000
2	F130921B_02	SAMP 10241785001 - BAL [redacted]	1613B-TD	dioxfur	dioxfur	4	1.000000
3	F130921B_03	BLANK BLANK-37757 - BAL	8290/1613T	dioxfur	dioxfur	5	1.000000
4	F130921B_04	SAMP 10242402001 - BAL [redacted]	8290	dioxfur	dioxfur	6	1.000000
5	F130921B_05	SAMP 10241526001 - BAL [redacted]	8290	dioxfur	dioxfur	7	1.000000
6	F130921B_06	SAMP 10241526005 - BAL [redacted]	8290	dioxfur	dioxfur	8	1.000000
7	F130921B_07	SAMP 10241526006 - BAL [redacted]	8290	dioxfur	dioxfur	9	1.000000
8	F130921B_08	SAMP 10241670001 - BAL [redacted]	1613B-TD	dioxfur	dioxfur	10	1.000000
9	F130921B_09	SAMP 4083352001 - BAL [redacted]	8290	dioxfur	dioxfur	11	1.000000
10	F130921B_10	SAMP 10240751001-R - BAL ADV	8290	dioxfur	dioxfur	12	1.000000
11	F130921B_11	SAMP 10240751002-R - BAL ADV ①	8290	dioxfur	dioxfur	13	1.000000
12	F130921B_12	SAMP 10240910001 - BAL [redacted]	8290	dioxfur	dioxfur	14	1.000000
13	F130921B_13	SAMP 10240910002 - BAL [redacted]	8290	dioxfur	dioxfur	15	1.000000
14	F130921B_14	LCS LCS-37758 - BAL	8290/1613T	dioxfur	dioxfur	16	1.000000
15	F130921B_15	LCS LCSD-37759 - BAL	8290/1613T	dioxfur	dioxfur	17	1.000000
16	F130921B_16	CAL CS3/CPM-7604-279 - BAL BAL	8290/1613B	dioxfur	dioxfur	1	1.000000

passed 8290/1613 but not 1613 tetra CAL 9/22/13

① 754001 9/21/13

bas 9/25/13

Appendix B

Sample Analysis Summary

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Advanced Technology Labs

Client's Sample ID	1302547-05 / T-15-14		
Lab Sample ID	10240754001-R		
Filename	F130921B_11		
Injected By	BAL		
Total Amount Extracted	11.3 g	Matrix	Soil
% Moisture	11.0	Dilution	NA
Dry Weight Extracted	10.1 g	Collected	08/21/2013 08:45
ICAL ID	F130918	Received	09/04/2013 09:50
CCal Filename(s)	F130921A_16 & F130921B_16	Extracted	09/13/2013 22:00
Method Blank ID	BLANK-37754	Analyzed	09/21/2013 22:11

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	110.0	----	1.0		2,3,7,8-TCDF-13C	2.00	68
Total TCDF	2100.0	----	1.0		2,3,7,8-TCDD-13C	2.00	77
					1,2,3,7,8-PeCDF-13C	2.00	69
2,3,7,8-TCDD	6.5	----	1.0		2,3,4,7,8-PeCDF-13C	2.00	68
Total TCDD	980.0	----	1.0	E	1,2,3,7,8-PeCDD-13C	2.00	82
					1,2,3,4,7,8-HxCDF-13C	2.00	67
1,2,3,7,8-PeCDF	33.0	----	5.0		1,2,3,6,7,8-HxCDF-13C	2.00	69
2,3,4,7,8-PeCDF	120.0	----	5.0		2,3,4,6,7,8-HxCDF-13C	2.00	65
Total PeCDF	970.0	----	5.0		1,2,3,7,8,9-HxCDF-13C	2.00	64
					1,2,3,4,7,8-HxCDD-13C	2.00	73
1,2,3,7,8-PeCDD	14.0	----	5.0		1,2,3,6,7,8-HxCDD-13C	2.00	66
Total PeCDD	540.0	----	5.0		1,2,3,4,6,7,8-HpCDF-13C	2.00	77
					1,2,3,4,7,8,9-HpCDF-13C	2.00	72
1,2,3,4,7,8-HxCDF	63.0	----	5.0		1,2,3,4,6,7,8-HpCDD-13C	2.00	73
1,2,3,6,7,8-HxCDF	54.0	----	5.0		OCDD-13C	4.00	45
2,3,4,6,7,8-HxCDF	100.0	----	5.0				
1,2,3,7,8,9-HxCDF	14.0	----	5.0		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	470.0	----	5.0		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	11.0	----	5.0		2,3,7,8-TCDD-37Cl4	0.20	86
1,2,3,6,7,8-HxCDD	28.0	----	5.0				
1,2,3,7,8,9-HxCDD	20.0	----	5.0				
Total HxCDD	680.0	----	5.0				
1,2,3,4,6,7,8-HpCDF	220.0	----	5.0		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	11.0	----	5.0		Equivalence: 120 ng/Kg		
Total HpCDF	280.0	----	5.0		(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	260.0	----	5.0				
Total HpCDD	500.0	----	5.0				
OCDF	36.0	----	10.0				
OCDD	830.0	----	10.0				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

and are valid to no more than 2 significant figures.
E = Exceeds calibration range

REPORT OF LABORATORY ANALYSIS

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Appendix C

QC and Calibration Results Summary

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Pace Analytical™

Method 8290 Blank Analysis Results

Lab Sample ID	BLANK-37754	Matrix	Solid
Filename	U130917B_05	Dilution	NA
Total Amount Extracted	10.7 g	Extracted	09/13/2013 22:00
ICAL ID	U130729	Analyzed	09/18/2013 05:55
CCal Filename(s)	U130917A_22 & U130917B_15	Injected By	BAL

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.0	2,3,7,8-TCDF-13C	2.00	75
Total TCDF	ND	----	1.0	2,3,7,8-TCDD-13C	2.00	81
				1,2,3,7,8-PeCDF-13C	2.00	73
2,3,7,8-TCDD	ND	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	76
Total TCDD	ND	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	80
				1,2,3,4,7,8-HxCDF-13C	2.00	75
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	83
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	93
Total PeCDF	ND	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	76
				1,2,3,4,7,8-HxCDD-13C	2.00	83
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	78
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	75
				1,2,3,4,7,8,9-HpCDF-13C	2.00	72
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	70
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	69
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	84
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	ND	----	5.0			
1,2,3,4,6,7,8-HpCDF	ND	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 0.00 ng/Kg		
Total HpCDF	ND	----	5.0	(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	5.0			
Total HpCDD	ND	----	5.0			
OCDF	ND	----	10.0			
OCDD	ND	----	10.0			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

Results reported on a dry weight basis and are valid to no more than 2 significant figures.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Pace Analytical™

Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCS-37755		
Filename	U130917B_01	Matrix	Solid
Total Amount Extracted	11.4 g	Dilution	NA
ICAL ID	U130729	Extracted	09/13/2013 22:00
CCal Filename(s)	U130917A_22 & U130917B_15	Analyzed	09/18/2013 02:48
Method Blank ID	BLANK-37754	Injected By	BAL

Native Isomers	Qs (ng)	Qm (ng)	% Rec.
2,3,7,8-TCDF	0.20	0.20	98
Total TCDF			
2,3,7,8-TCDD	0.20	0.20	102
Total TCDD			
1,2,3,7,8-PeCDF	1.0	1.0	101
2,3,4,7,8-PeCDF	1.0	1.0	101
Total PeCDF			
1,2,3,7,8-PeCDD	1.0	0.95	95
Total PeCDD			
1,2,3,4,7,8-HxCDF	1.0	1.0	102
1,2,3,6,7,8-HxCDF	1.0	1.00	100
2,3,4,6,7,8-HxCDF	1.0	0.98	98
1,2,3,7,8,9-HxCDF	1.0	1.0	105
Total HxCDF			
1,2,3,4,7,8-HxCDD	1.0	1.0	105
1,2,3,6,7,8-HxCDD	1.0	1.1	108
1,2,3,7,8,9-HxCDD	1.0	1.2	122
Total HxCDD			
1,2,3,4,6,7,8-HpCDF	1.0	1.1	112
1,2,3,4,7,8,9-HpCDF	1.0	1.0	100
Total HpCDF			
1,2,3,4,6,7,8-HpCDD	1.0	0.98	98
Total HpCDD			
OCDF	2.0	2.3	115
OCDD	2.0	2.1	107

Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF-13C	2.0	10 R
2,3,7,8-TCDD-13C	2.0	10 R
1,2,3,7,8-PeCDF-13C	2.0	14 R
2,3,4,7,8-PeCDF-13C	2.0	13 R
1,2,3,7,8-PeCDD-13C	2.0	14 R
1,2,3,4,7,8-HxCDF-13C	2.0	19 R
1,2,3,6,7,8-HxCDF-13C	2.0	20 R
2,3,4,6,7,8-HxCDF-13C	2.0	24 R
1,2,3,7,8,9-HxCDF-13C	2.0	20 R
1,2,3,4,7,8-HxCDD-13C	2.0	18 R
1,2,3,6,7,8-HxCDD-13C	2.0	17 R
1,2,3,4,6,7,8-HpCDF-13C	2.0	24 R
1,2,3,4,7,8,9-HpCDF-13C	2.0	21 R
1,2,3,4,6,7,8-HpCDD-13C	2.0	21 R
OCDD-13C	4.0	22 R
1,2,3,4-TCDD-13C	2.0	NA
1,2,3,7,8,9-HxCDD-13C	2.0	NA
2,3,7,8-TCDD-37Cl4	0.20	11

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
R = Recovery outside of target range

Y = RF averaging used in calculations
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

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Tel: 612-607-1700
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Pace Analytical™

Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCSD-37756		
Filename	U130917B_02	Matrix	Solid
Total Amount Extracted	11.0 g	Dilution	NA
ICAL ID	U130729	Extracted	09/13/2013 22:00
CCal Filename(s)	U130917A_22 & U130917B_15	Analyzed	09/18/2013 03:34
Method Blank ID	BLANK-37754	Injected By	BAL

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.22	108	2,3,7,8-TCDF-13C	2.0	78
Total TCDF				2,3,7,8-TCDD-13C	2.0	84
				1,2,3,7,8-PeCDF-13C	2.0	75
2,3,7,8-TCDD	0.20	0.21	103	2,3,4,7,8-PeCDF-13C	2.0	76
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	81
				1,2,3,4,7,8-HxCDF-13C	2.0	82
1,2,3,7,8-PeCDF	1.0	1.1	108	1,2,3,6,7,8-HxCDF-13C	2.0	87
2,3,4,7,8-PeCDF	1.0	1.1	106	2,3,4,6,7,8-HxCDF-13C	2.0	98
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	80
				1,2,3,4,7,8-HxCDD-13C	2.0	88
1,2,3,7,8-PeCDD	1.0	0.99	99	1,2,3,6,7,8-HxCDD-13C	2.0	82
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	83
				1,2,3,4,7,8,9-HpCDF-13C	2.0	81
1,2,3,4,7,8-HxCDF	1.0	1.1	111	1,2,3,4,6,7,8-HpCDD-13C	2.0	78
1,2,3,6,7,8-HxCDF	1.0	1.1	106	OCDD-13C	4.0	77
2,3,4,6,7,8-HxCDF	1.0	1.0	103			
1,2,3,7,8,9-HxCDF	1.0	1.1	111	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.1	110	2,3,7,8-TCDD-37Cl4	0.20	90
1,2,3,6,7,8-HxCDD	1.0	1.2	120			
1,2,3,7,8,9-HxCDD	1.0	1.1	109			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.1	113			
1,2,3,4,7,8,9-HpCDF	1.0	1.1	106			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	1.1	109			
Total HpCDD						
OCDF	2.0	2.5	126			
OCDD	2.0	2.4	118			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
R = Recovery outside of target range

Y = RF averaging used in calculations
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
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Tel: 612-607-1700
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Method 8290

Spike Recovery Relative Percent Difference (RPD) Results

Client: Advanced Technology Labs

Spike 1 ID: LCS-37755
Spike 1 Filename: U130917B_01
Spike 2 ID: LCSD-37756
Spike 2 Filename: U130917B_02

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDF	98	108	9.7
2,3,7,8-TCDD	102	103	1.0
1,2,3,7,8-PeCDF	101	108	6.7
2,3,4,7,8-PeCDF	101	106	4.8
1,2,3,7,8-PeCDD	95	99	4.1
1,2,3,4,7,8-HxCDF	102	111	8.5
1,2,3,6,7,8-HxCDF	100	106	5.8
2,3,4,6,7,8-HxCDF	98	103	5.0
1,2,3,7,8,9-HxCDF	105	111	5.6
1,2,3,4,7,8-HxCDD	105	110	4.7
1,2,3,6,7,8-HxCDD	108	120	10.5
1,2,3,7,8,9-HxCDD	122	109	11.3
1,2,3,4,6,7,8-HpCDF	112	113	0.9
1,2,3,4,7,8,9-HpCDF	100	106	5.8
1,2,3,4,6,7,8-HpCDD	98	109	10.6
OCDF	115	126	9.1
OCDD	107	118	9.8

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value

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Method 8290/1613
Initial Calibration (ICAL) - Response Factor Summary

ICAL ID	**F130918**	Data Files:		Time	Injected
Calibration Date	09/18/2013	CS-1	F130918B_04	18:22	SMT
Instrument	10MSHR05 (F)	CS-2	F130918B_03	17:38	SMT
Column Phase	DB-5MS 0.25mm	CS-3	F130918B_02	16:50	SMT
Column ID No.	USD174324H	CS-4	F130918B_06	19:54	SMT
		CS-5	F130918B_05	19:08	SMT

Isomer	CS-1	CS-2	CS-3	CS-4	CS-5	Ave RF	%RSD
2,3,7,8-TCDF	1.0056	1.0674	1.1267	1.1435	1.1410	1.0968	5.43
2,3,7,8-TCDD	1.1272	1.0525	1.1558	1.1616	1.1665	1.1327	4.18
1,2,3,7,8-PeCDF	1.0831	1.1328	1.1318	1.1577	1.1649	1.1340	2.83
2,3,4,7,8-PeCDF	1.1251	1.1557	1.1618	1.2091	1.2023	1.1708	2.98
1,2,3,7,8-PeCDD	1.0941	1.1224	1.1458	1.1499	1.1508	1.1326	2.16
1,2,3,4,7,8-HxCDF	1.2706	1.2612	1.2627	1.3010	1.3317	1.2855	2.37
1,2,3,6,7,8-HxCDF	1.2834	1.2327	1.2533	1.2605	1.2831	1.2626	1.70
2,3,4,6,7,8-HxCDF	1.2082	1.3573	1.3273	1.3706	1.3544	1.3236	5.02
1,2,3,7,8,9-HxCDF	1.1508	1.1661	1.1842	1.2378	1.2037	1.1885	2.86
1,2,3,4,7,8-HxCDD	1.1578	1.1292	1.1763	1.1857	1.1840	1.1666	2.03
1,2,3,6,7,8-HxCDD	1.0592	1.0951	1.0775	1.0667	1.0624	1.0722	1.36
1,2,3,7,8,9-HxCDD	1.0642	1.0902	1.1631	1.1315	1.1180	1.1134	3.41
1,2,3,4,6,7,8-HpCDF	1.3326	1.4411	1.3298	1.3610	1.4254	1.3780	3.79
1,2,3,4,7,8,9-HpCDF	1.3392	1.3268	1.4124	1.3688	1.4889	1.3872	4.73
1,2,3,4,6,7,8-HpCDD	1.1301	1.1383	1.1786	1.2130	1.2203	1.1761	3.52
OCDF	1.3867	1.3738	1.4585	1.5364	1.5611	1.4633	5.80
OCDD	1.0231	1.0533	1.0806	1.1352	1.1108	1.0806	4.12
Total PeCDF	1.1041	1.1443	1.1468	1.1834	1.1836	1.1524	2.87
Total HxCDF	1.2282	1.2543	1.2569	1.2925	1.2932	1.2650	2.20
Total HxCDD	1.0937	1.1048	1.1390	1.1280	1.1215	1.1174	1.62
Total HpCDF	1.3359	1.3839	1.3711	1.3649	1.4571	1.3826	3.27
2,3,7,8-TCDF-13C	1.5962	1.5358	1.6981	1.5974	1.6444	1.6144	3.76
2,3,7,8-TCDD-13C	0.9072	0.9137	1.0205	0.9423	0.9846	0.9536	5.06
2,3,7,8-TCDD-37Cl4	0.9052	1.0111	1.1580	1.1020	1.1462	1.0645	9.97
1,2,3,7,8-PeCDF-13C	1.3665	1.3891	1.6039	1.4704	1.5398	1.4740	6.78
2,3,4,7,8-PeCDF-13C	1.3514	1.3617	1.6640	1.4181	1.5070	1.4604	8.86
1,2,3,7,8-PeCDD-13C	0.7487	0.7585	0.9429	0.8067	0.8660	0.8245	9.81
1,2,3,4,7,8-HxCDF-13C	1.4266	1.4118	1.3881	1.4751	1.4248	1.4253	2.23
1,2,3,6,7,8-HxCDF-13C	1.5667	1.5976	1.5163	1.6657	1.6059	1.5904	3.45
2,3,4,6,7,8-HxCDF-13C	1.5190	1.4179	1.4313	1.4574	1.4271	1.4505	2.82
1,2,3,7,8,9-HxCDF-13C	1.3579	1.3812	1.4571	1.4213	1.4473	1.4130	3.01
1,2,3,4,7,8-HxCDD-13C	0.9031	0.9502	0.9065	0.9408	0.9440	0.9289	2.40
1,2,3,6,7,8-HxCDD-13C	1.0218	1.0547	1.0601	1.1025	1.0744	1.0627	2.77
1,2,3,4,6,7,8-HpCDF-13C	0.8307	0.8000	0.8218	0.8286	0.8037	0.8170	1.75
1,2,3,4,7,8,9-HpCDF-13C	0.6477	0.6629	0.6302	0.7068	0.6797	0.6654	4.43
1,2,3,4,6,7,8-HpCDD-13C	0.5574	0.5867	0.5737	0.6335	0.6077	0.5918	5.02
OCDD-13C	0.7252	0.7876	0.7685	0.7903	0.8569	0.7857	6.05

REPORT OF LABORATORY ANALYSIS

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Method 8290/1613
Initial Calibration (ICAL) - Isotope Ratio Summary

		Data Files:		Time	Injected
ICAL ID	**F130918**	CS-1	F130918B_04	18:22	SMT
Calibration Date	09/18/2013	CS-2	F130918B_03	17:38	SMT
Instrument	10MSHR05 (F)	CS-3	F130918B_02	16:50	SMT
Column Phase	DB-5MS 0.25mm	CS-4	F130918B_06	19:54	SMT
Column ID No.	USD174324H	CS-5	F130918B_05	19:08	SMT

Isomer	CS-1	CS-2	CS-3	CS-4	CS-5	Limits
2,3,7,8-TCDF	0.84	0.78	0.81	0.79	0.80	0.65 - 0.89
2,3,7,8-TCDD	0.86	0.73	0.79	0.78	0.79	0.65 - 0.89
1,2,3,7,8-PeCDF	1.57	1.62	1.57	1.61	1.61	1.32 - 1.78
2,3,4,7,8-PeCDF	1.51	1.63	1.62	1.59	1.61	1.32 - 1.78
1,2,3,7,8-PeCDD	0.66	0.64	0.64	0.64	0.65	0.52 - 0.70
1,2,3,4,7,8-HxCDF	1.30	1.27	1.31	1.29	1.27	1.05 - 1.43
1,2,3,6,7,8-HxCDF	1.29	1.24	1.27	1.30	1.28	1.05 - 1.43
2,3,4,6,7,8-HxCDF	1.26	1.27	1.28	1.31	1.26	1.05 - 1.43
1,2,3,7,8,9-HxCDF	1.18	1.26	1.30	1.31	1.31	1.05 - 1.43
1,2,3,4,7,8-HxCDD	1.27	1.28	1.30	1.38	1.29	1.05 - 1.43
1,2,3,6,7,8-HxCDD	1.21	1.31	1.28	1.23	1.29	1.05 - 1.43
1,2,3,7,8,9-HxCDD	1.23	1.24	1.26	1.30	1.28	1.05 - 1.43
1,2,3,4,6,7,8-HpCDF	1.09	0.99	1.02	1.02	0.97	0.88 - 1.20
1,2,3,4,7,8,9-HpCDF	0.93	1.07	0.98	1.09	1.07	0.88 - 1.20
1,2,3,4,6,7,8-HpCDD	1.08	0.98	1.02	1.05	1.06	0.88 - 1.20
OCDF	0.91	0.94	0.94	0.93	0.95	0.76 - 1.02
OCDD	0.92	0.89	0.90	0.89	0.91	0.76 - 1.02
1,2,3,4-TCDD-13C	0.81	0.80	0.82	0.79	0.80	0.65 - 0.89
1,2,3,7,8,9-HxCDD-13C	1.24	1.26	1.28	1.26	1.27	1.05 - 1.43
2,3,7,8-TCDF-13C	0.81	0.80	0.80	0.80	0.79	0.65 - 0.89
2,3,7,8-TCDD-13C	0.81	0.81	0.81	0.80	0.80	0.65 - 0.89
1,2,3,7,8-PeCDF-13C	1.62	1.64	1.62	1.62	1.61	1.32 - 1.78
2,3,4,7,8-PeCDF-13C	1.63	1.60	1.65	1.65	1.62	1.32 - 1.78
1,2,3,7,8-PeCDD-13C	1.59	1.58	1.62	1.57	1.61	1.32 - 1.78
1,2,3,4,7,8-HxCDF-13C	0.53	0.53	0.53	0.52	0.54	0.43 - 0.59
1,2,3,6,7,8-HxCDF-13C	0.54	0.56	0.53	0.53	0.55	0.43 - 0.59
2,3,4,6,7,8-HxCDF-13C	0.53	0.55	0.54	0.55	0.53	0.43 - 0.59
1,2,3,7,8,9-HxCDF-13C	0.54	0.53	0.54	0.54	0.54	0.43 - 0.59
1,2,3,4,7,8-HxCDD-13C	1.32	1.28	1.28	1.33	1.29	1.05 - 1.43
1,2,3,6,7,8-HxCDD-13C	1.26	1.25	1.25	1.23	1.28	1.05 - 1.43
1,2,3,4,6,7,8-HpCDF-13C	0.44	0.47	0.46	0.45	0.46	0.37 - 0.51
1,2,3,4,7,8,9-HpCDF-13C	0.42	0.47	0.46	0.45	0.44	0.37 - 0.51
1,2,3,4,6,7,8-HpCDD-13C	1.14	1.01	1.08	1.11	1.11	0.88 - 1.20
OCDD-13C	0.91	0.91	0.90	0.93	0.91	0.76 - 1.02

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Method 8290/1613
Initial Calibration (ICAL) - Response Factor Summary

ICAL ID	**U130729**	Data Files:		Time	Injected
Calibration Date	07/29/2013	CS-1	U130729B_11	23:48	SMT
Instrument	10MSHR06 (U)	CS-2	U130729B_10	23:00	SMT
Column Phase	DB-5MS 0.25mm	CS-3	U130729B_09	22:12	SMT
Column ID No.	USD227224H	CS-4	U130729B_13	01:25	SMT
		CS-5	U130729B_12	00:36	SMT

Isomer	CS-1	CS-2	CS-3	CS-4	CS-5	Ave RF	%RSD
2,3,7,8-TCDF	0.9356	0.9238	0.8824	0.8940	0.8840	0.9040	2.69
2,3,7,8-TCDD	1.1618	1.0345	1.0720	1.0288	1.0360	1.0666	5.24
1,2,3,7,8-PeCDF	0.8534	0.8707	0.8673	0.8846	0.8996	0.8751	2.01
2,3,4,7,8-PeCDF	0.9395	0.9176	0.8908	0.9162	0.9166	0.9162	1.88
1,2,3,7,8-PeCDD	1.0781	1.0114	0.9619	1.0014	0.9919	1.0090	4.25
1,2,3,4,7,8-HxCDF	1.1070	1.0856	1.0239	1.0667	1.0596	1.0686	2.90
1,2,3,6,7,8-HxCDF	1.0026	0.9946	1.0113	1.0330	1.0420	1.0167	1.98
2,3,4,6,7,8-HxCDF	1.0042	1.1256	1.0588	1.1135	1.1345	1.0873	5.06
1,2,3,7,8,9-HxCDF	0.9501	0.9693	0.9282	0.9549	0.9921	0.9589	2.47
1,2,3,4,7,8-HxCDD	1.0731	1.0471	0.9893	1.0280	1.0187	1.0313	3.04
1,2,3,6,7,8-HxCDD	0.9783	0.9579	0.9208	0.9102	0.9122	0.9359	3.26
1,2,3,7,8,9-HxCDD	1.0505	1.0345	1.0728	0.9951	1.0170	1.0340	2.89
1,2,3,4,6,7,8-HpCDF	1.3629	1.3723	1.3154	1.3595	1.3500	1.3520	1.62
1,2,3,4,7,8,9-HpCDF	1.4255	1.3742	1.3364	1.3544	1.3668	1.3715	2.44
1,2,3,4,6,7,8-HpCDD	1.1726	1.0583	1.0544	1.0378	1.0599	1.0766	5.05
OCDF	1.1991	1.1875	1.1027	1.2415	1.2886	1.2039	5.74
OCDD	1.0715	1.0501	0.9799	1.0275	1.0555	1.0369	3.43
Total PeCDF	0.8965	0.8942	0.8791	0.9004	0.9081	0.8956	1.19
Total HxCDF	1.0160	1.0438	1.0055	1.0420	1.0570	1.0329	2.06
Total HxCDD	1.0340	1.0132	0.9943	0.9777	0.9827	1.0004	2.32
Total HpCDF	1.3942	1.3733	1.3259	1.3569	1.3584	1.3617	1.84
2,3,7,8-TCDF-13C	1.5722	1.4945	1.5171	1.5002	1.5232	1.5215	2.02
2,3,7,8-TCDD-13C	1.0108	0.9945	1.0257	1.0010	1.0313	1.0126	1.55
2,3,7,8-TCDD-37Cl4	1.1240	1.1311	1.1109	1.1123	1.1464	1.1249	1.30
1,2,3,7,8-PeCDF-13C	1.1720	1.1505	1.2095	1.1519	1.2113	1.1790	2.53
2,3,4,7,8-PeCDF-13C	1.1514	1.1779	1.2366	1.1325	1.2172	1.1831	3.69
1,2,3,7,8-PeCDD-13C	0.7286	0.7509	0.8225	0.7297	0.7919	0.7647	5.39
1,2,3,4,7,8-HxCDF-13C	1.0769	1.0883	1.0277	1.1142	1.0998	1.0814	3.06
1,2,3,6,7,8-HxCDF-13C	1.3124	1.2845	1.2177	1.3118	1.3026	1.2858	3.09
2,3,4,6,7,8-HxCDF-13C	1.2210	1.1491	0.7454	1.1672	1.1285	1.0822	17.69
1,2,3,7,8,9-HxCDF-13C	1.0715	1.1004	1.0367	1.1133	1.1119	1.0867	3.00
1,2,3,4,7,8-HxCDD-13C	0.8595	0.8802	0.7619	0.8596	0.8736	0.8470	5.71
1,2,3,6,7,8-HxCDD-13C	1.0600	1.0804	0.9858	1.0934	1.0826	1.0604	4.10
1,2,3,4,6,7,8-HpCDF-13C	1.0545	1.0485	1.0068	1.0394	1.0437	1.0386	1.80
1,2,3,4,7,8,9-HpCDF-13C	0.8501	0.8420	0.7920	0.8264	0.8510	0.8323	2.96
1,2,3,4,6,7,8-HpCDD-13C	0.8427	0.8580	0.8264	0.8247	0.8321	0.8368	1.65
OCDD-13C	0.7304	0.7454	0.7215	0.7278	0.7778	0.7406	3.05

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Method 8290/1613
Initial Calibration (ICAL) - Isotope Ratio Summary

		Data Files:		Time	Injected
ICAL ID	**U130729**	CS-1	U130729B_11	23:48	SMT
Calibration Date	07/29/2013	CS-2	U130729B_10	23:00	SMT
Instrument	10MSHR06 (U)	CS-3	U130729B_09	22:12	SMT
Column Phase	DB-5MS 0.25mm	CS-4	U130729B_13	01:25	SMT
Column ID No.	USD227224H	CS-5	U130729B_12	00:36	SMT

Isomer	CS-1	CS-2	CS-3	CS-4	CS-5	Limits
2,3,7,8-TCDF	0.89	0.73	0.76	0.75	0.75	0.65 - 0.89
2,3,7,8-TCDD	0.74	0.79	0.74	0.77	0.78	0.65 - 0.89
1,2,3,7,8-PeCDF	1.46	1.53	1.53	1.53	1.54	1.32 - 1.78
2,3,4,7,8-PeCDF	1.43	1.52	1.52	1.55	1.48	1.32 - 1.78
1,2,3,7,8-PeCDD	0.62	0.60	0.60	0.61	0.61	0.52 - 0.70
1,2,3,4,7,8-HxCDF	1.15	1.24	1.22	1.21	1.22	1.05 - 1.43
1,2,3,6,7,8-HxCDF	1.25	1.23	1.25	1.20	1.23	1.05 - 1.43
2,3,4,6,7,8-HxCDF	1.21	1.25	1.21	1.25	1.28	1.05 - 1.43
1,2,3,7,8,9-HxCDF	1.16	1.28	1.22	1.27	1.23	1.05 - 1.43
1,2,3,4,7,8-HxCDD	1.15	1.19	1.24	1.27	1.23	1.05 - 1.43
1,2,3,6,7,8-HxCDD	1.14	1.17	1.24	1.20	1.23	1.05 - 1.43
1,2,3,7,8,9-HxCDD	1.18	1.18	1.28	1.23	1.21	1.05 - 1.43
1,2,3,4,6,7,8-HpCDF	1.03	1.02	1.01	1.08	1.04	0.88 - 1.20
1,2,3,4,7,8,9-HpCDF	1.06	1.13	1.05	1.06	1.04	0.88 - 1.20
1,2,3,4,6,7,8-HpCDD	0.99	1.04	1.02	1.04	1.05	0.88 - 1.20
OCDF	0.94	0.90	0.89	0.89	0.90	0.76 - 1.02
OCDD	0.79	0.88	0.89	0.87	0.88	0.76 - 1.02
1,2,3,4-TCDD-13C	0.80	0.80	0.79	0.80	0.80	0.65 - 0.89
1,2,3,7,8,9-HxCDD-13C	1.26	1.27	1.23	1.26	1.24	1.05 - 1.43
2,3,7,8-TCDF-13C	0.78	0.76	0.78	0.78	0.77	0.65 - 0.89
2,3,7,8-TCDD-13C	0.78	0.78	0.77	0.78	0.79	0.65 - 0.89
1,2,3,7,8-PeCDF-13C	1.56	1.53	1.57	1.58	1.59	1.32 - 1.78
2,3,4,7,8-PeCDF-13C	1.58	1.58	1.53	1.55	1.52	1.32 - 1.78
1,2,3,7,8-PeCDD-13C	1.58	1.59	1.58	1.59	1.59	1.32 - 1.78
1,2,3,4,7,8-HxCDF-13C	0.52	0.52	0.52	0.52	0.52	0.43 - 0.59
1,2,3,6,7,8-HxCDF-13C	0.52	0.51	0.53	0.53	0.52	0.43 - 0.59
2,3,4,6,7,8-HxCDF-13C	0.52	0.52	0.50	0.52	0.52	0.43 - 0.59
1,2,3,7,8,9-HxCDF-13C	0.53	0.52	0.52	0.50	0.53	0.43 - 0.59
1,2,3,4,7,8-HxCDD-13C	1.27	1.31	1.25	1.27	1.30	1.05 - 1.43
1,2,3,6,7,8-HxCDD-13C	1.27	1.21	1.26	1.25	1.22	1.05 - 1.43
1,2,3,4,6,7,8-HpCDF-13C	0.45	0.46	0.45	0.45	0.45	0.37 - 0.51
1,2,3,4,7,8,9-HpCDF-13C	0.45	0.45	0.46	0.46	0.46	0.37 - 0.51
1,2,3,4,6,7,8-HpCDD-13C	1.08	1.07	1.06	1.07	1.09	0.88 - 1.20
OCDD-13C	0.91	0.90	0.90	0.89	0.89	0.76 - 1.02

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Method 8290
PCDD/PCDF Calibration Verification

Run Name:	U130917A_22	Instrument ID	10MSHR06 (U)
Standard	CS3/CPM-7604-279	GC Column ID	USD227224H
Analyzed	09/18/2013 02:01	ICAL ID	U130729

Compound	Known Conc.	Conc Found	Ion Abund. Ratio	Average RF	Daily RF	Deviation (%)
2,3,7,8-TCDF	10	9.5	0.77	0.9040	0.8611	-4.7
2,3,7,8-TCDD	10	10.5	0.78	1.0666	1.1147	4.5
1,2,3,7,8-PeCDF	50	49.4	1.53	0.8751	0.8638	-1.3
2,3,4,7,8-PeCDF	50	47.1	1.49	0.9162	0.8623	-5.9
1,2,3,7,8-PeCDD	50	49.8	0.61	1.0090	1.0040	-0.5
1,2,3,4,7,8-HxCDF	50	46.8	1.20	1.0686	1.0012	-6.3
1,2,3,6,7,8-HxCDF	50	48.1	1.21	1.0167	0.9785	-3.8
2,3,4,6,7,8-HxCDF	50	48.0	1.18	1.0873	1.0437	-4.0
1,2,3,7,8,9-HxCDF	50	47.4	1.20	0.9589	0.9084	-5.3
1,2,3,4,7,8-HxCDD	50	49.1	1.24	1.0313	1.0117	-1.9
1,2,3,6,7,8-HxCDD	50	48.3	1.20	0.9359	0.9042	-3.4
1,2,3,7,8,9-HxCDD	50	45.4	1.22	1.0340	0.9387	-9.2
1,2,3,4,6,7,8-HpCDF	50	49.9	1.05	1.3520	1.3505	-0.1
1,2,3,4,7,8,9-HpCDF	50	48.9	1.02	1.3715	1.3411	-2.2
1,2,3,4,6,7,8-HpCDD	50	51.0	1.05	1.0766	1.0980	2.0
OCDF	100	98.6	0.89	1.2039	1.1866	-1.4
OCDD	100	96.1	0.89	1.0369	0.9964	-3.9
Total PeCDF	100	96.4	NA	0.8956	0.8631	-3.6
Total HxCDF	200	190.3	NA	1.0329	0.9829	-4.8
Total HxCDD	150	142.8	NA	1.0004	0.9515	-4.9
Total HpCDF	100	98.8	NA	1.3617	1.3458	-1.2
2,3,7,8-TCDF-13C	100	100.7	0.78	1.5215	1.5320	0.7
2,3,7,8-TCDD-13C	100	97.2	0.78	1.0126	0.9847	-2.8
2,3,7,8-TCDD-37Cl4	10	9.8	NA	1.1249	1.1016	-2.1
1,2,3,7,8-PeCDF-13C	100	94.7	1.55	1.1790	1.1161	-5.3
2,3,4,7,8-PeCDF-13C	100	96.3	1.56	1.1831	1.1392	-3.7
1,2,3,7,8-PeCDD-13C	100	94.9	1.58	0.7647	0.7261	-5.1
1,2,3,4,7,8-HxCDF-13C	100	103.8	0.52	1.0814	1.1224	3.8
1,2,3,6,7,8-HxCDF-13C	100	102.4	0.52	1.2858	1.3163	2.4
2,3,4,6,7,8-HxCDF-13C	100	109.2	0.51	1.0822	1.1817	9.2
1,2,3,7,8,9-HxCDF-13C	100	96.5	0.52	1.0867	1.0485	-3.5
1,2,3,4,7,8-HxCDD-13C	100	107.4	1.24	0.8470	0.9097	7.4
1,2,3,6,7,8-HxCDD-13C	100	107.5	1.26	1.0604	1.1396	7.5
1,2,3,4,6,7,8-HpCDF-13C	100	106.5	0.46	1.0386	1.1061	6.5
1,2,3,4,7,8,9-HpCDF-13C	100	100.9	0.45	0.8323	0.8398	0.9
1,2,3,4,6,7,8-HpCDD-13C	100	95.1	1.06	0.8368	0.7954	-4.9
OCDD-13C	200	218.6	0.89	0.7406	0.8095	9.3
1,2,3,4-TCDD-13C	100	NA	0.79	NA	NA	NA
1,2,3,7,8,9-HxCDD-13C	100	NA	1.26	NA	NA	NA

Concentrations expressed as pg/ul NA = Not Applicable * = Outside target range

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Method 8290
PCDD/PCDF Calibration Verification

Run Name:	U130917B_15	Instrument ID	10MSHR06 (U)
Standard	CS3/CPM-7604-279	GC Column ID	USD227224H
Analyzed	09/18/2013 13:51	ICAL ID	U130729

Compound	Known Conc.	Conc Found	Ion Abund. Ratio	Average RF	Daily RF	Deviation (%)
2,3,7,8-TCDF	10	9.9	0.76	0.9040	0.8930	-1.2
2,3,7,8-TCDD	10	10.7	0.79	1.0666	1.1447	7.3
1,2,3,7,8-PeCDF	50	50.1	1.52	0.8751	0.8761	0.1
2,3,4,7,8-PeCDF	50	49.0	1.48	0.9162	0.8986	-1.9
1,2,3,7,8-PeCDD	50	51.2	0.61	1.0090	1.0338	2.5
1,2,3,4,7,8-HxCDF	50	47.6	1.19	1.0686	1.0172	-4.8
1,2,3,6,7,8-HxCDF	50	48.6	1.22	1.0167	0.9876	-2.9
2,3,4,6,7,8-HxCDF	50	49.3	1.22	1.0873	1.0711	-1.5
1,2,3,7,8,9-HxCDF	50	49.3	1.20	0.9589	0.9451	-1.4
1,2,3,4,7,8-HxCDD	50	49.8	1.23	1.0313	1.0265	-0.5
1,2,3,6,7,8-HxCDD	50	50.1	1.23	0.9359	0.9382	0.3
1,2,3,7,8,9-HxCDD	50	47.4	1.21	1.0340	0.9800	-5.2
1,2,3,4,6,7,8-HpCDF	50	51.9	1.04	1.3520	1.4046	3.9
1,2,3,4,7,8,9-HpCDF	50	50.8	1.03	1.3715	1.3927	1.5
1,2,3,4,6,7,8-HpCDD	50	50.7	1.08	1.0766	1.0911	1.3
OCDF	100	106.8	0.91	1.2039	1.2857	6.8
OCDD	100	99.7	0.90	1.0369	1.0342	-0.3
Total PeCDF	100	99.1	NA	0.8956	0.8874	-0.9
Total HxCDF	200	194.7	NA	1.0329	1.0053	-2.7
Total HxCDD	150	147.3	NA	1.0004	0.9816	-1.9
Total HpCDF	100	102.7	NA	1.3617	1.3986	2.7
2,3,7,8-TCDF-13C	100	107.7	0.78	1.5215	1.6384	7.7
2,3,7,8-TCDD-13C	100	99.1	0.80	1.0126	1.0035	-0.9
2,3,7,8-TCDD-37Cl4	10	10.2	NA	1.1249	1.1524	2.4
1,2,3,7,8-PeCDF-13C	100	102.4	1.56	1.1790	1.2077	2.4
2,3,4,7,8-PeCDF-13C	100	103.4	1.53	1.1831	1.2231	3.4
1,2,3,7,8-PeCDD-13C	100	98.7	1.59	0.7647	0.7545	-1.3
1,2,3,4,7,8-HxCDF-13C	100	107.1	0.51	1.0814	1.1582	7.1
1,2,3,6,7,8-HxCDF-13C	100	106.2	0.52	1.2858	1.3650	6.2
2,3,4,6,7,8-HxCDF-13C	100	113.4	0.51	1.0822	1.2277	13.4
1,2,3,7,8,9-HxCDF-13C	100	102.3	0.52	1.0867	1.1118	2.3
1,2,3,4,7,8-HxCDD-13C	100	110.3	1.26	0.8470	0.9343	10.3
1,2,3,6,7,8-HxCDD-13C	100	104.2	1.26	1.0604	1.1049	4.2
1,2,3,4,6,7,8-HpCDF-13C	100	102.4	0.45	1.0386	1.0636	2.4
1,2,3,4,7,8,9-HpCDF-13C	100	98.9	0.44	0.8323	0.8234	-1.1
1,2,3,4,6,7,8-HpCDD-13C	100	88.5	1.08	0.8368	0.7404	-11.5
OCDD-13C	200	215.4	0.90	0.7406	0.7976	7.7
1,2,3,4-TCDD-13C	100	NA	0.80	NA	NA	NA
1,2,3,7,8,9-HxCDD-13C	100	NA	1.25	NA	NA	NA

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Method 8290
PCDD/PCDF Calibration Verification

Run Name:	F130921A_16	Instrument ID	10MSHR05 (F)
Standard	CS3/CPM-7604-279	GC Column ID	USD174324H
Analyzed	09/21/2013 13:44	ICAL ID	F130918

Compound	Known Conc.	Conc Found	Ion Abund. Ratio	Average RF	Daily RF	Deviation (%)
2,3,7,8-TCDF	10	10.3	0.79	1.0968	1.1279	2.8
2,3,7,8-TCDD	10	10.8	0.81	1.1327	1.2196	7.7
1,2,3,7,8-PeCDF	50	51.5	1.62	1.1340	1.1690	3.1
2,3,4,7,8-PeCDF	50	50.7	1.59	1.1708	1.1875	1.4
1,2,3,7,8-PeCDD	50	53.6	0.62	1.1326	1.2131	7.1
1,2,3,4,7,8-HxCDF	50	51.2	1.31	1.2855	1.3175	2.5
1,2,3,6,7,8-HxCDF	50	49.5	1.31	1.2626	1.2495	-1.0
2,3,4,6,7,8-HxCDF	50	50.3	1.31	1.3236	1.3319	0.6
1,2,3,7,8,9-HxCDF	50	51.0	1.28	1.1885	1.2132	2.1
1,2,3,4,7,8-HxCDD	50	49.7	1.32	1.1666	1.1587	-0.7
1,2,3,6,7,8-HxCDD	50	50.5	1.28	1.0722	1.0833	1.0
1,2,3,7,8,9-HxCDD	50	49.8	1.29	1.1134	1.1086	-0.4
1,2,3,4,6,7,8-HpCDF	50	55.5	1.04	1.3780	1.5308	11.1
1,2,3,4,7,8,9-HpCDF	50	52.6	1.01	1.3872	1.4582	5.1
1,2,3,4,6,7,8-HpCDD	50	51.9	1.06	1.1761	1.2196	3.7
OCDF	100	102.3	0.95	1.4633	1.4970	2.3
OCDD	100	106.7	0.90	1.0806	1.1534	6.7
Total PeCDF	100	102.3	NA	1.1524	1.1782	2.2
Total HxCDF	200	202.1	NA	1.2650	1.2780	1.0
Total HxCDD	150	150.0	NA	1.1174	1.1169	0.0
Total HpCDF	100	108.1	NA	1.3826	1.4945	8.1
2,3,7,8-TCDF-13C	100	116.3	0.81	1.6144	1.8774	16.3
2,3,7,8-TCDD-13C	100	106.1	0.79	0.9536	1.0118	6.1
2,3,7,8-TCDD-37Cl4	10	11.3	NA	1.0645	1.2019	12.9
1,2,3,7,8-PeCDF-13C	100	119.3	1.62	1.4740	1.7591	19.3
2,3,4,7,8-PeCDF-13C	100	125.1	1.62	1.4604	1.8277	25.1
1,2,3,7,8-PeCDD-13C	100	122.1	1.56	0.8245	1.0064	22.1
1,2,3,4,7,8-HxCDF-13C	100	100.3	0.54	1.4253	1.4291	0.3
1,2,3,6,7,8-HxCDF-13C	100	103.1	0.55	1.5904	1.6391	3.1
2,3,4,6,7,8-HxCDF-13C	100	100.2	0.54	1.4505	1.4539	0.2
1,2,3,7,8,9-HxCDF-13C	100	97.9	0.55	1.4130	1.3833	-2.1
1,2,3,4,7,8-HxCDD-13C	100	103.6	1.28	0.9289	0.9626	3.6
1,2,3,6,7,8-HxCDD-13C	100	102.8	1.29	1.0627	1.0929	2.8
1,2,3,4,6,7,8-HpCDF-13C	100	99.9	0.46	0.8170	0.8164	-0.1
1,2,3,4,7,8,9-HpCDF-13C	100	98.9	0.47	0.6654	0.6579	-1.1
1,2,3,4,6,7,8-HpCDD-13C	100	94.7	1.12	0.5918	0.5602	-5.3
OCDD-13C	200	147.9	0.95	0.7857	0.5811	-26.0
1,2,3,4-TCDD-13C	100	NA	0.81	NA	NA	NA
1,2,3,7,8,9-HxCDD-13C	100	NA	1.30	NA	NA	NA

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Method 8290
PCDD/PCDF Calibration Verification

Run Name:	F130921B_16	Instrument ID	10MSHR05 (F)
Standard	CS3/CPM-7604-279	GC Column ID	USD174324H
Analyzed	09/22/2013 01:59	ICAL ID	F130918

Compound	Known Conc.	Conc Found	Ion Abund. Ratio	Average RF	Daily RF	Deviation (%)
2,3,7,8-TCDF	10	8.4	0.74	1.0968	0.9238	-15.8
2,3,7,8-TCDD	10	9.9	0.84	1.1327	1.1220	-0.9
1,2,3,7,8-PeCDF	50	43.7	1.58	1.1340	0.9916	-12.6
2,3,4,7,8-PeCDF	50	42.7	1.57	1.1708	0.9998	-14.6
1,2,3,7,8-PeCDD	50	47.2	0.61	1.1326	1.0690	-5.6
1,2,3,4,7,8-HxCDF	50	45.0	1.27	1.2855	1.1567	-10.0
1,2,3,6,7,8-HxCDF	50	45.8	1.26	1.2626	1.1562	-8.4
2,3,4,6,7,8-HxCDF	50	46.2	1.22	1.3236	1.2237	-7.5
1,2,3,7,8,9-HxCDF	50	45.2	1.26	1.1885	1.0748	-9.6
1,2,3,4,7,8-HxCDD	50	45.4	1.26	1.1666	1.0584	-9.3
1,2,3,6,7,8-HxCDD	50	45.8	1.23	1.0722	0.9815	-8.5
1,2,3,7,8,9-HxCDD	50	45.3	1.30	1.1134	1.0085	-9.4
1,2,3,4,6,7,8-HpCDF	50	49.4	1.05	1.3780	1.3604	-1.3
1,2,3,4,7,8,9-HpCDF	50	50.8	1.03	1.3872	1.4085	1.5
1,2,3,4,6,7,8-HpCDD	50	51.1	1.09	1.1761	1.2019	2.2
OCDF	100	84.9	0.91	1.4633	1.2422	-15.1
OCDD	100	95.8	0.93	1.0806	1.0354	-4.2
Total PeCDF	100	86.4	NA	1.1524	0.9957	-13.6
Total HxCDF	200	182.2	NA	1.2650	1.1528	-8.9
Total HxCDD	150	136.4	NA	1.1174	1.0162	-9.1
Total HpCDF	100	100.1	NA	1.3826	1.3845	0.1
2,3,7,8-TCDF-13C	100	97.8	0.80	1.6144	1.5786	-2.2
2,3,7,8-TCDD-13C	100	106.1	0.82	0.9536	1.0115	6.1
2,3,7,8-TCDD-37Cl4	10	10.7	NA	1.0645	1.1369	6.8
1,2,3,7,8-PeCDF-13C	100	96.2	1.60	1.4740	1.4184	-3.8
2,3,4,7,8-PeCDF-13C	100	100.5	1.59	1.4604	1.4673	0.5
1,2,3,7,8-PeCDD-13C	100	114.7	1.58	0.8245	0.9455	14.7
1,2,3,4,7,8-HxCDF-13C	100	86.6	0.53	1.4253	1.2348	-13.4
1,2,3,6,7,8-HxCDF-13C	100	85.1	0.53	1.5904	1.3531	-14.9
2,3,4,6,7,8-HxCDF-13C	100	83.2	0.53	1.4505	1.2063	-16.8
1,2,3,7,8,9-HxCDF-13C	100	83.1	0.53	1.4130	1.1742	-16.9
1,2,3,4,7,8-HxCDD-13C	100	101.8	1.27	0.9289	0.9453	1.8
1,2,3,6,7,8-HxCDD-13C	100	99.9	1.24	1.0627	1.0620	-0.1
1,2,3,4,6,7,8-HpCDF-13C	100	113.4	0.46	0.8170	0.9263	13.4
1,2,3,4,7,8,9-HpCDF-13C	100	106.8	0.48	0.6654	0.7106	6.8
1,2,3,4,6,7,8-HpCDD-13C	100	109.2	1.14	0.5918	0.6463	9.2
OCDD-13C	200	173.8	0.93	0.7857	0.6828	-13.1
1,2,3,4-TCDD-13C	100	NA	0.82	NA	NA	NA
1,2,3,7,8,9-HxCDD-13C	100	NA	1.24	NA	NA	NA

Concentrations expressed as pg/ul NA = Not Applicable * = Outside target range

REPORT OF LABORATORY ANALYSIS

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Appendix D

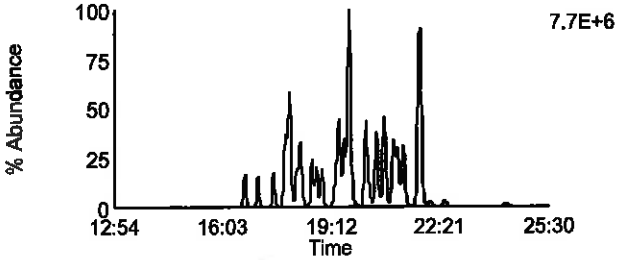
Sample Raw Data

Homologue Group: Tetras

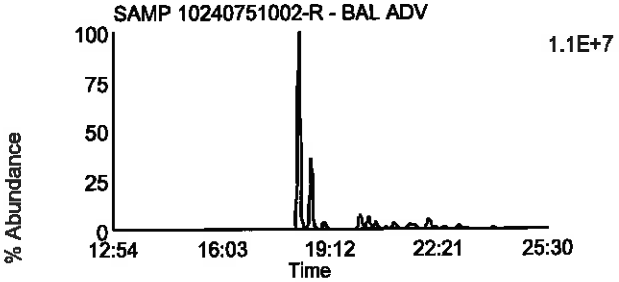
Data File Name: F130921B_11
Date Acquired: 9/21/2013
Sample Description: SAMP 10240751002-R - BAL ADV

Lab Sample ID: 10240754001-R
Client Sample ID: 1302547-05 / T-15-14
Instrument: 10MSHR05 (F)

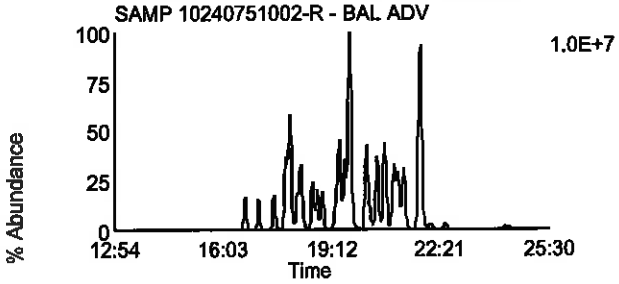
Data File: F130921B_11 G1 C1 - 303.9016
SAMP 10240751002-R - BAL ADV



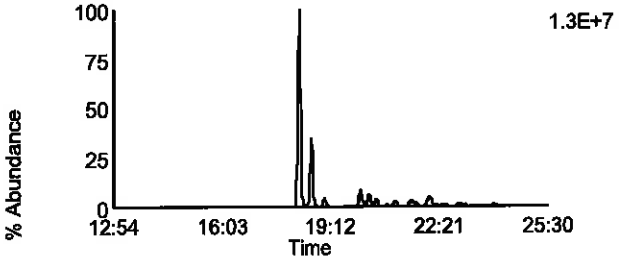
Data File: F130921B_11 G1 C7 - 319.8965
SAMP 10240751002-R - BAL ADV



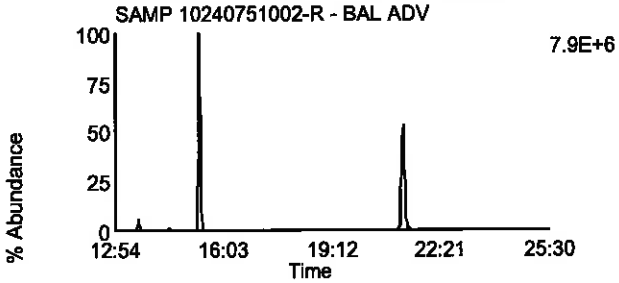
Data File: F130921B_11 G1 C2 - 305.8987
SAMP 10240751002-R - BAL ADV



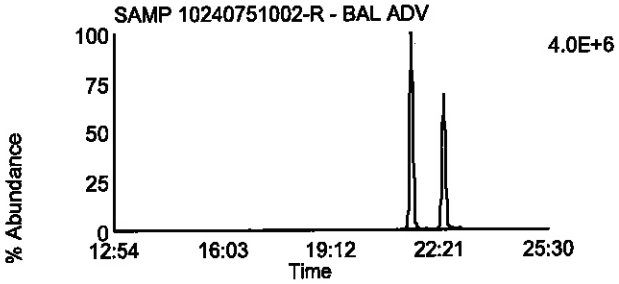
Data File: F130921B_11 G1 C8 - 321.8936
SAMP 10240751002-R - BAL ADV



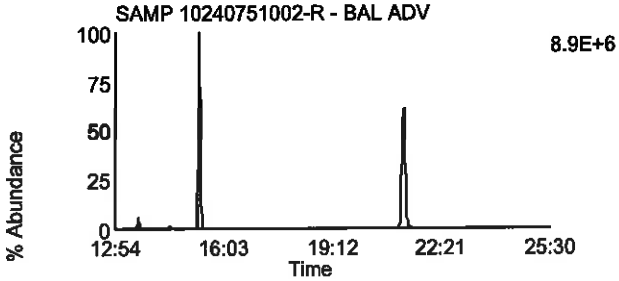
Data File: F130921B_11 G1 C3 - 315.9418
SAMP 10240751002-R - BAL ADV



Data File: F130921B_11 G1 C10 - 331.9367
SAMP 10240751002-R - BAL ADV



Data File: F130921B_11 G1 C4 - 317.9389
SAMP 10240751002-R - BAL ADV



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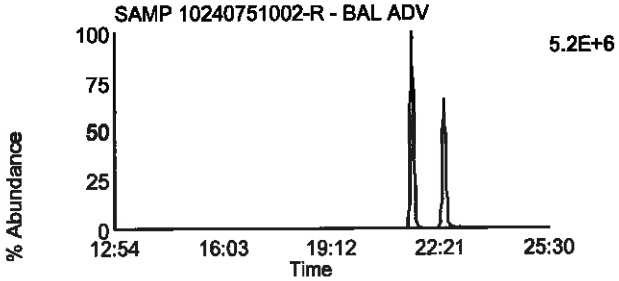
SAMP 10240751002-R - BAL ADV



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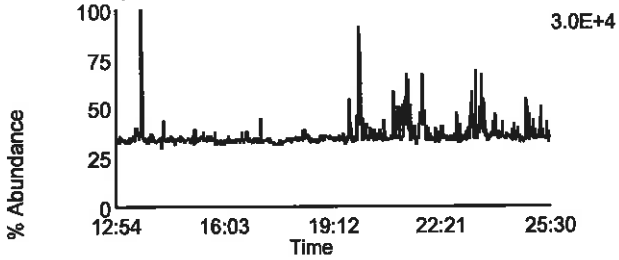
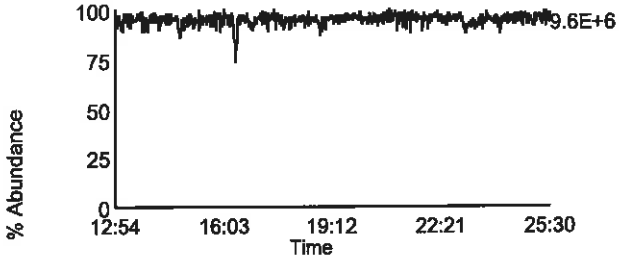
SAMP 10240751002-R - BAL ADV



Data File: F130921B_11 G1 C5 - 318.9792
SAMP 10240751002-R - BAL ADV

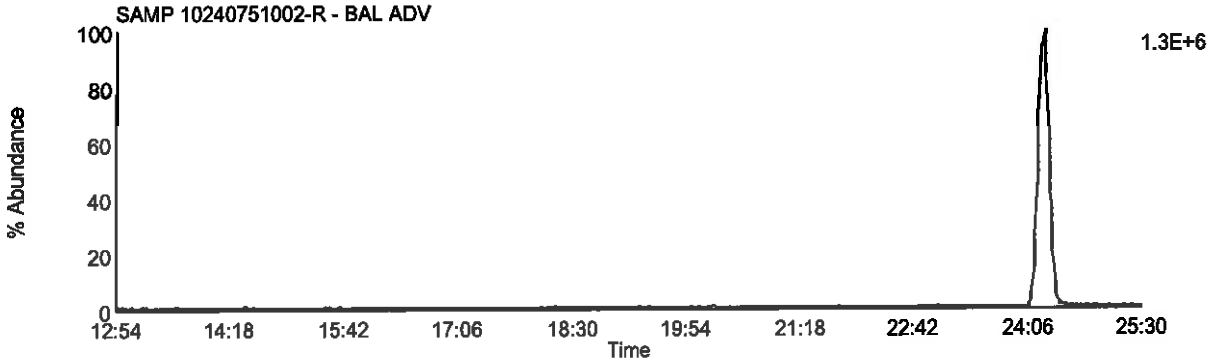


Homologue Group: Penta & Cleanup

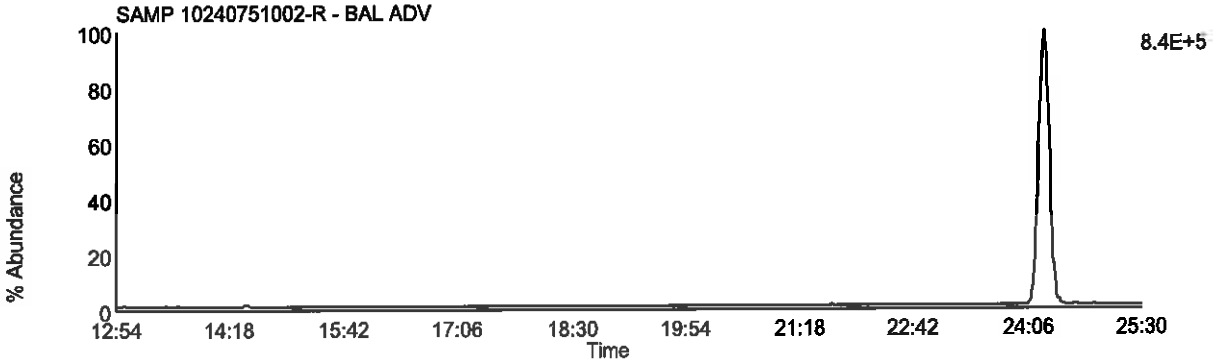
Data File Name: F130921B_11
Date Acquired: 9/21/2013
Sample Description: SAMP 10240751002-R - BAL ADV

Lab Sample ID: 10240754001-R
Client Sample ID: 1302547-05 / T-15-14
Instrument: 10MSHR05 (F)

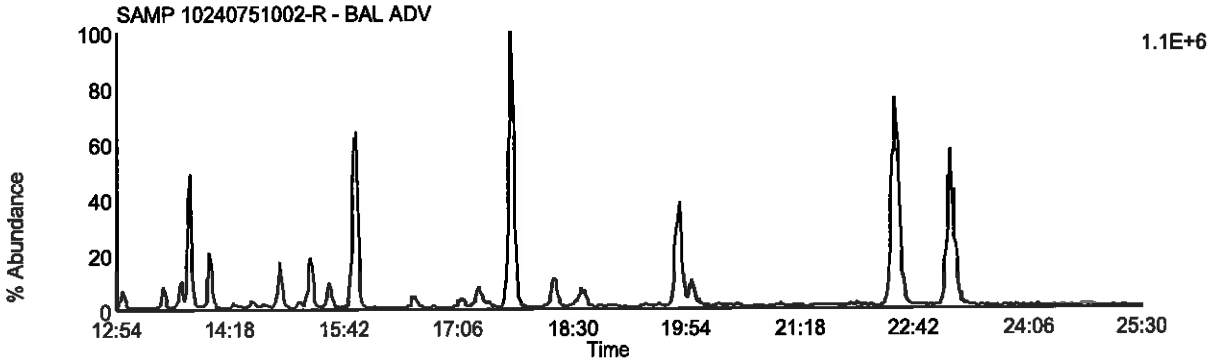
Data File: F130921B_11 G1 C12 - 339.8597
SAMP 10240751002-R - BAL ADV



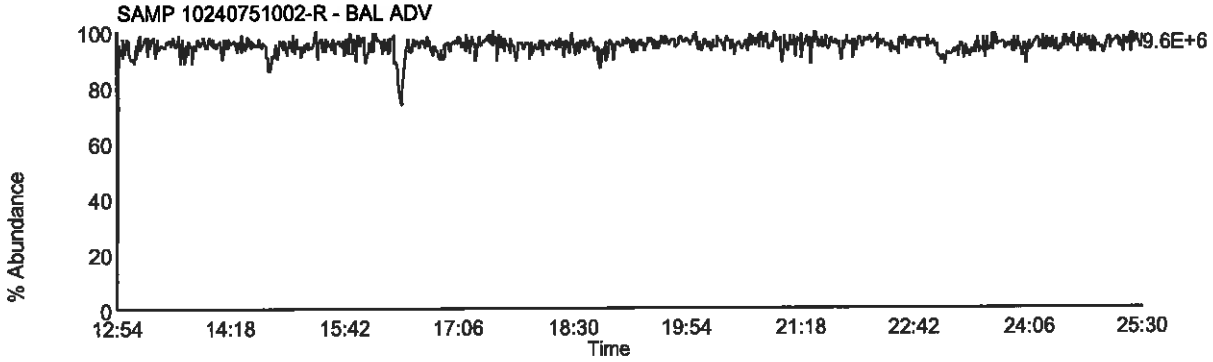
Data File: F130921B_11 G1 C13 - 341.8567
SAMP 10240751002-R - BAL ADV



Data File: F130921B_11 G1 C9 - 327.8847
SAMP 10240751002-R - BAL ADV



Data File: F130921B_11 G1 C5 - 318.9792
SAMP 10240751002-R - BAL ADV

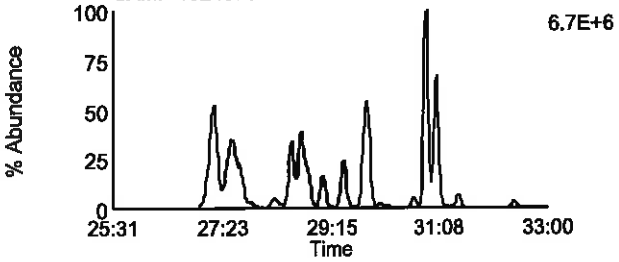


Homologue Group: Pentas

Data File Name: F130921B_11
Date Acquired: 9/21/2013
Sample Description: SAMP 10240751002-R - BAL ADV

Lab Sample ID: 10240754001-R
Client Sample ID: 1302547-05 / T-15-14
Instrument: 10MSHR05 (F)

Data File: F130921B_11 G2 C1 - 339.8597
SAMP 10240751002-R - BAL ADV



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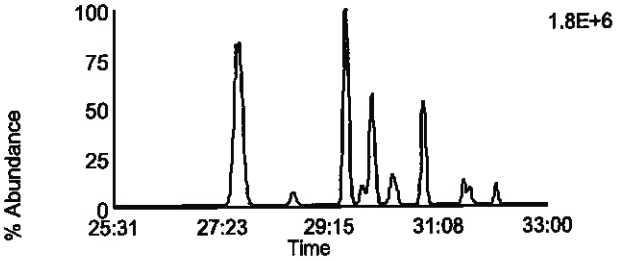
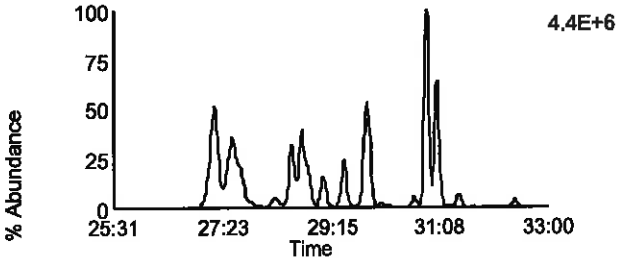
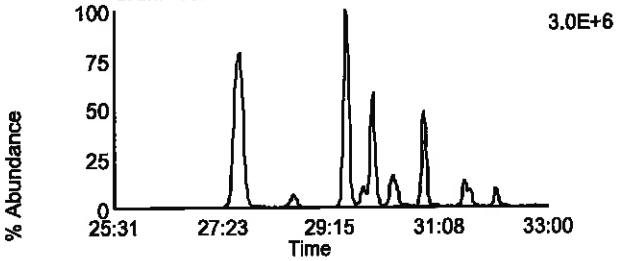
SAMP 10240751002-R - BAL ADV



Data File: F130921B_11 G2 C2 - 341.8567
SAMP 10240751002-R - BAL ADV



Data File: F130921B_11 G2 C8 - 355.8546
SAMP 10240751002-R - BAL ADV



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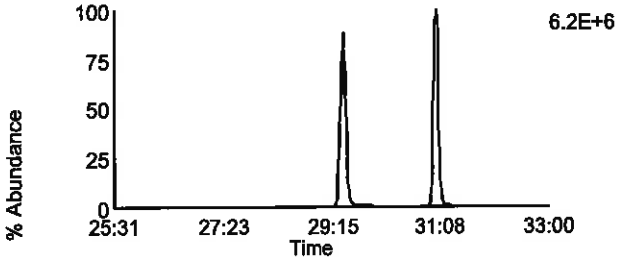
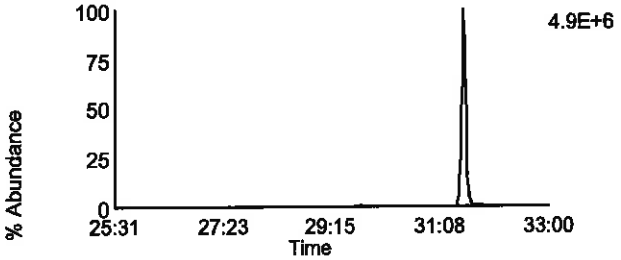
SAMP 10240751002-R - BAL ADV



Data File: F130921B_11 G2 C10 - 367.8948
SAMP 10240751002-R - BAL ADV



Data File: F130921B_11 G2 C5 - 353.8969
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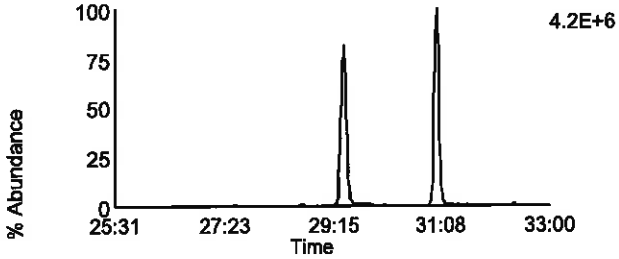

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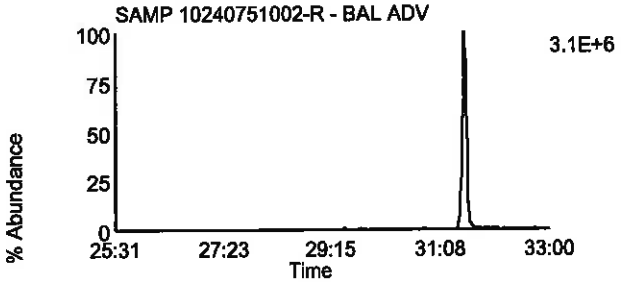

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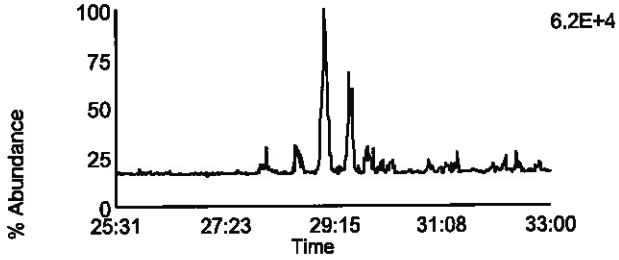
SAMP 10240751002-R - BAL ADV



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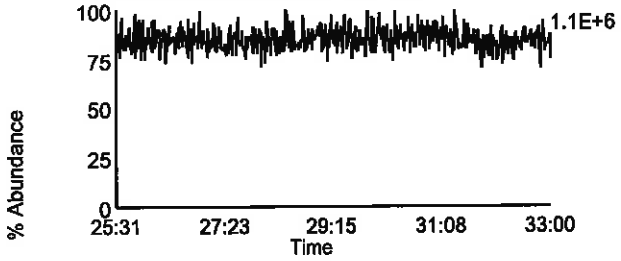
SAMP 10240751002-R - BAL ADV

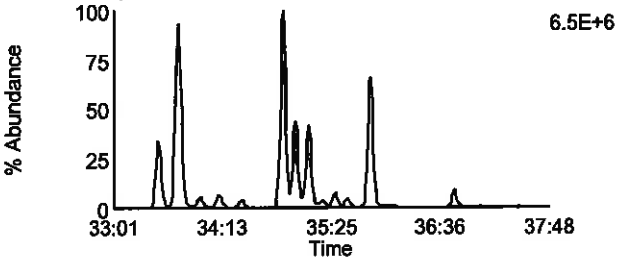


Homologue Group: Hexas

Data File Name: F130921B_11
Date Acquired: 9/21/2013
Sample Description: SAMP 10240751002-R - BAL ADV

Lab Sample ID: 10240754001-R
Client Sample ID: 1302547-05 / T-15-14
Instrument: 10MSHR05 (F)

Data File: F130921B_11 G3 C1 - 373.8207
SAMP 10240751002-R - BAL ADV



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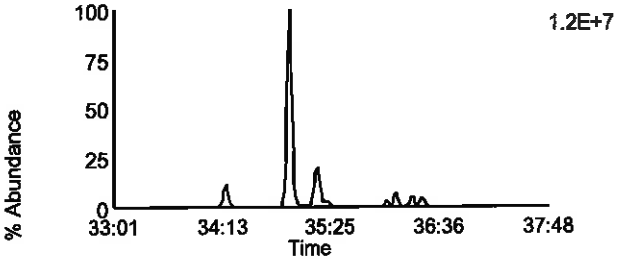
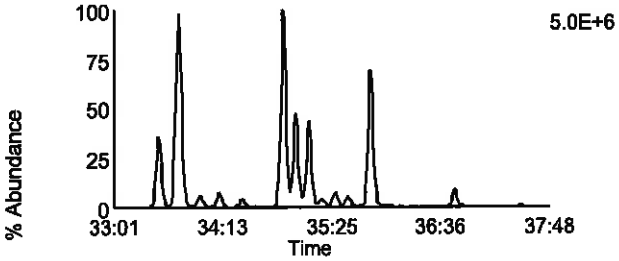
SAMP 10240751002-R - BAL ADV



Data File: F130921B_11 G3 C2 - 375.8178
SAMP 10240751002-R - BAL ADV



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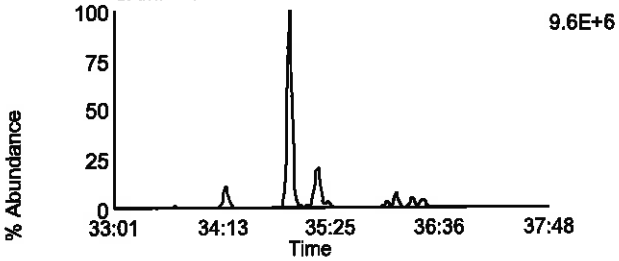
SAMP 10240751002-R - BAL ADV



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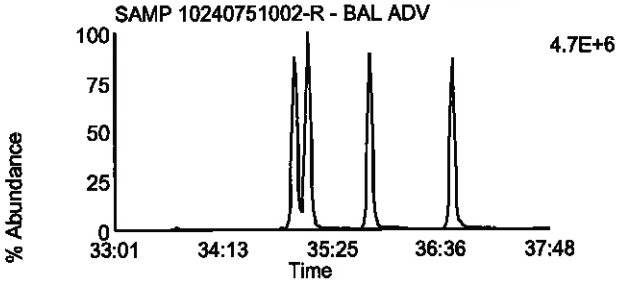
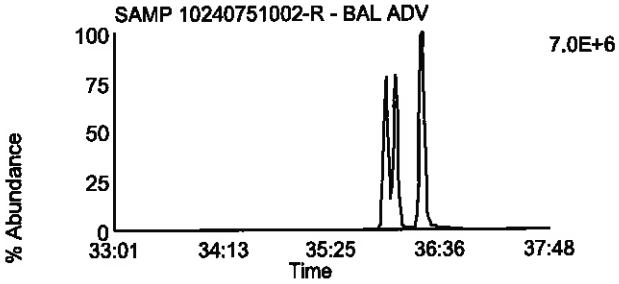
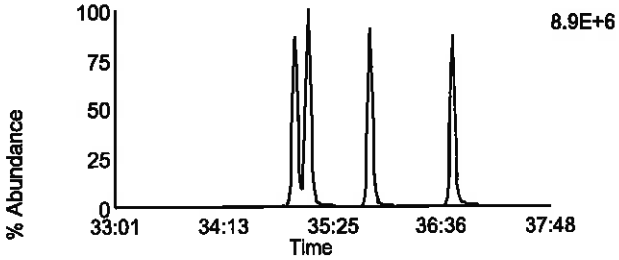
SAMP 10240751002-R - BAL ADV



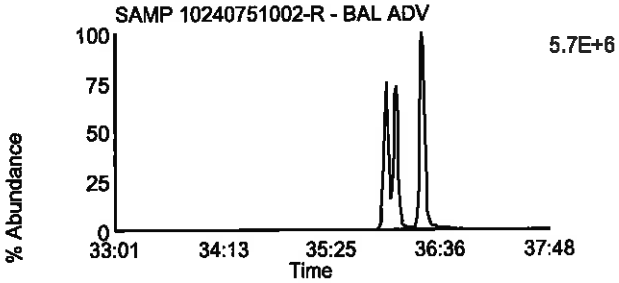
Data File: F130921B_11 G3 C9 - 401.8559
SAMP 10240751002-R - BAL ADV



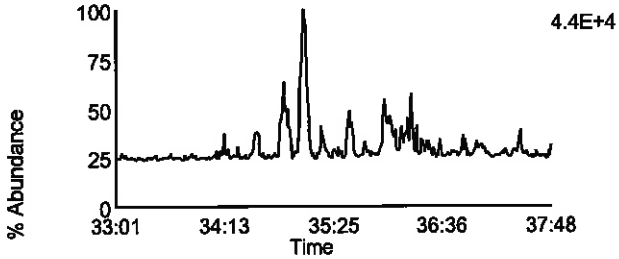
Data File: F130921B_11 G3 C6 - 385.861
SAMP 10240751002-R - BAL ADV



Data File: F130921B_11 G3 C10 - 403.8529
SAMP 10240751002-R - BAL ADV



Data File: F130921B_11 G3 C11 - 445.7555
SAMP 10240751002-R - BAL ADV



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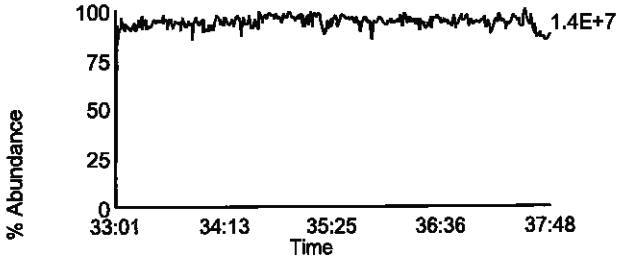
SAMP 10240751002-R - BAL ADV

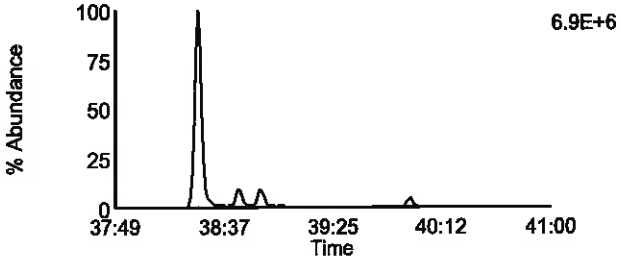


Homologue Group: Heptas

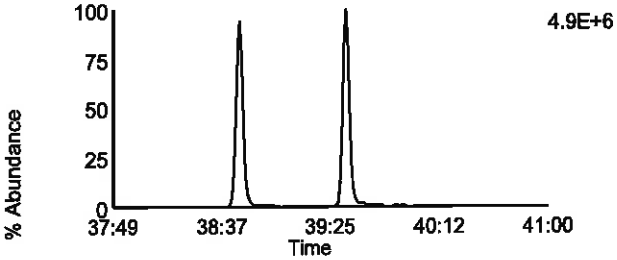
Data File Name: F130921B_11
Date Acquired: 9/21/2013
Sample Description: SAMP 10240751002-R - BAL ADV

Lab Sample ID: 10240754001-R
Client Sample ID: 1302547-05 / T-15-14
Instrument: 10MSHR05 (F)

Data File: F130921B_11 G4 C3 - 407.7818
SAMP 10240751002-R - BAL ADV



Data File: F130921B_11 G4 C8 - 423.7767
SAMP 10240751002-R - BAL ADV



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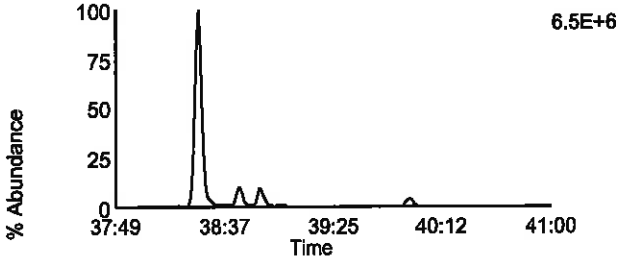
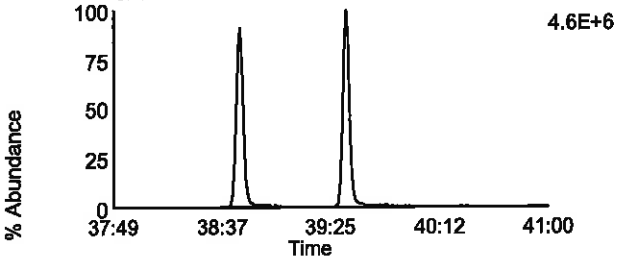
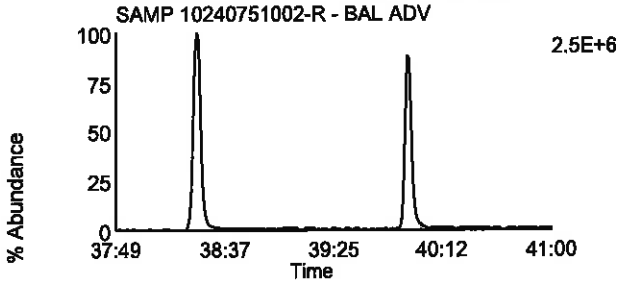
SAMP 10240751002-R - BAL ADV



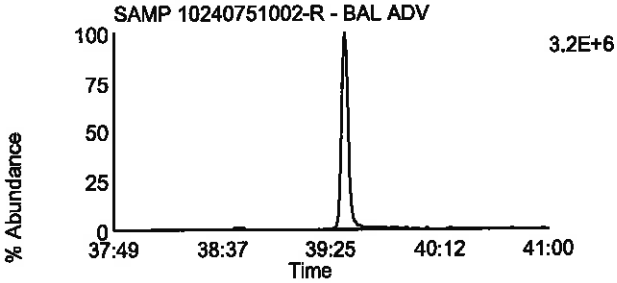
Data File: F130921B_11 G4 C9 - 425.7737
SAMP 10240751002-R - BAL ADV



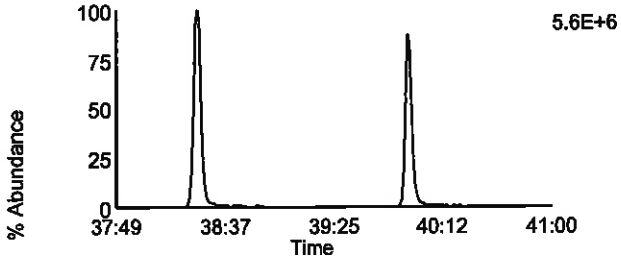
Data File: F130921B_11 G4 C6 - 417.825
SAMP 10240751002-R - BAL ADV



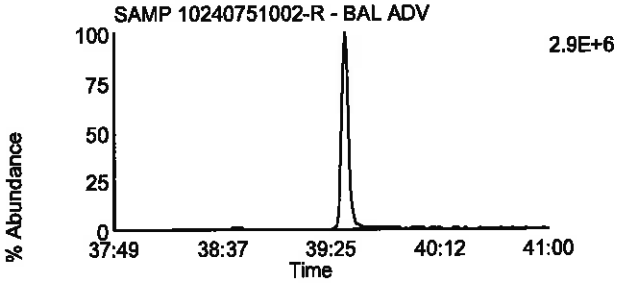
Data File: F130921B_11 G4 C11 - 435.8169
SAMP 10240751002-R - BAL ADV



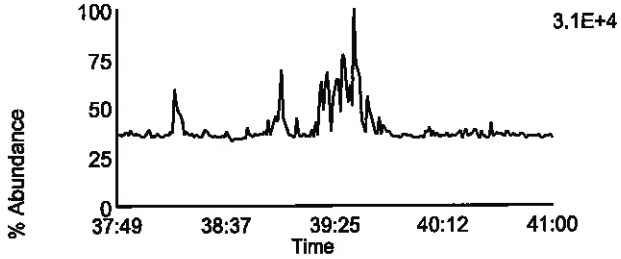
Data File: F130921B_11 G4 C7 - 419.822
SAMP 10240751002-R - BAL ADV



Data File: F130921B_11 G4 C12 - 437.814
SAMP 10240751002-R - BAL ADV



Data File: F130921B_11 G4 C13 - 479.7165
SAMP 10240751002-R - BAL ADV



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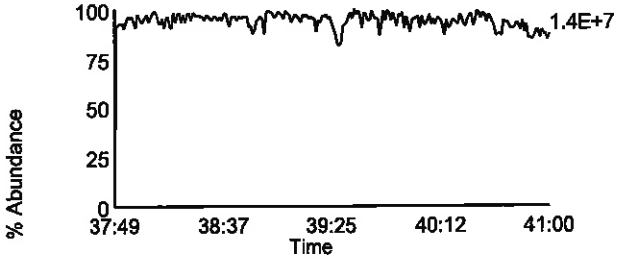
SAMP 10240751002-R - BAL ADV

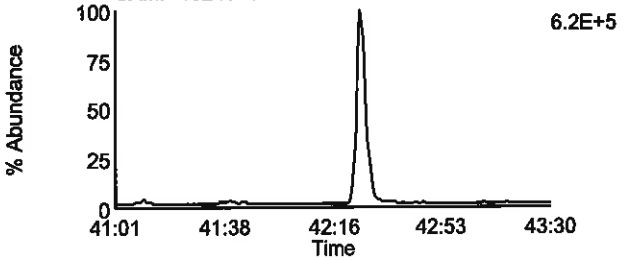


Homologue Group: Octas

Data File Name: F130921B_11
Date Acquired: 9/21/2013
Sample Description: SAMP 10240751002-R - BAL ADV

Lab Sample ID: 10240754001-R
Client Sample ID: 1302547-05 / T-15-14
Instrument: 10MSHR05 (F)

Data File: F130921B_11 G5 C4 - 441.7428
SAMP 10240751002-R - BAL ADV



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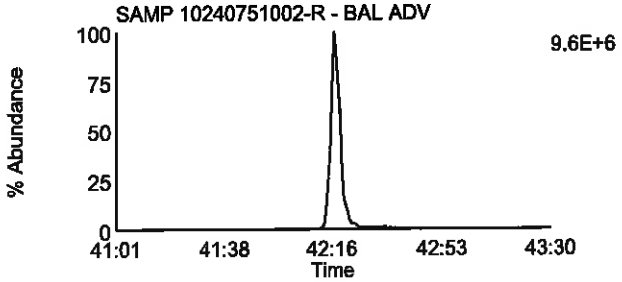

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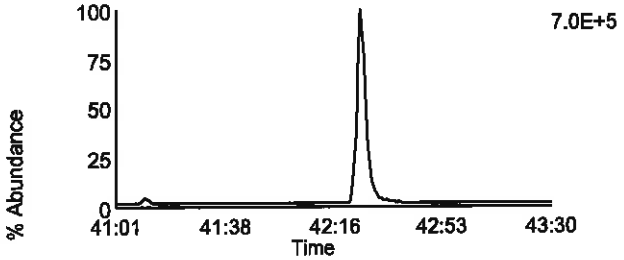
SAMP 10240751002-R - BAL ADV



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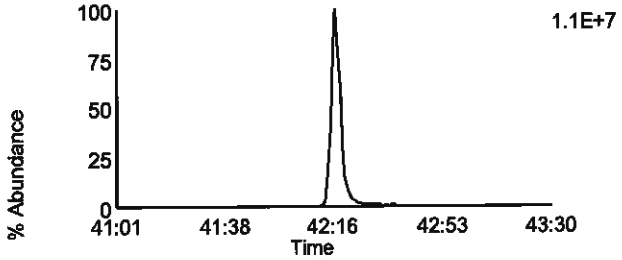
SAMP 10240751002-R - BAL ADV



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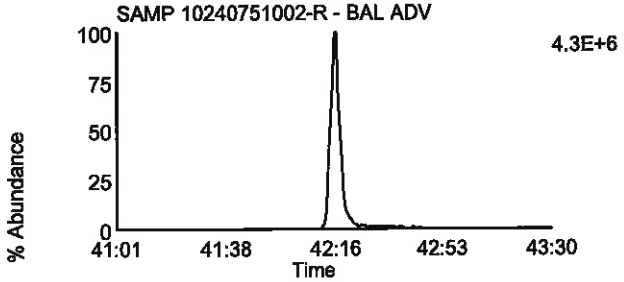
SAMP 10240751002-R - BAL ADV



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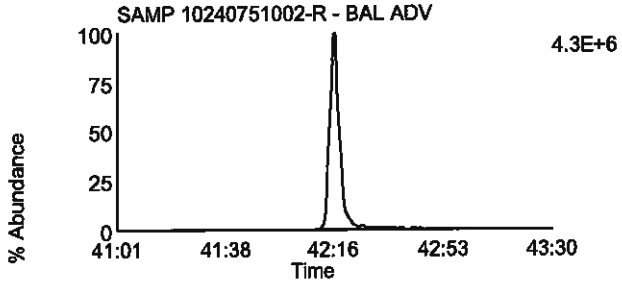
SAMP 10240751002-R - BAL ADV



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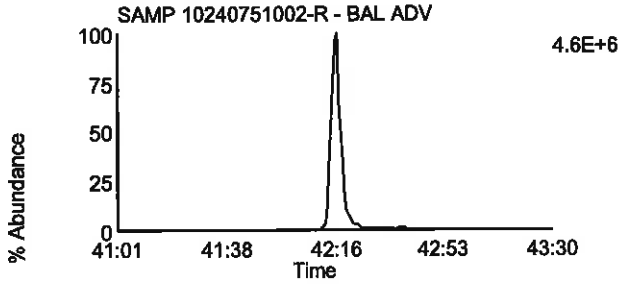
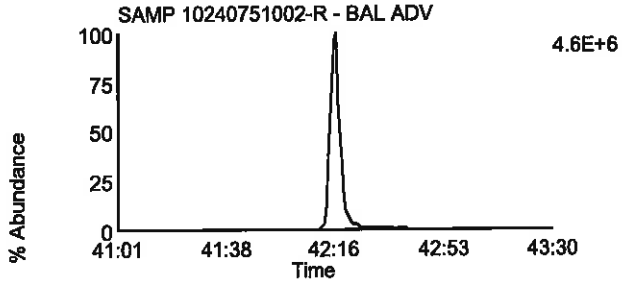
SAMP 10240751002-R - BAL ADV



Data File: F130921B_11 G5 C12 - 471.7749
SAMP 10240751002-R - BAL ADV



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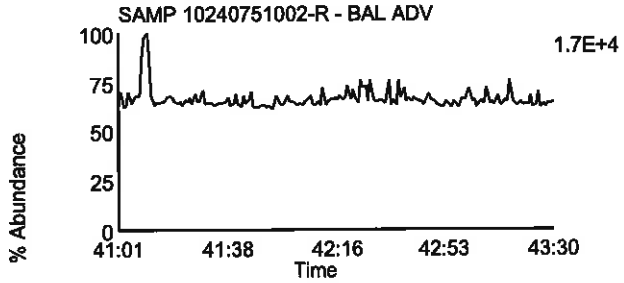
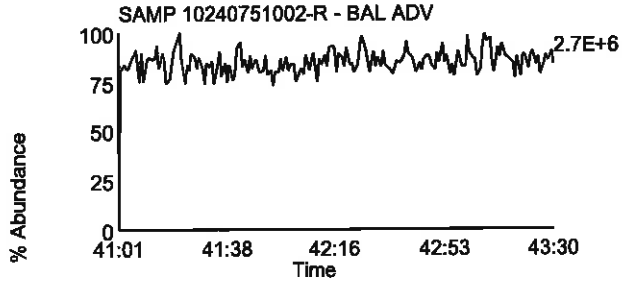
SAMP 10240751002-R - BAL ADV



Data File: F130921B_11 G5 C2 - 430.9728
SAMP 10240751002-R - BAL ADV



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Fax: 612- 607-6444

PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name	Advanced Technology Labs		
Client ID	1302547-05 / T-15-14	Injected By	BAL
Lab ID	10240754001-R	Instrument ID	10MSHR05 (F)
Filename	F130921B_11	GC Column ID	USD174324H
Analyzed	09/21/2013 22:11	ICAL ID	F130918

Tetra-Furans:		RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C		21:16	2.90e7	3.63e7	4.25e6	5.47e6	5.430e3	4.073e3	0.80	
2,3,7,8-TCDF		21:18	1.73e7	2.13e7	2.38e6	3.06e6	8.394e3	6.565e3	0.81	
Other TCDF	1	16:43	6.21e6	7.95e6					0.78	
	2	17:07	5.80e6	7.47e6					0.78	
	3	17:33	7.11e6	9.05e6					0.79	
	4	17:51	6.64e6	8.70e6					0.76	
	5	18:01	4.03e7	5.19e7					0.78	
	6	18:20	2.40e7	3.09e7					0.78	
	7	18:41	1.01e7	1.31e7					0.77	
	8	18:48	8.76e6	1.13e7					0.77	
	9	18:58	8.84e6	1.15e7					0.77	
	10	19:27	2.85e7	3.65e7					0.78	
	11	19:34	1.31e7	1.72e7					0.76	
	12	19:45	5.41e7	6.92e7					0.78	
	13	20:14	2.29e7	2.96e7					0.77	
	14	20:32	1.85e7	2.40e7					0.77	
	15	20:45	2.43e7	3.09e7					0.79	
	16	21:01	2.97e7	3.94e7					0.75	
	17	22:04	1.58e6	2.02e6					0.78	
	18	22:29	1.74e6	2.07e6					0.84	
	19	24:15	1.15e6	1.41e6					0.82	
Ethers	1	21:46	5.16e7	6.67e7					0.77	E

Tetra-Dioxins:		RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C		21:31	2.67e7	3.26e7	4.03e6	5.20e6	3.911e3	3.641e3	0.82	
2,3,7,8-TCDD-13C		22:28	1.98e7	2.39e7	2.77e6	3.43e6	2.961e3	2.656e3	0.83	
2,3,7,8-TCDD-37Cl4		22:29	5.41e6		8.26e5		1.921e3	-----		
2,3,7,8-TCDD		22:30	7.16e5	9.05e5	1.07e5	1.30e5	1.676e3	9.802e2	0.79	
Other TCDD	1	18:17	5.71e7	7.21e7					0.79	
	2	18:38	2.09e7	2.69e7					0.78	
	3	19:01	2.57e6	3.34e6					0.77	
	4	19:49	1.91e5	2.25e5					0.85	
	5	20:04	6.04e6	7.85e6					0.77	
	6	20:19	4.29e6	5.11e6					0.84	
	7	20:32	2.30e6	2.93e6					0.79	
	8	20:48	4.20e5	5.80e5					0.72	
	9	21:04	2.25e6	2.71e6					0.83	
	10	21:32	2.12e6	2.90e6					0.73	
	11	21:40	1.03e6	1.22e6					0.84	

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Client Name	Advanced Technology Labs		
Client ID	1302547-05 / T-15-14	Injected By	BAL
Lab ID	10240754001-R	Instrument ID	10MSHR05 (F)
Filename	F130921B_11	GC Column ID	USD174324H
Analyzed	09/21/2013 22:11	ICAL ID	F130918

	12	22:04	4.58e6	5.73e6	0.80
	13	22:15	8.90e5	1.26e6	0.71
	14	22:56	1.26e6	1.51e6	0.84
	15	23:07	4.20e5	5.28e5	0.80
	16	23:58	4.50e5	5.82e5	0.77

Penta-Furans:		RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C		29:27	3.69e7	2.33e7	5.49e6	3.46e6	1.324e4	1.570e3	1.58	
2,3,4,7,8-PeCDF-13C		31:04	3.59e7	2.32e7	6.21e6	4.23e6	3.752e3	4.116e3	1.55	
1,2,3,7,8-PeCDF		29:26	6.95e6	4.43e6	1.59e6	1.04e6	6.712e3	2.201e3	1.57	
2,3,4,7,8-PeCDF		31:05	2.51e7	1.61e7	4.47e6	2.82e6	2.805e3	2.863e3	1.56	
Other PeCDF	1	27:15	3.60e7	2.32e7					1.55	
	2	27:33	3.53e7	2.24e7					1.57	
	3	28:16	2.97e6	1.93e6					1.54	
	4	28:35	1.52e7	9.38e6					1.62	
	5	28:44	2.65e7	1.68e7					1.57	
	6	30:07	1.05e6	6.10e5					1.73	
	7	30:41	1.84e6	1.19e6					1.55	
	8	30:55	3.97e7	2.57e7					1.54	
	9	31:28	2.45e6	1.63e6					1.51	
	10	32:25	1.15e6	7.96e5					1.44	
	11	24:19	1.21e7	7.29e6					1.66	
Ethers	1	29:08	7.44e6	4.66e6					1.60	E
	2	29:31	2.58e6	1.56e6					1.66	E
	3	29:52	2.96e7	1.94e7					1.53	E

Penta-Dioxins:		RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C		31:32	2.49e7	1.52e7	4.87e6	3.04e6	7.026e3	3.723e3	1.63	
1,2,3,7,8-PeCDD		31:33	1.15e6	2.04e6	1.13e4	3.98e5	1.659e3	2.519e3	0.57	
Other PeCDD	1	27:41	1.60e7	2.64e7					0.60	
	2	28:38	8.74e5	1.32e6					0.66	
	3	29:32	1.19e7	1.93e7					0.62	
	4	29:49	1.18e6	1.90e6					0.62	
	5	29:60	6.43e6	1.05e7					0.61	
	6	30:19	2.34e6	4.04e6					0.58	
	7	30:52	5.14e6	7.97e6					0.64	
	8	31:39	7.54e5	1.18e6					0.64	
	9	32:07	8.45e5	1.45e6					0.58	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code

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Client Name	Advanced Technology Labs		
Client ID	1302547-05 / T-15-14	Injected By	BAL
Lab ID	10240754001-R	Instrument ID	10MSHR05 (F)
Filename	F130921B_11	GC Column ID	USD174324H
Analyzed	09/21/2013 22:11	ICAL ID	F130918

1,2,3,4,7,8-HxCDF-13C		35:01	1.73e7	3.24e7	4.10e6	7.63e6	1.691e3	1.279e3	0.53	
1,2,3,6,7,8-HxCDF-13C		35:09	1.94e7	3.72e7	4.70e6	8.86e6	1.120e4	1.279e3	0.52	
2,3,4,6,7,8-HxCDF-13C		35:50	1.70e7	3.23e7	4.19e6	8.01e6	1.381e3	1.210e3	0.53	
1,2,3,7,8,9-HxCDF-13C		36:44	1.65e7	3.05e7	4.06e6	7.67e6	2.323e3	7.638e3	0.54	
1,2,3,4,7,8-HxCDF		35:02	1.12e7	9.09e6	2.80e6	2.34e6	2.916e3	2.194e3	1.23	
1,2,3,6,7,8-HxCDF		35:10	1.09e7	8.59e6	2.67e6	2.16e6	2.484e3	2.332e3	1.27	
2,3,4,6,7,8-HxCDF		35:51	1.83e7	1.46e7	4.25e6	3.43e6	3.311e3	3.024e3	1.25	
1,2,3,7,8,9-HxCDF		36:46	2.21e6	1.61e6	5.61e5	4.03e5	3.008e3	2.458e3	1.37	
Other HxCDF	1	33:31	9.70e6	7.55e6					1.28	
	2	33:44	2.77e7	2.16e7					1.28	
	3	33:59	1.50e6	1.14e6					1.31	
	4	34:11	2.01e6	1.55e6					1.29	
	5	34:26	1.15e6	8.90e5					1.29	
	6	35:28	1.80e6	1.54e6					1.17	
Ethers	1	34:54	2.49e7	1.94e7					1.28	E
	2	35:19	1.02e6	7.72e5					1.32	E
	3	35:36	1.36e6	1.10e6					1.24	E

Hexa-Dioxins:		RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C		36:01	1.98e7	1.56e7	5.40e6	4.30e6	9.369e3	3.771e3	1.27	
1,2,3,6,7,8-HxCDD-13C		36:07	2.03e7	1.59e7	5.49e6	4.14e6	9.107e3	4.436e3	1.28	
1,2,3,7,8,9-HxCDD-13C		36:25	2.91e7	2.29e7	6.99e6	5.71e6	8.108e3	7.170e3	1.27	
1,2,3,4,7,8-HxCDD		36:01	1.23e6	1.03e6	3.55e5	2.90e5	3.934e3	3.074e3	1.20	
1,2,3,6,7,8-HxCDD		36:08	3.04e6	2.42e6	8.41e5	6.88e5	4.619e3	6.813e3	1.26	
1,2,3,7,8,9-HxCDD		36:26	2.27e6	1.69e6	6.07e5	3.98e5	3.320e3	5.426e3	1.34	
Other HxCDD	1	34:16	5.46e6	4.25e6					1.29	
	2	34:57	4.76e7	3.77e7					1.26	
	3	35:16	1.23e7	1.00e7					1.22	
	4	35:22	1.56e6	1.10e6					1.42	
	5	36:19	2.24e6	1.81e6					1.24	

Hepta-Furans:		RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C		38:25	1.02e7	2.24e7	2.53e6	5.54e6	3.539e3	5.983e3	0.46	
1,2,3,4,7,8,9-HpCDF-13C		39:57	8.00e6	1.70e7	2.24e6	4.84e6	2.122e3	2.228e3	0.47	
1,2,3,4,6,7,8-HpCDF		38:26	2.55e7	2.42e7	6.92e6	6.47e6	5.607e3	4.362e3	1.05	
1,2,3,4,7,8,9-HpCDF		39:59	1.01e6	9.15e5	3.07e5	2.54e5	3.407e3	3.136e3	1.10	
Other HpCDF	1	38:43	2.43e6	2.47e6					0.98	
	2	38:54	2.39e6	2.21e6					1.08	
Ethers	1	39:02	1.50e5	1.56e5					0.96	E

REPORT OF LABORATORY ANALYSIS

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Client Name	Advanced Technology Labs		
Client ID	1302547-05 / T-15-14	Injected By	BAL
Lab ID	10240754001-R	Instrument ID	10MSHR05 (F)
Filename	F130921B_11	GC Column ID	USD174324H
Analyzed	09/21/2013 22:11	ICAL ID	F130918

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:30	1.18e7	1.05e7	3.21e6	2.86e6	6.349e3	1.913e4	1.12	
1,2,3,4,6,7,8-HpCDD	39:31	1.74e7	1.64e7	4.89e6	4.58e6	4.006e3	8.592e3	1.06	
Other HpCDD 1	38:45	1.66e7	1.53e7					1.08	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:25	2.29e6	2.58e6	6.05e5	6.85e5	2.298e3	1.808e3	0.89	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:17	1.76e7	1.88e7	4.34e6	4.56e6	1.842e3	9.224e2	0.93	
OCDD	42:17	3.82e7	4.37e7	9.60e6	1.10e7	1.980e3	1.992e3	0.87	

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Appendix E

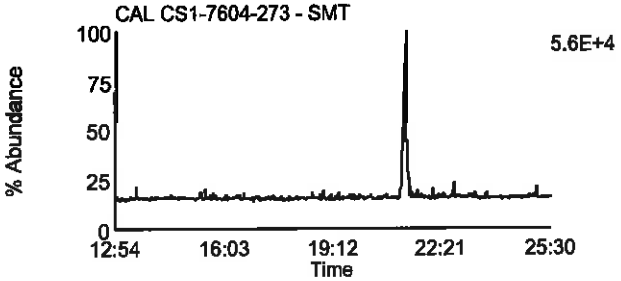
Calibration Raw Data

Homologue Group: Tetras

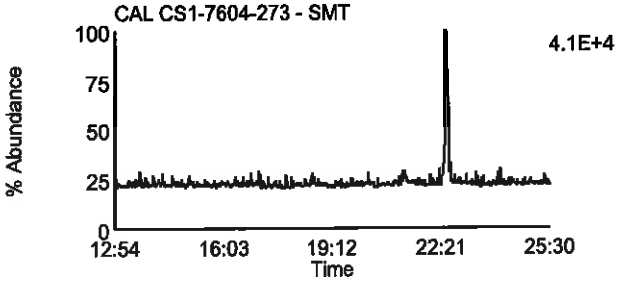
Data File Name: F130918B_04
Date Acquired: 9/18/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR05 (F)

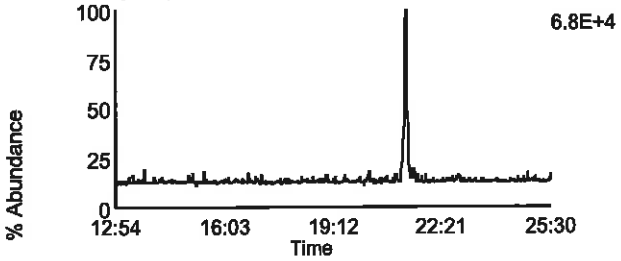
Data File: F130918B_04 G1 C1 - 303.9016
CAL CS1-7604-273 - SMT



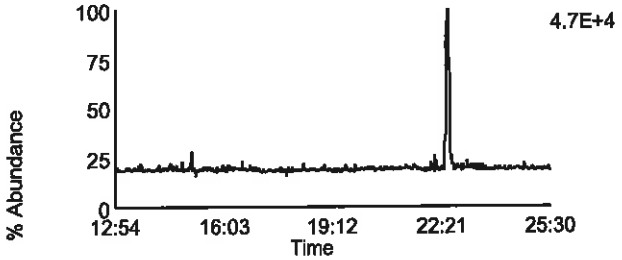
Data File: F130918B_04 G1 C7 - 319.8965
CAL CS1-7604-273 - SMT



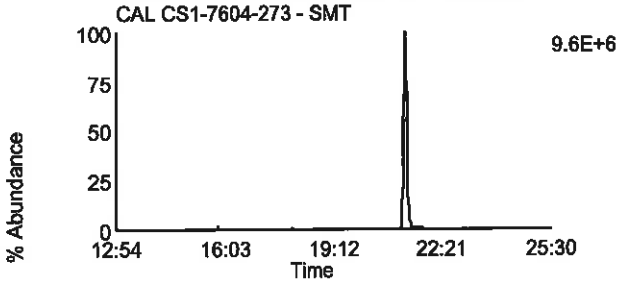
Data File: F130918B_04 G1 C2 - 305.8987
CAL CS1-7604-273 - SMT



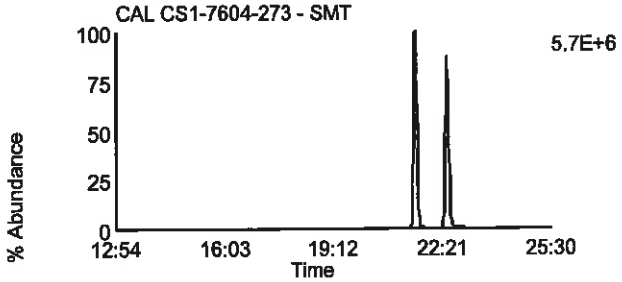
Data File: F130918B_04 G1 C8 - 321.8936
CAL CS1-7604-273 - SMT



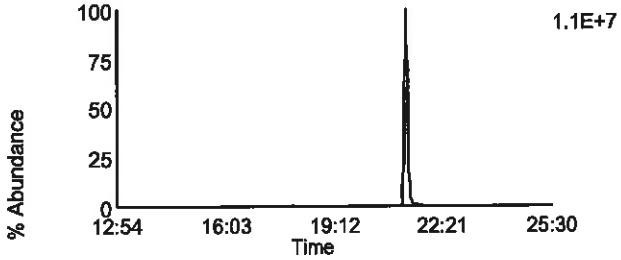
Data File: F130918B_04 G1 C3 - 315.9418
CAL CS1-7604-273 - SMT



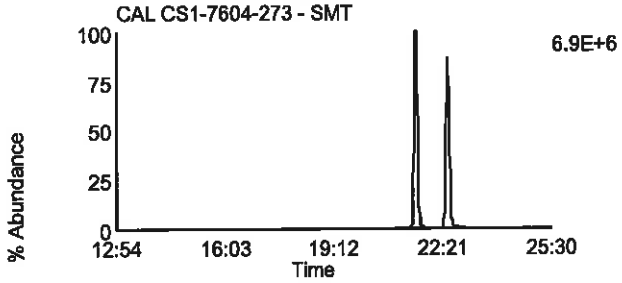
Data File: F130918B_04 G1 C10 - 331.9367
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G1 C4 - 317.9389
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G1 C11 - 333.9338
CAL CS1-7604-273 - SMT



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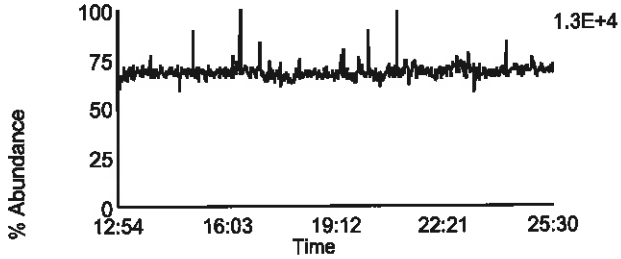
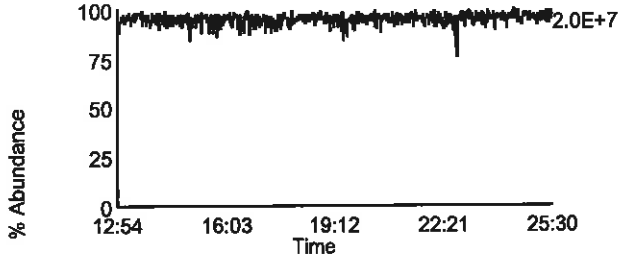
CAL CS1-7604-273 - SMT



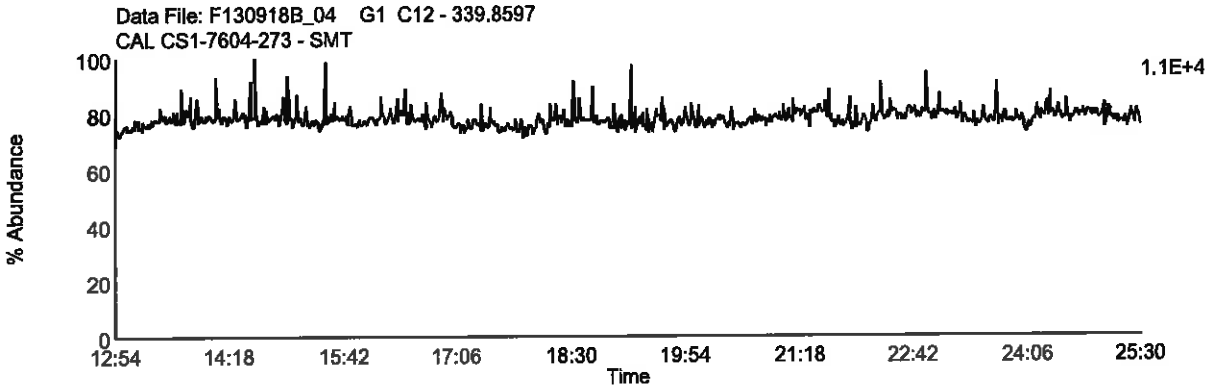
Data File: F130918B_04 G1 C5 - 318.9792
CAL CS1-7604-273 - SMT

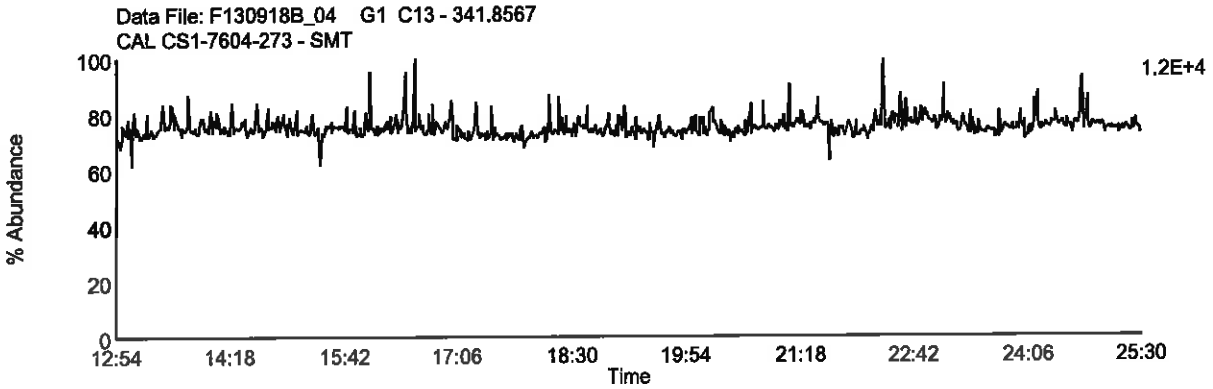


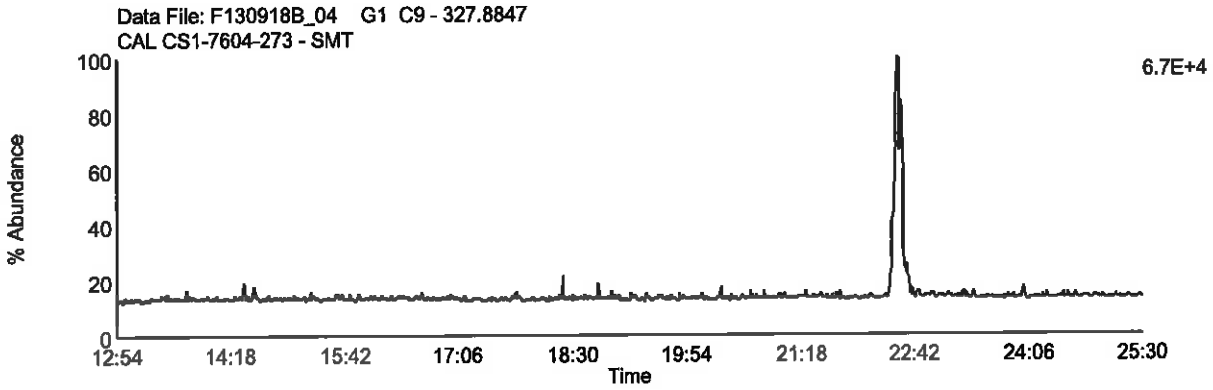
Homologue Group: Penta & Cleanup

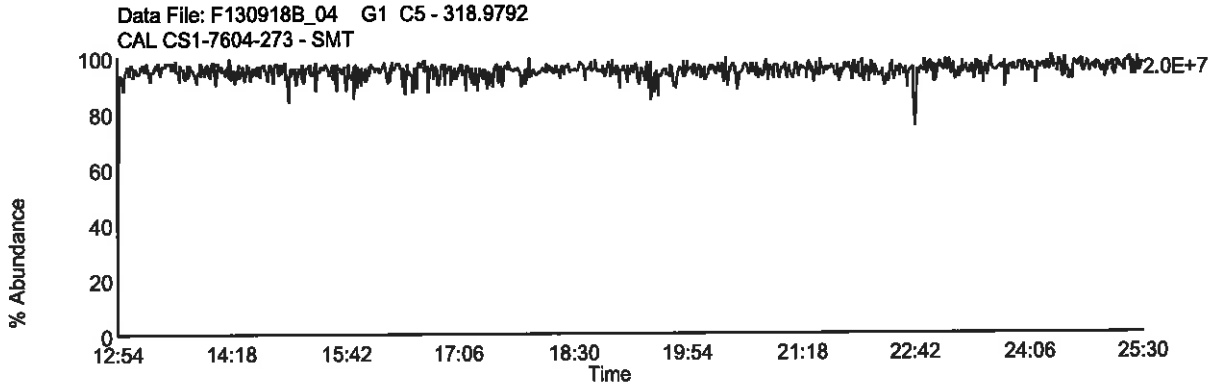
Data File Name: F130918B_04
Date Acquired: 9/18/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR05 (F)







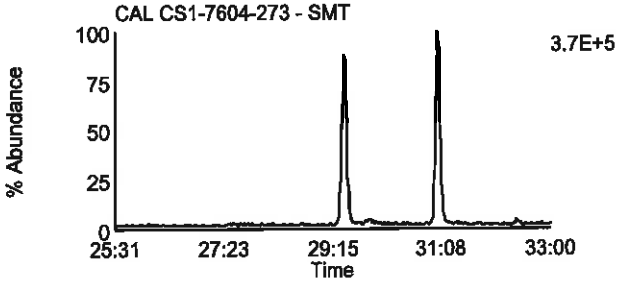


Homologue Group: Pentas

Data File Name: F130918B_04
Date Acquired: 9/18/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR05 (F)

Data File: F130918B_04 G2 C1 - 339.8597
CAL CS1-7604-273 - SMT



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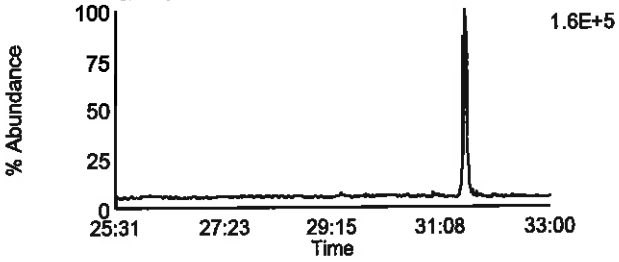
CAL CS1-7604-273 - SMT



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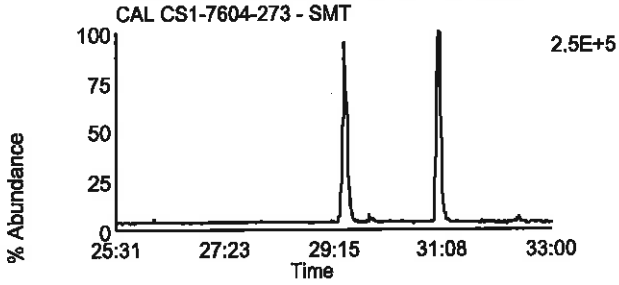
CAL CS1-7604-273 - SMT



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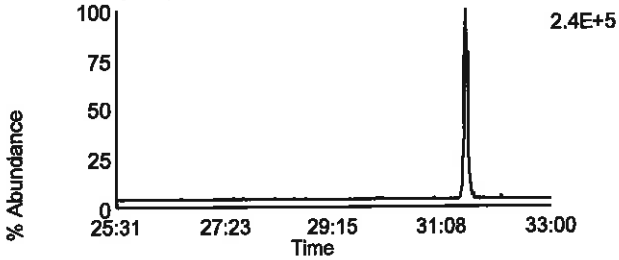
CAL CS1-7604-273 - SMT



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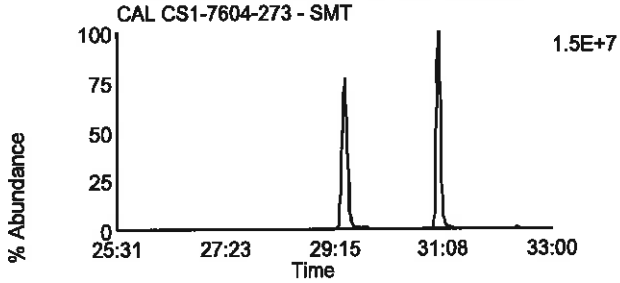
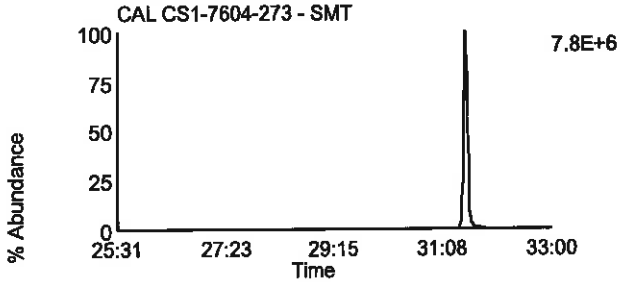
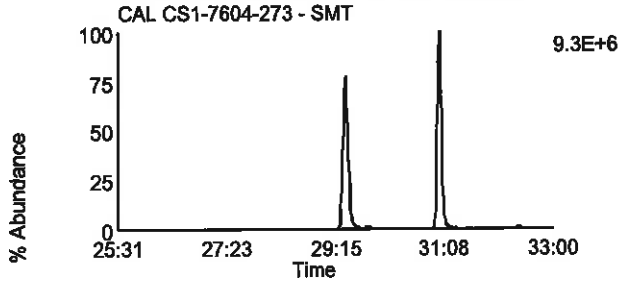
CAL CS1-7604-273 - SMT



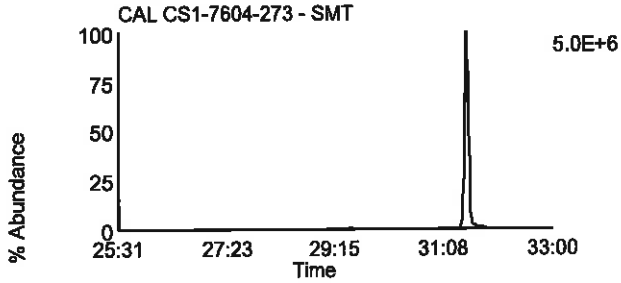
Data File: F130918B_04 G2 C10 - 367.8948
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G2 C5 - 353.8969
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G2 C11 - 369.8918
CAL CS1-7604-273 - SMT



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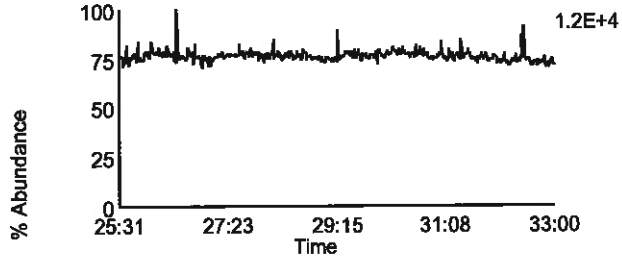
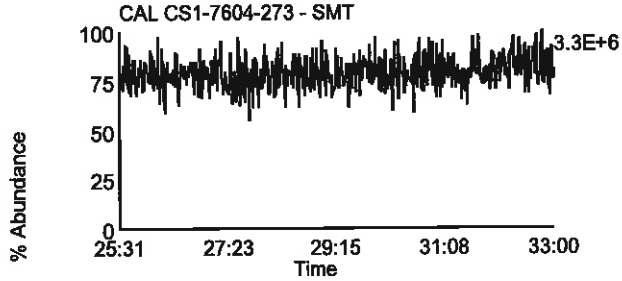
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G2 C6 - 354.9792
CAL CS1-7604-273 - SMT

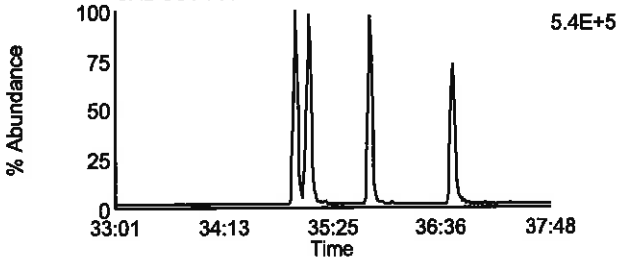


Homologue Group: Hexas

Data File Name: F130918B_04
Date Acquired: 9/18/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR05 (F)

Data File: F130918B_04 G3 C1 - 373.8207
CAL CS1-7604-273 - SMT



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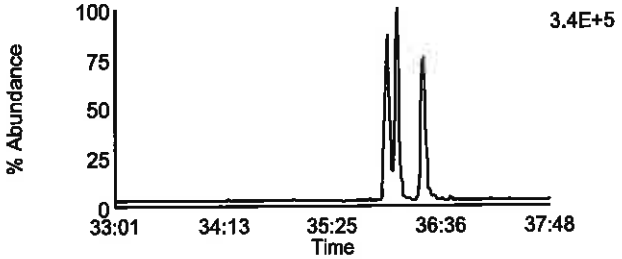
CAL CS1-7604-273 - SMT



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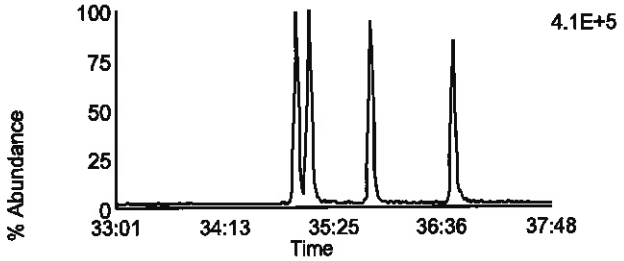
CAL CS1-7604-273 - SMT



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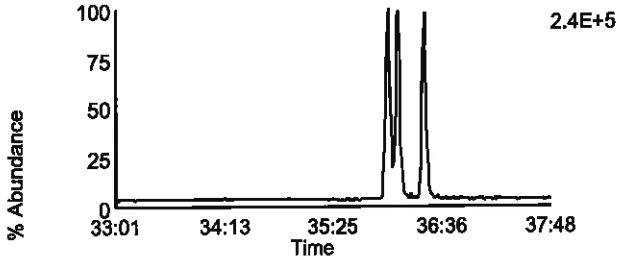
CAL CS1-7604-273 - SMT



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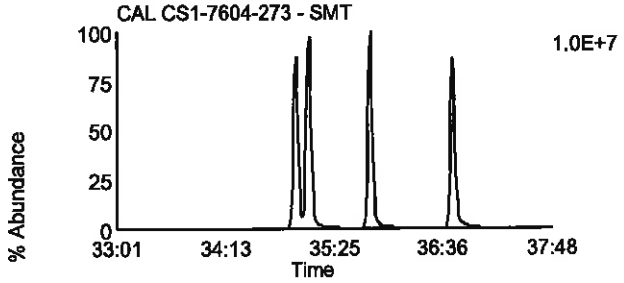
CAL CS1-7604-273 - SMT



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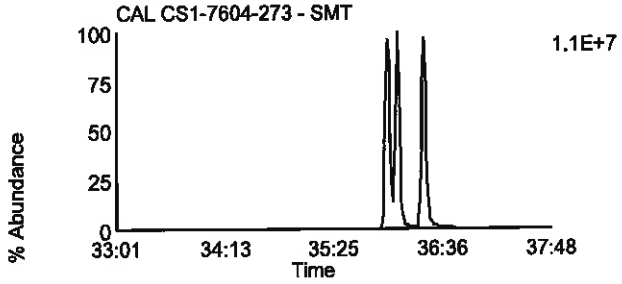
CAL CS1-7604-273 - SMT



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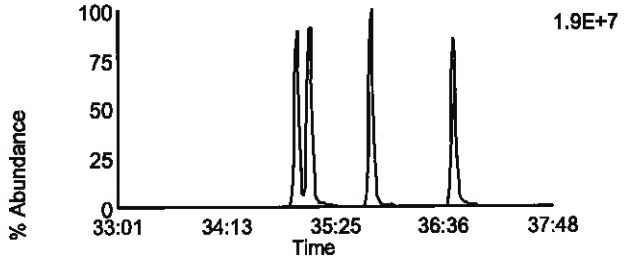

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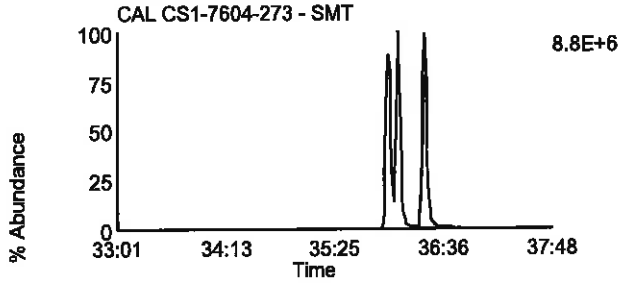
CAL CS1-7604-273 - SMT



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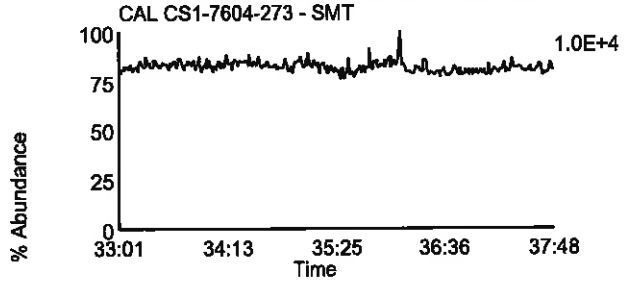
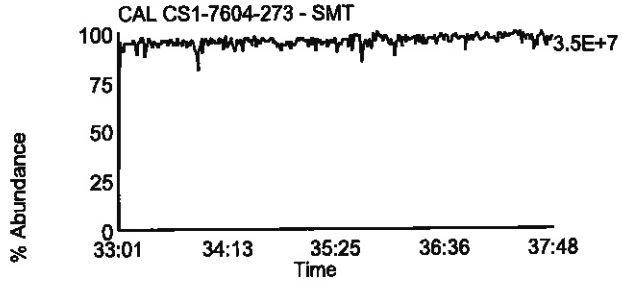
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G3 C3 - 380.976
CAL CS1-7604-273 - SMT

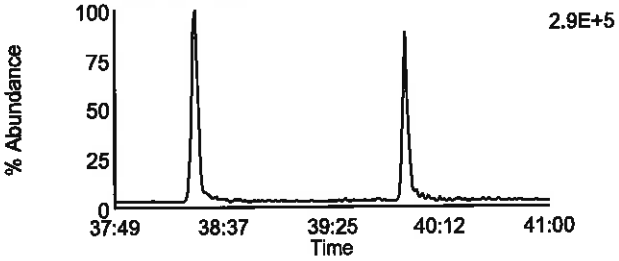


Homologue Group: Heptas

Data File Name: F130918B_04
Date Acquired: 9/18/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR05 (F)

Data File: F130918B_04 G4 C3 - 407.7818
CAL CS1-7604-273 - SMT



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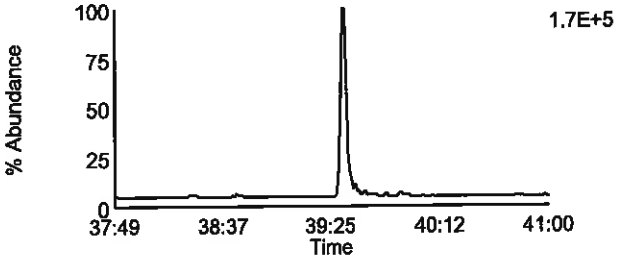
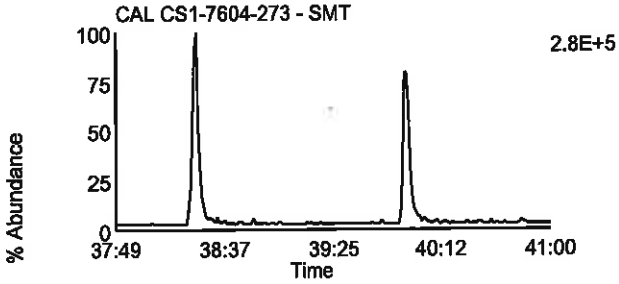
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G4 C4 - 409.7788
CAL CS1-7604-273 - SMT



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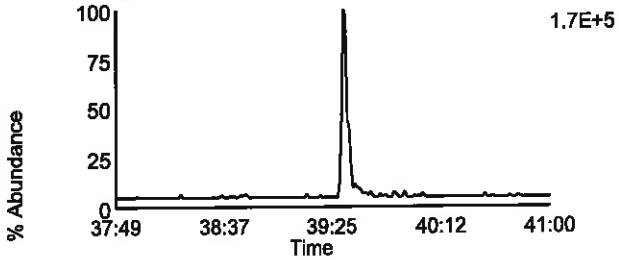
CAL CS1-7604-273 - SMT



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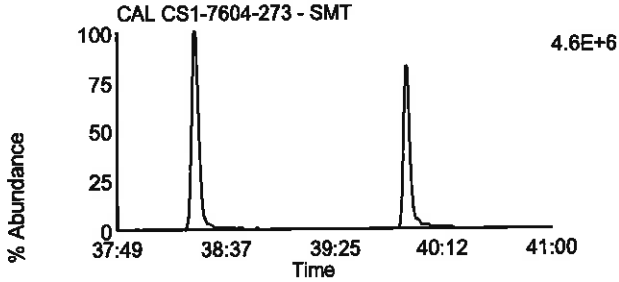
CAL CS1-7604-273 - SMT



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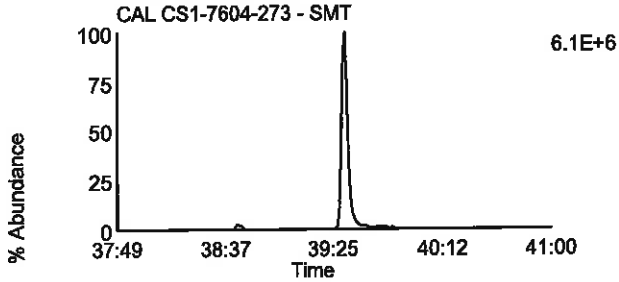
CAL CS1-7604-273 - SMT



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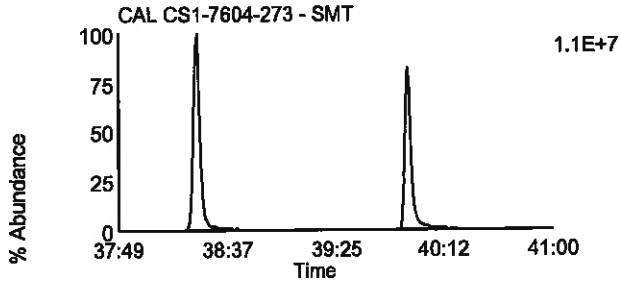
CAL CS1-7604-273 - SMT



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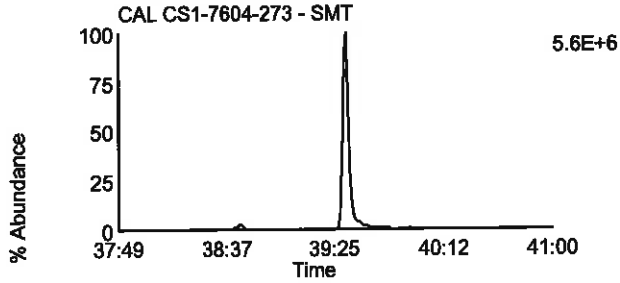

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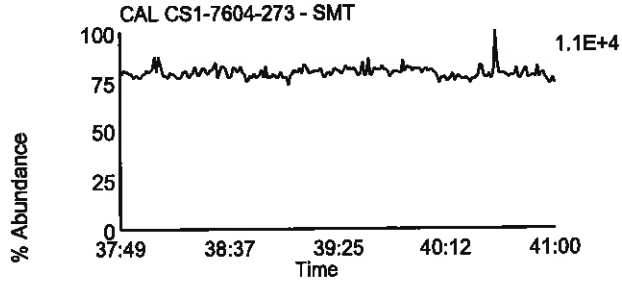
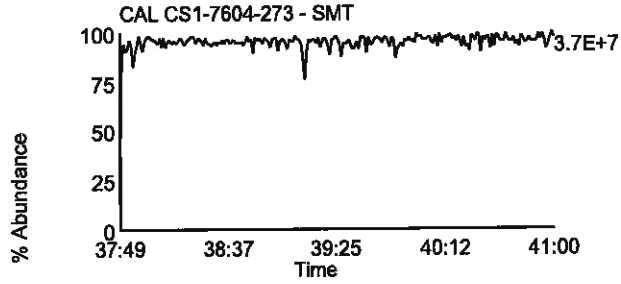
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G4 C1 - 380.976
CAL CS1-7604-273 - SMT

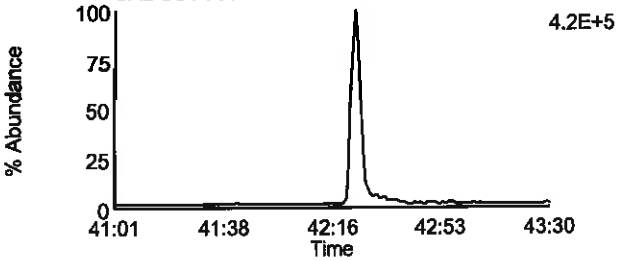


Homologue Group: Octas

Data File Name: F130918B_04
Date Acquired: 9/18/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR05 (F)

Data File: F130918B_04 G5 C4 - 441.7428
CAL CS1-7604-273 - SMT



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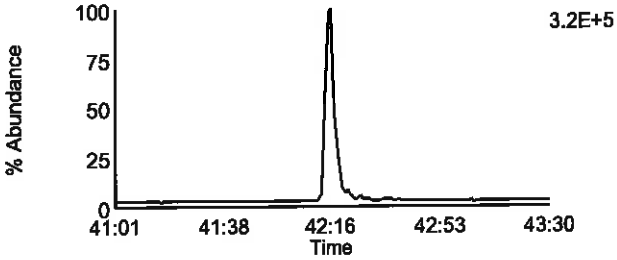
CAL CS1-7604-273 - SMT



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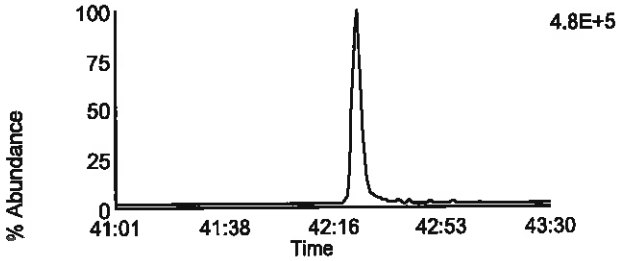
CAL CS1-7604-273 - SMT



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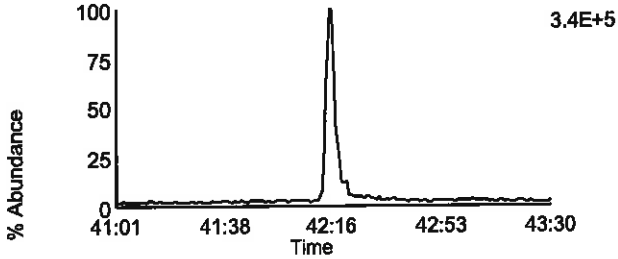
CAL CS1-7604-273 - SMT



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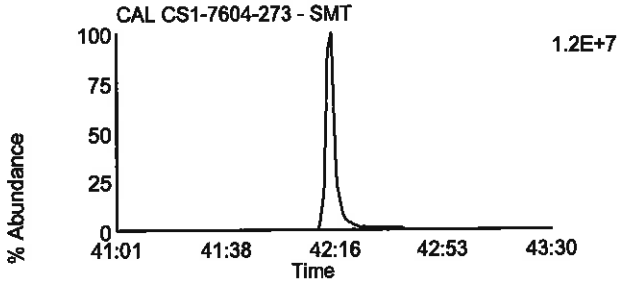
CAL CS1-7604-273 - SMT



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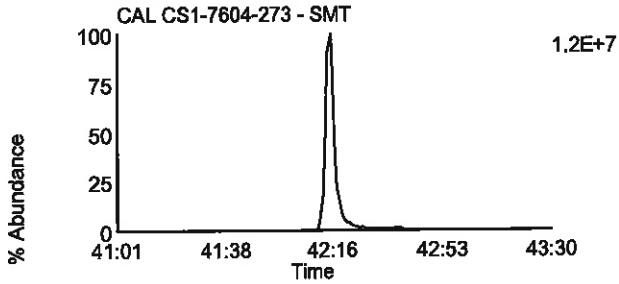
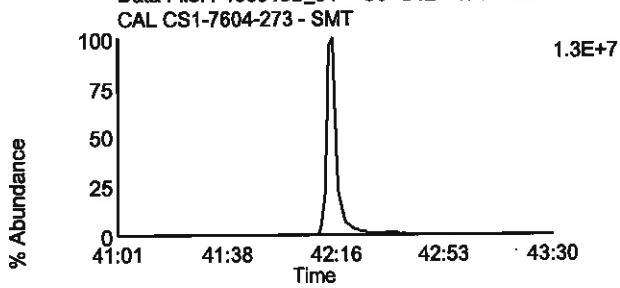
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G5 C12 - 471.7749
CAL CS1-7604-273 - SMT



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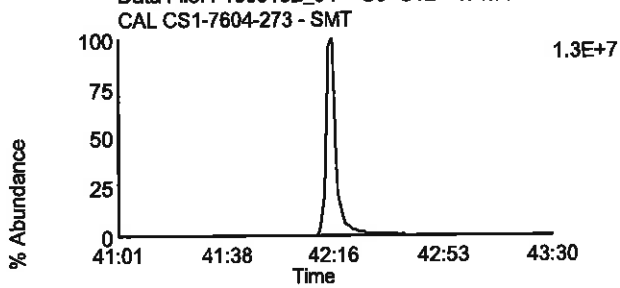
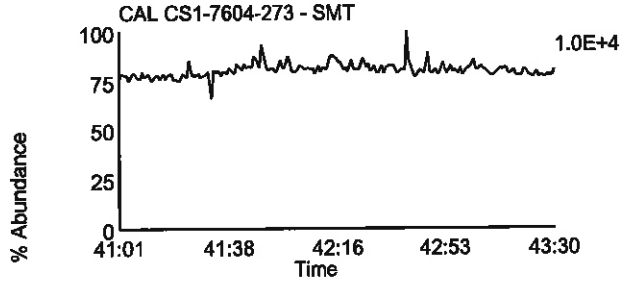
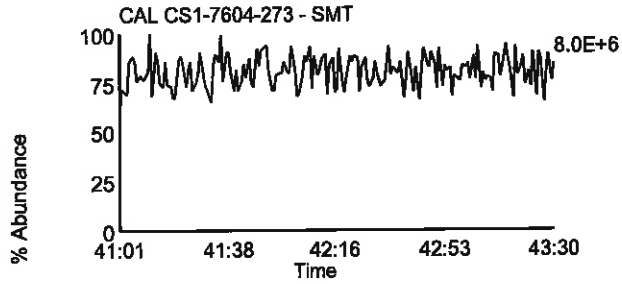
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G5 C13 - 513.6775
CAL CS1-7604-273 - SMT



Data File: F130918B_04 G5 C2 - 430.9728
CAL CS1-7604-273 - SMT

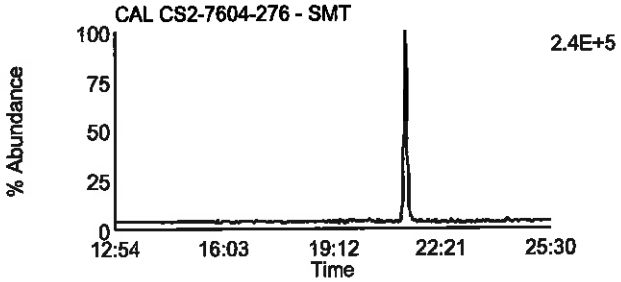


Homologue Group: Tetras

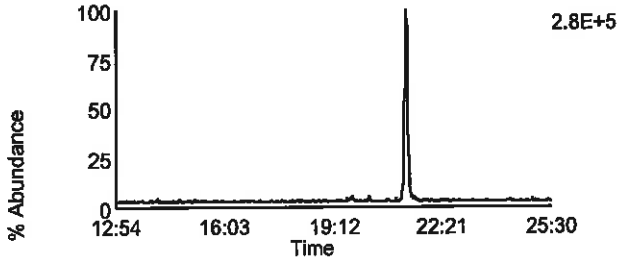
Data File Name: F130918B_03
Date Acquired: 9/18/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR05 (F)

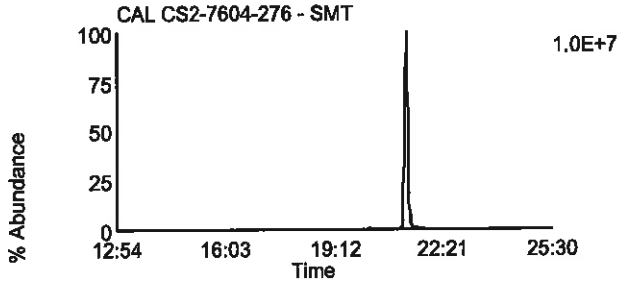
Data File: F130918B_03 G1 C1 - 303.9016
CAL CS2-7604-276 - SMT



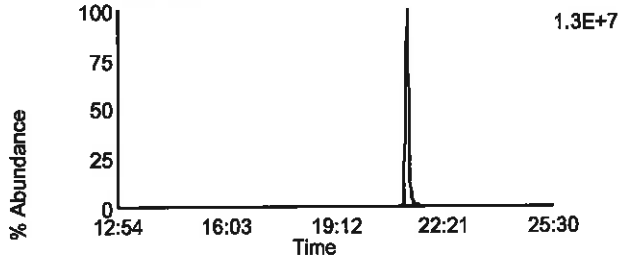
Data File: F130918B_03 G1 C2 - 305.8987
CAL CS2-7604-276 - SMT



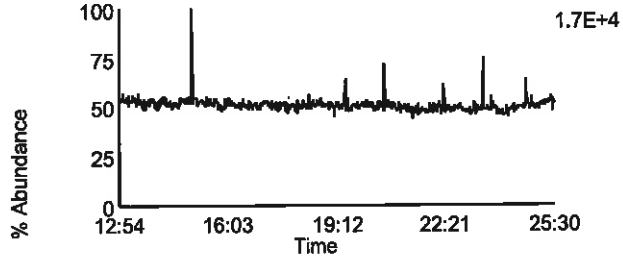
Data File: F130918B_03 G1 C3 - 315.9418
CAL CS2-7604-276 - SMT



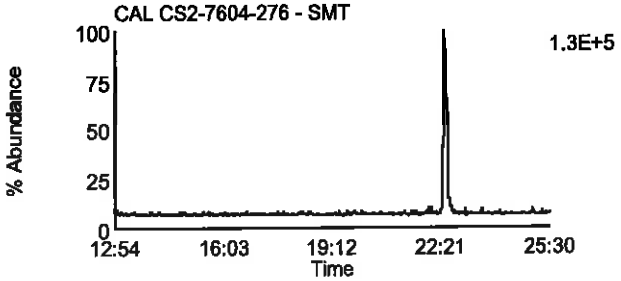
Data File: F130918B_03 G1 C4 - 317.9389
CAL CS2-7604-276 - SMT



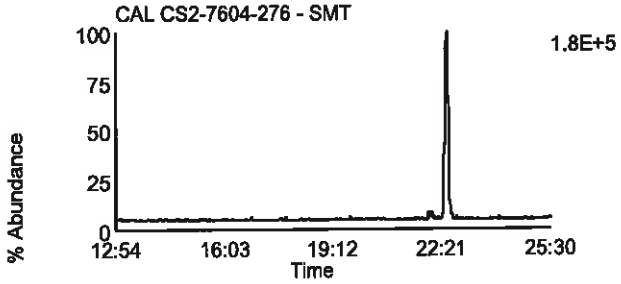
Data File: F130918B_03 G1 C14 - 375.8364
CAL CS2-7604-276 - SMT



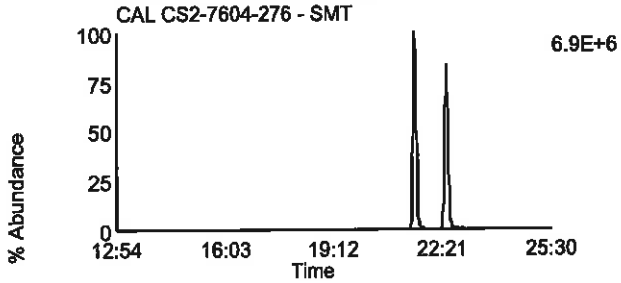
Data File: F130918B_03 G1 C7 - 319.8965
CAL CS2-7604-276 - SMT



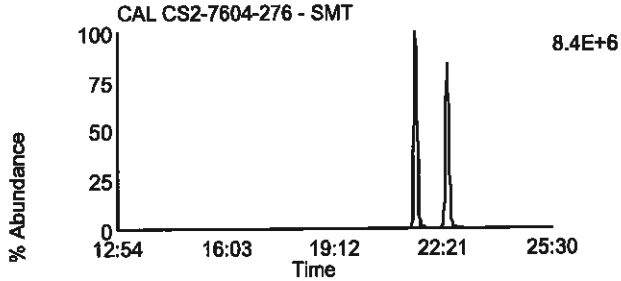
Data File: F130918B_03 G1 C8 - 321.8936
CAL CS2-7604-276 - SMT



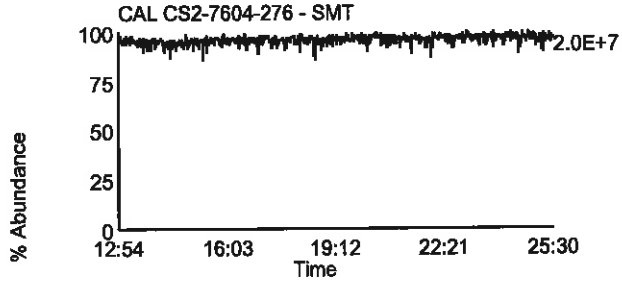
Data File: F130918B_03 G1 C10 - 331.9367
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G1 C11 - 333.9338
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G1 C5 - 318.9792
CAL CS2-7604-276 - SMT

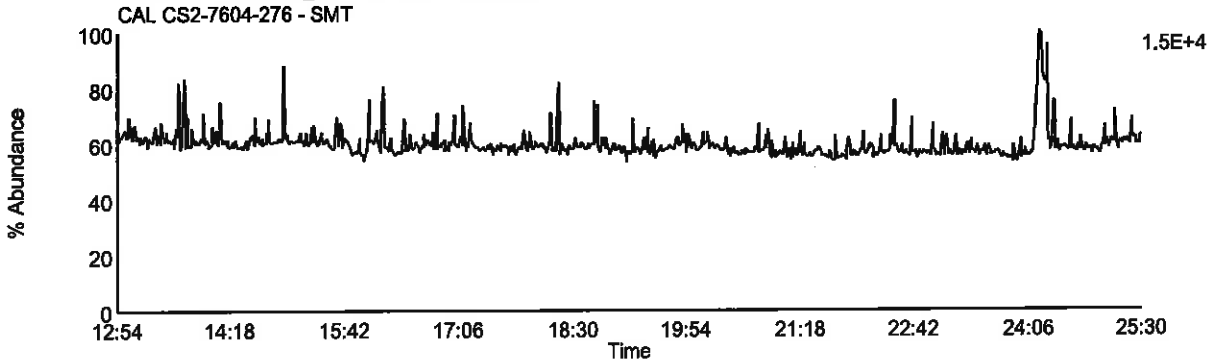


Homologue Group: Penta & Cleanup

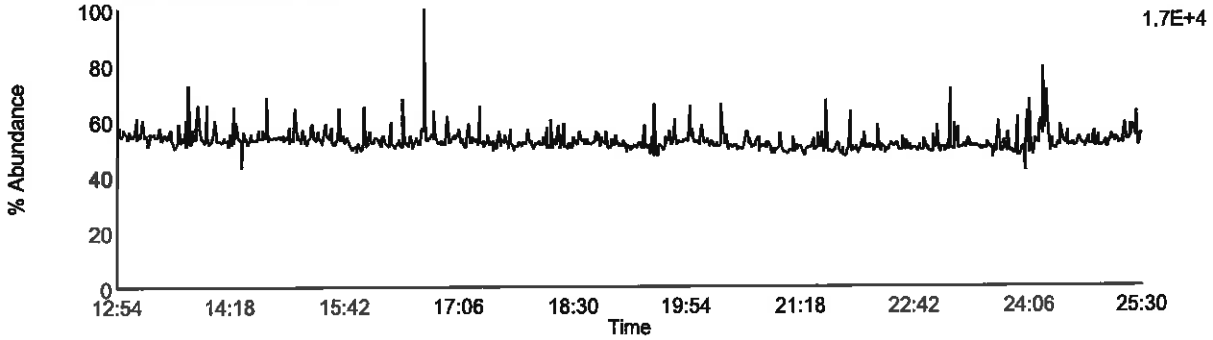
Data File Name: F130918B_03
Date Acquired: 9/18/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR05 (F)

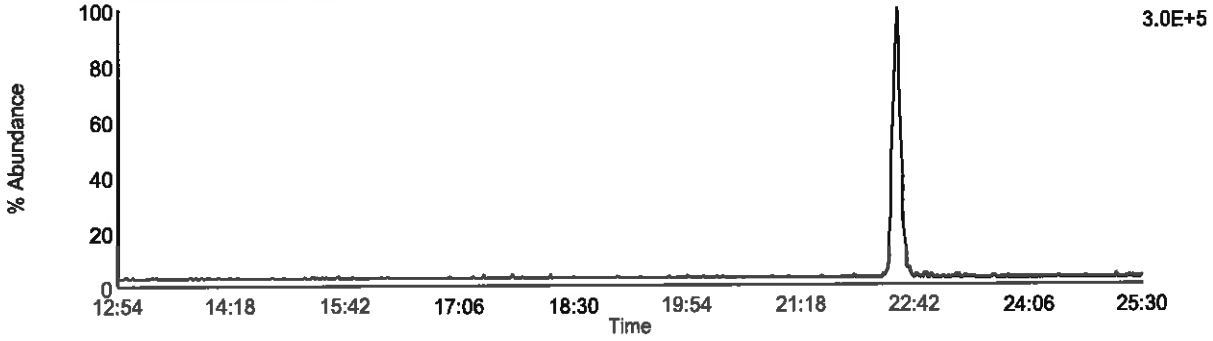
Data File: F130918B_03 G1 C12 - 339.8597
CAL CS2-7604-276 - SMT



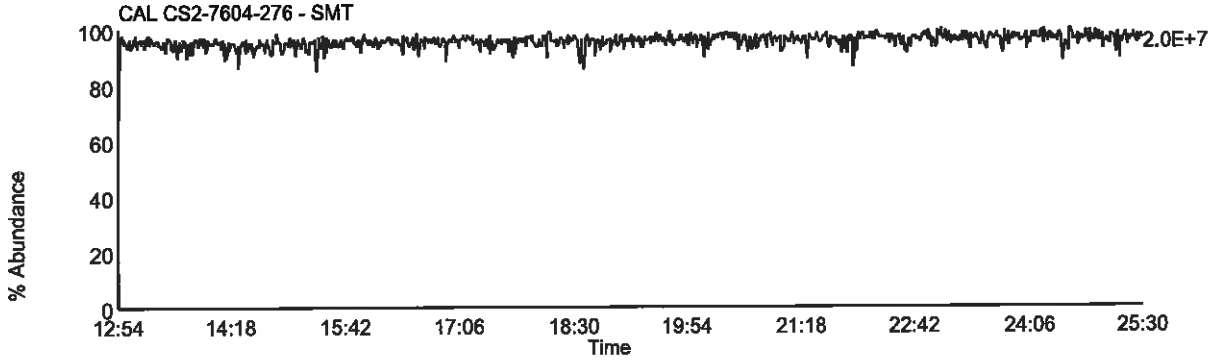
Data File: F130918B_03 G1 C13 - 341.8567
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G1 C9 - 327.8847
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G1 C5 - 318.9792
CAL CS2-7604-276 - SMT

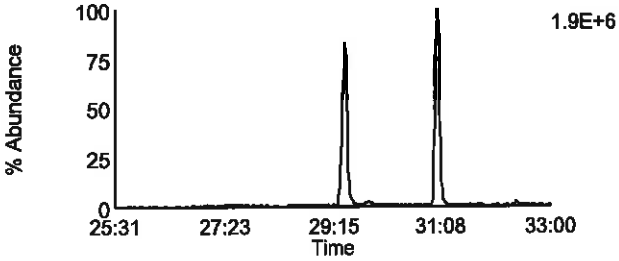


Homologue Group: Pentas

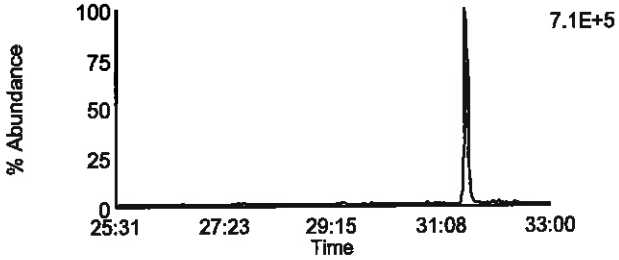
Data File Name: F130918B_03
Date Acquired: 9/18/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR05 (F)

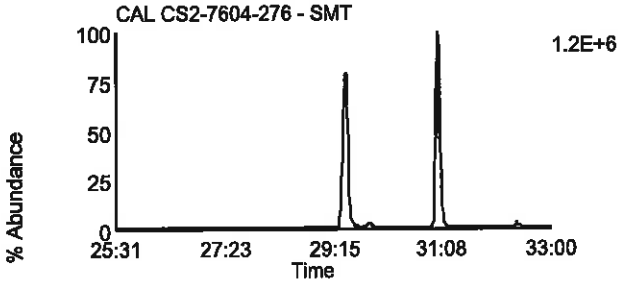
Data File: F130918B_03 G2 C1 - 339.8597
CAL CS2-7604-276 - SMT



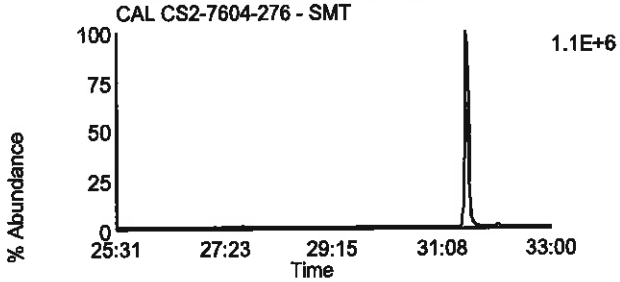
Data File: F130918B_03 G2 C4 - 353.8576
CAL CS2-7604-276 - SMT



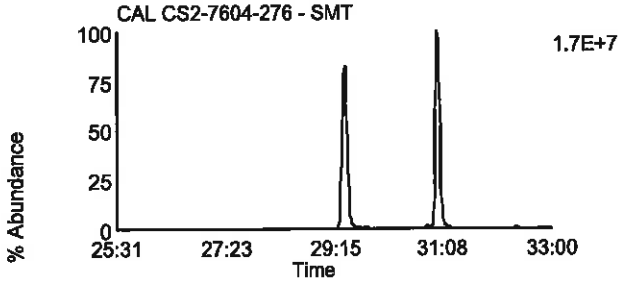
Data File: F130918B_03 G2 C2 - 341.8567
CAL CS2-7604-276 - SMT



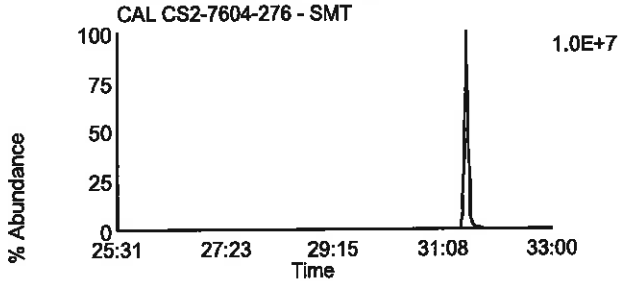
Data File: F130918B_03 G2 C8 - 355.8546
CAL CS2-7604-276 - SMT



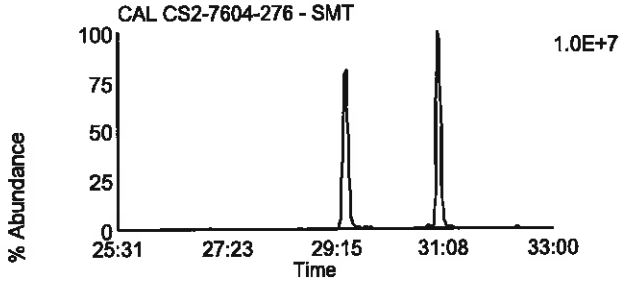
Data File: F130918B_03 G2 C3 - 351.8999
CAL CS2-7604-276 - SMT



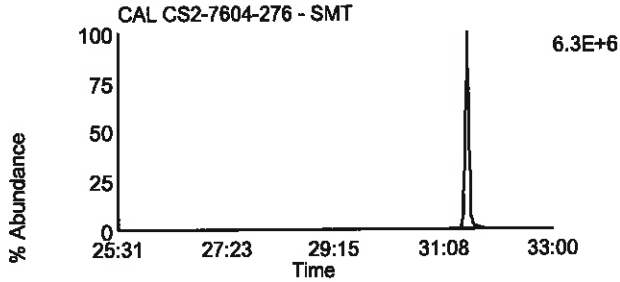
Data File: F130918B_03 G2 C10 - 367.8948
CAL CS2-7604-276 - SMT



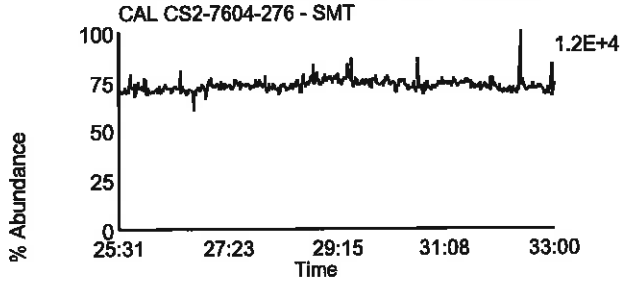
Data File: F130918B_03 G2 C5 - 353.8969
CAL CS2-7604-276 - SMT



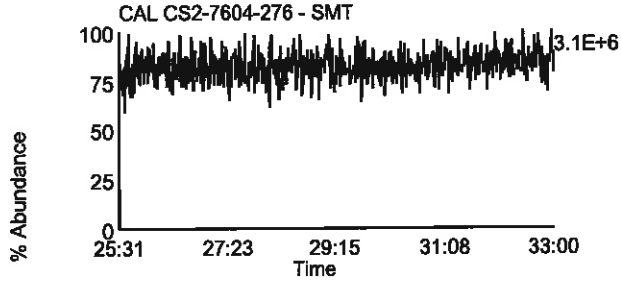
Data File: F130918B_03 G2 C11 - 369.8918
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G2 C12 - 409.7974
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G2 C6 - 354.9792
CAL CS2-7604-276 - SMT

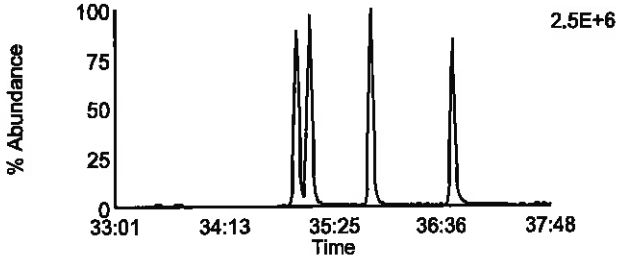


Homologue Group: Hexas

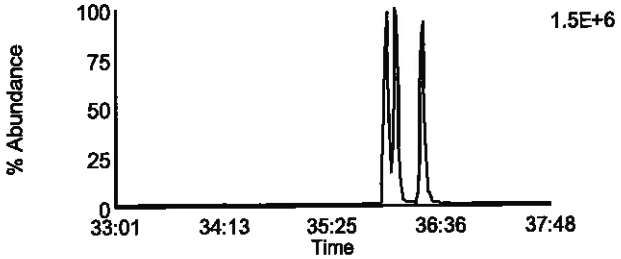
Data File Name: F130918B_03
Date Acquired: 9/18/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR05 (F)

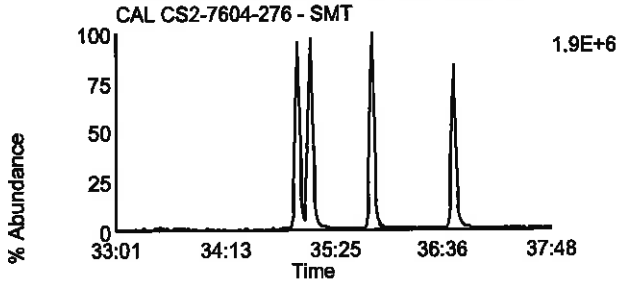
Data File: F130918B_03 G3 C1 - 373.8207
CAL CS2-7604-276 - SMT



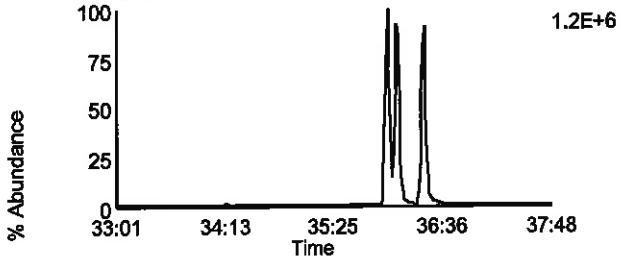
Data File: F130918B_03 G3 C7 - 389.8156
CAL CS2-7604-276 - SMT



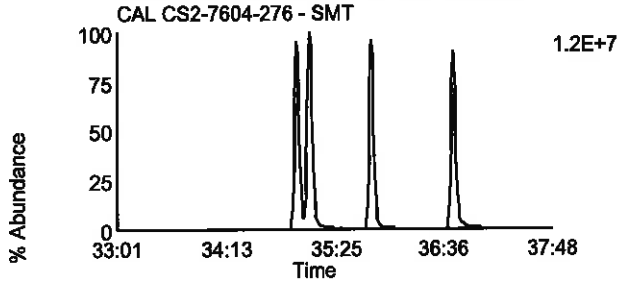
Data File: F130918B_03 G3 C2 - 375.8178
CAL CS2-7604-276 - SMT



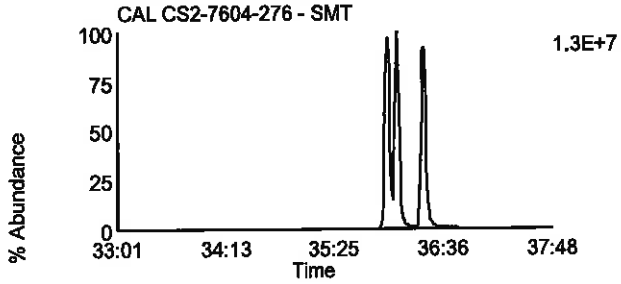
Data File: F130918B_03 G3 C8 - 391.8127
CAL CS2-7604-276 - SMT



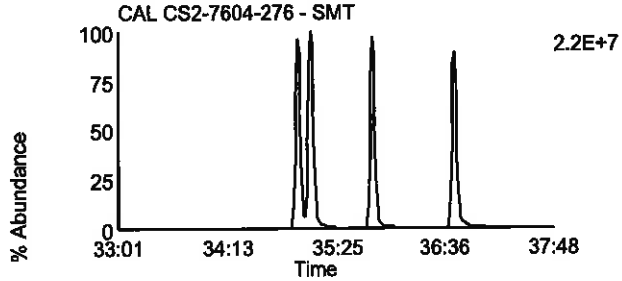
Data File: F130918B_03 G3 C5 - 383.8639
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G3 C9 - 401.8559
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G3 C6 - 385.861
CAL CS2-7604-276 - SMT



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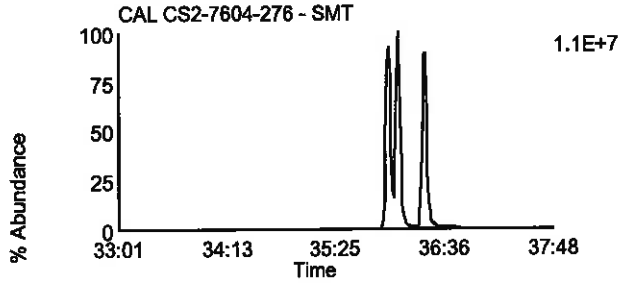
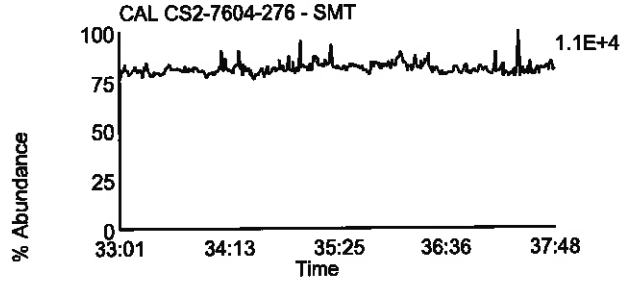
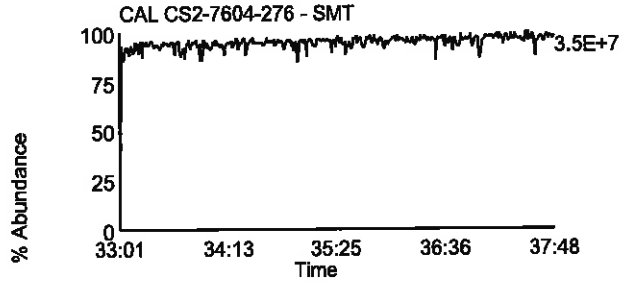
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G3 C11 - 445.7555
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G3 C3 - 380.976
CAL CS2-7604-276 - SMT

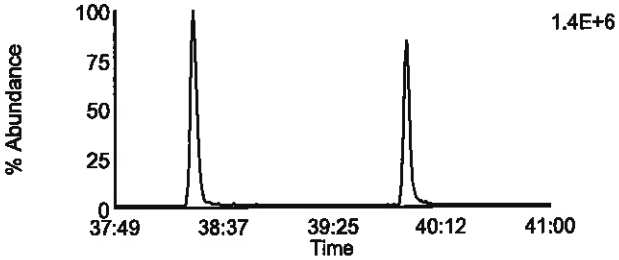


Homologue Group: Heptas

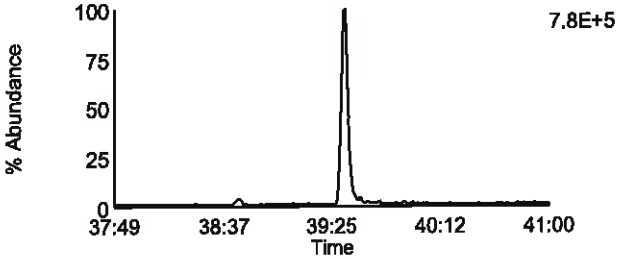
Data File Name: F130918B_03
Date Acquired: 9/18/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR05 (F)

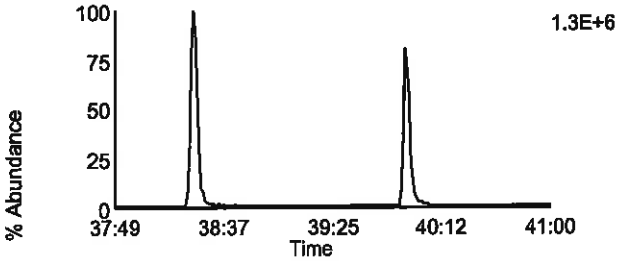
Data File: F130918B_03 G4 C3 - 407.7818
CAL CS2-7604-276 - SMT



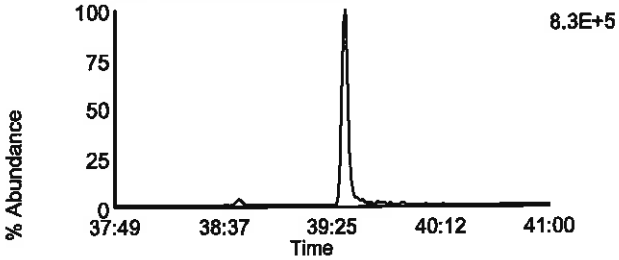
Data File: F130918B_03 G4 C8 - 423.7767
CAL CS2-7604-276 - SMT



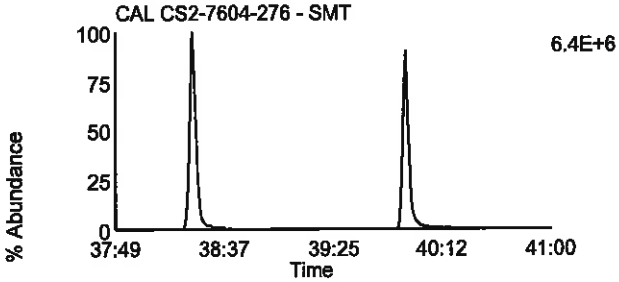
Data File: F130918B_03 G4 C4 - 409.7788
CAL CS2-7604-276 - SMT



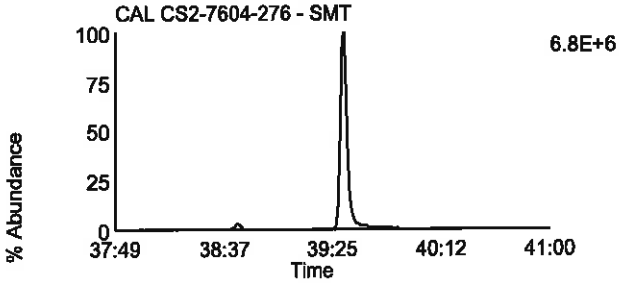
Data File: F130918B_03 G4 C9 - 425.7737
CAL CS2-7604-276 - SMT



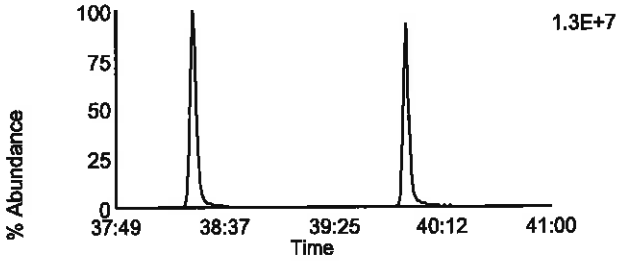
Data File: F130918B_03 G4 C6 - 417.825
CAL CS2-7604-276 - SMT



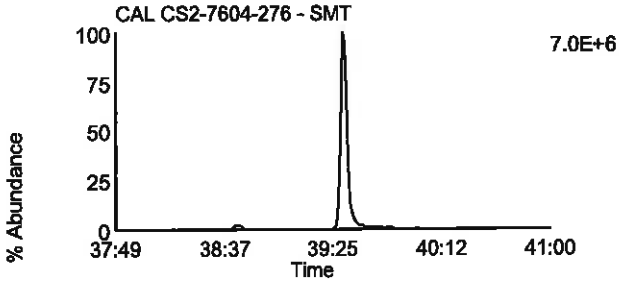
Data File: F130918B_03 G4 C11 - 435.8169
CAL CS2-7604-276 - SMT



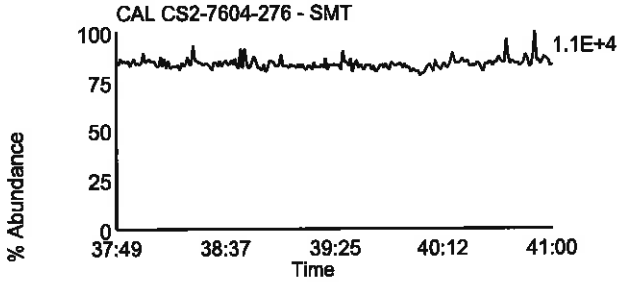
Data File: F130918B_03 G4 C7 - 419.822
CAL CS2-7604-276 - SMT



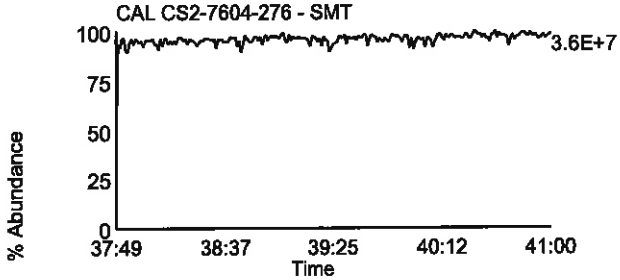
Data File: F130918B_03 G4 C12 - 437.814
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G4 C13 - 479.7165
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G4 C1 - 380.976
CAL CS2-7604-276 - SMT

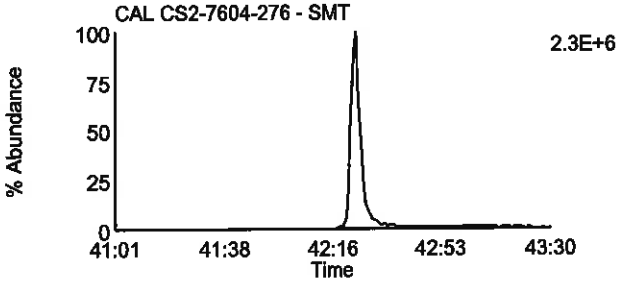


Homologue Group: Octas

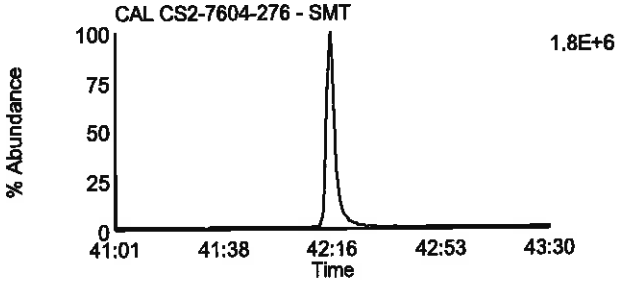
Data File Name: F130918B_03
Date Acquired: 9/18/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR05 (F)

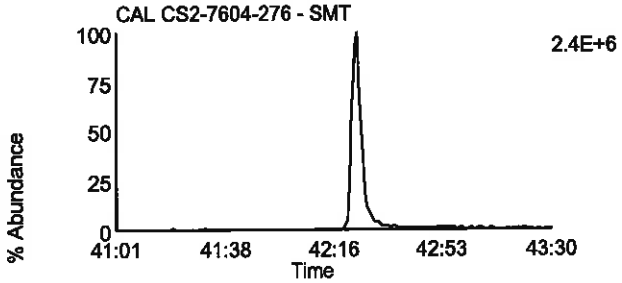
Data File: F130918B_03 G5 C4 - 441.7428
CAL CS2-7604-276 - SMT



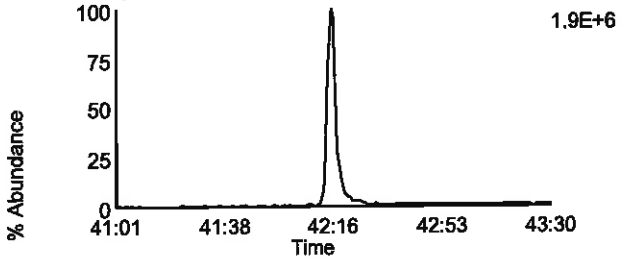
Data File: F130918B_03 G5 C8 - 457.7377
CAL CS2-7604-276 - SMT



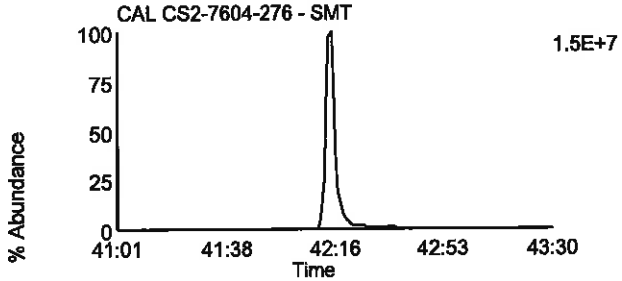
Data File: F130918B_03 G5 C5 - 443.7398
CAL CS2-7604-276 - SMT



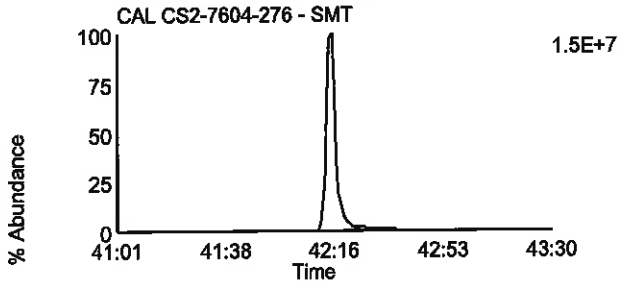
Data File: F130918B_03 G5 C9 - 459.7347
CAL CS2-7604-276 - SMT



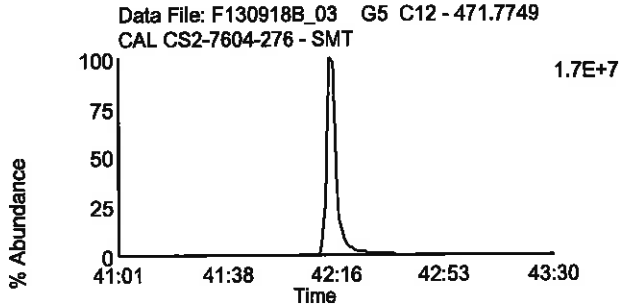
Data File: F130918B_03 G5 C11 - 469.7779
CAL CS2-7604-276 - SMT



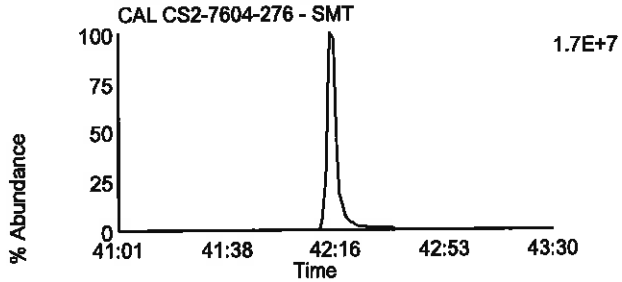
Data File: F130918B_03 G5 C11 - 469.7779
CAL CS2-7604-276 - SMT



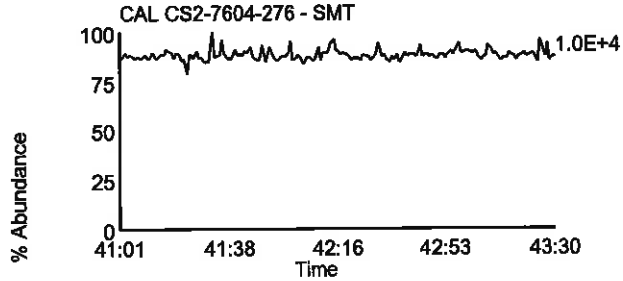
Data File: F130918B_03 G5 C12 - 471.7749
CAL CS2-7604-276 - SMT



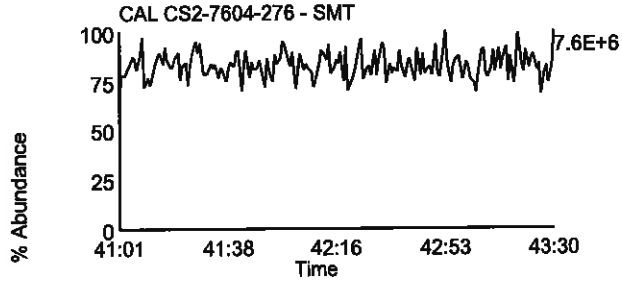
Data File: F130918B_03 G5 C12 - 471.7749
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G5 C13 - 513.6775
CAL CS2-7604-276 - SMT



Data File: F130918B_03 G5 C2 - 430.9728
CAL CS2-7604-276 - SMT

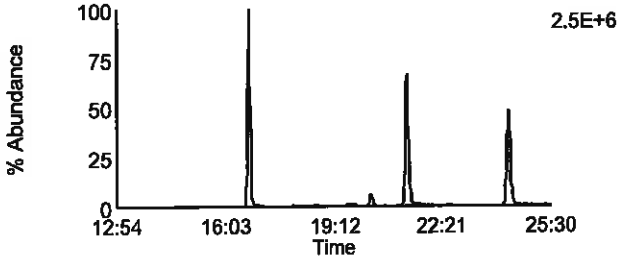


Homologue Group: Tetras

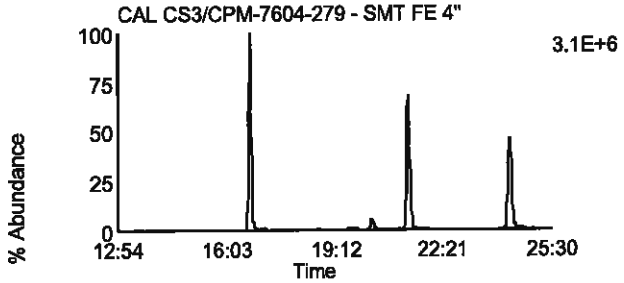
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

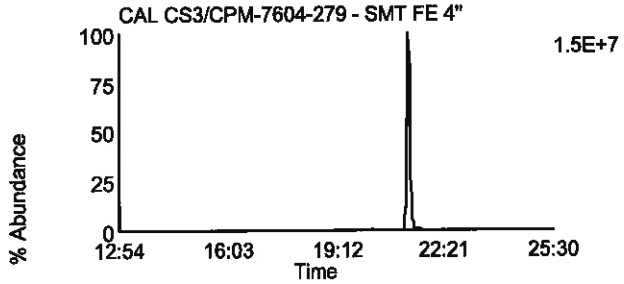
Data File: F130918B_02 G1 C1 - 303.9016
CAL CS3/CPM-7604-279 - SMT FE 4"



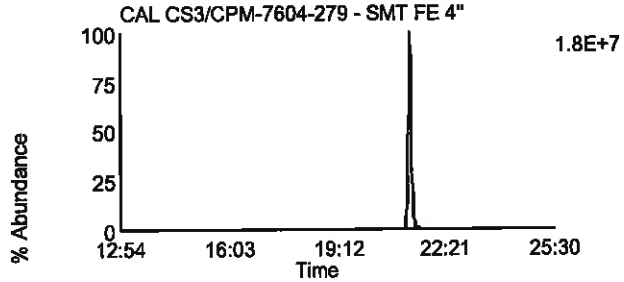
Data File: F130918B_02 G1 C2 - 305.8987
CAL CS3/CPM-7604-279 - SMT FE 4"



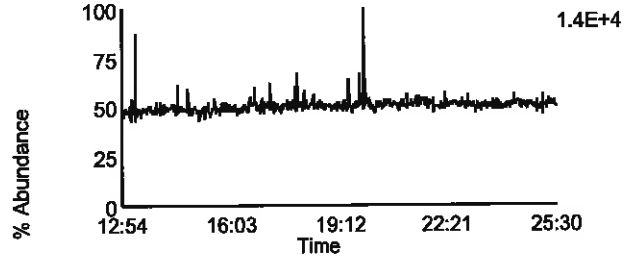
Data File: F130918B_02 G1 C3 - 315.9418
CAL CS3/CPM-7604-279 - SMT FE 4"



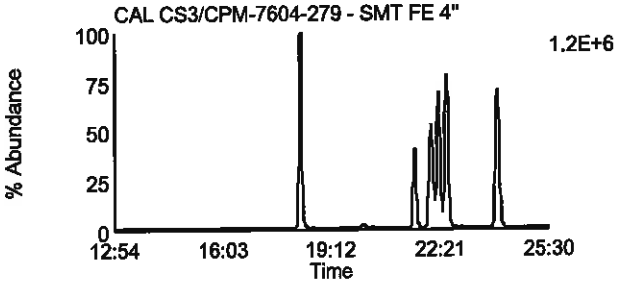
Data File: F130918B_02 G1 C4 - 317.9389
CAL CS3/CPM-7604-279 - SMT FE 4"



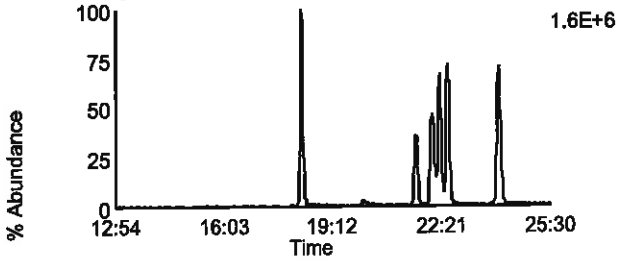
Data File: F130918B_02 G1 C14 - 375.8364
CAL CS3/CPM-7604-279 - SMT FE 4"



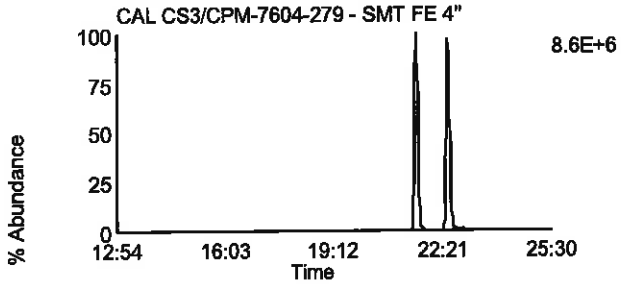
Data File: F130918B_02 G1 C7 - 319.8965
CAL CS3/CPM-7604-279 - SMT FE 4"



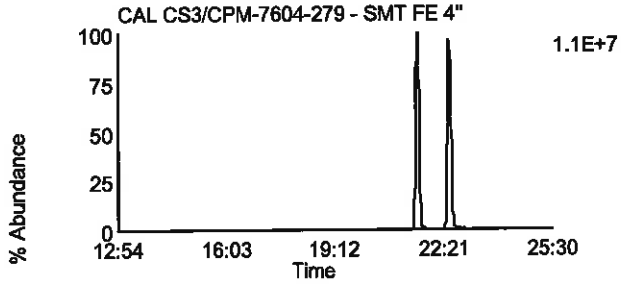
Data File: F130918B_02 G1 C8 - 321.8936
CAL CS3/CPM-7604-279 - SMT FE 4"



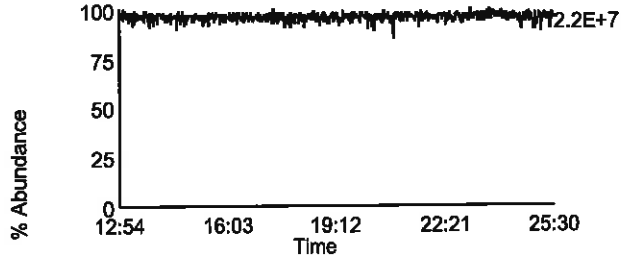
Data File: F130918B_02 G1 C10 - 331.9367
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G1 C11 - 333.9338
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - SMT FE 4"

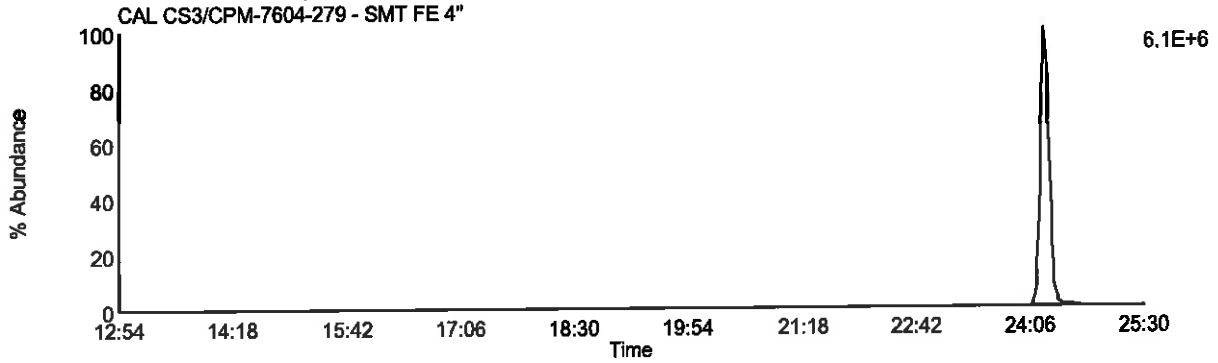


Homologue Group: Penta & Cleanup

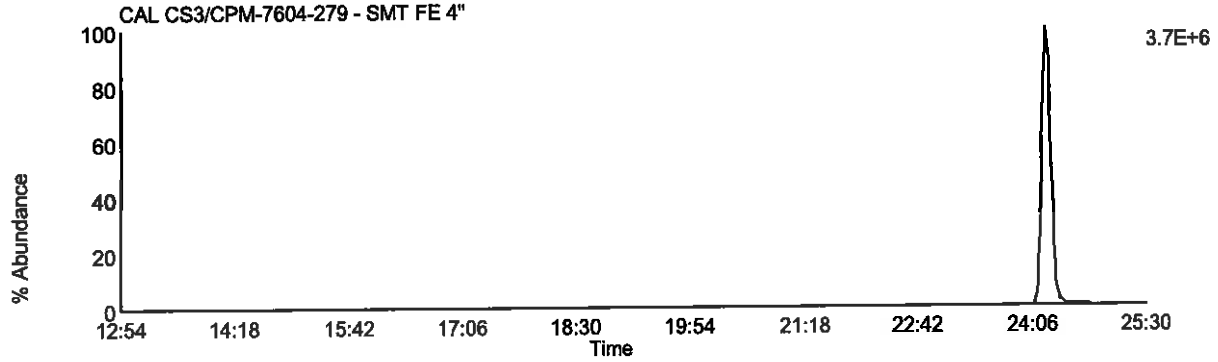
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

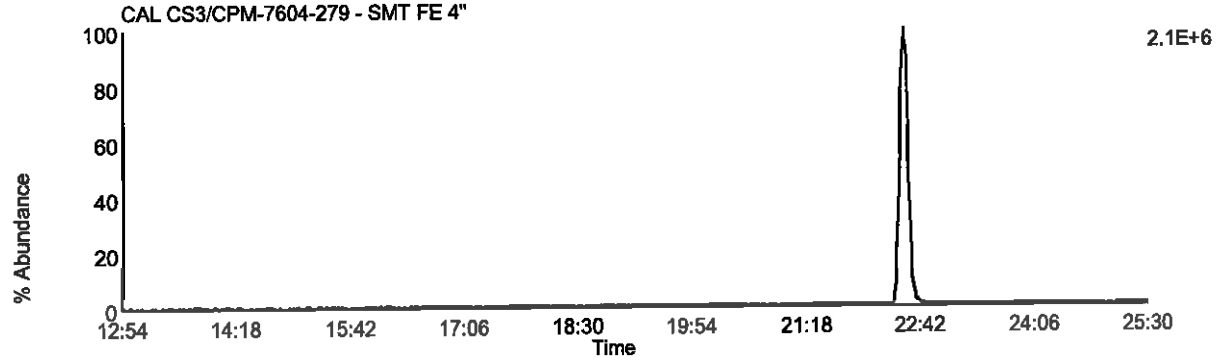
Data File: F130918B_02 G1 C12 - 339.8597
CAL CS3/CPM-7604-279 - SMT FE 4"



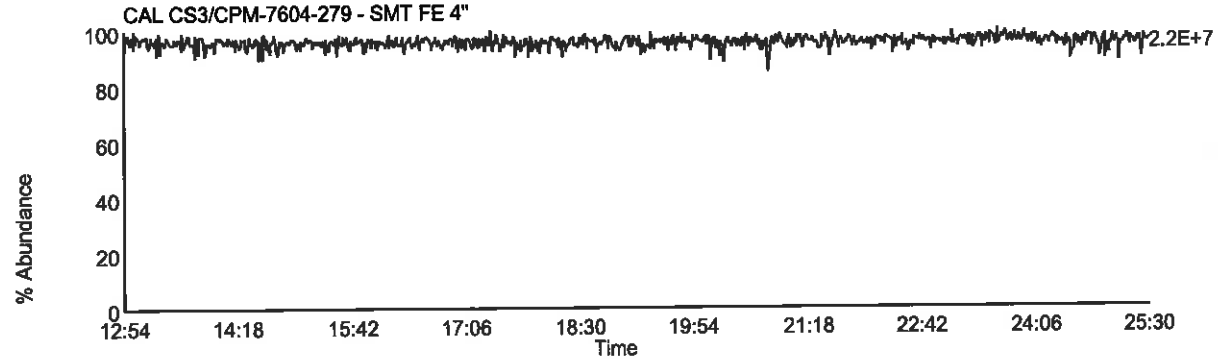
Data File: F130918B_02 G1 C13 - 341.8567
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G1 C9 - 327.8847
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - SMT FE 4"

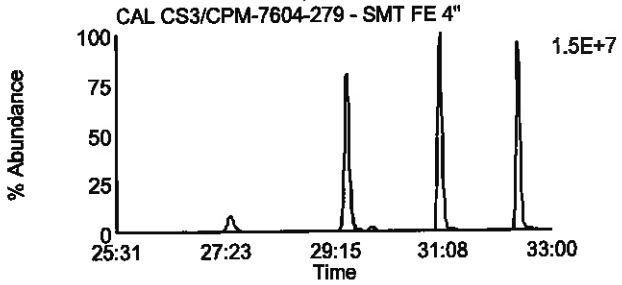


Homologue Group: Pentas

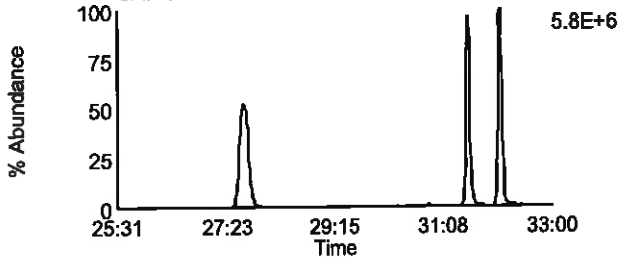
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

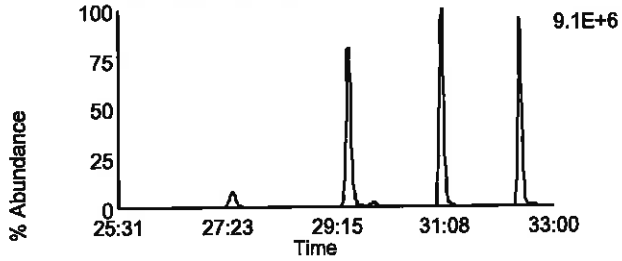
Data File: F130918B_02 G2 C1 - 339.8597
CAL CS3/CPM-7604-279 - SMT FE 4"



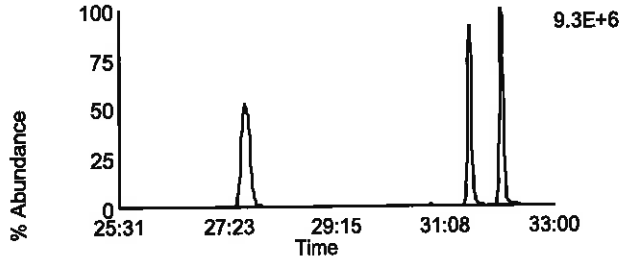
Data File: F130918B_02 G2 C4 - 353.8576
CAL CS3/CPM-7604-279 - SMT FE 4"



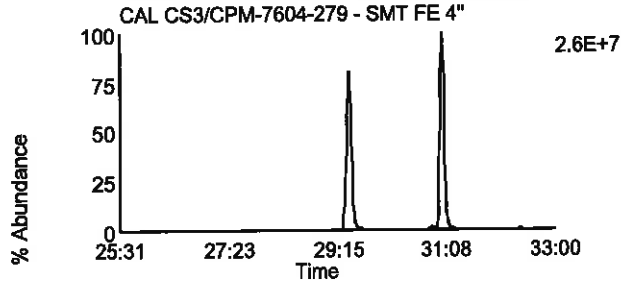
Data File: F130918B_02 G2 C2 - 341.8567
CAL CS3/CPM-7604-279 - SMT FE 4"



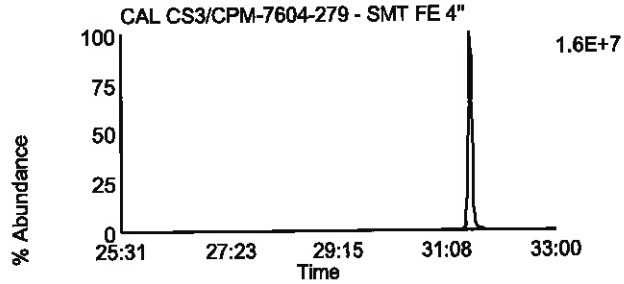
Data File: F130918B_02 G2 C8 - 355.8546
CAL CS3/CPM-7604-279 - SMT FE 4"



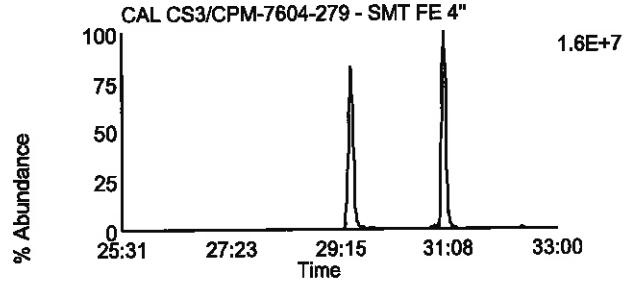
Data File: F130918B_02 G2 C3 - 351.8999
CAL CS3/CPM-7604-279 - SMT FE 4"



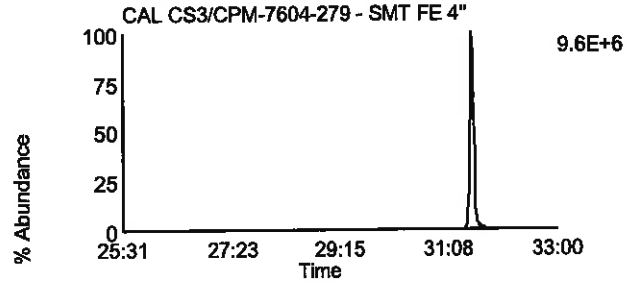
Data File: F130918B_02 G2 C10 - 367.8948
CAL CS3/CPM-7604-279 - SMT FE 4"



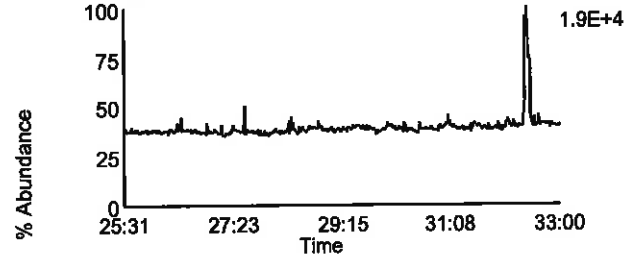
Data File: F130918B_02 G2 C5 - 353.8969
CAL CS3/CPM-7604-279 - SMT FE 4"



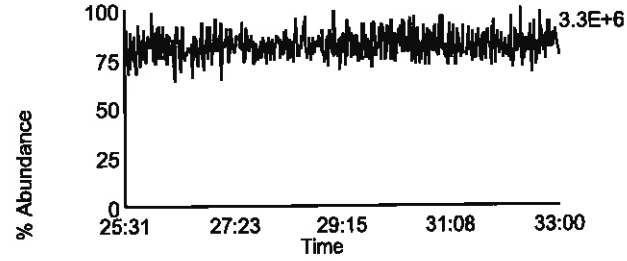
Data File: F130918B_02 G2 C11 - 369.8918
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G2 C12 - 409.7974
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G2 C6 - 354.9792
CAL CS3/CPM-7604-279 - SMT FE 4"

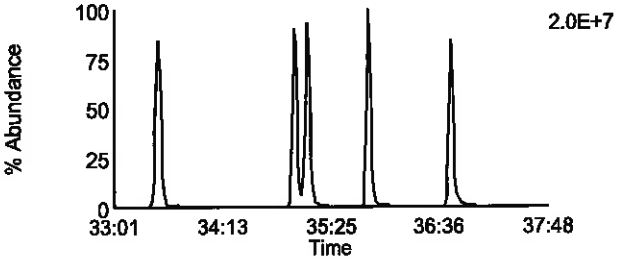


Homologue Group: Hexas

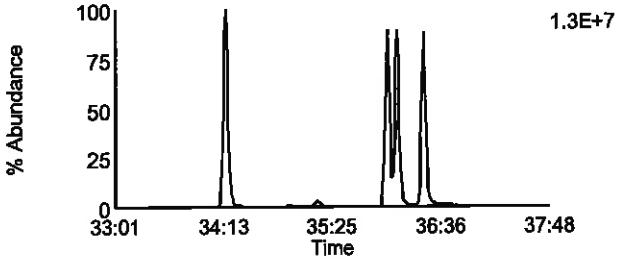
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

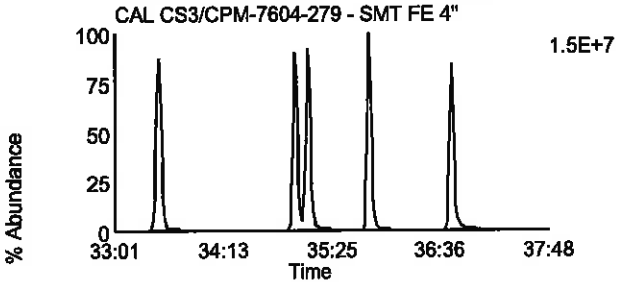
Data File: F130918B_02 G3 C1 - 373.8207
CAL CS3/CPM-7604-279 - SMT FE 4"



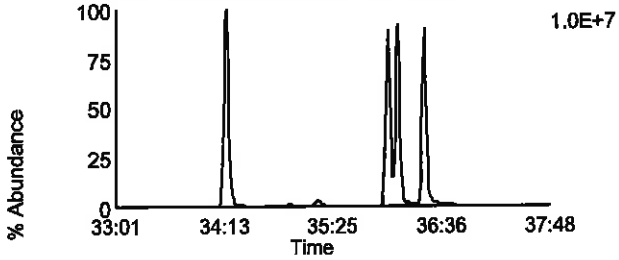
Data File: F130918B_02 G3 C7 - 389.8156
CAL CS3/CPM-7604-279 - SMT FE 4"



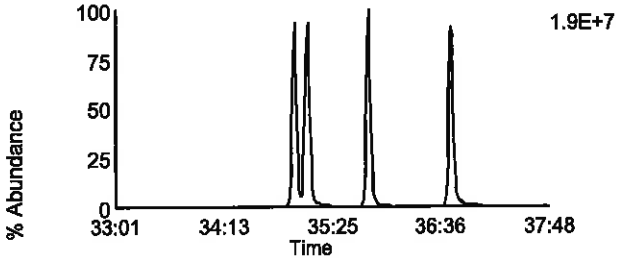
Data File: F130918B_02 G3 C2 - 375.8178
CAL CS3/CPM-7604-279 - SMT FE 4"



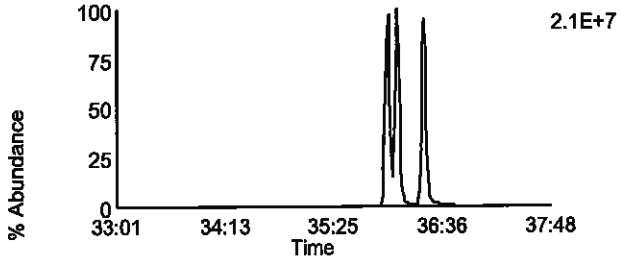
Data File: F130918B_02 G3 C8 - 391.8127
CAL CS3/CPM-7604-279 - SMT FE 4"



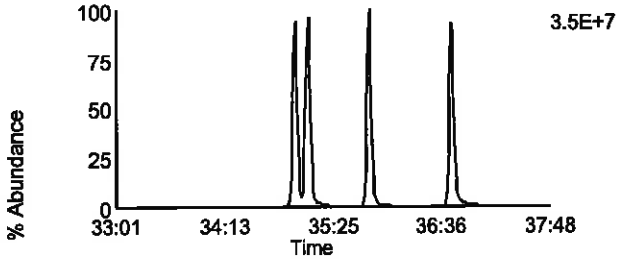
Data File: F130918B_02 G3 C5 - 383.8639
CAL CS3/CPM-7604-279 - SMT FE 4"



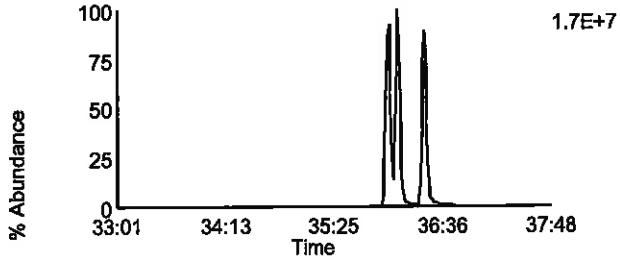
Data File: F130918B_02 G3 C9 - 401.8559
CAL CS3/CPM-7604-279 - SMT FE 4"



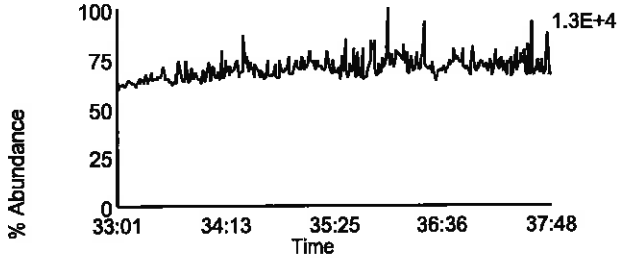
Data File: F130918B_02 G3 C6 - 385.861
CAL CS3/CPM-7604-279 - SMT FE 4"



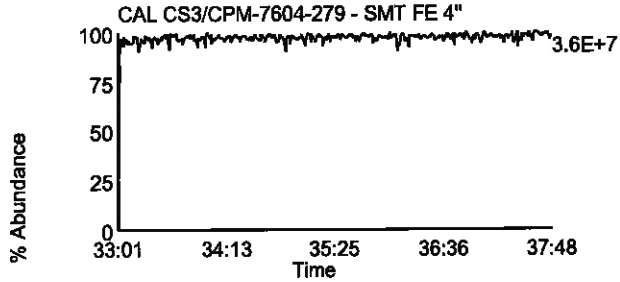
Data File: F130918B_02 G3 C10 - 403.8529
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G3 C11 - 445.7555
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G3 C3 - 380.976
CAL CS3/CPM-7604-279 - SMT FE 4"

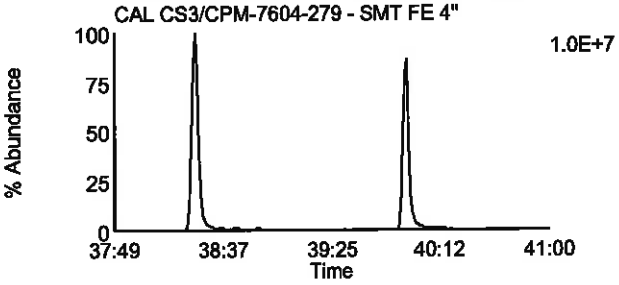


Homologue Group: Heptas

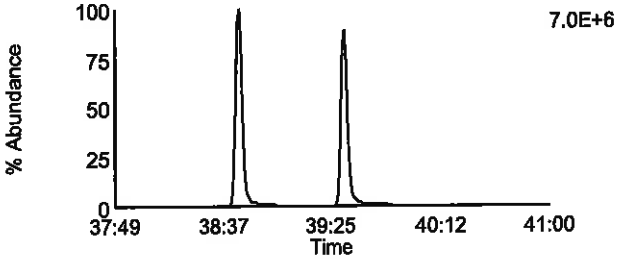
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

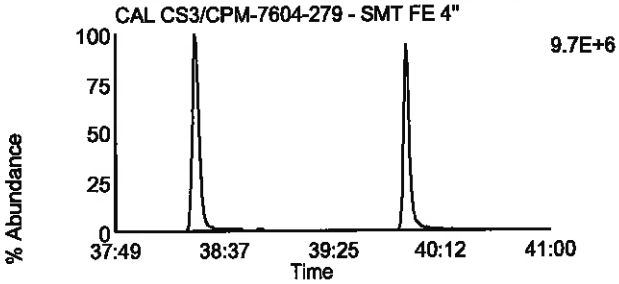
Data File: F130918B_02 G4 C3 - 407.7818
CAL CS3/CPM-7604-279 - SMT FE 4"



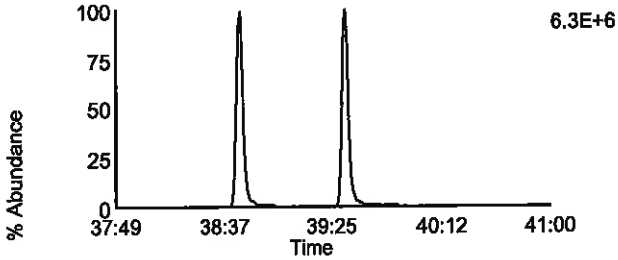
Data File: F130918B_02 G4 C8 - 423.7767
CAL CS3/CPM-7604-279 - SMT FE 4"



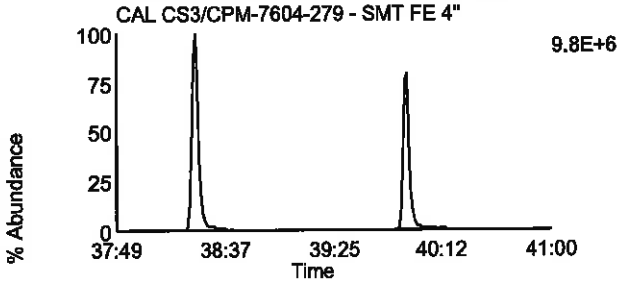
Data File: F130918B_02 G4 C4 - 409.7788
CAL CS3/CPM-7604-279 - SMT FE 4"



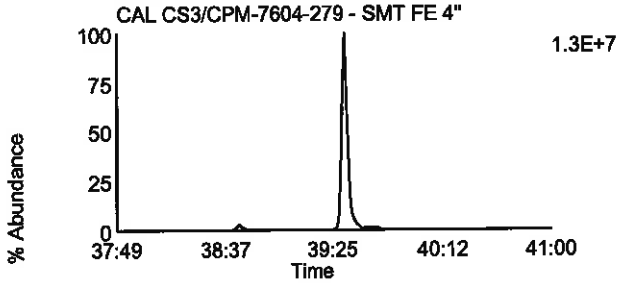
Data File: F130918B_02 G4 C9 - 425.7737
CAL CS3/CPM-7604-279 - SMT FE 4"



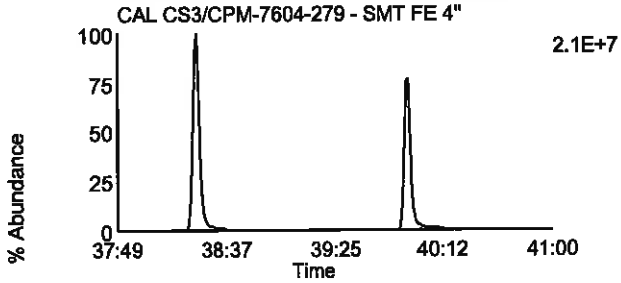
Data File: F130918B_02 G4 C6 - 417.825
CAL CS3/CPM-7604-279 - SMT FE 4"



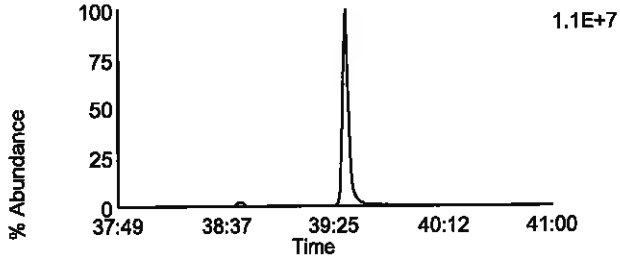
Data File: F130918B_02 G4 C11 - 435.8169
CAL CS3/CPM-7604-279 - SMT FE 4"



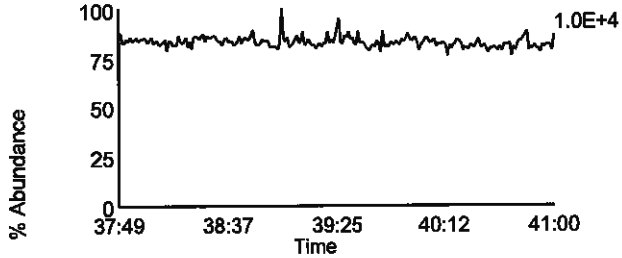
Data File: F130918B_02 G4 C7 - 419.822
CAL CS3/CPM-7604-279 - SMT FE 4"



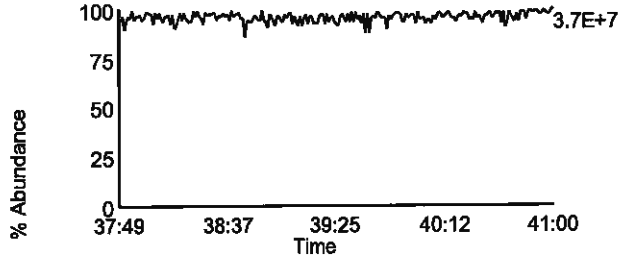
Data File: F130918B_02 G4 C12 - 437.814
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G4 C13 - 479.7165
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G4 C1 - 380.976
CAL CS3/CPM-7604-279 - SMT FE 4"

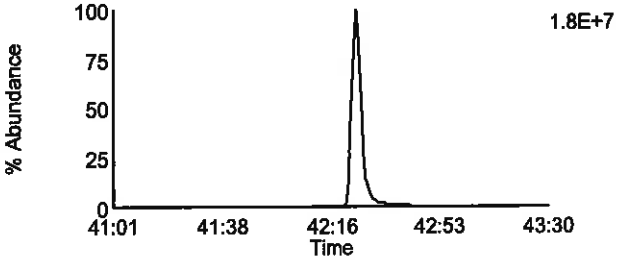


Homologue Group: Octas

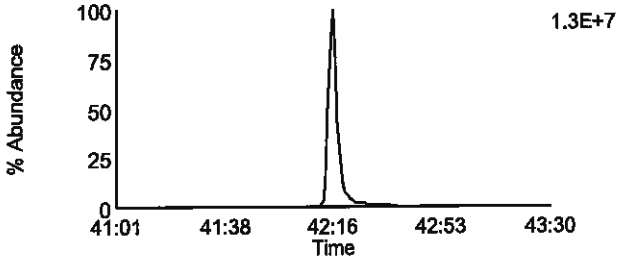
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

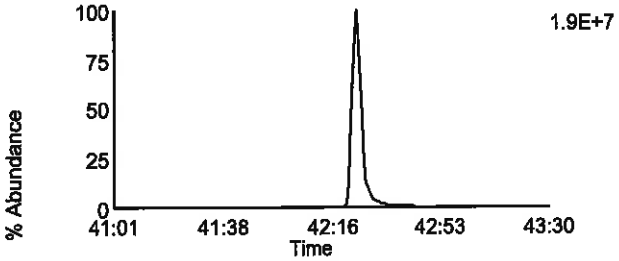
Data File: F130918B_02 G5 C4 - 441.7428
CAL CS3/CPM-7604-279 - SMT FE 4"



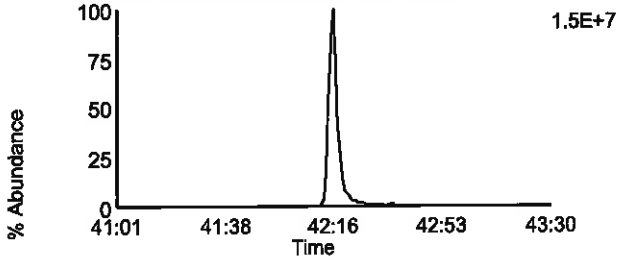
Data File: F130918B_02 G5 C8 - 457.7377
CAL CS3/CPM-7604-279 - SMT FE 4"



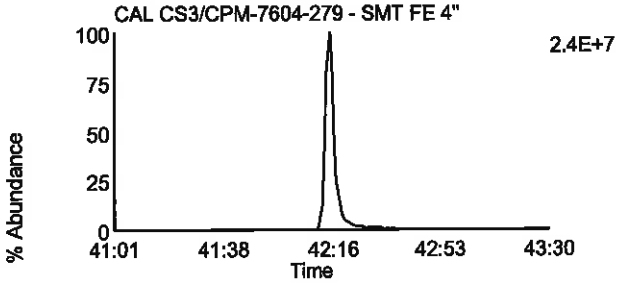
Data File: F130918B_02 G5 C5 - 443.7398
CAL CS3/CPM-7604-279 - SMT FE 4"



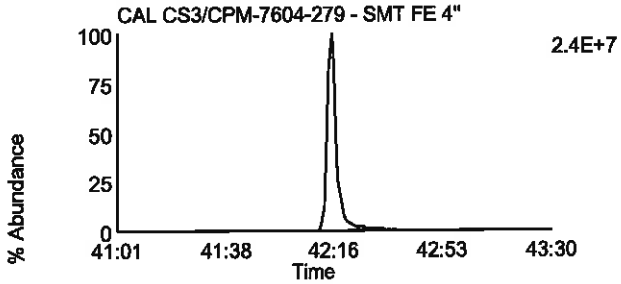
Data File: F130918B_02 G5 C9 - 459.7347
CAL CS3/CPM-7604-279 - SMT FE 4"



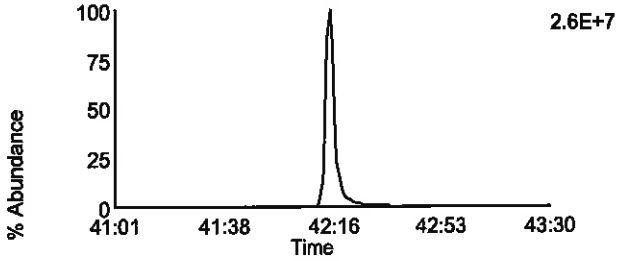
Data File: F130918B_02 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - SMT FE 4"



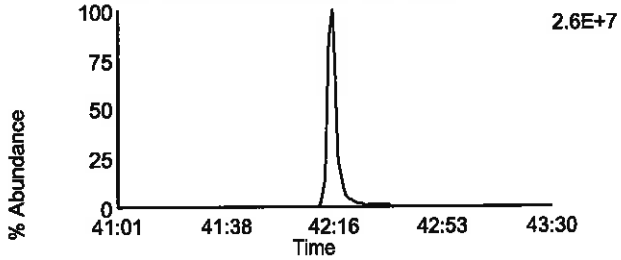
Data File: F130918B_02 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - SMT FE 4"



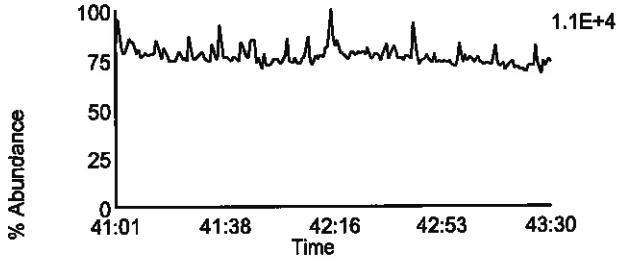
Data File: F130918B_02 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - SMT FE 4"



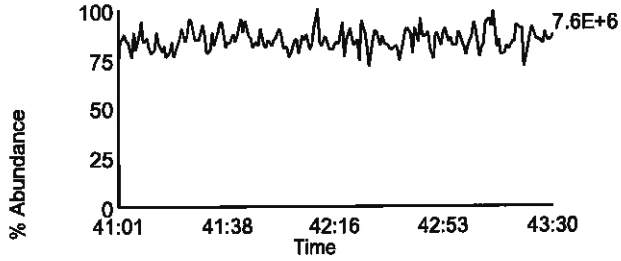
Data File: F130918B_02 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G5 C13 - 513.6775
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G5 C2 - 430.9728
CAL CS3/CPM-7604-279 - SMT FE 4"

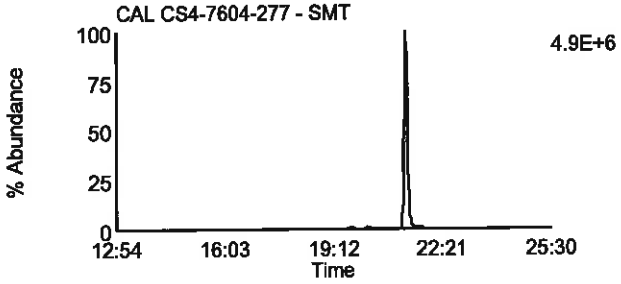


Homologue Group: Tetras

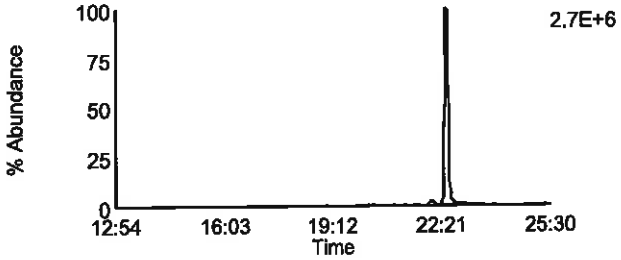
Data File Name: F130918B_06
Date Acquired: 9/18/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR05 (F)

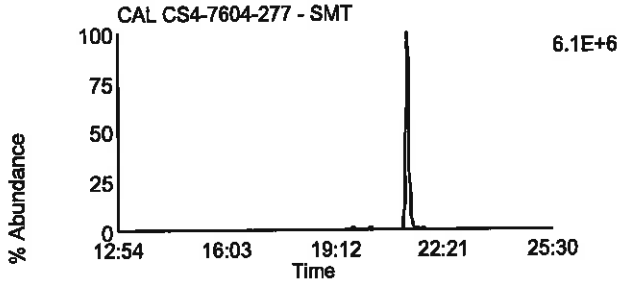
Data File: F130918B_06 G1 C1 - 303.9016
CAL CS4-7604-277 - SMT



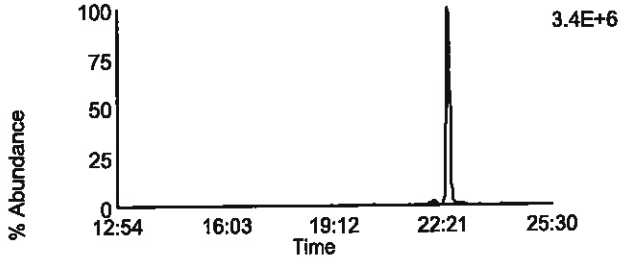
Data File: F130918B_06 G1 C7 - 319.8965
CAL CS4-7604-277 - SMT



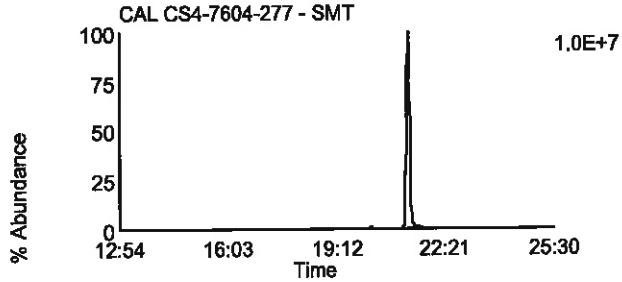
Data File: F130918B_06 G1 C2 - 305.8987
CAL CS4-7604-277 - SMT



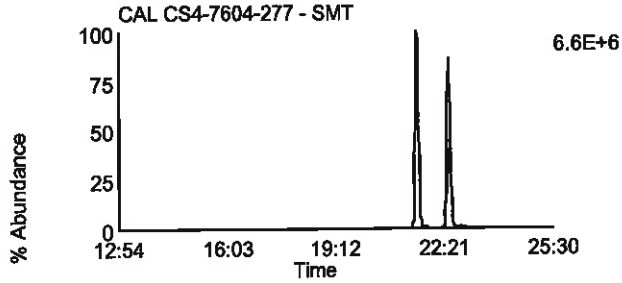
Data File: F130918B_06 G1 C8 - 321.8936
CAL CS4-7604-277 - SMT



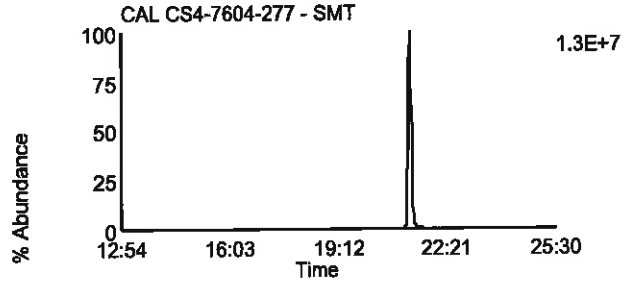
Data File: F130918B_06 G1 C3 - 315.9418
CAL CS4-7604-277 - SMT



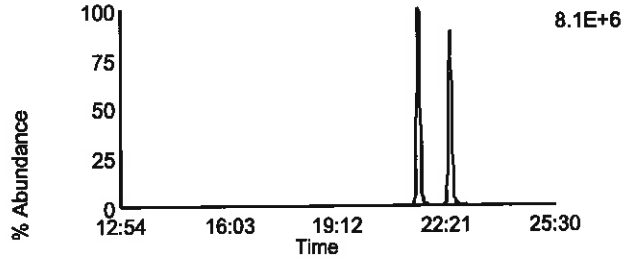
Data File: F130918B_06 G1 C10 - 331.9367
CAL CS4-7604-277 - SMT



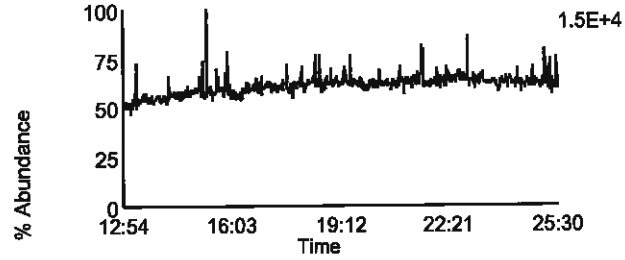
Data File: F130918B_06 G1 C4 - 317.9389
CAL CS4-7604-277 - SMT



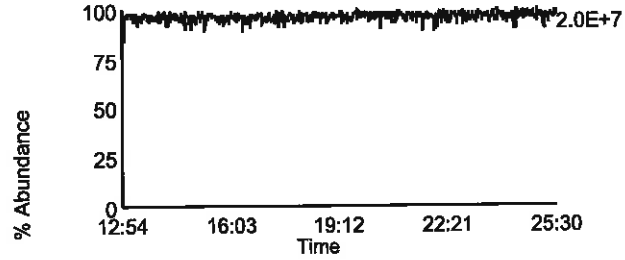
Data File: F130918B_06 G1 C11 - 333.9338
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G1 C14 - 375.8364
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G1 C5 - 318.9792
CAL CS4-7604-277 - SMT

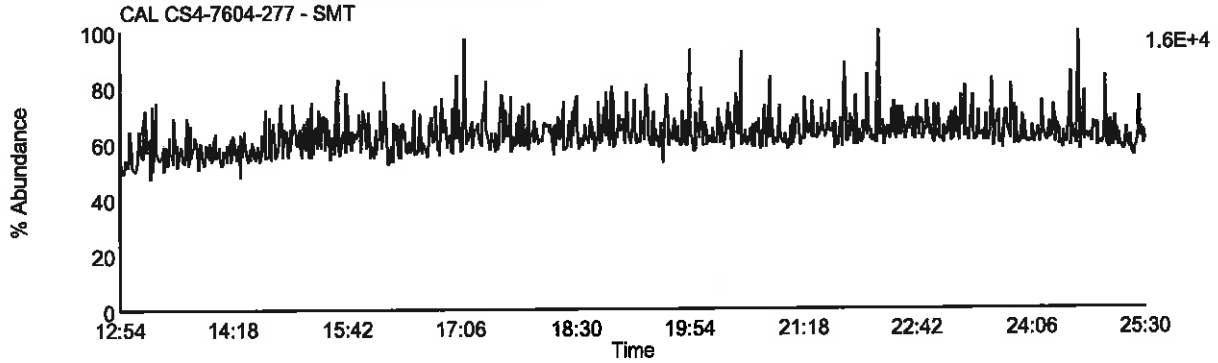


Homologue Group: Penta & Cleanup

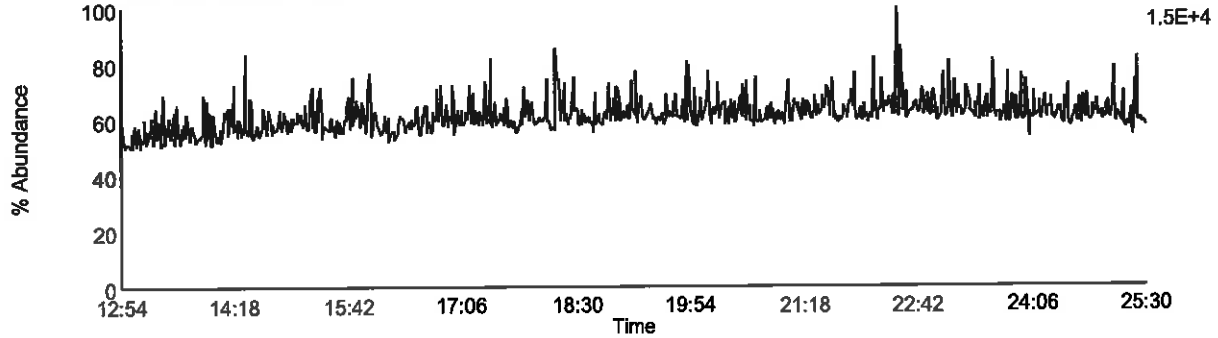
Data File Name: F130918B_06
Date Acquired: 9/18/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR05 (F)

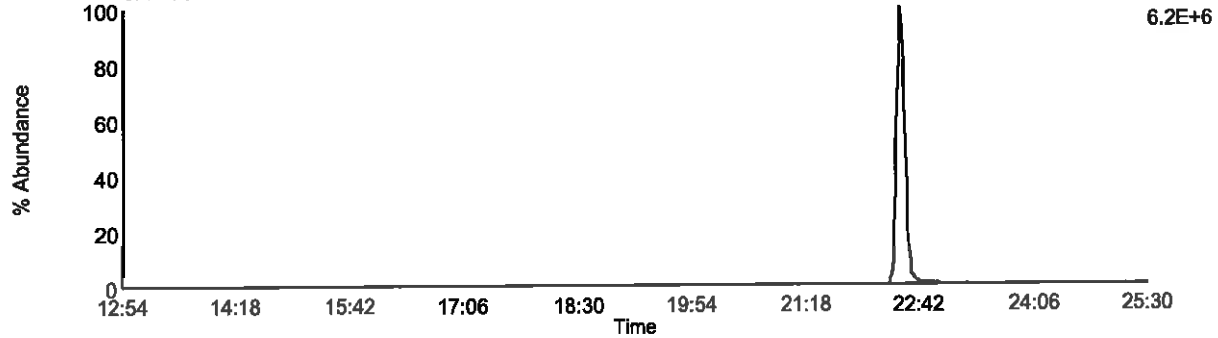
Data File: F130918B_06 G1 C12 - 339.8597
CAL CS4-7604-277 - SMT



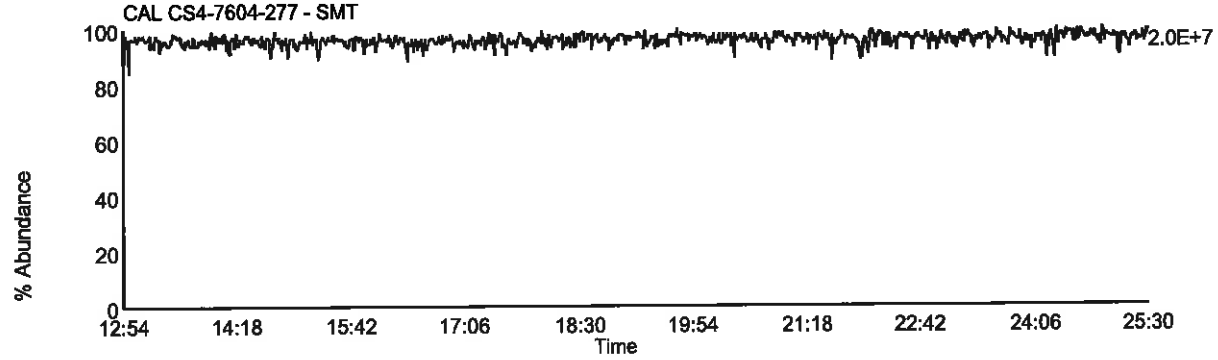
Data File: F130918B_06 G1 C13 - 341.8567
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G1 C9 - 327.8847
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G1 C5 - 318.9792
CAL CS4-7604-277 - SMT

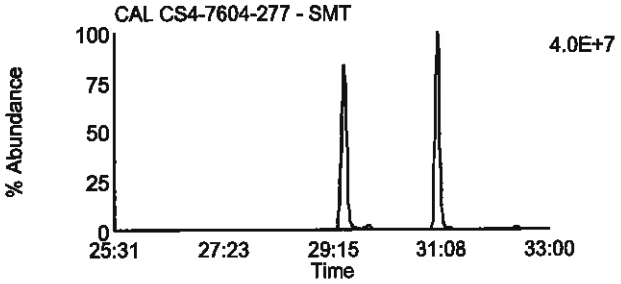


Homologue Group: Pentas

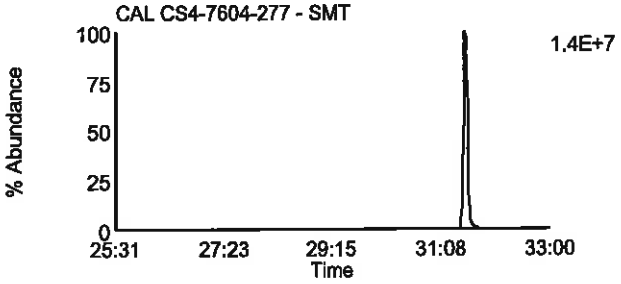
Data File Name: F130918B_06
Date Acquired: 9/18/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR05 (F)

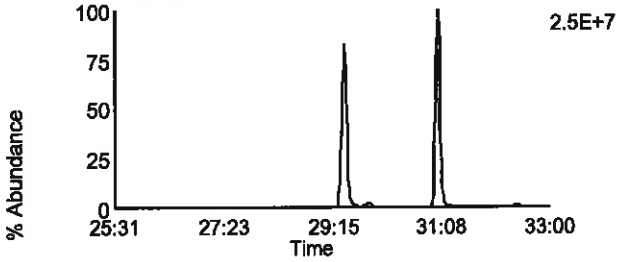
Data File: F130918B_06 G2 C1 - 339.8597
CAL CS4-7604-277 - SMT



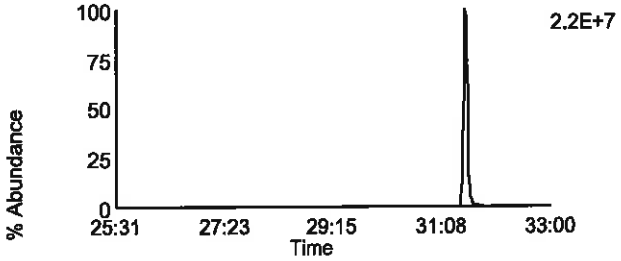
Data File: F130918B_06 G2 C4 - 353.8576
CAL CS4-7604-277 - SMT



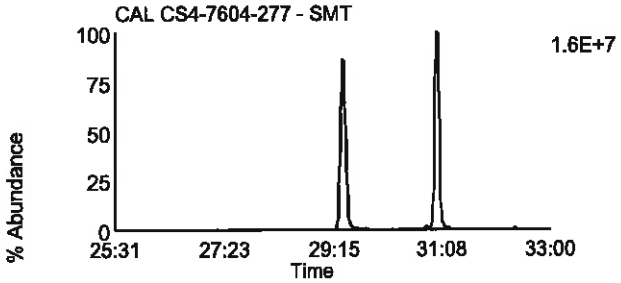
Data File: F130918B_06 G2 C2 - 341.8567
CAL CS4-7604-277 - SMT



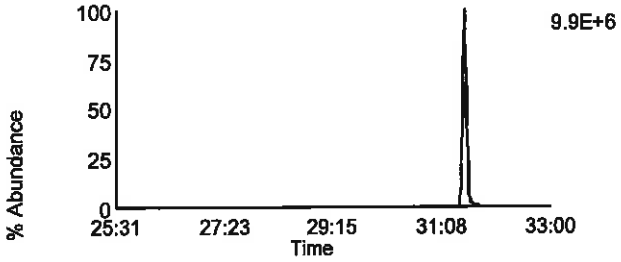
Data File: F130918B_06 G2 C8 - 355.8546
CAL CS4-7604-277 - SMT



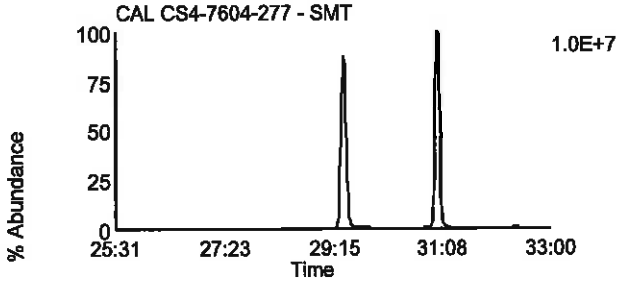
Data File: F130918B_06 G2 C3 - 351.8999
CAL CS4-7604-277 - SMT



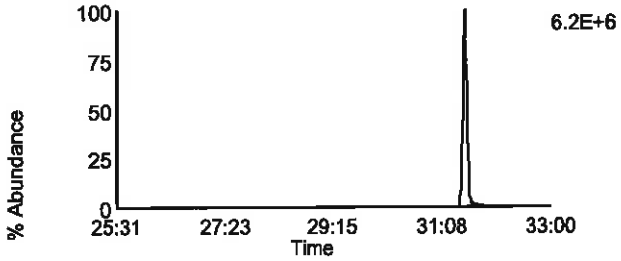
Data File: F130918B_06 G2 C10 - 367.8948
CAL CS4-7604-277 - SMT



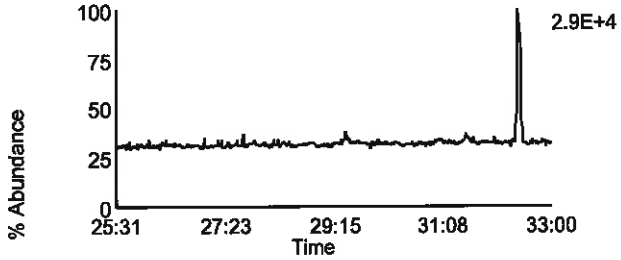
Data File: F130918B_06 G2 C5 - 353.8969
CAL CS4-7604-277 - SMT



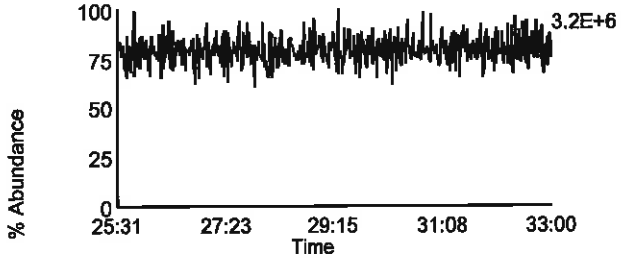
Data File: F130918B_06 G2 C11 - 369.8918
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G2 C12 - 409.7974
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G2 C6 - 354.9792
CAL CS4-7604-277 - SMT

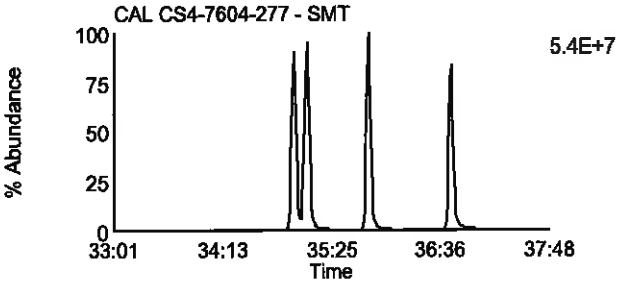


Homologue Group: Hexas

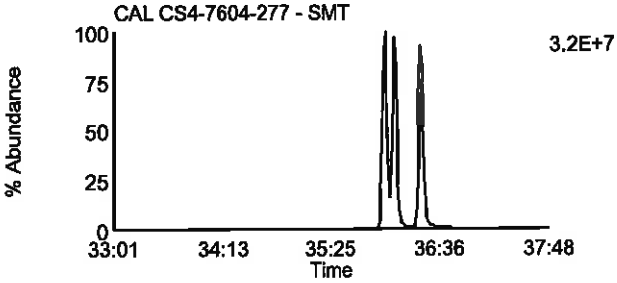
Data File Name: F130918B_06
Date Acquired: 9/18/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR05 (F)

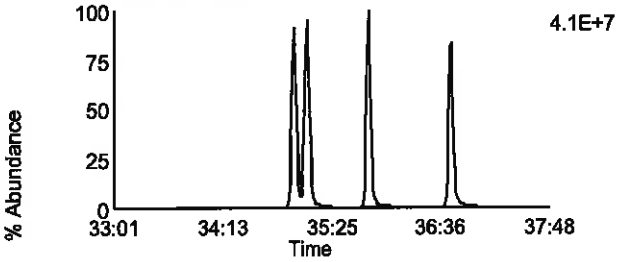
Data File: F130918B_06 G3 C1 - 373.8207
CAL CS4-7604-277 - SMT



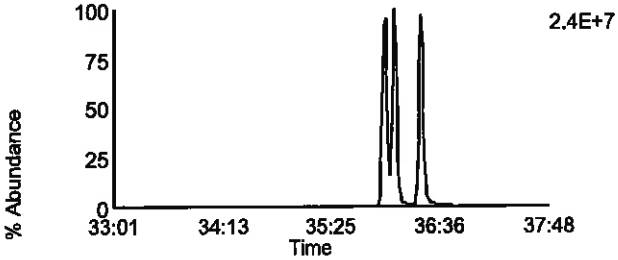
Data File: F130918B_06 G3 C7 - 389.8156
CAL CS4-7604-277 - SMT



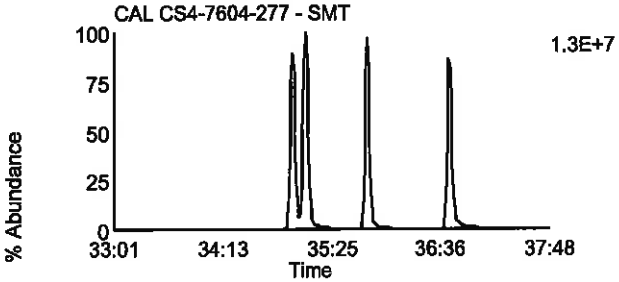
Data File: F130918B_06 G3 C2 - 375.8178
CAL CS4-7604-277 - SMT



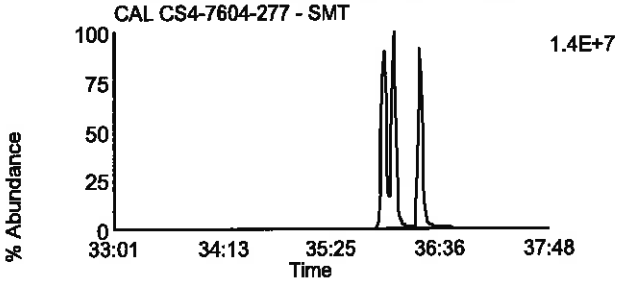
Data File: F130918B_06 G3 C8 - 391.8127
CAL CS4-7604-277 - SMT



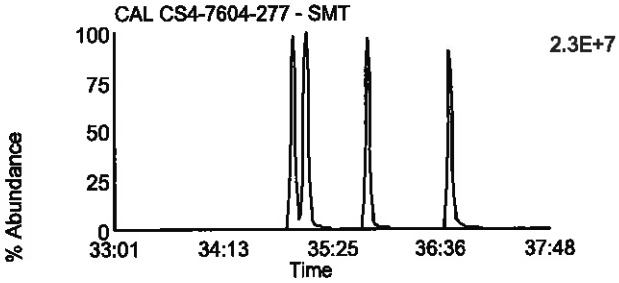
Data File: F130918B_06 G3 C5 - 383.8639
CAL CS4-7604-277 - SMT



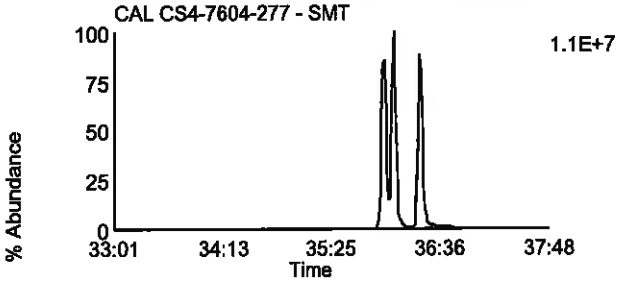
Data File: F130918B_06 G3 C9 - 401.8559
CAL CS4-7604-277 - SMT



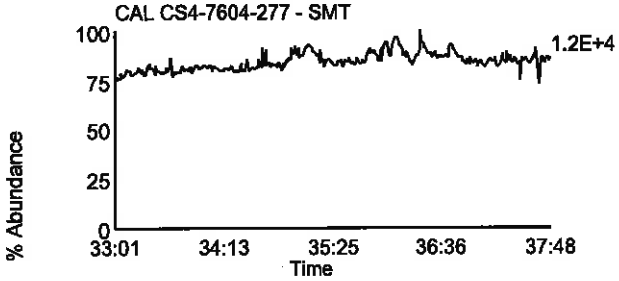
Data File: F130918B_06 G3 C6 - 385.861
CAL CS4-7604-277 - SMT



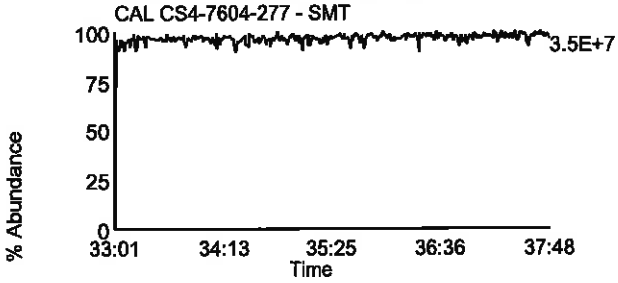
Data File: F130918B_06 G3 C10 - 403.8529
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G3 C11 - 445.7555
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G3 C3 - 380.976
CAL CS4-7604-277 - SMT

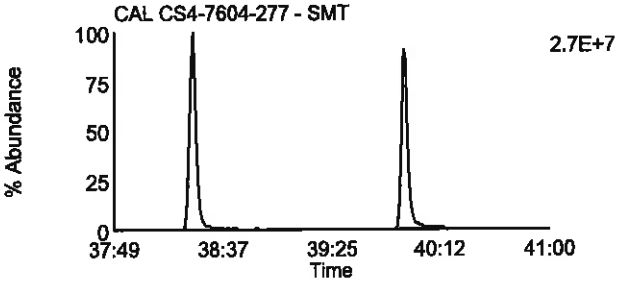


Homologue Group: Heptas

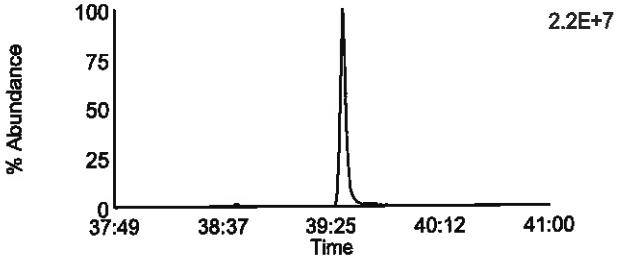
Data File Name: F130918B_06
Date Acquired: 9/18/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR05 (F)

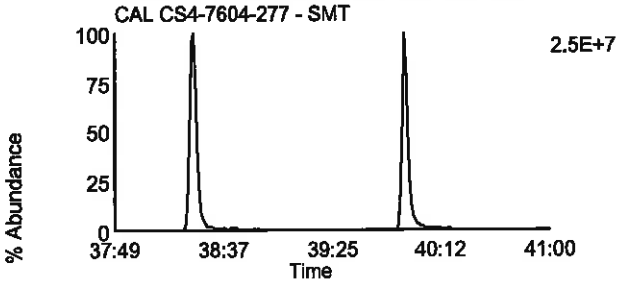
Data File: F130918B_06 G4 C3 - 407.7818
CAL CS4-7604-277 - SMT



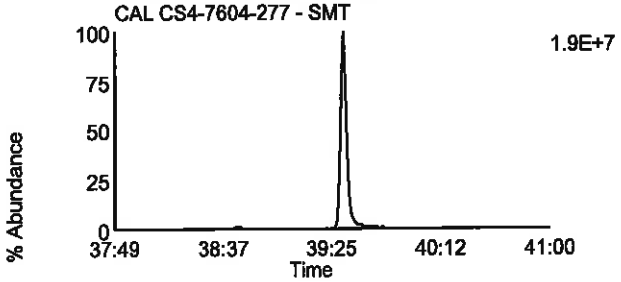
Data File: F130918B_06 G4 C8 - 423.7767
CAL CS4-7604-277 - SMT



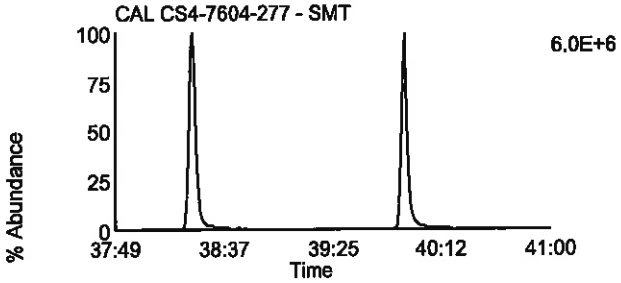
Data File: F130918B_06 G4 C4 - 409.7788
CAL CS4-7604-277 - SMT



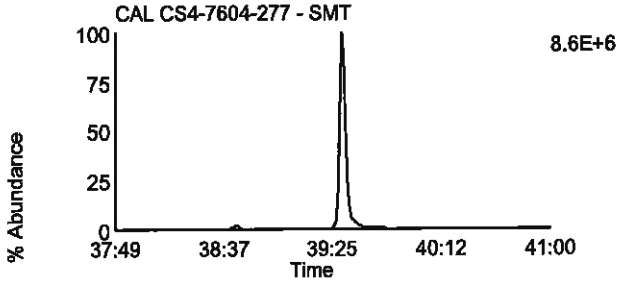
Data File: F130918B_06 G4 C9 - 425.7737
CAL CS4-7604-277 - SMT



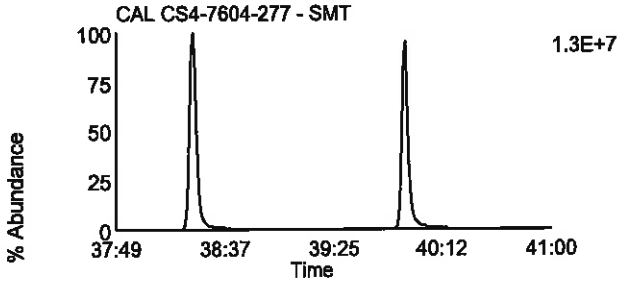
Data File: F130918B_06 G4 C6 - 417.825
CAL CS4-7604-277 - SMT



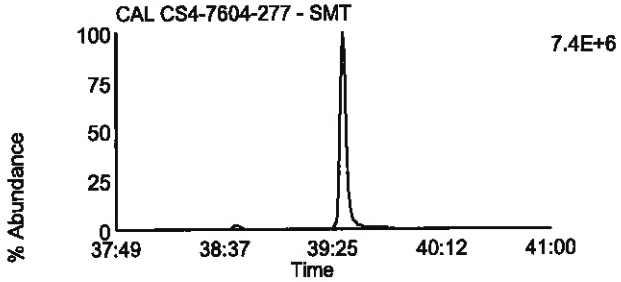
Data File: F130918B_06 G4 C11 - 435.8169
CAL CS4-7604-277 - SMT



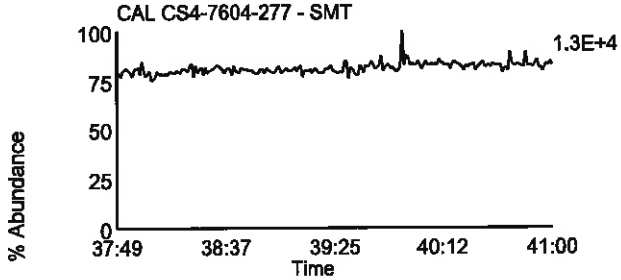
Data File: F130918B_06 G4 C7 - 419.822
CAL CS4-7604-277 - SMT



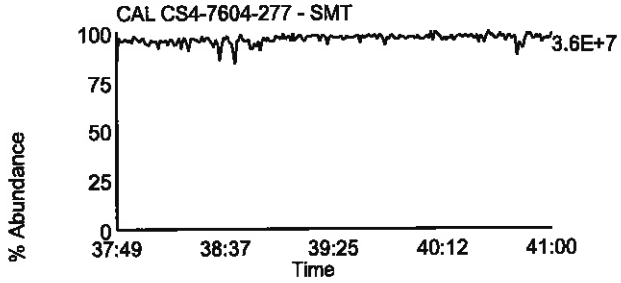
Data File: F130918B_06 G4 C12 - 437.814
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G4 C13 - 479.7165
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G4 C1 - 380.976
CAL CS4-7604-277 - SMT

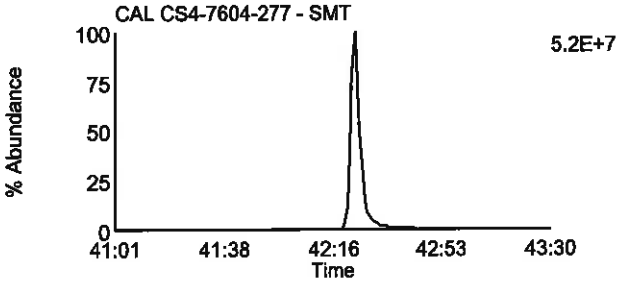


Homologue Group: Octas

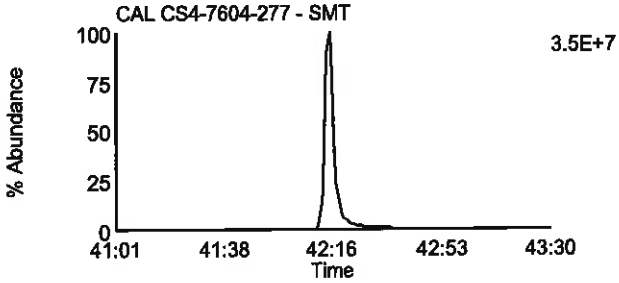
Data File Name: F130918B_06
Date Acquired: 9/18/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR05 (F)

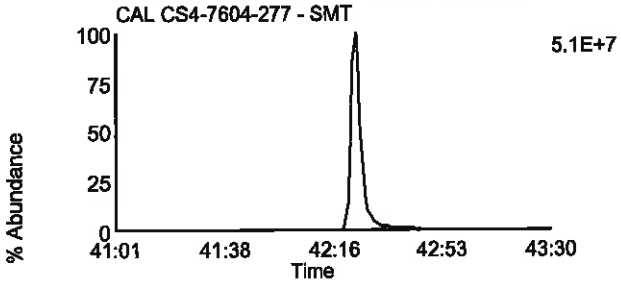
Data File: F130918B_06 G5 C4 - 441.7428
CAL CS4-7604-277 - SMT



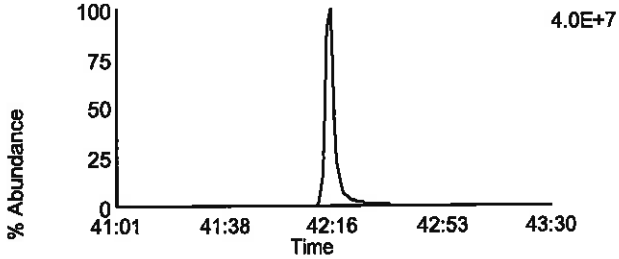
Data File: F130918B_06 G5 C8 - 457.7377
CAL CS4-7604-277 - SMT



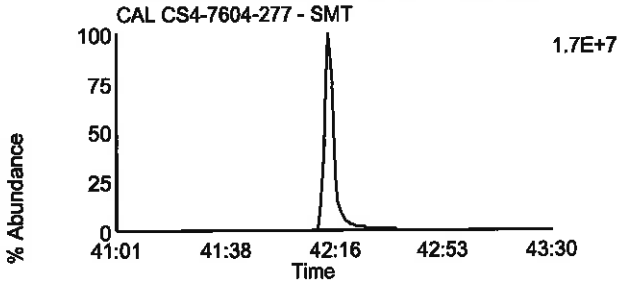
Data File: F130918B_06 G5 C5 - 443.7398
CAL CS4-7604-277 - SMT



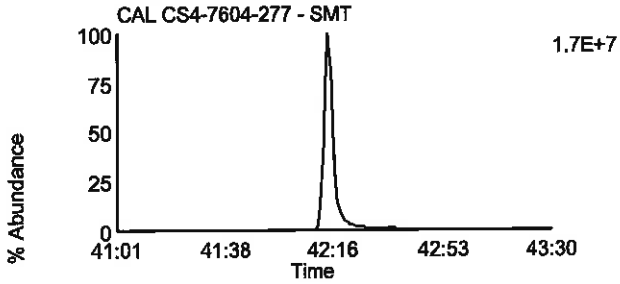
Data File: F130918B_06 G5 C9 - 459.7347
CAL CS4-7604-277 - SMT



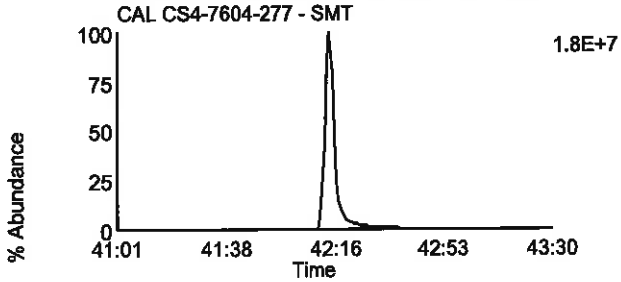
Data File: F130918B_06 G5 C11 - 469.7779
CAL CS4-7604-277 - SMT



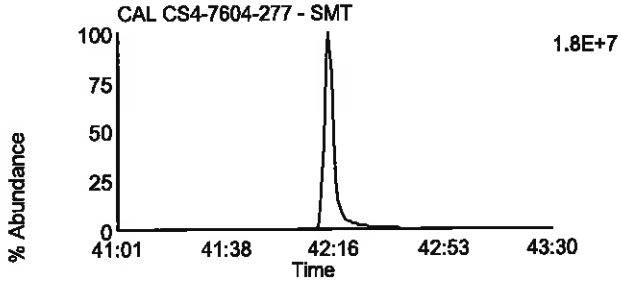
Data File: F130918B_06 G5 C11 - 469.7779
CAL CS4-7604-277 - SMT



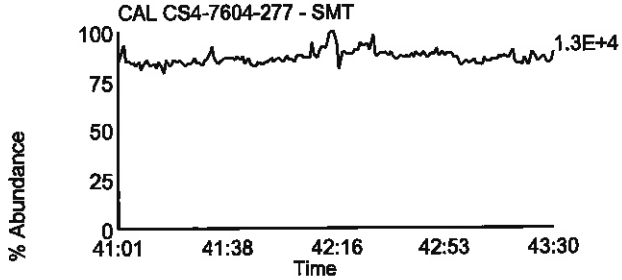
Data File: F130918B_06 G5 C12 - 471.7749
CAL CS4-7604-277 - SMT



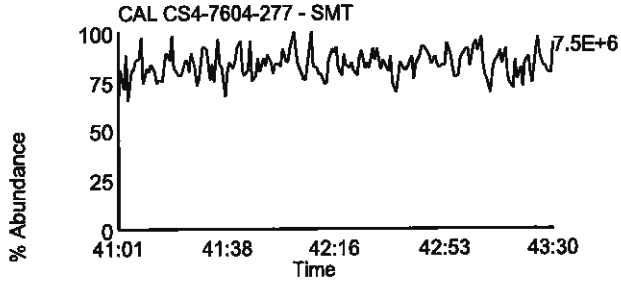
Data File: F130918B_06 G5 C12 - 471.7749
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G5 C13 - 513.6775
CAL CS4-7604-277 - SMT



Data File: F130918B_06 G5 C2 - 430.9728
CAL CS4-7604-277 - SMT

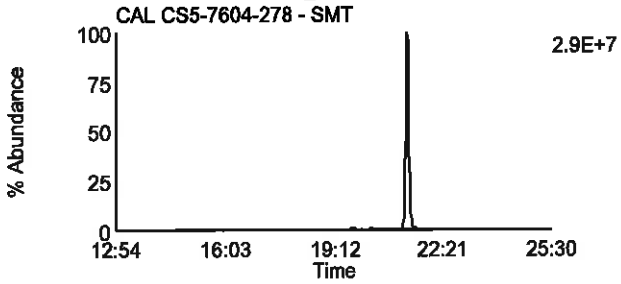


Homologue Group: Tetras

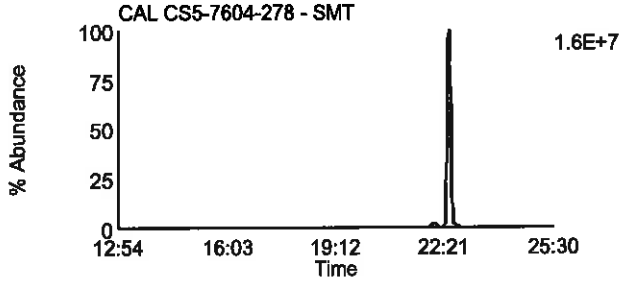
Data File Name: F130918B_05
Date Acquired: 9/18/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR05 (F)

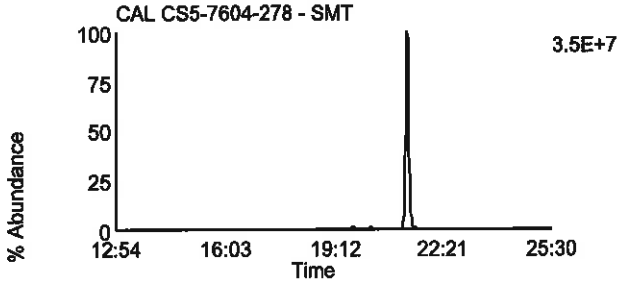
Data File: F130918B_05 G1 C1 - 303.9016
CAL CS5-7604-278 - SMT



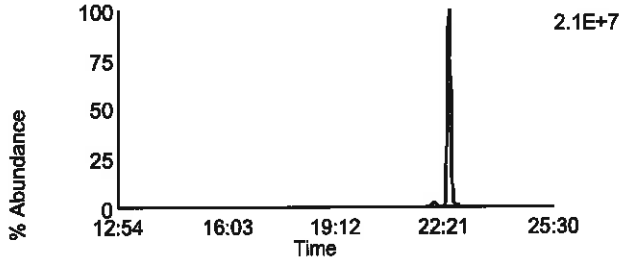
Data File: F130918B_05 G1 C7 - 319.8965
CAL CS5-7604-278 - SMT



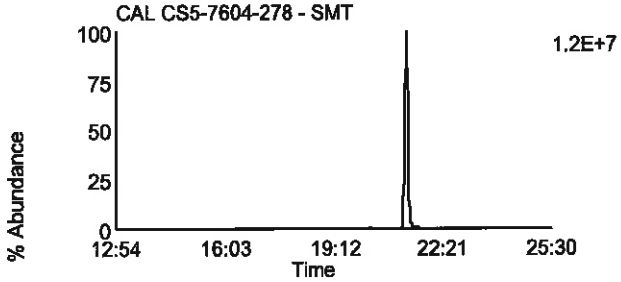
Data File: F130918B_05 G1 C2 - 305.8987
CAL CS5-7604-278 - SMT



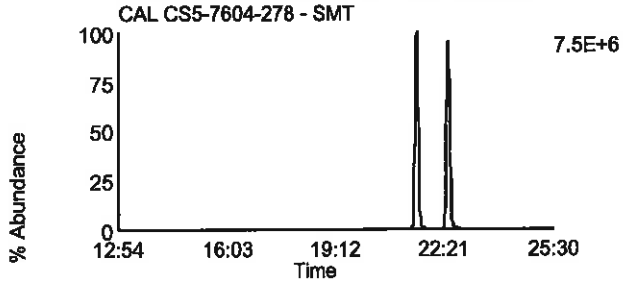
Data File: F130918B_05 G1 C8 - 321.8936
CAL CS5-7604-278 - SMT



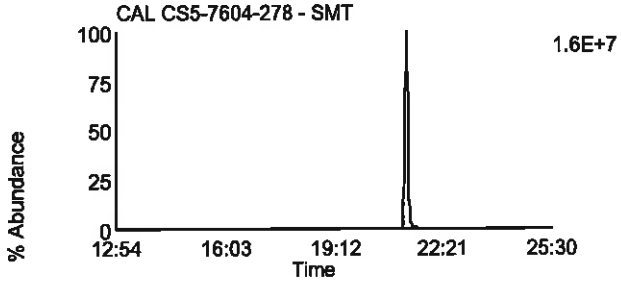
Data File: F130918B_05 G1 C3 - 315.9418
CAL CS5-7604-278 - SMT



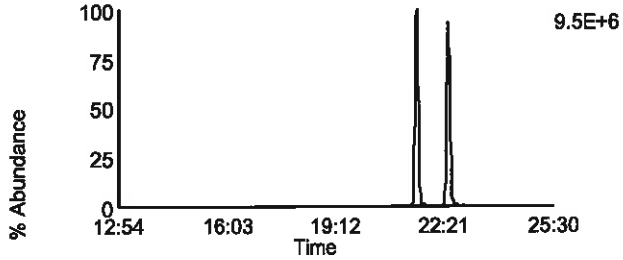
Data File: F130918B_05 G1 C10 - 331.9367
CAL CS5-7604-278 - SMT



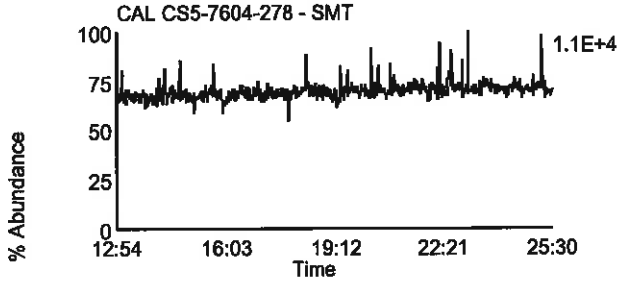
Data File: F130918B_05 G1 C4 - 317.9389
CAL CS5-7604-278 - SMT



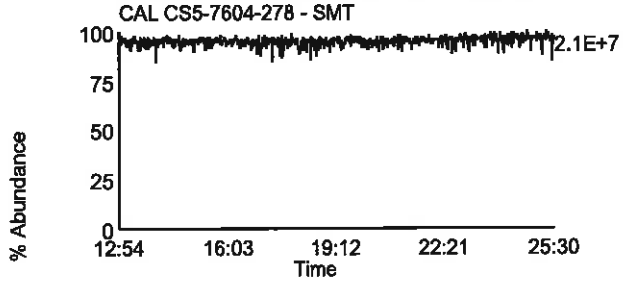
Data File: F130918B_05 G1 C11 - 333.9338
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G1 C14 - 375.8364
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G1 C5 - 318.9792
CAL CS5-7604-278 - SMT

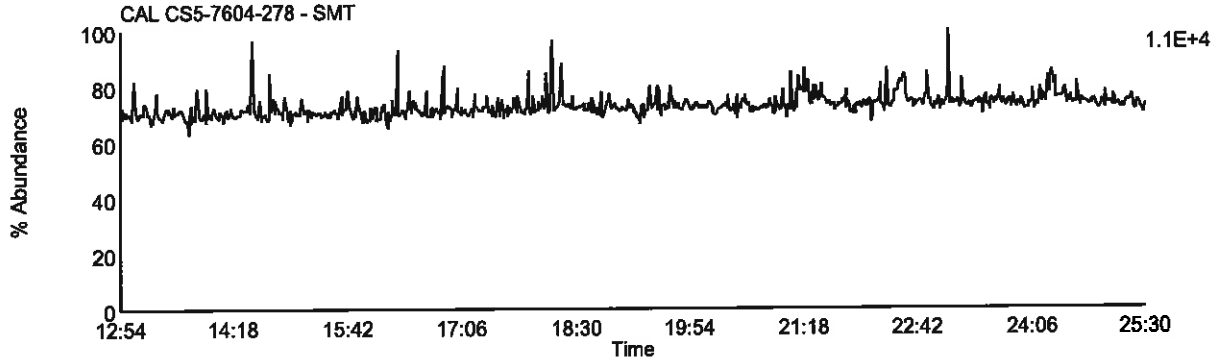


Homologue Group: Penta & Cleanup

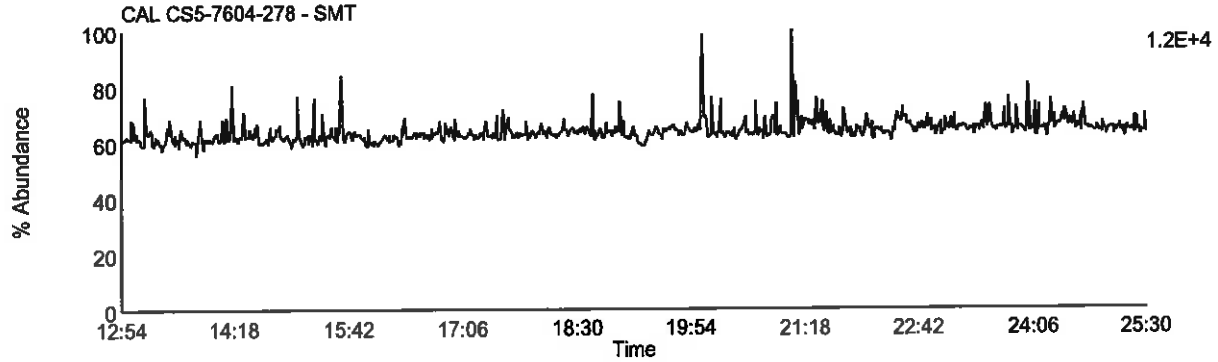
Data File Name: F130918B_05
Date Acquired: 9/18/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR05 (F)

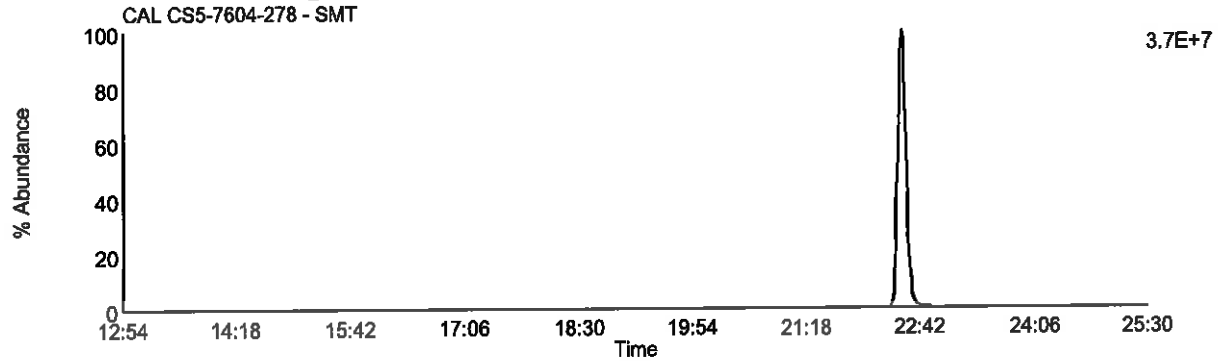
Data File: F130918B_05 G1 C12 - 339.8597
CAL CS5-7604-278 - SMT



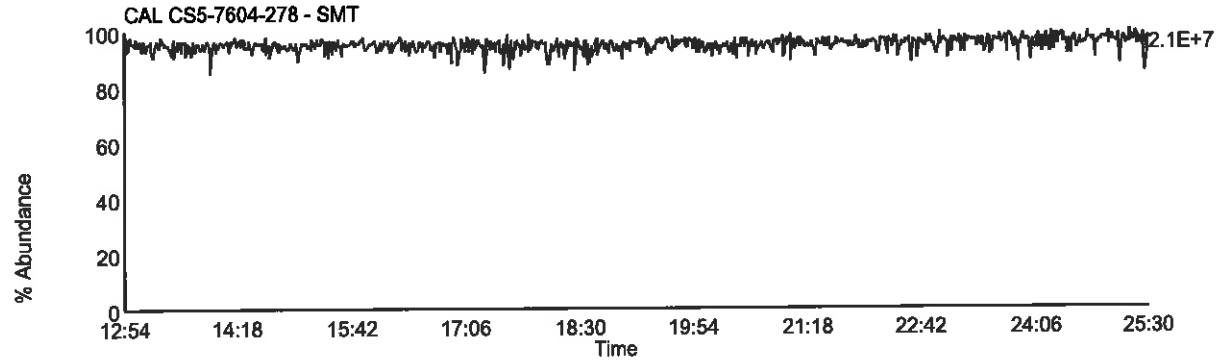
Data File: F130918B_05 G1 C13 - 341.8567
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G1 C9 - 327.8847
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G1 C5 - 318.9792
CAL CS5-7604-278 - SMT

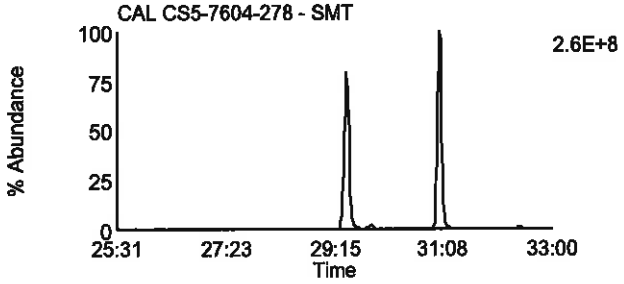


Homologue Group: Pentas

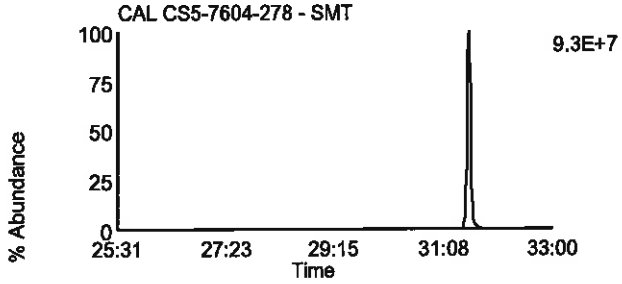
Data File Name: F130918B_05
Date Acquired: 9/18/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR05 (F)

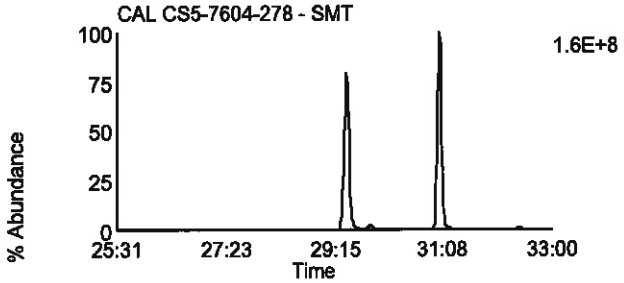
Data File: F130918B_05 G2 C1 - 339.8597
CAL CS5-7604-278 - SMT



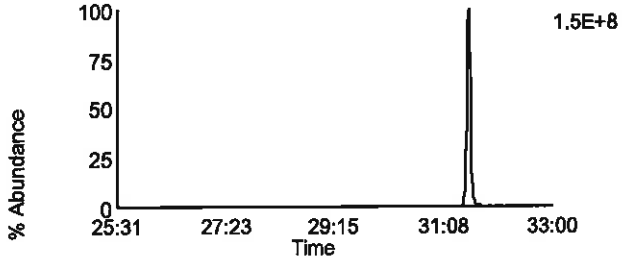
Data File: F130918B_05 G2 C4 - 353.8576
CAL CS5-7604-278 - SMT



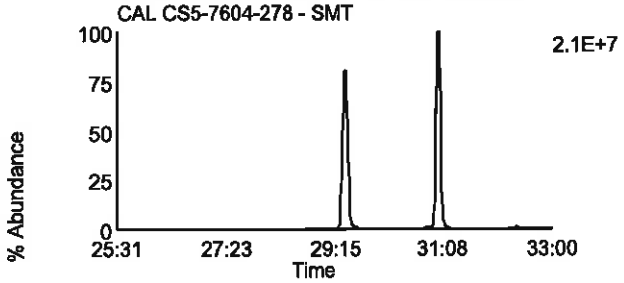
Data File: F130918B_05 G2 C2 - 341.8567
CAL CS5-7604-278 - SMT



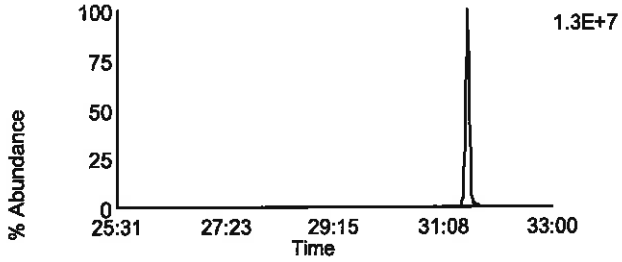
Data File: F130918B_05 G2 C8 - 355.8546
CAL CS5-7604-278 - SMT



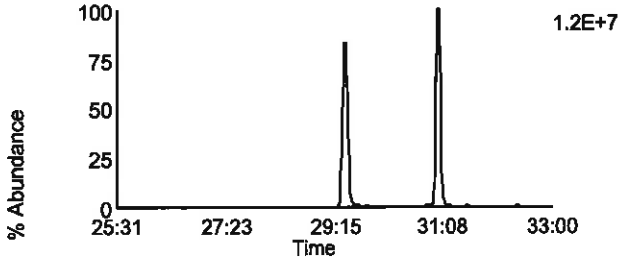
Data File: F130918B_05 G2 C3 - 351.8999
CAL CS5-7604-278 - SMT



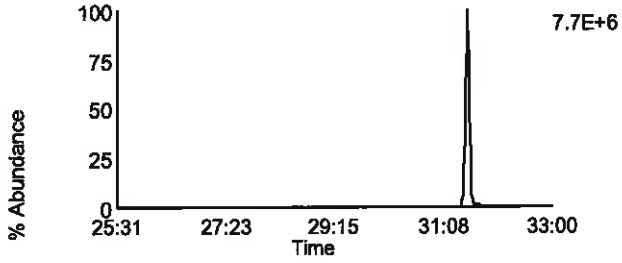
Data File: F130918B_05 G2 C10 - 367.8948
CAL CS5-7604-278 - SMT



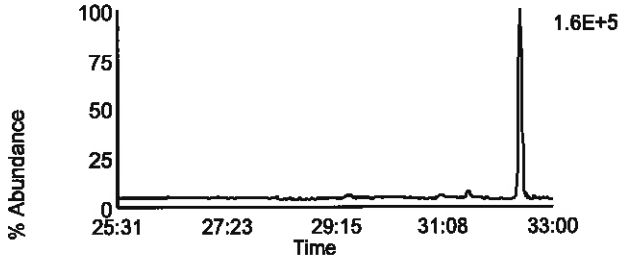
Data File: F130918B_05 G2 C5 - 353.8969
CAL CS5-7604-278 - SMT



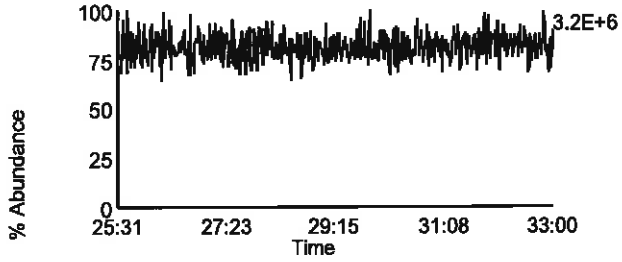
Data File: F130918B_05 G2 C11 - 369.8918
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G2 C12 - 409.7974
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G2 C6 - 354.9792
CAL CS5-7604-278 - SMT

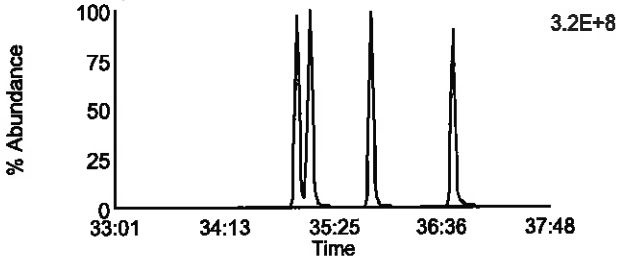


Homologue Group: Hexas

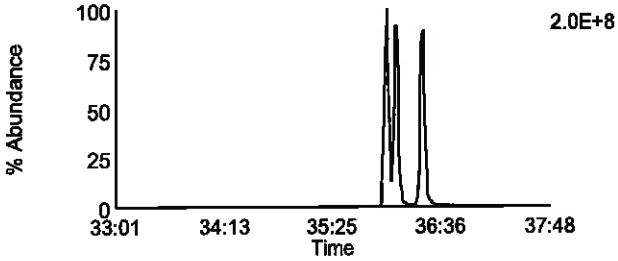
Data File Name: F130918B_05
Date Acquired: 9/18/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR05 (F)

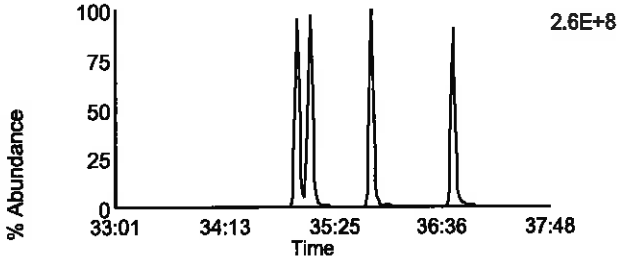
Data File: F130918B_05 G3 C1 - 373.8207
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G3 C7 - 389.8156
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G3 C2 - 375.8178
CAL CS5-7604-278 - SMT



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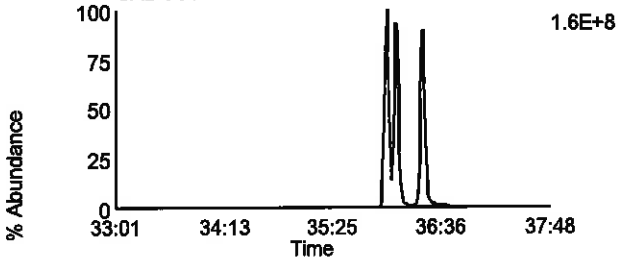
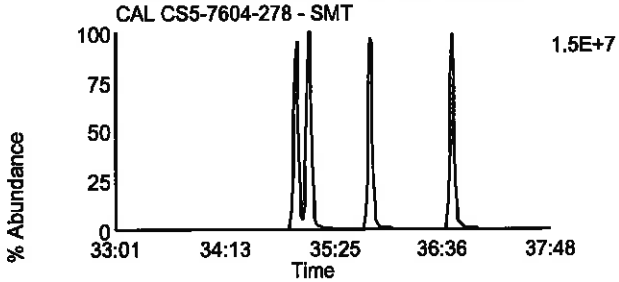
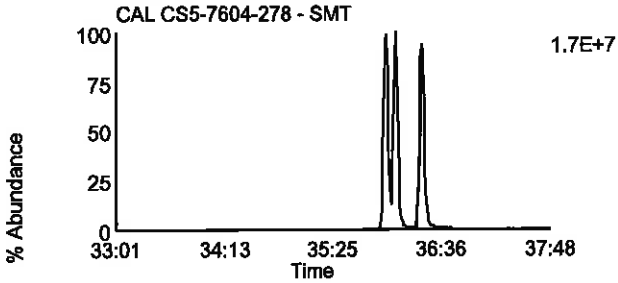
CAL CS5-7604-278 - SMT



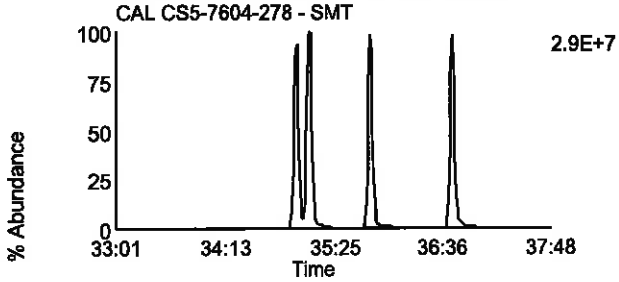
Data File: F130918B_05 G3 C5 - 383.8639
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G3 C9 - 401.8559
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G3 C6 - 385.861
CAL CS5-7604-278 - SMT



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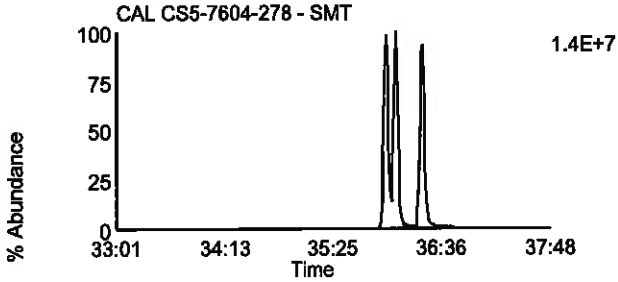
CAL CS5-7604-278 - SMT



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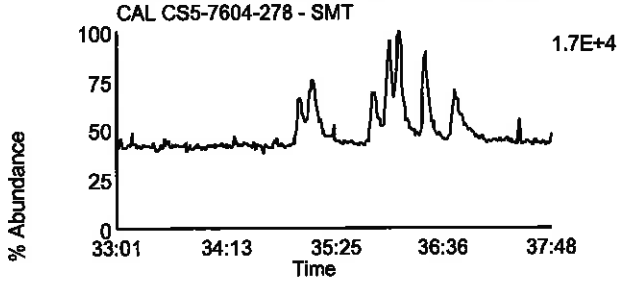
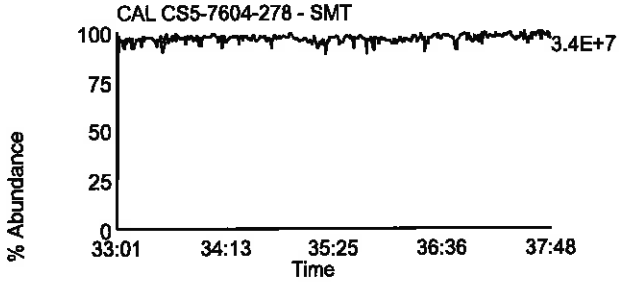
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G3 C3 - 380.976
CAL CS5-7604-278 - SMT

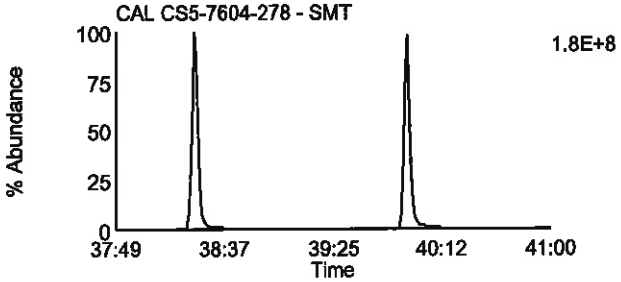


Homologue Group: Heptas

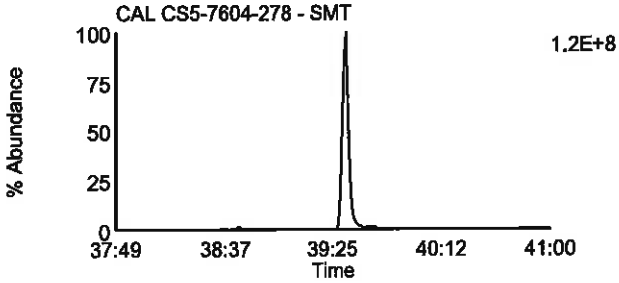
Data File Name: F130918B_05
Date Acquired: 9/18/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR05 (F)

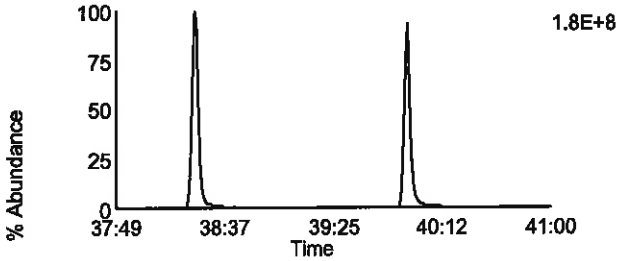
Data File: F130918B_05 G4 C3 - 407.7818
CAL CS5-7604-278 - SMT



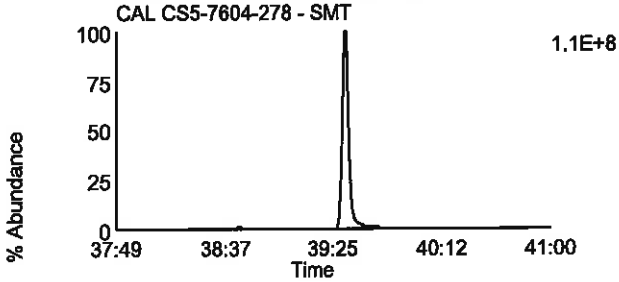
Data File: F130918B_05 G4 C8 - 423.7767
CAL CS5-7604-278 - SMT



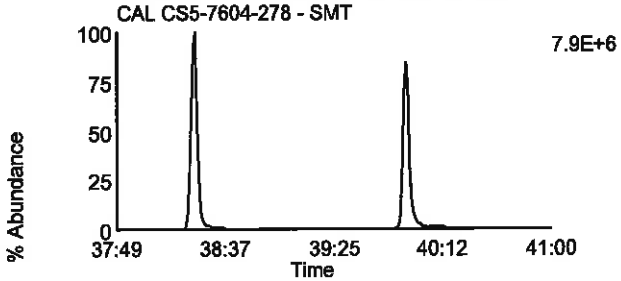
Data File: F130918B_05 G4 C4 - 409.7788
CAL CS5-7604-278 - SMT



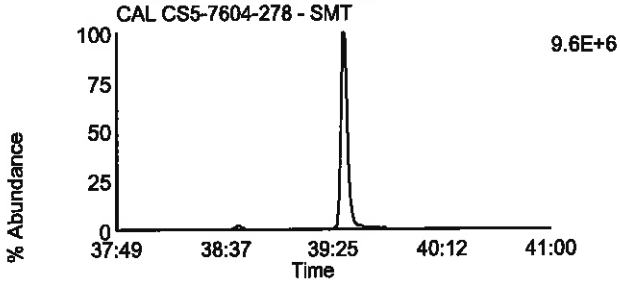
Data File: F130918B_05 G4 C9 - 425.7737
CAL CS5-7604-278 - SMT



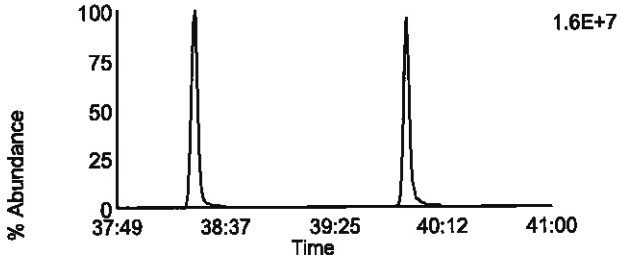
Data File: F130918B_05 G4 C6 - 417.825
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G4 C11 - 435.8169
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G4 C7 - 419.822
CAL CS5-7604-278 - SMT



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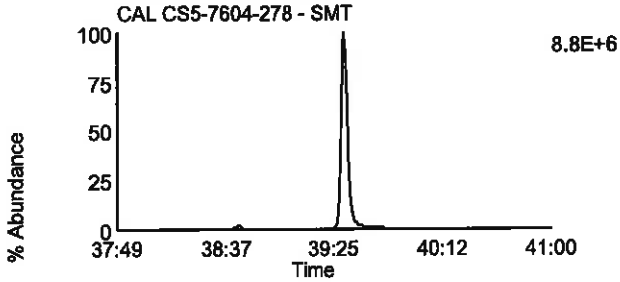
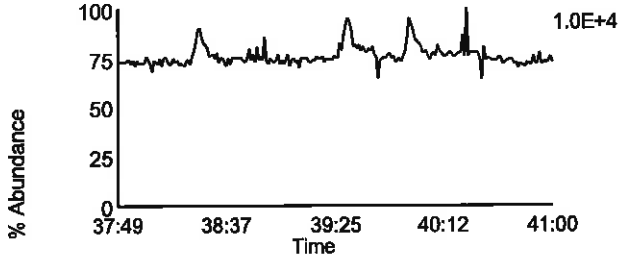
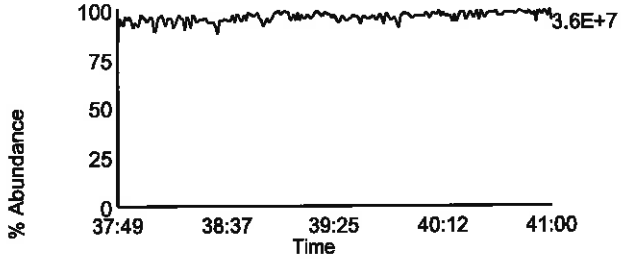
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G4 C13 - 479.7165
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G4 C1 - 380.976
CAL CS5-7604-278 - SMT

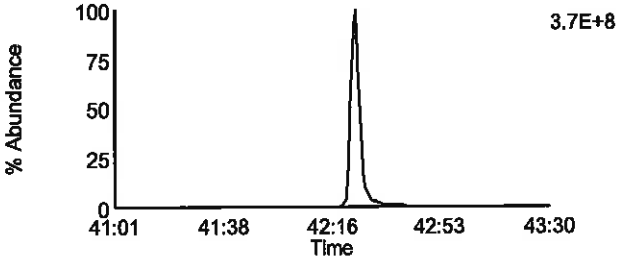


Homologue Group: Octas

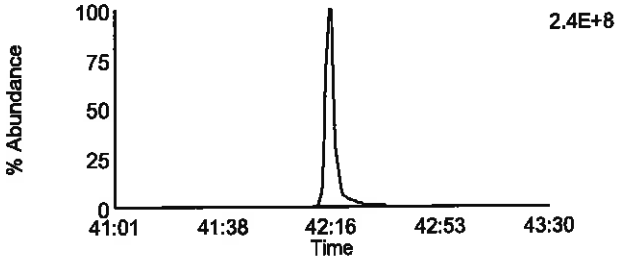
Data File Name: F130918B_05
Date Acquired: 9/18/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR05 (F)

Data File: F130918B_05 G5 C4 - 441.7428
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G5 C8 - 457.7377
CAL CS5-7604-278 - SMT



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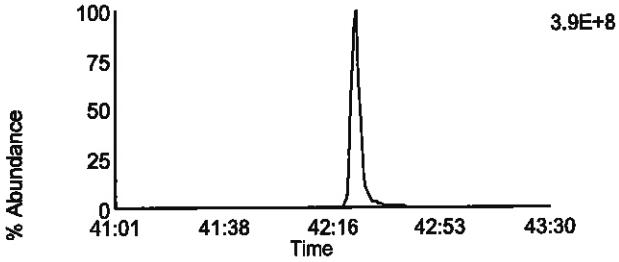
CAL CS5-7604-278 - SMT



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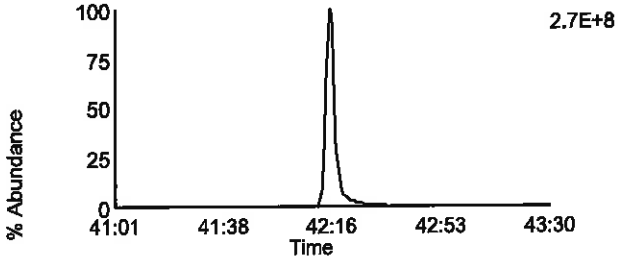
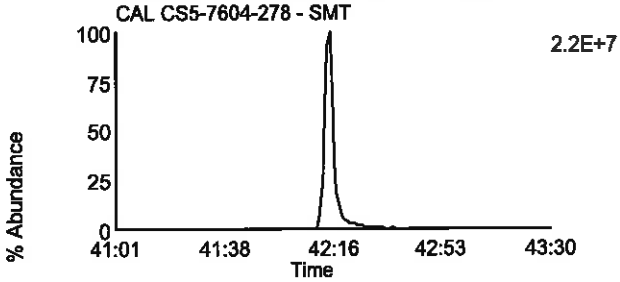
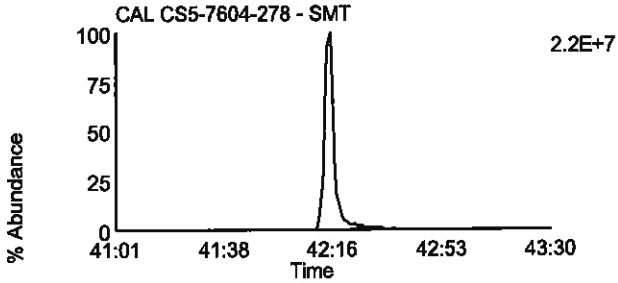
CAL CS5-7604-278 - SMT



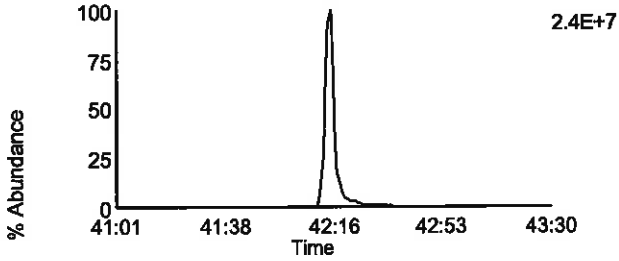
Data File: F130918B_05 G5 C11 - 469.7779
CAL CS5-7604-278 - SMT



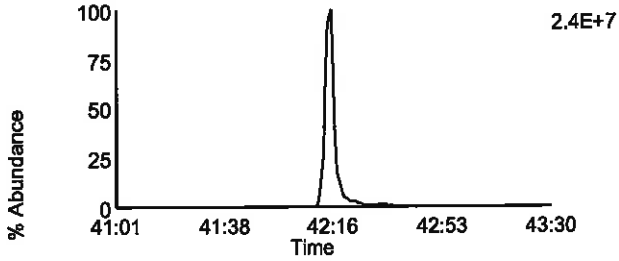
Data File: F130918B_05 G5 C11 - 469.7779
CAL CS5-7604-278 - SMT



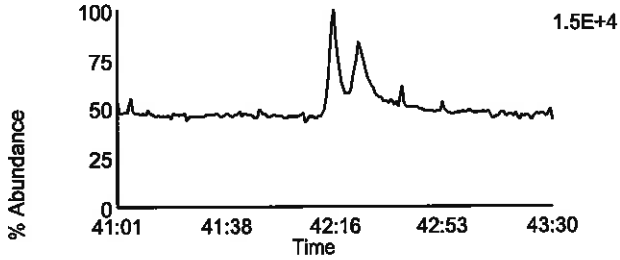
Data File: F130918B_05 G5 C12 - 471.7749
CAL CS5-7604-278 - SMT



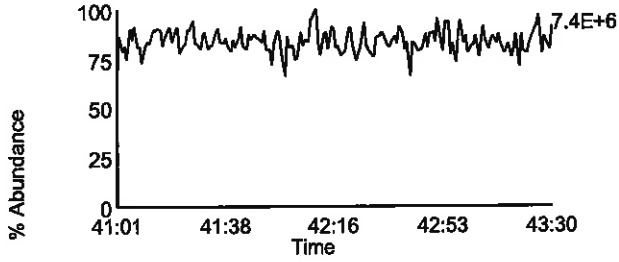
Data File: F130918B_05 G5 C12 - 471.7749
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G5 C13 - 513.6775
CAL CS5-7604-278 - SMT



Data File: F130918B_05 G5 C2 - 430.9728
CAL CS5-7604-278 - SMT

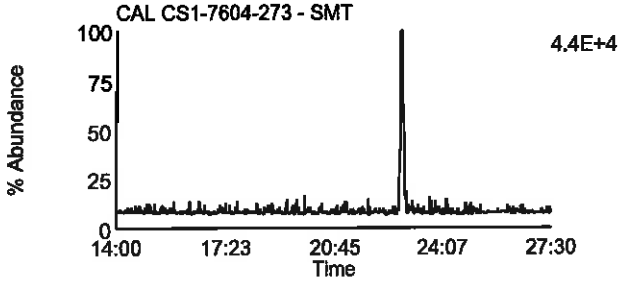


Homologue Group: Tetras

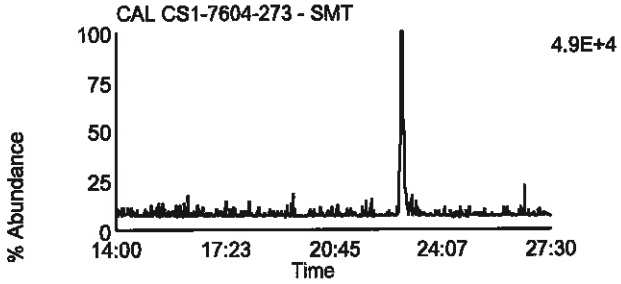
Data File Name: U130729B_11
Date Acquired: 7/29/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR06 (U)

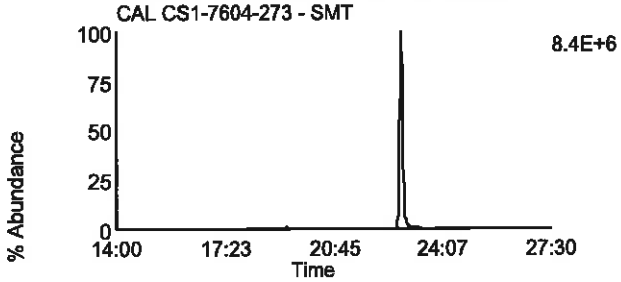
Data File: U130729B_11 G1 C1 - 303.9016
CAL CS1-7604-273 - SMT



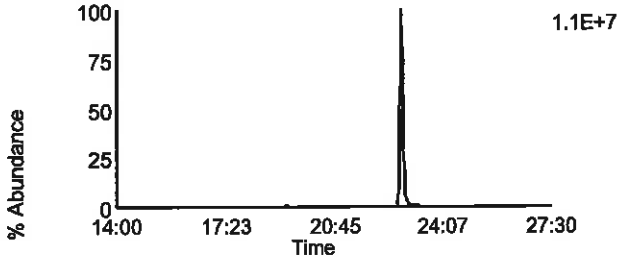
Data File: U130729B_11 G1 C2 - 305.8987
CAL CS1-7604-273 - SMT



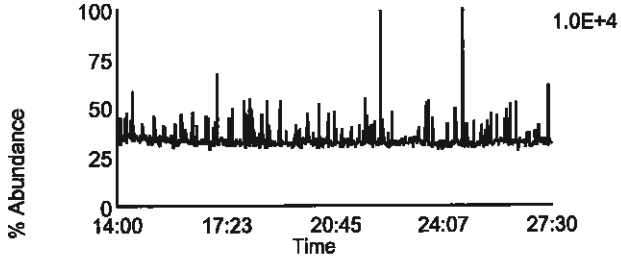
Data File: U130729B_11 G1 C3 - 315.9418
CAL CS1-7604-273 - SMT



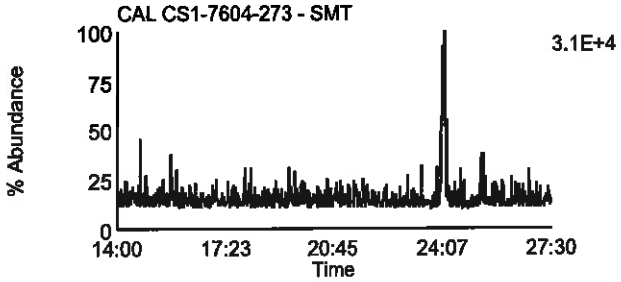
Data File: U130729B_11 G1 C4 - 317.9389
CAL CS1-7604-273 - SMT



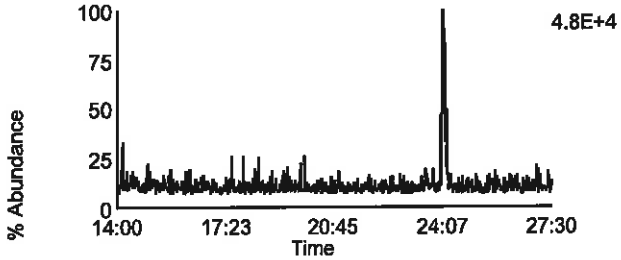
Data File: U130729B_11 G1 C14 - 375.8364
CAL CS1-7604-273 - SMT



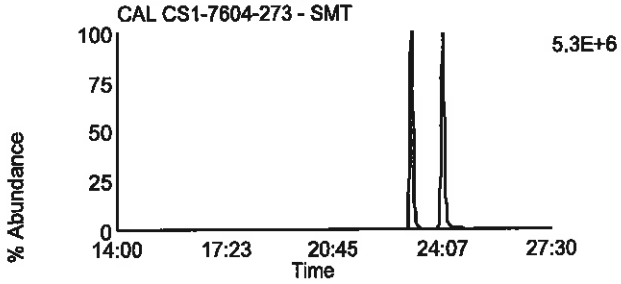
Data File: U130729B_11 G1 C7 - 319.8965
CAL CS1-7604-273 - SMT



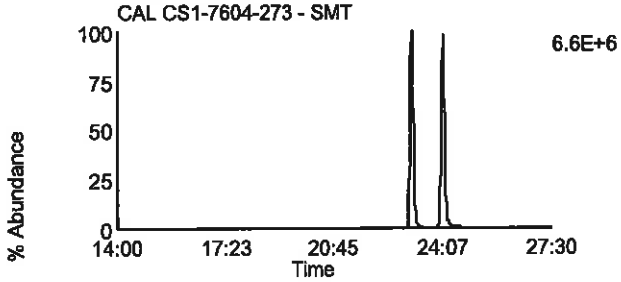
Data File: U130729B_11 G1 C8 - 321.8936
CAL CS1-7604-273 - SMT



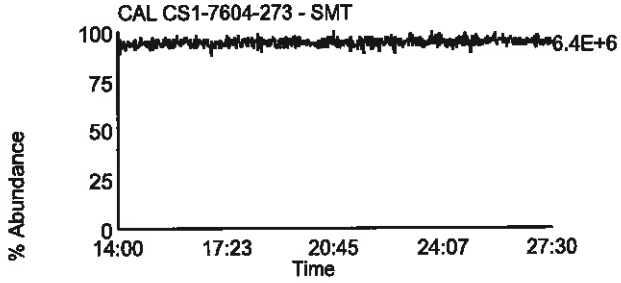
Data File: U130729B_11 G1 C10 - 331.9367
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G1 C11 - 333.9338
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G1 C5 - 318.9792
CAL CS1-7604-273 - SMT

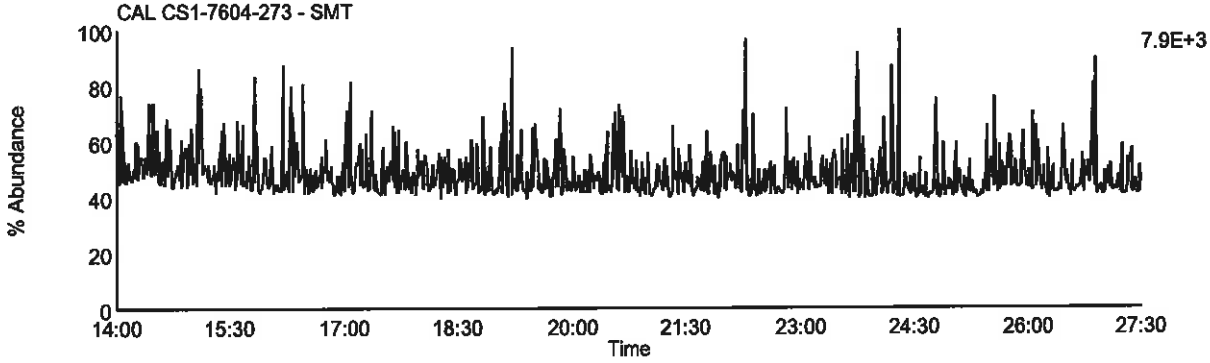


Homologue Group: Penta & Cleanup

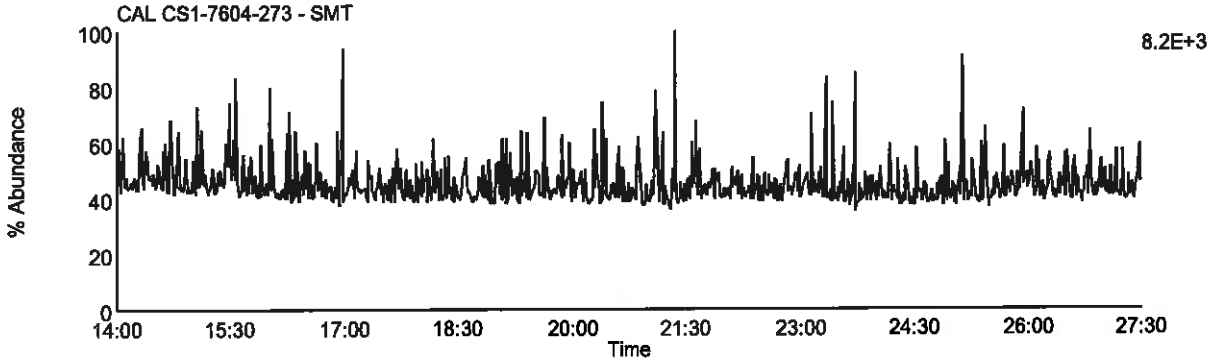
Data File Name: U130729B_11
Date Acquired: 7/29/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR06 (U)

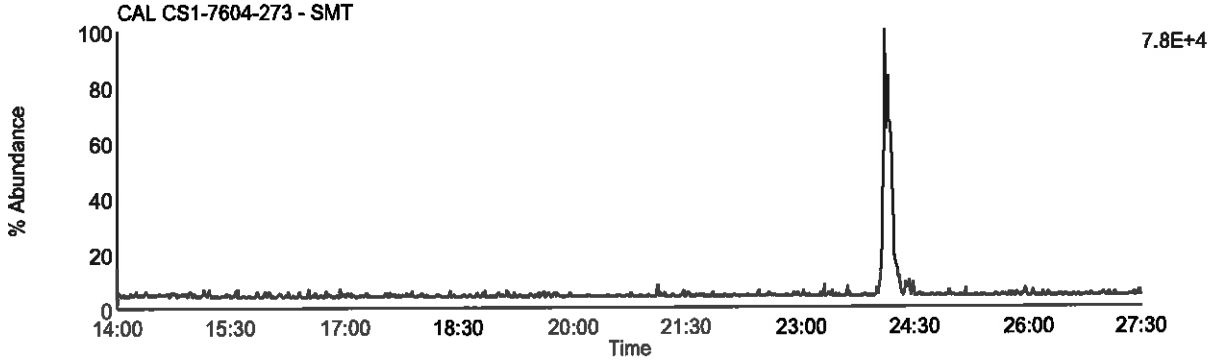
Data File: U130729B_11 G1 C12 - 339.8597
CAL CS1-7604-273 - SMT



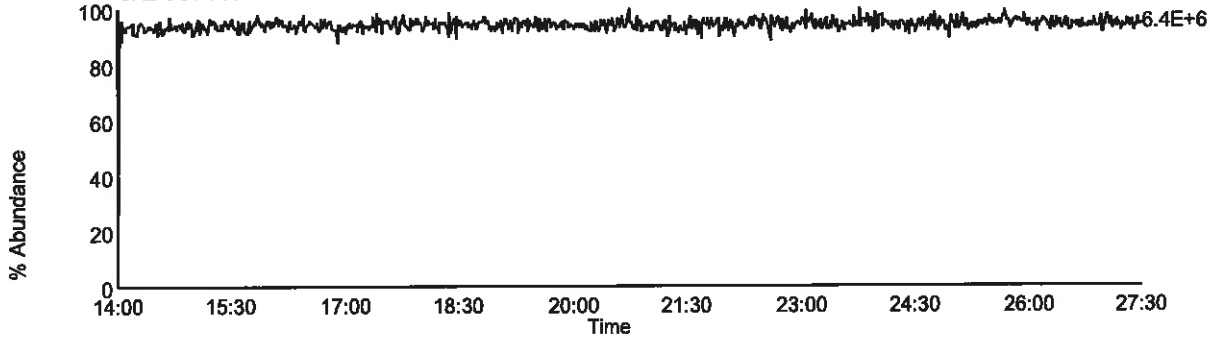
Data File: U130729B_11 G1 C13 - 341.8567
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G1 C9 - 327.8847
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G1 C5 - 318.9792
CAL CS1-7604-273 - SMT

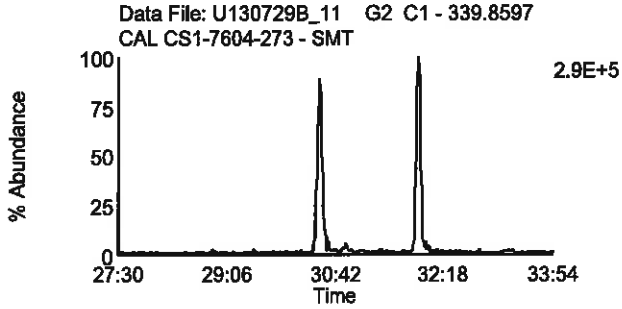


Homologue Group: Pentas

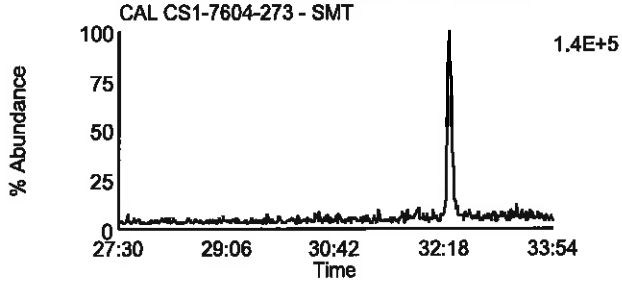
Data File Name: U130729B_11
Date Acquired: 7/29/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130729B_11 G2 C1 - 339.8597
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G2 C4 - 353.8576
CAL CS1-7604-273 - SMT



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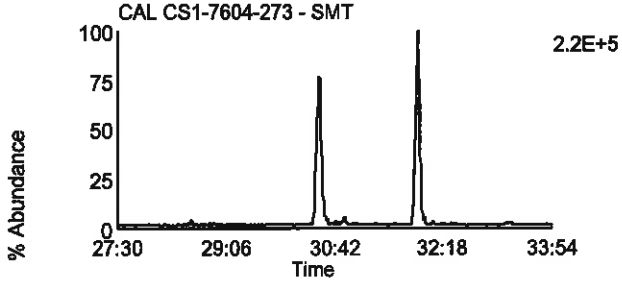
CAL CS1-7604-273 - SMT



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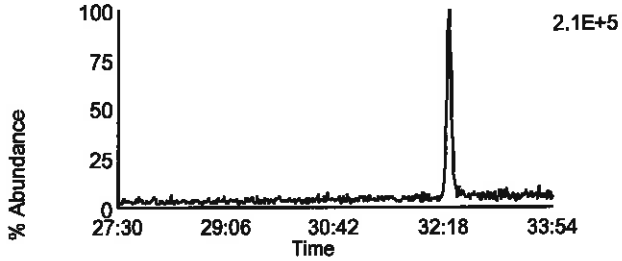
CAL CS1-7604-273 - SMT



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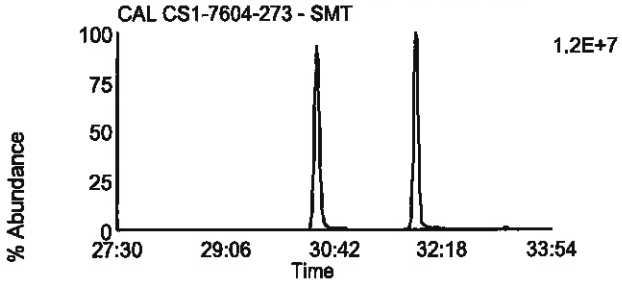
CAL CS1-7604-273 - SMT



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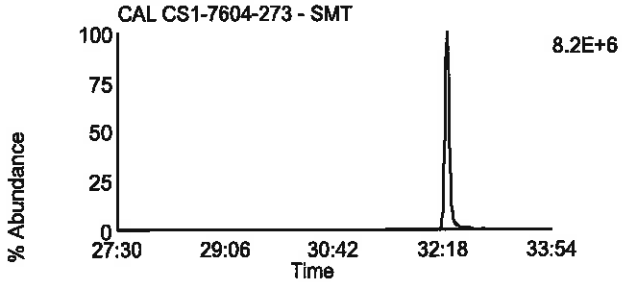
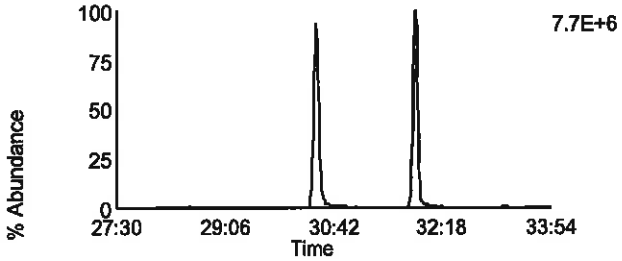
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G2 C5 - 353.8969
CAL CS1-7604-273 - SMT



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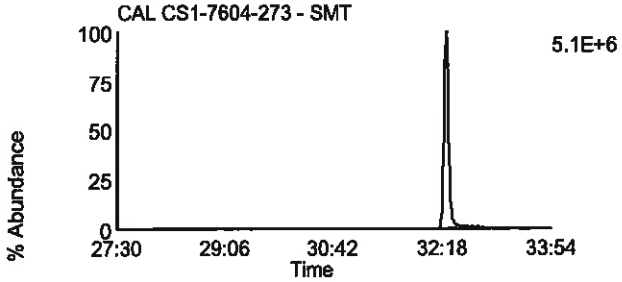
CAL CS1-7604-273 - SMT



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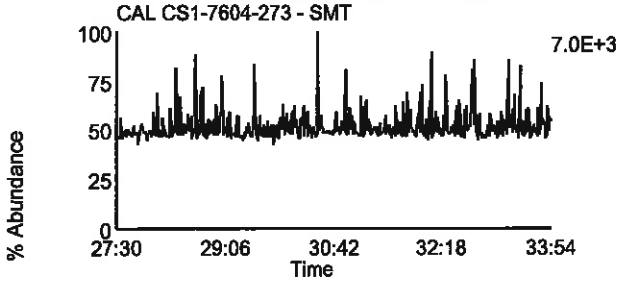
CAL CS1-7604-273 - SMT



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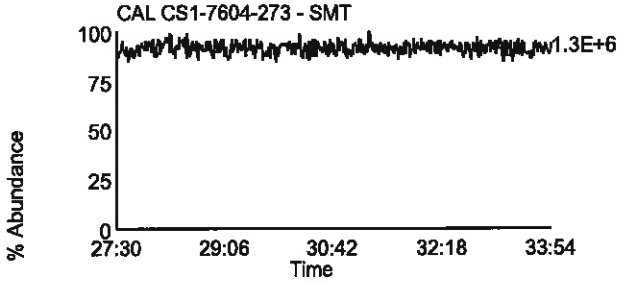
CAL CS1-7604-273 - SMT

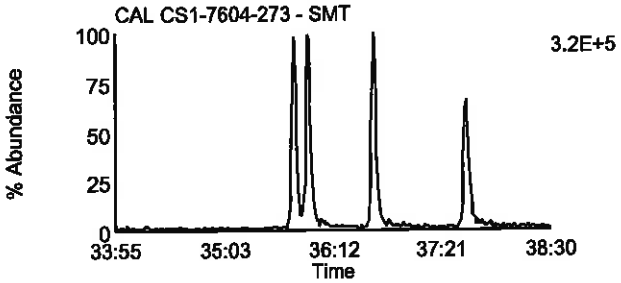


Homologue Group: Hexas

Data File Name: U130729B_11
Date Acquired: 7/29/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130729B_11 G3 C1 - 373.8207
CAL CS1-7604-273 - SMT



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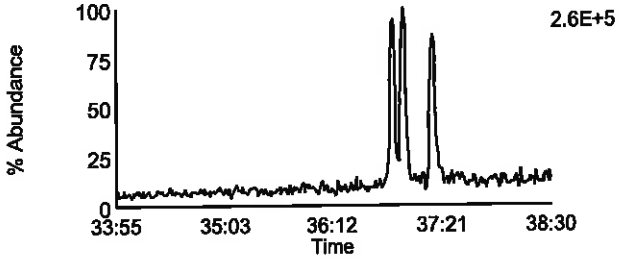
CAL CS1-7604-273 - SMT



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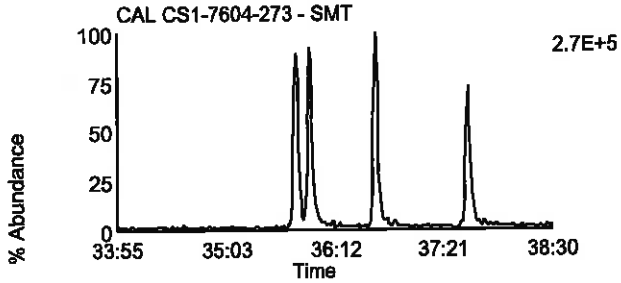
CAL CS1-7604-273 - SMT



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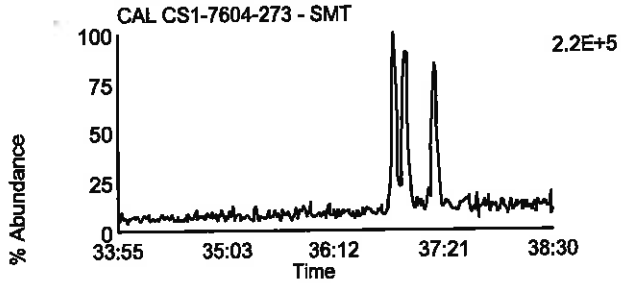
CAL CS1-7604-273 - SMT



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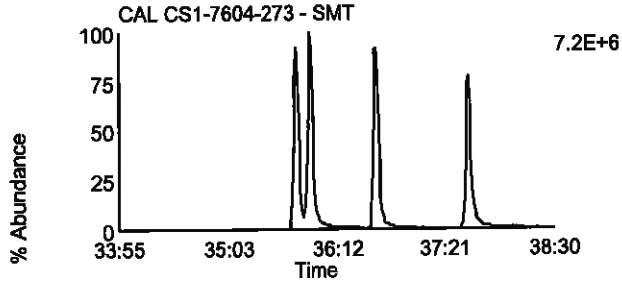
CAL CS1-7604-273 - SMT



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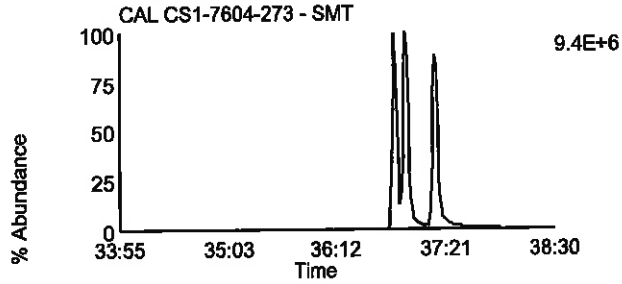
CAL CS1-7604-273 - SMT



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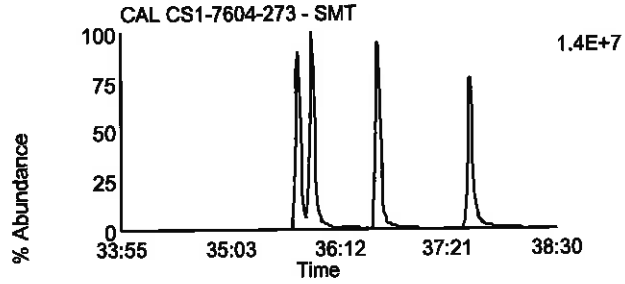
CAL CS1-7604-273 - SMT



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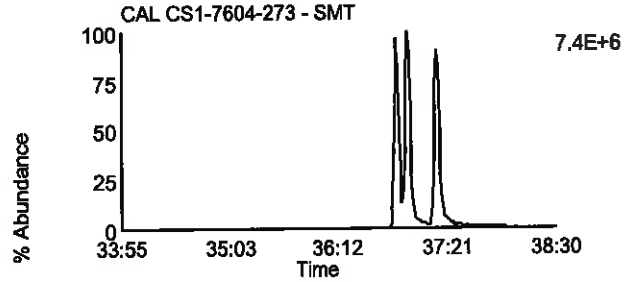
CAL CS1-7604-273 - SMT



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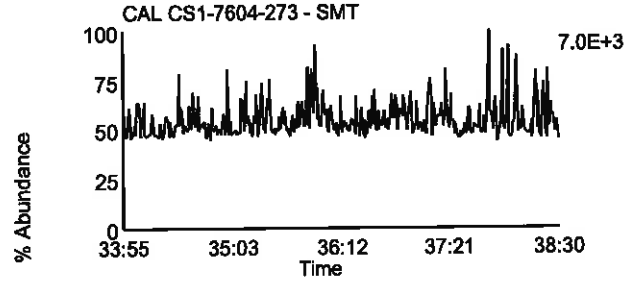
CAL CS1-7604-273 - SMT



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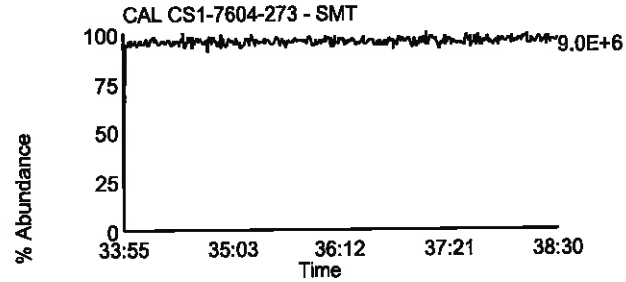
CAL CS1-7604-273 - SMT

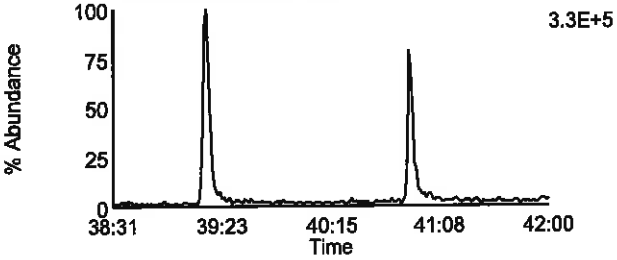


Homologue Group: Heptas

Data File Name: U130729B_11
Date Acquired: 7/29/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130729B_11 G4 C3 - 407.7818
CAL CS1-7604-273 - SMT



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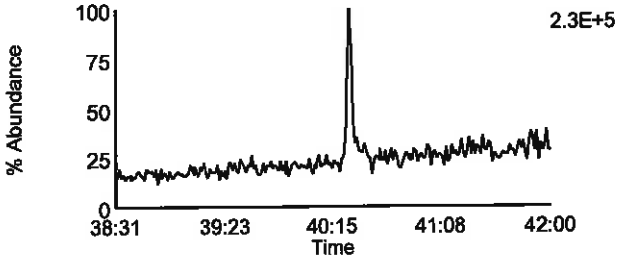
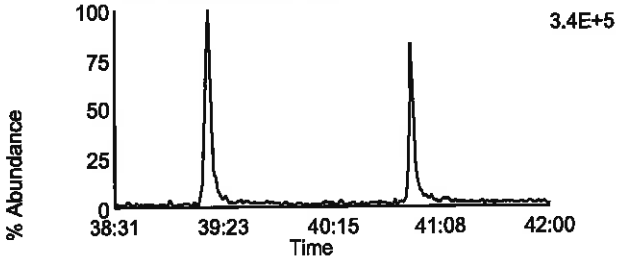
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G4 C4 - 409.7788
CAL CS1-7604-273 - SMT



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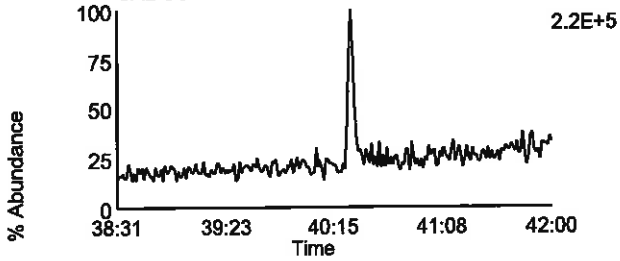
CAL CS1-7604-273 - SMT



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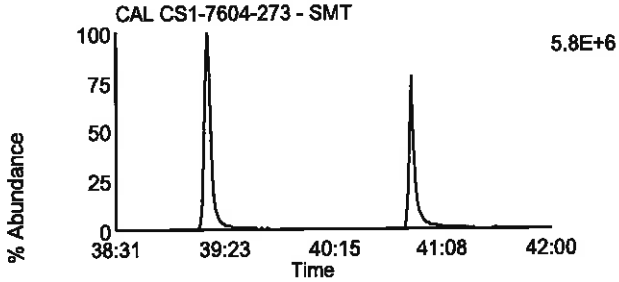
CAL CS1-7604-273 - SMT



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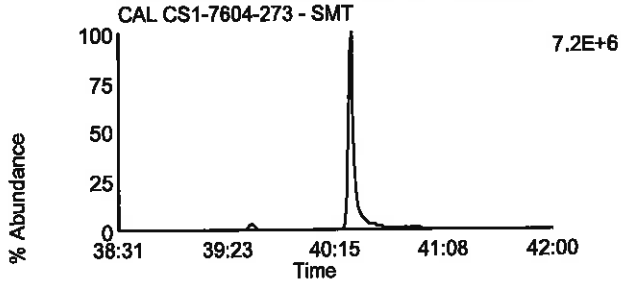
CAL CS1-7604-273 - SMT



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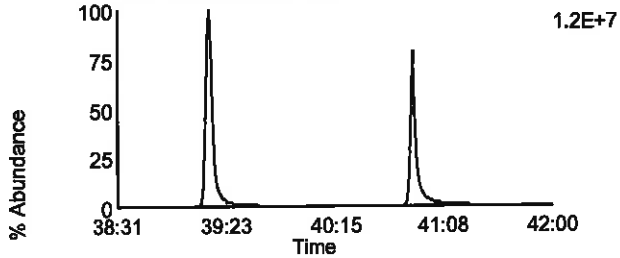
CAL CS1-7604-273 - SMT



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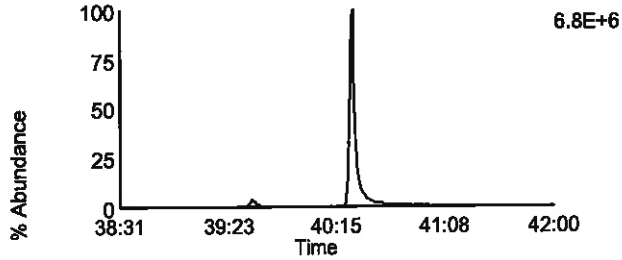

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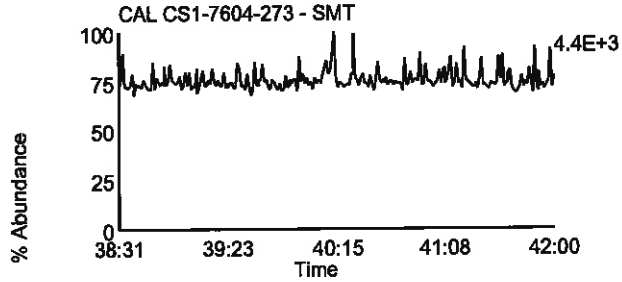
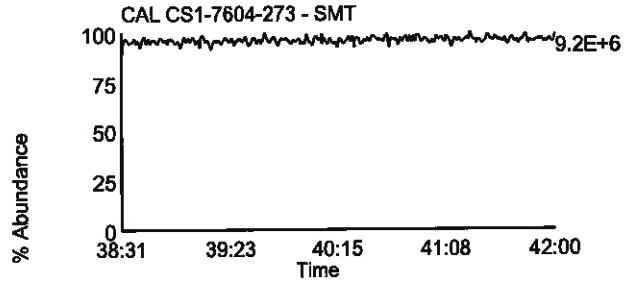
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G4 C1 - 380.976
CAL CS1-7604-273 - SMT

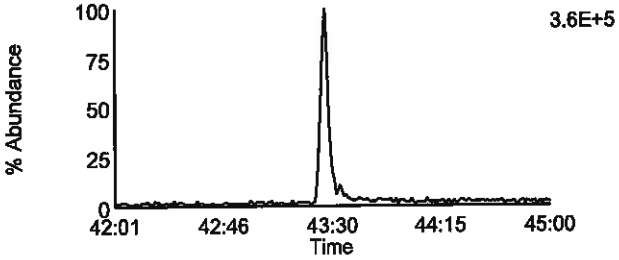


Homologue Group: Octas

Data File Name: U130729B_11
Date Acquired: 7/29/2013
Sample Description: CAL CS1-7604-273 - SMT

Lab Sample ID: CS1-7604-273
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130729B_11 G5 C4 - 441.7428
CAL CS1-7604-273 - SMT



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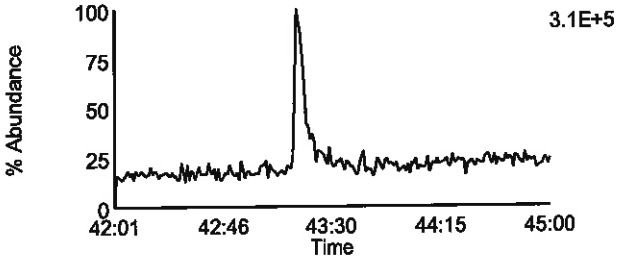
CAL CS1-7604-273 - SMT



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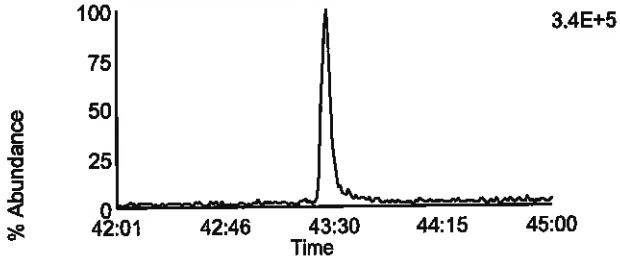
CAL CS1-7604-273 - SMT



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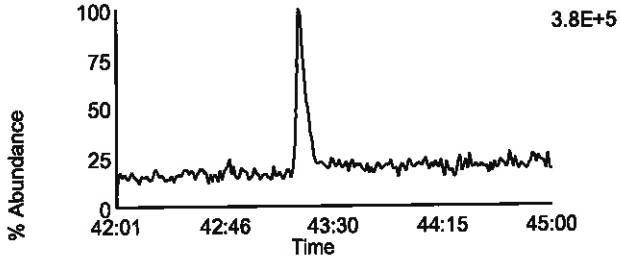
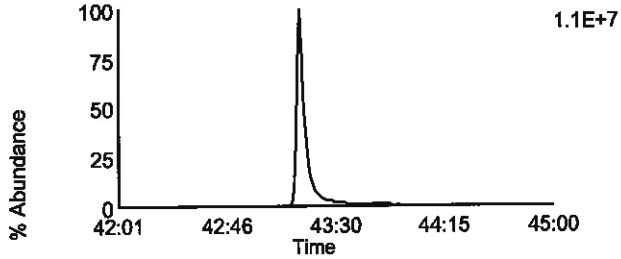
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G5 C11 - 469.7779
CAL CS1-7604-273 - SMT



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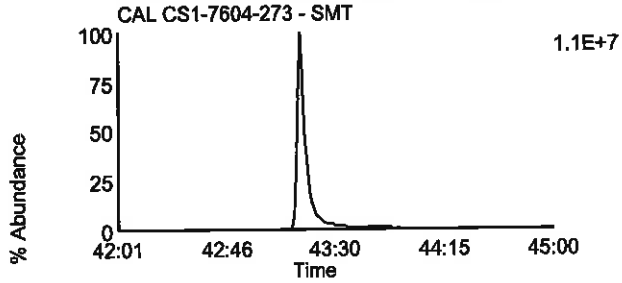
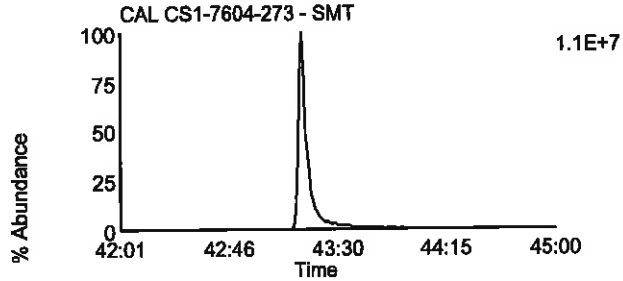
CAL CS1-7604-273 - SMT



Data File: U130729B_11 G5 C12 - 471.7749
CAL CS1-7604-273 - SMT



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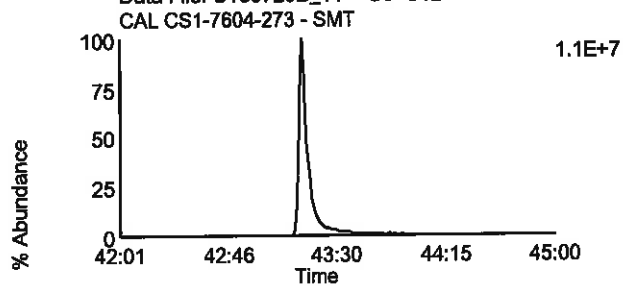
CAL CS1-7604-273 - SMT



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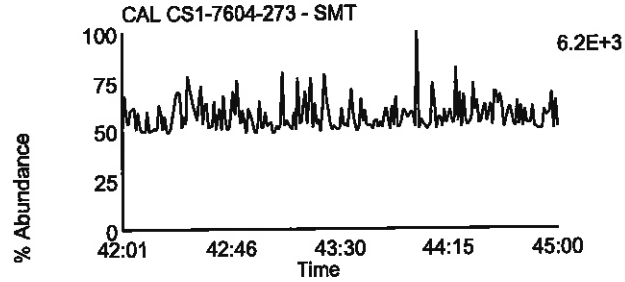
CAL CS1-7604-273 - SMT



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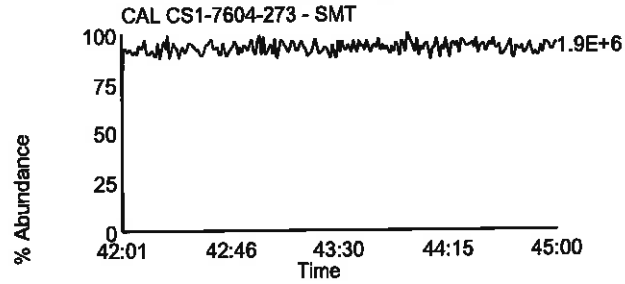
CAL CS1-7604-273 - SMT

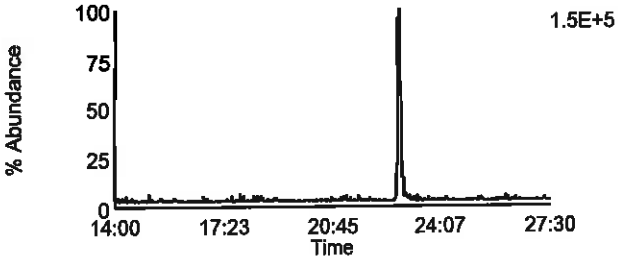


Homologue Group: Tetras

Data File Name: U130729B_10
Date Acquired: 7/29/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130729B_10 G1 C1 - 303.9016
CAL CS2-7604-276 - SMT



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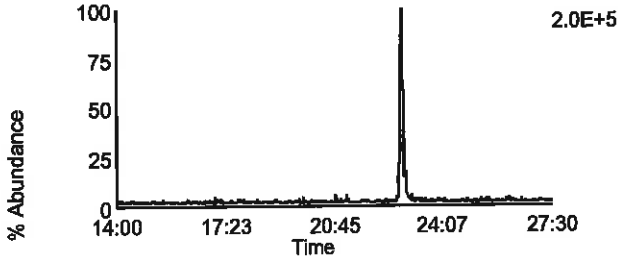
CAL CS2-7604-276 - SMT



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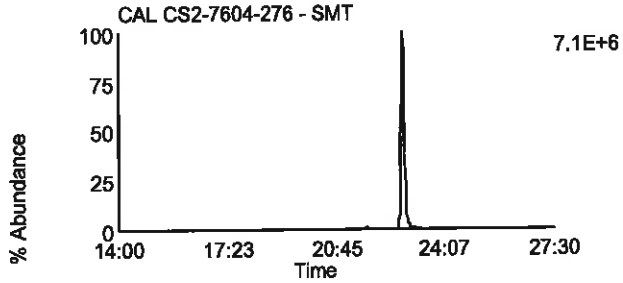
CAL CS2-7604-276 - SMT



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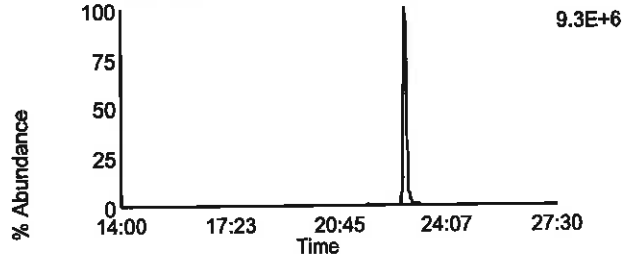
CAL CS2-7604-276 - SMT



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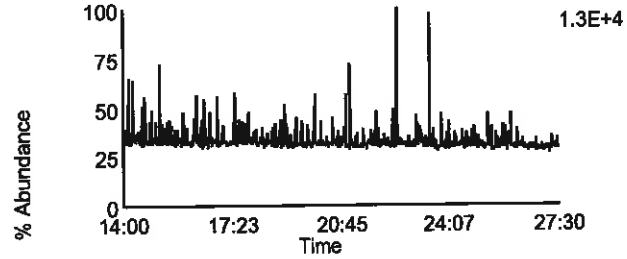
CAL CS2-7604-276 - SMT



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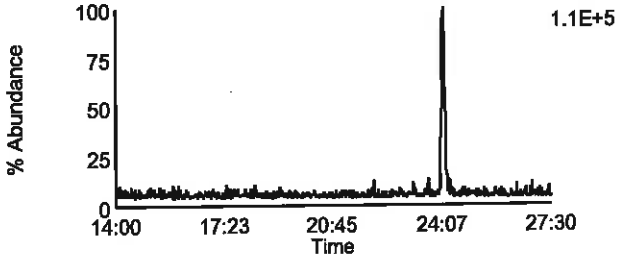
CAL CS2-7604-276 - SMT



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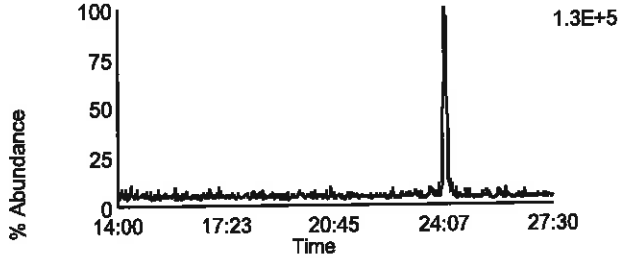
CAL CS2-7604-276 - SMT



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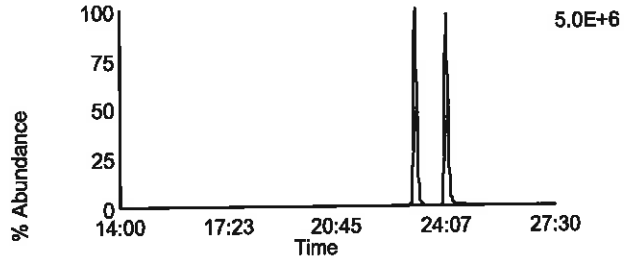
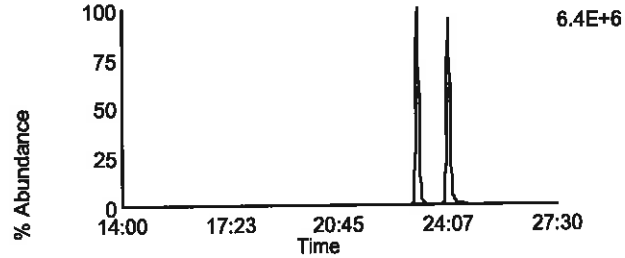
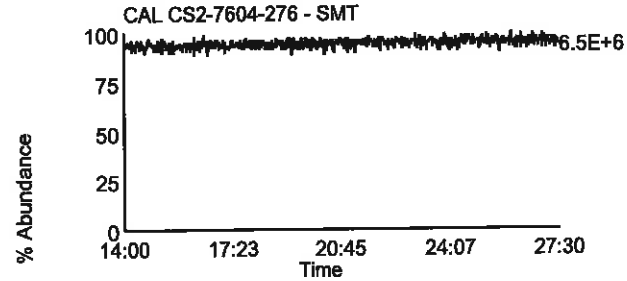
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G1 C11 - 333.9338
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G1 C5 - 318.9792
CAL CS2-7604-276 - SMT

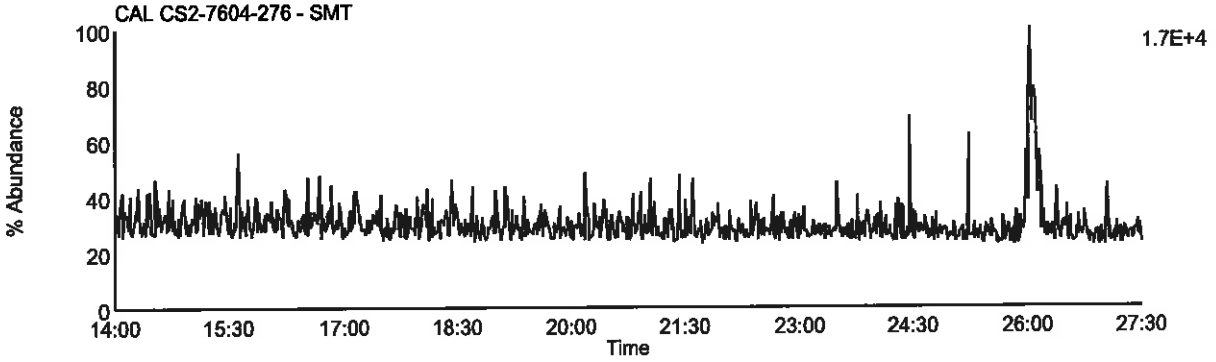


Homologue Group: Penta & Cleanup

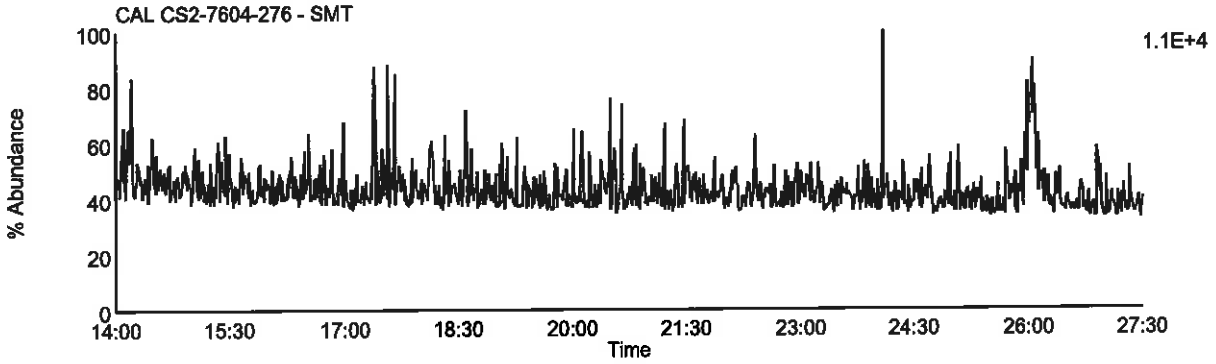
Data File Name: U130729B_10
Date Acquired: 7/29/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR06 (U)

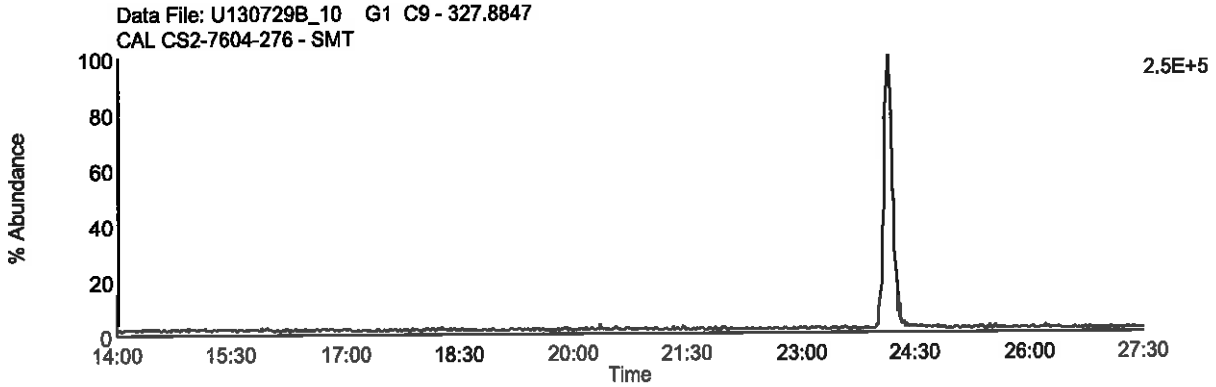
Data File: U130729B_10 G1 C12 - 339.8597
CAL CS2-7604-276 - SMT



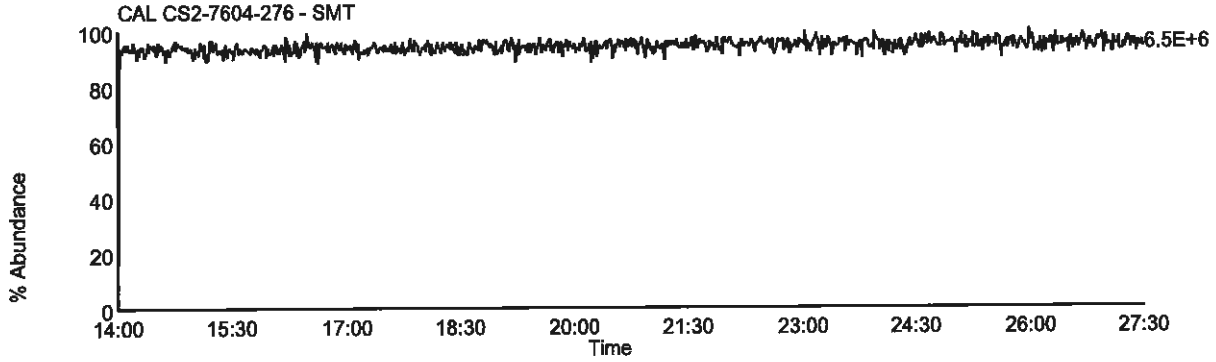
Data File: U130729B_10 G1 C13 - 341.8567
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G1 C9 - 327.8847
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G1 C5 - 318.9792
CAL CS2-7604-276 - SMT

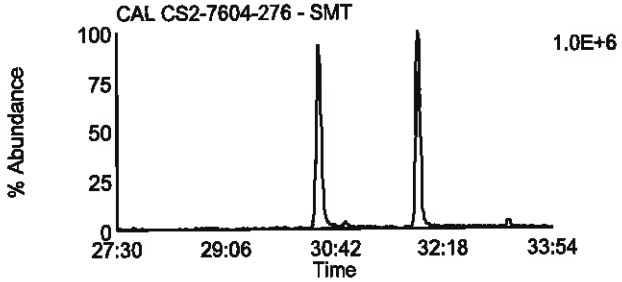


Homologue Group: Pentas

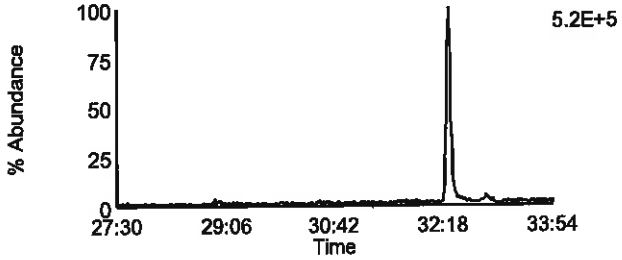
Data File Name: U130729B_10
Date Acquired: 7/29/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR06 (U)

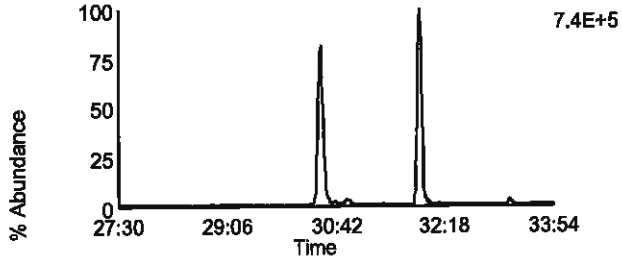
Data File: U130729B_10 G2 C1 - 339.8597
CAL CS2-7604-276 - SMT



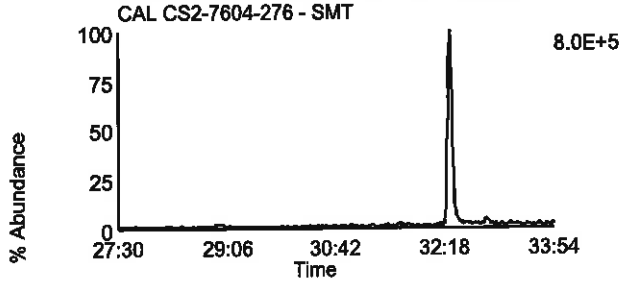
Data File: U130729B_10 G2 C4 - 353.8576
CAL CS2-7604-276 - SMT



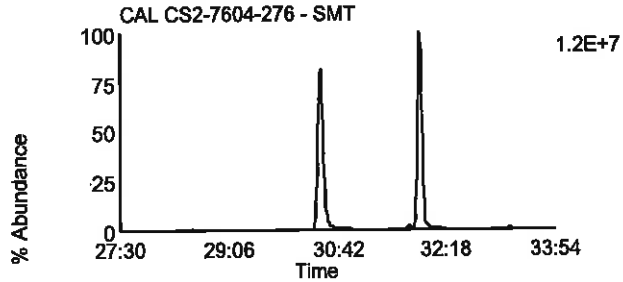
Data File: U130729B_10 G2 C2 - 341.8567
CAL CS2-7604-276 - SMT



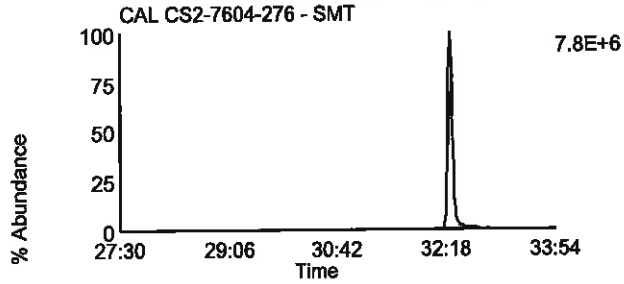
Data File: U130729B_10 G2 C8 - 355.8546
CAL CS2-7604-276 - SMT



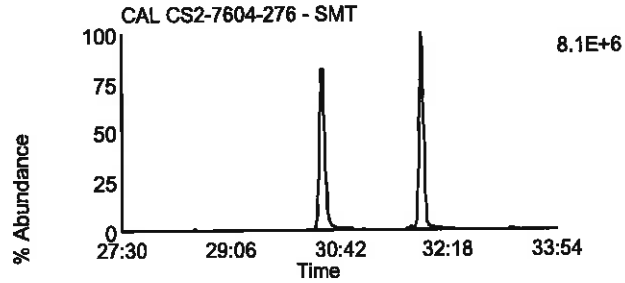
Data File: U130729B_10 G2 C3 - 351.8999
CAL CS2-7604-276 - SMT



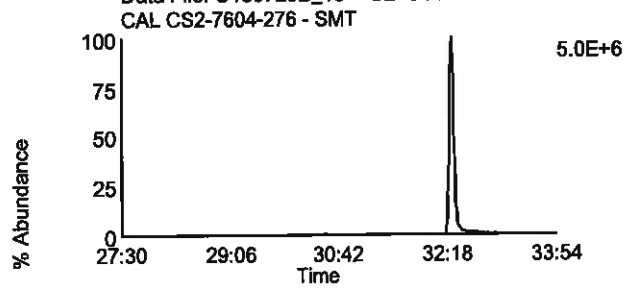
Data File: U130729B_10 G2 C10 - 367.8948
CAL CS2-7604-276 - SMT



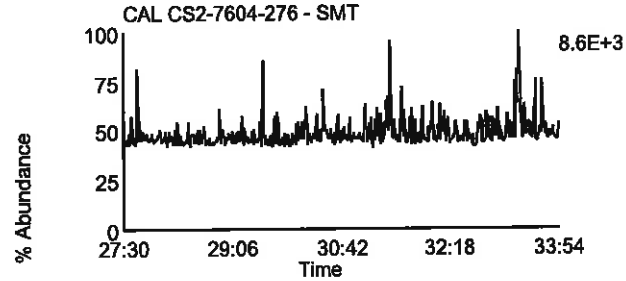
Data File: U130729B_10 G2 C5 - 353.8969
CAL CS2-7604-276 - SMT



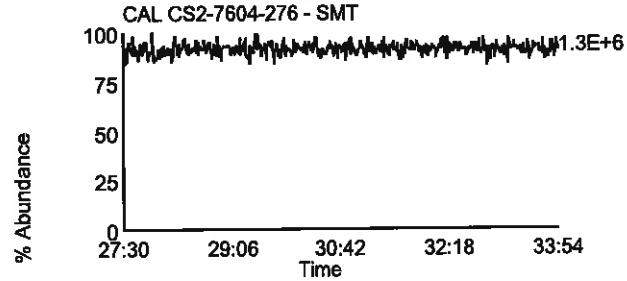
Data File: U130729B_10 G2 C11 - 369.8918
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G2 C12 - 409.7974
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G2 C6 - 354.9792
CAL CS2-7604-276 - SMT

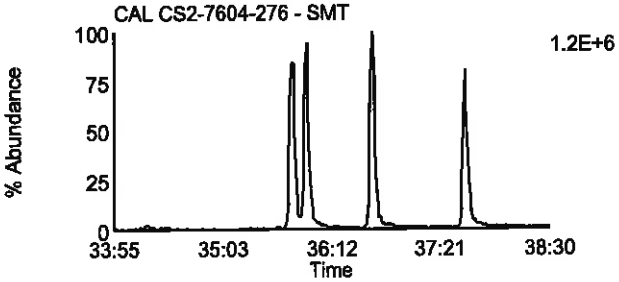


Homologue Group: Hexas

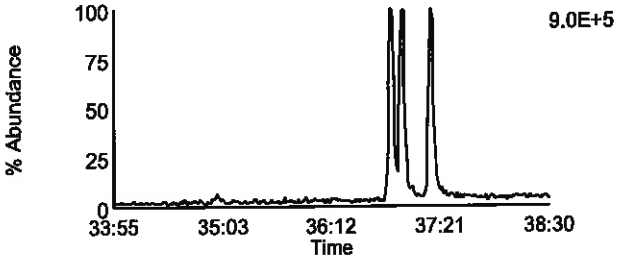
Data File Name: U130729B_10
Date Acquired: 7/29/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR06 (U)

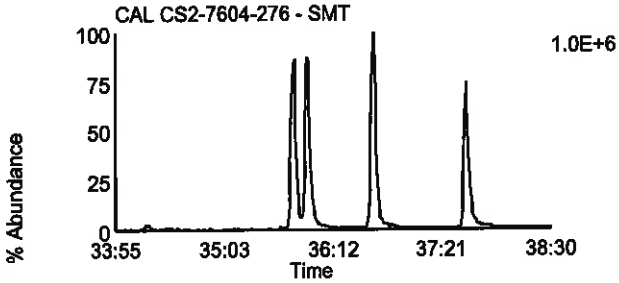
Data File: U130729B_10 G3 C1 - 373.8207
CAL CS2-7604-276 - SMT



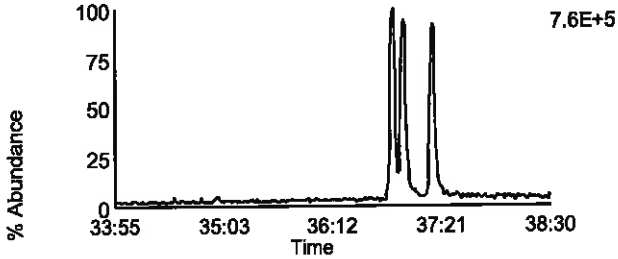
Data File: U130729B_10 G3 C7 - 389.8156
CAL CS2-7604-276 - SMT



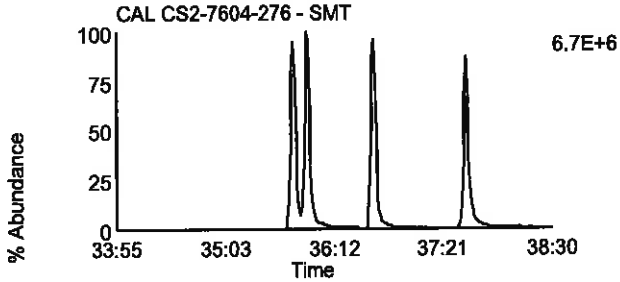
Data File: U130729B_10 G3 C2 - 375.8178
CAL CS2-7604-276 - SMT



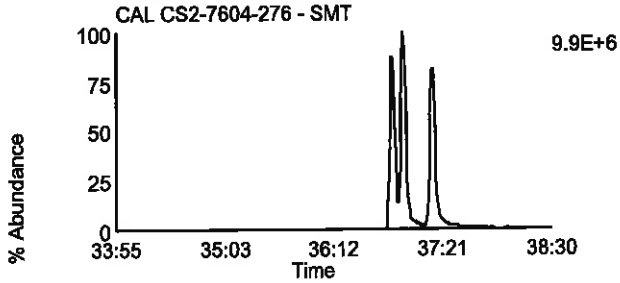
Data File: U130729B_10 G3 C8 - 391.8127
CAL CS2-7604-276 - SMT



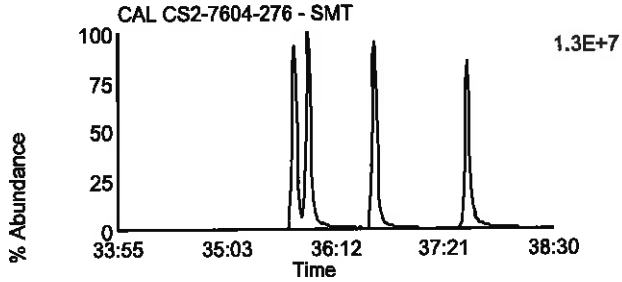
Data File: U130729B_10 G3 C5 - 383.8639
CAL CS2-7604-276 - SMT



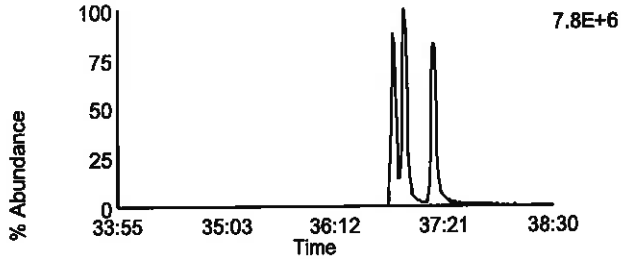
Data File: U130729B_10 G3 C9 - 401.8559
CAL CS2-7604-276 - SMT



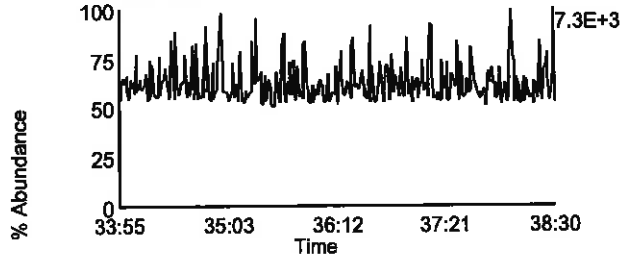
Data File: U130729B_10 G3 C6 - 385.861
CAL CS2-7604-276 - SMT



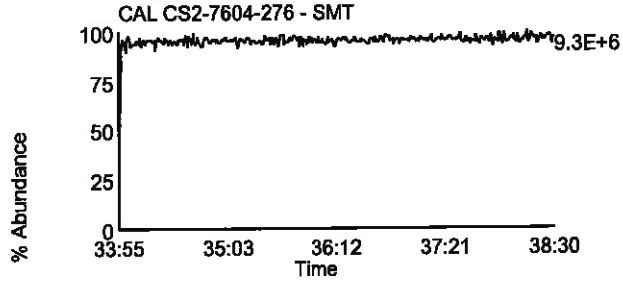
Data File: U130729B_10 G3 C10 - 403.8529
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G3 C11 - 445.7555
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G3 C3 - 380.976
CAL CS2-7604-276 - SMT

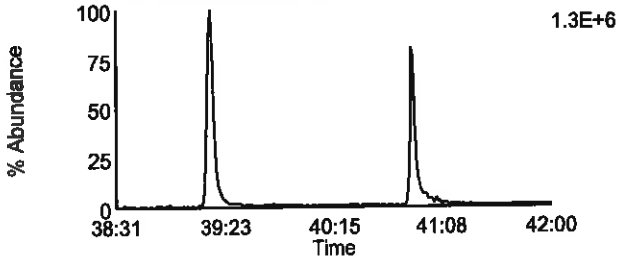


Homologue Group: Heptas

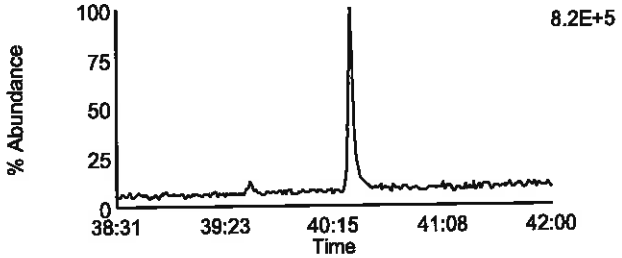
Data File Name: U130729B_10
Date Acquired: 7/29/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR06 (U)

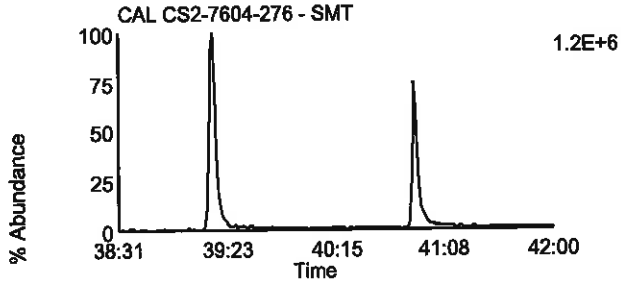
Data File: U130729B_10 G4 C3 - 407.7818
CAL CS2-7604-276 - SMT



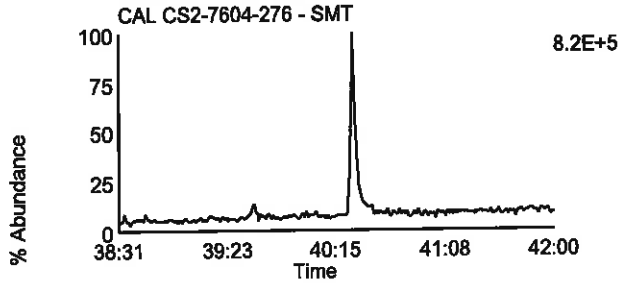
Data File: U130729B_10 G4 C8 - 423.7767
CAL CS2-7604-276 - SMT



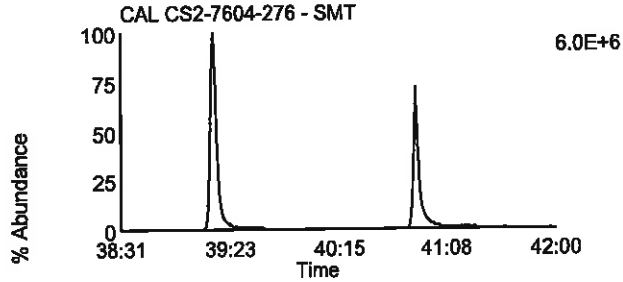
Data File: U130729B_10 G4 C4 - 409.7788
CAL CS2-7604-276 - SMT



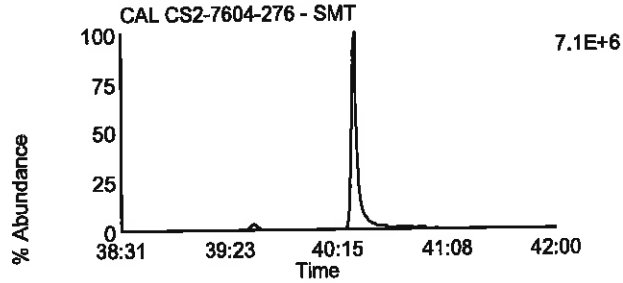
Data File: U130729B_10 G4 C9 - 425.7737
CAL CS2-7604-276 - SMT



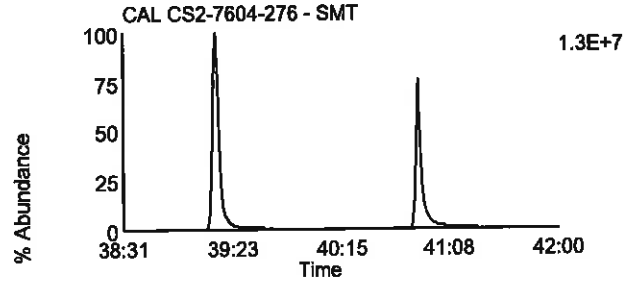
Data File: U130729B_10 G4 C6 - 417.825
CAL CS2-7604-276 - SMT



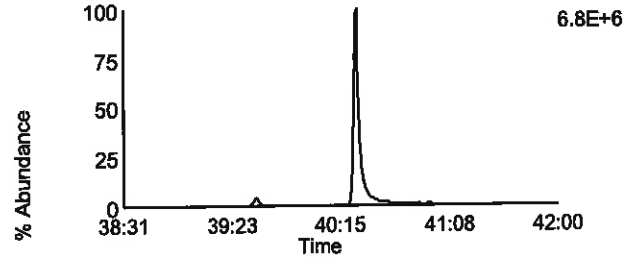
Data File: U130729B_10 G4 C11 - 435.8169
CAL CS2-7604-276 - SMT



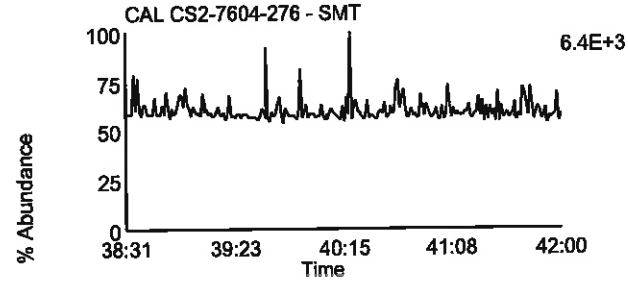
Data File: U130729B_10 G4 C7 - 419.822
CAL CS2-7604-276 - SMT



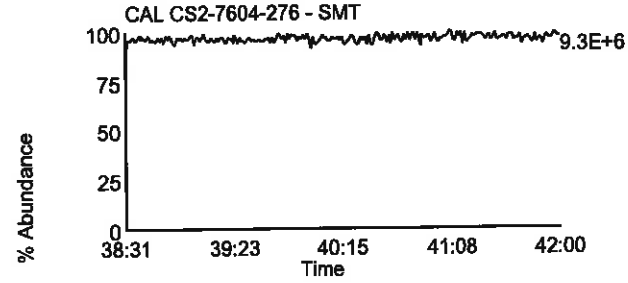
Data File: U130729B_10 G4 C12 - 437.814
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G4 C13 - 479.7165
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G4 C1 - 380.976
CAL CS2-7604-276 - SMT

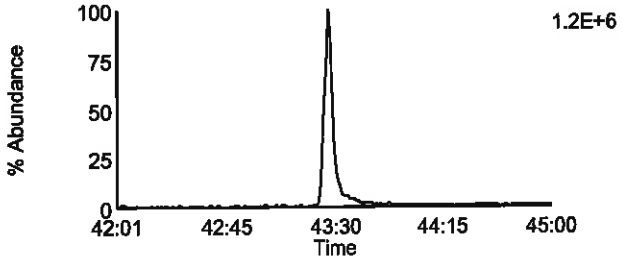


Homologue Group: Octas

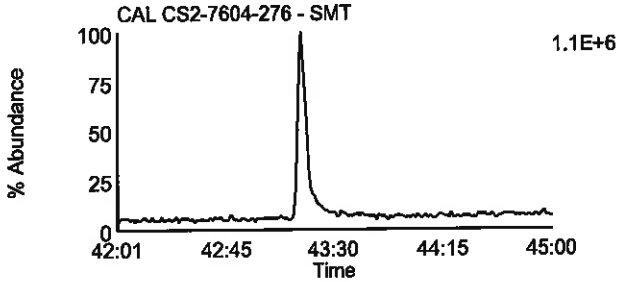
Data File Name: U130729B_10
Date Acquired: 7/29/2013
Sample Description: CAL CS2-7604-276 - SMT

Lab Sample ID: CS2-7604-276
Client Sample ID:
Instrument: 10MSHR06 (U)

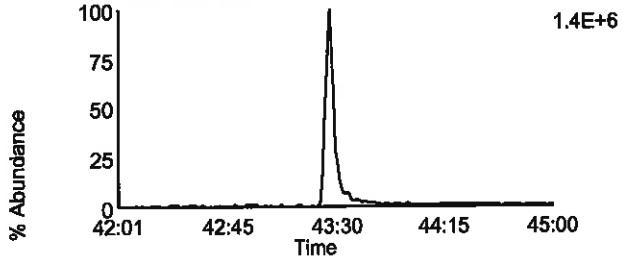
Data File: U130729B_10 G5 C4 - 441.7428
CAL CS2-7604-276 - SMT



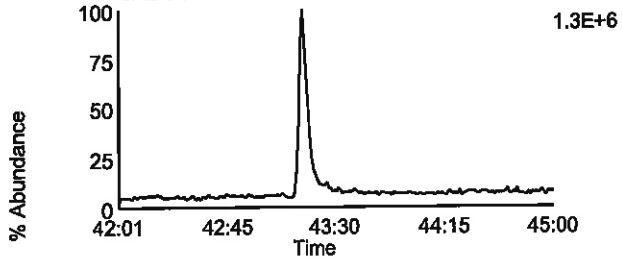
Data File: U130729B_10 G5 C8 - 457.7377
CAL CS2-7604-276 - SMT



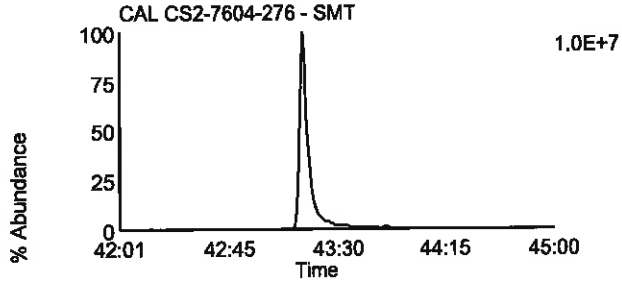
Data File: U130729B_10 G5 C5 - 443.7398
CAL CS2-7604-276 - SMT



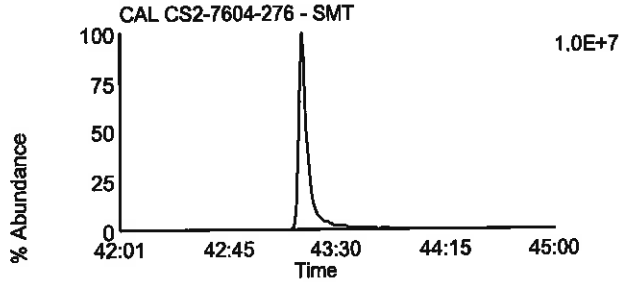
Data File: U130729B_10 G5 C9 - 459.7347
CAL CS2-7604-276 - SMT



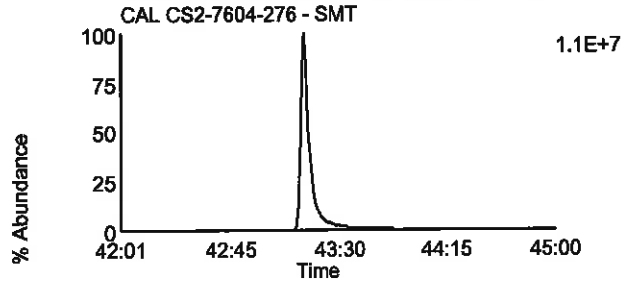
Data File: U130729B_10 G5 C11 - 469.7779
CAL CS2-7604-276 - SMT



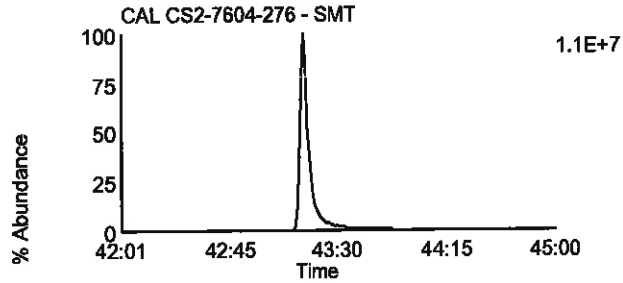
Data File: U130729B_10 G5 C11 - 469.7779
CAL CS2-7604-276 - SMT



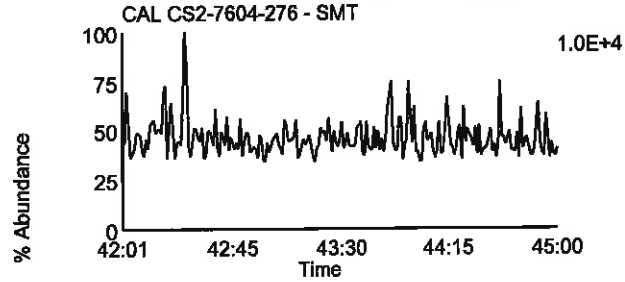
Data File: U130729B_10 G5 C12 - 471.7749
CAL CS2-7604-276 - SMT



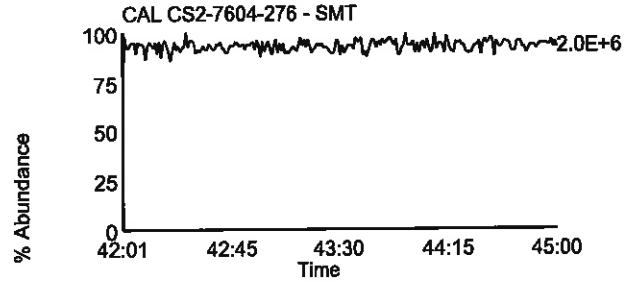
Data File: U130729B_10 G5 C12 - 471.7749
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G5 C13 - 513.6775
CAL CS2-7604-276 - SMT



Data File: U130729B_10 G5 C2 - 430.9728
CAL CS2-7604-276 - SMT

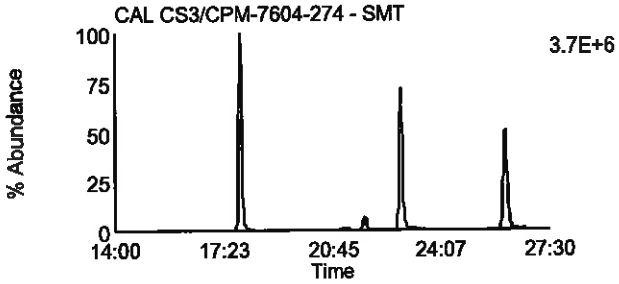


Homologue Group: Tetras

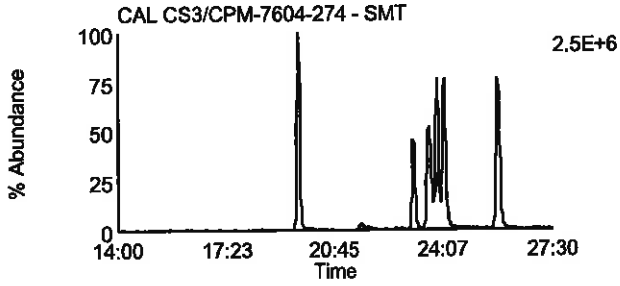
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID:
Instrument: 10MSHR06 (U)

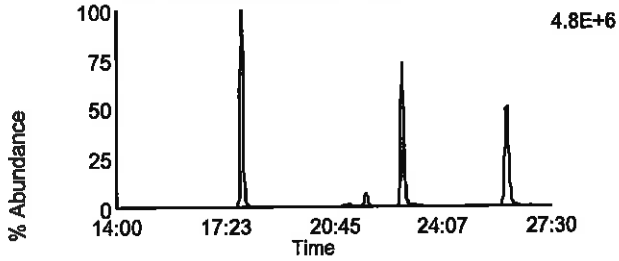
Data File: U130729B_09 G1 C1 - 303.9016
CAL CS3/CPM-7604-274 - SMT



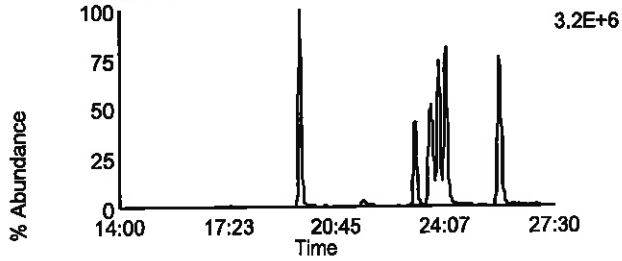
Data File: U130729B_09 G1 C7 - 319.8965
CAL CS3/CPM-7604-274 - SMT



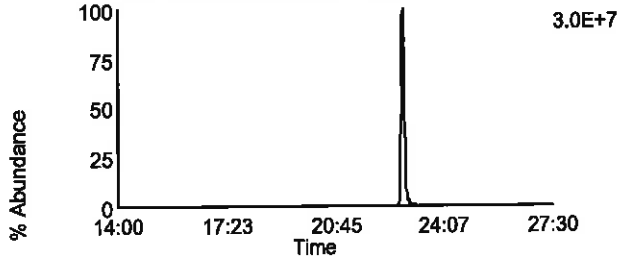
Data File: U130729B_09 G1 C2 - 305.8987
CAL CS3/CPM-7604-274 - SMT



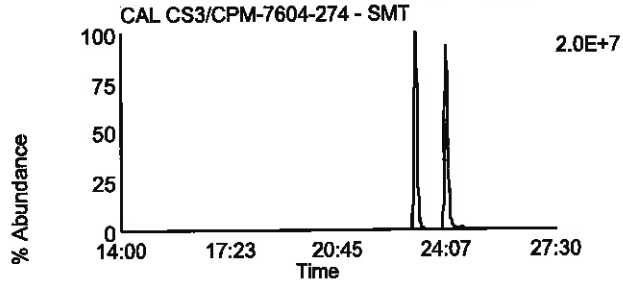
Data File: U130729B_09 G1 C8 - 321.8936
CAL CS3/CPM-7604-274 - SMT



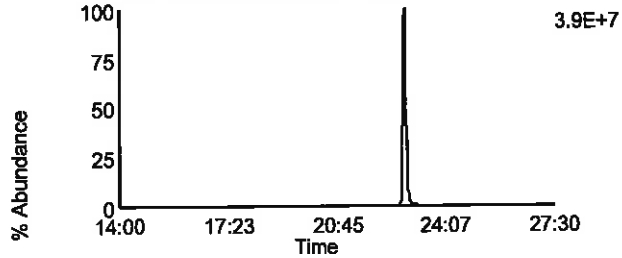
Data File: U130729B_09 G1 C3 - 315.9418
CAL CS3/CPM-7604-274 - SMT



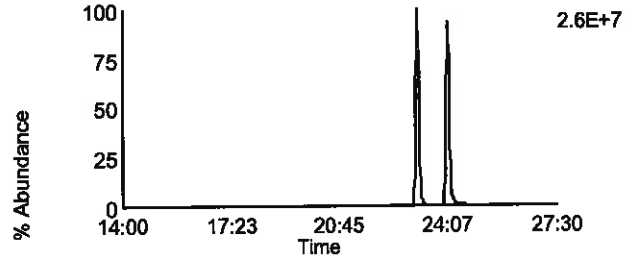
Data File: U130729B_09 G1 C10 - 331.9367
CAL CS3/CPM-7604-274 - SMT



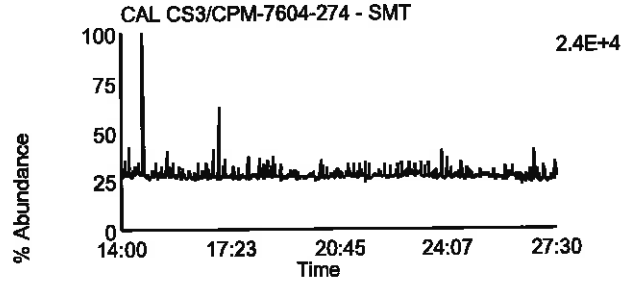
Data File: U130729B_09 G1 C4 - 317.9389
CAL CS3/CPM-7604-274 - SMT



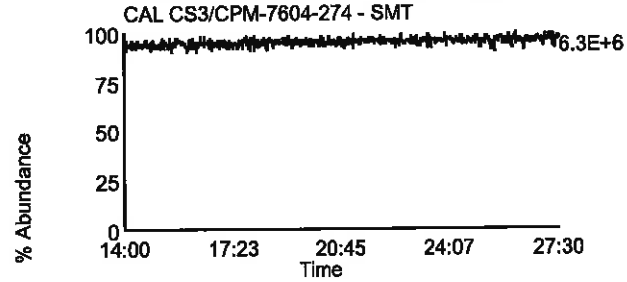
Data File: U130729B_09 G1 C11 - 333.9338
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G1 C14 - 375.8364
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G1 C5 - 318.9792
CAL CS3/CPM-7604-274 - SMT

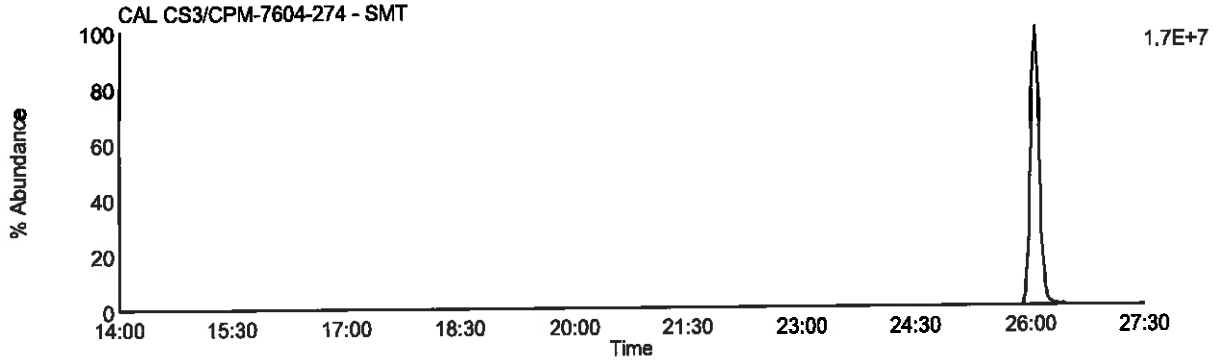


Homologue Group: Penta & Cleanup

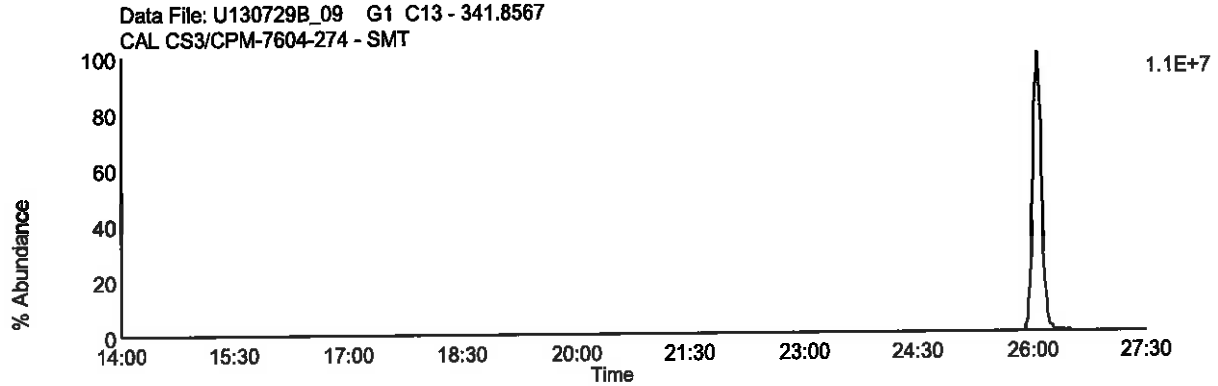
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID:
Instrument: 10MSHR06 (U)

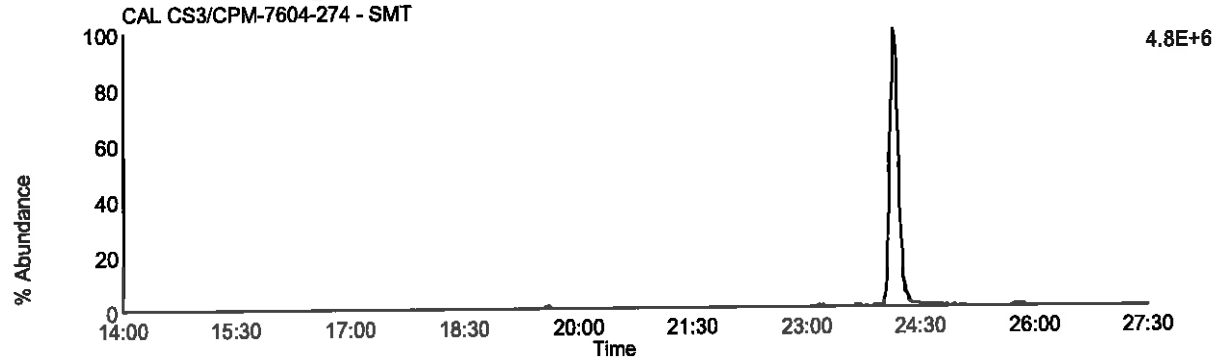
Data File: U130729B_09 G1 C12 - 339.8597
CAL CS3/CPM-7604-274 - SMT



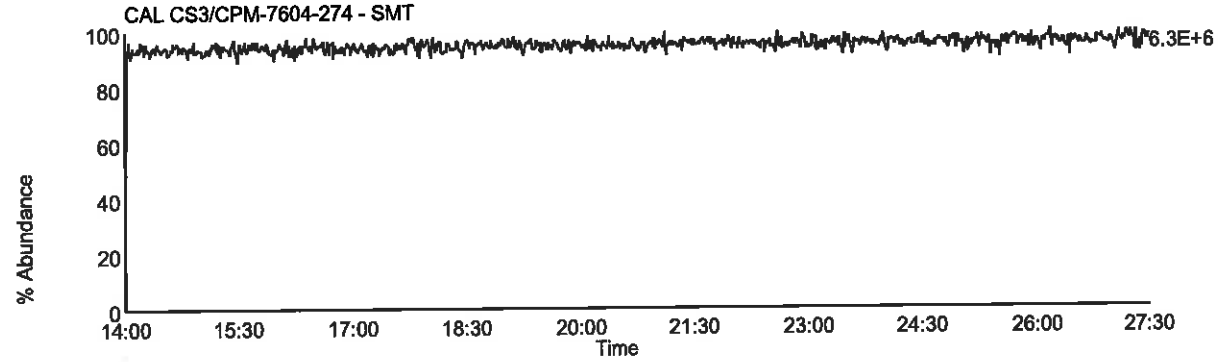
Data File: U130729B_09 G1 C13 - 341.8567
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G1 C9 - 327.8847
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G1 C5 - 318.9792
CAL CS3/CPM-7604-274 - SMT

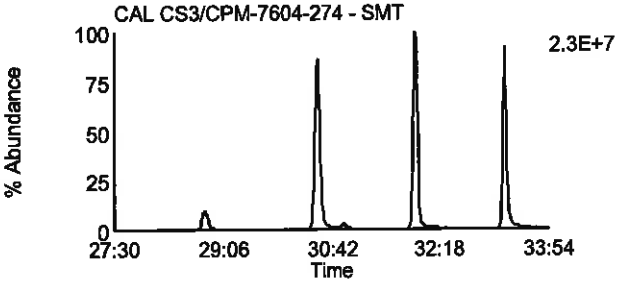


Homologue Group: Pentas

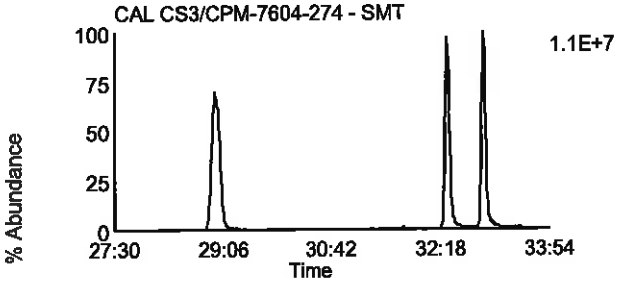
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID:
Instrument: 10MSHR06 (U)

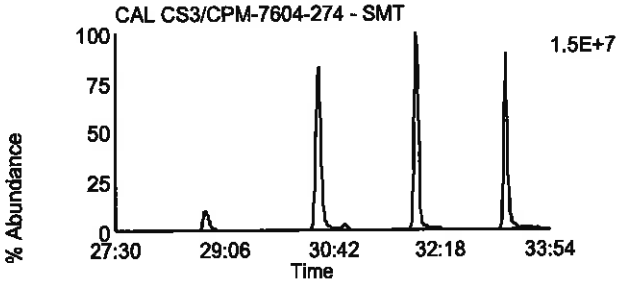
Data File: U130729B_09 G2 C1 - 339.8597
CAL CS3/CPM-7604-274 - SMT



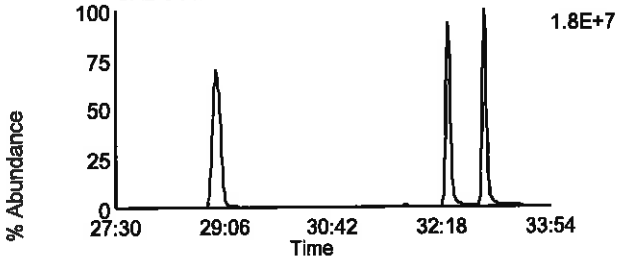
Data File: U130729B_09 G2 C4 - 353.8576
CAL CS3/CPM-7604-274 - SMT



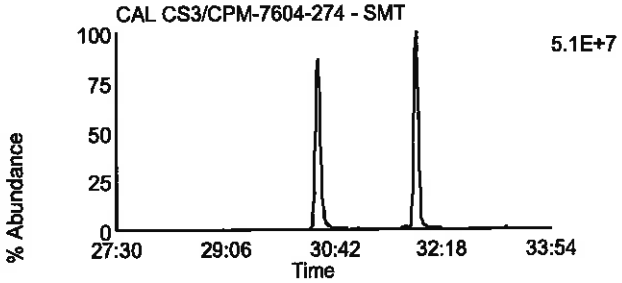
Data File: U130729B_09 G2 C2 - 341.8567
CAL CS3/CPM-7604-274 - SMT



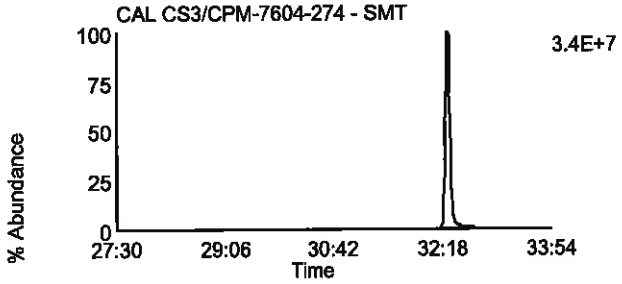
Data File: U130729B_09 G2 C8 - 355.8546
CAL CS3/CPM-7604-274 - SMT



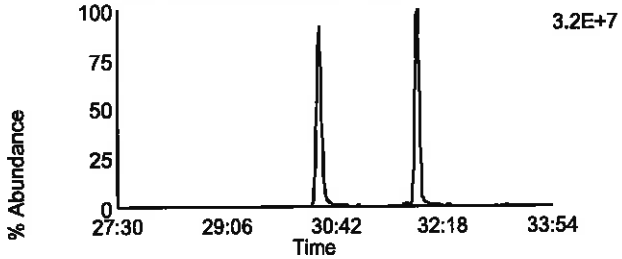
Data File: U130729B_09 G2 C3 - 351.8999
CAL CS3/CPM-7604-274 - SMT



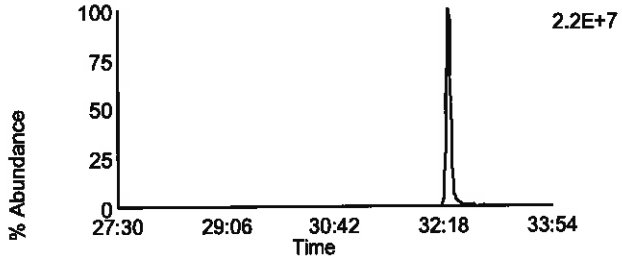
Data File: U130729B_09 G2 C10 - 367.8948
CAL CS3/CPM-7604-274 - SMT



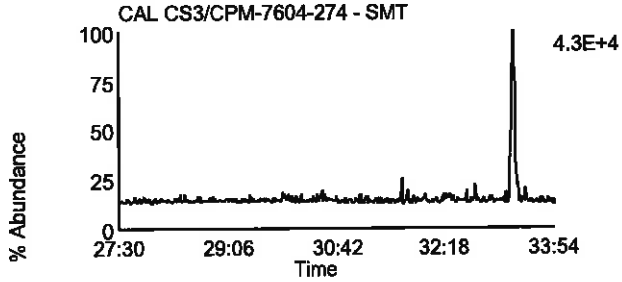
Data File: U130729B_09 G2 C5 - 353.8969
CAL CS3/CPM-7604-274 - SMT



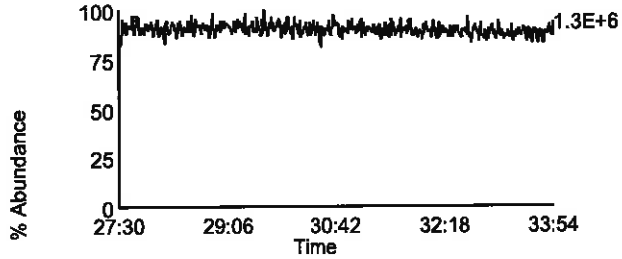
Data File: U130729B_09 G2 C11 - 369.8918
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G2 C12 - 409.7974
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G2 C6 - 354.9792
CAL CS3/CPM-7604-274 - SMT

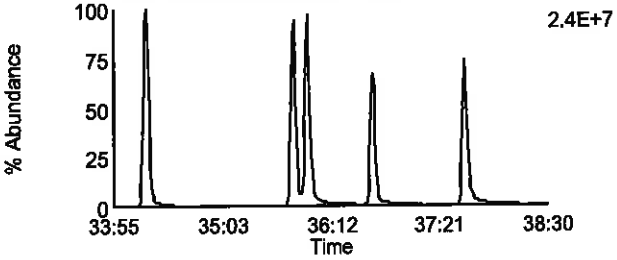


Homologue Group: Hexas

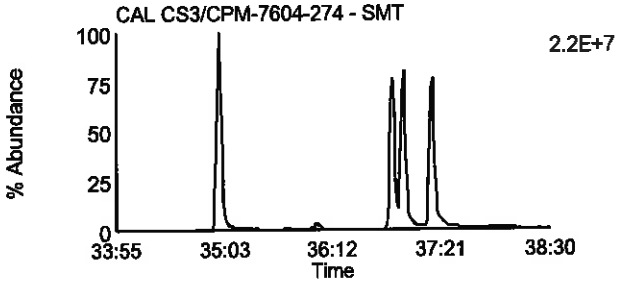
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID:
Instrument: 10MSHR06 (U)

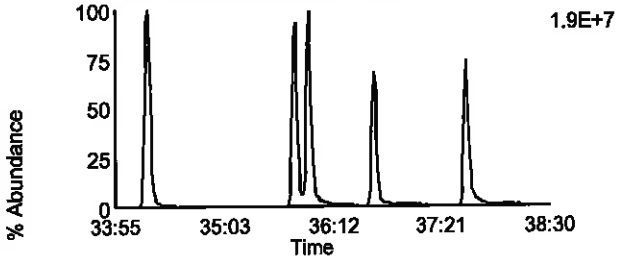
Data File: U130729B_09 G3 C1 - 373.8207
CAL CS3/CPM-7604-274 - SMT



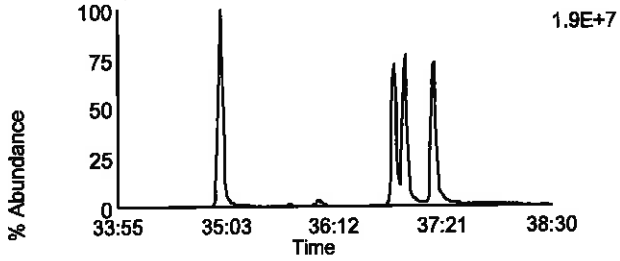
Data File: U130729B_09 G3 C7 - 389.8156
CAL CS3/CPM-7604-274 - SMT



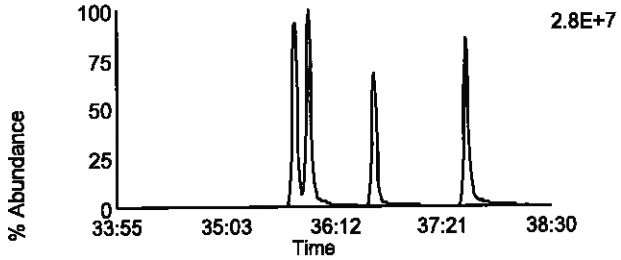
Data File: U130729B_09 G3 C2 - 375.8178
CAL CS3/CPM-7604-274 - SMT



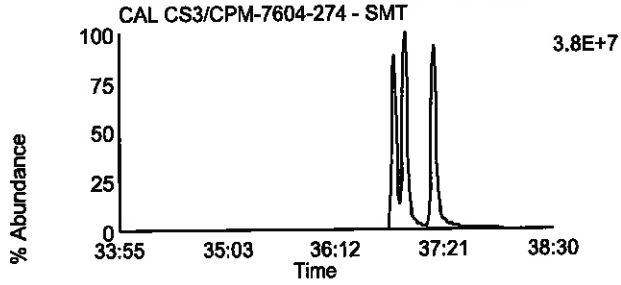
Data File: U130729B_09 G3 C8 - 391.8127
CAL CS3/CPM-7604-274 - SMT



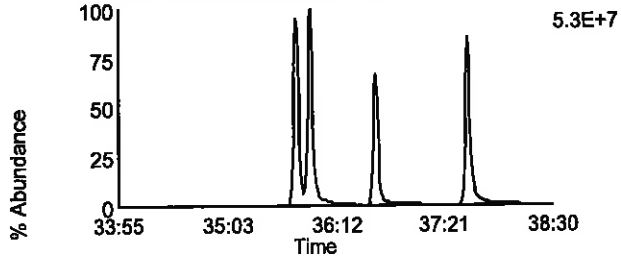
Data File: U130729B_09 G3 C5 - 383.8639
CAL CS3/CPM-7604-274 - SMT



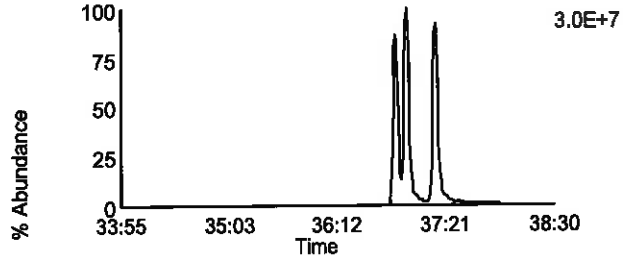
Data File: U130729B_09 G3 C9 - 401.8559
CAL CS3/CPM-7604-274 - SMT



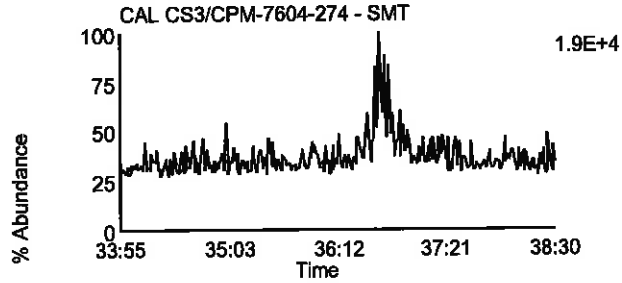
Data File: U130729B_09 G3 C6 - 385.861
CAL CS3/CPM-7604-274 - SMT



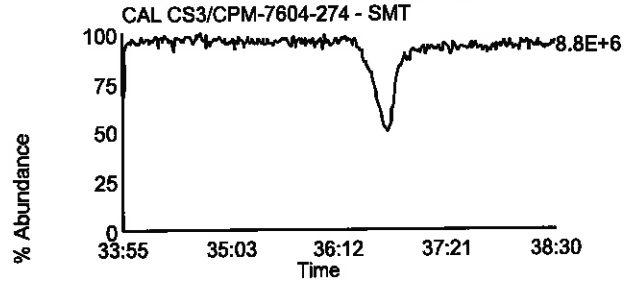
Data File: U130729B_09 G3 C10 - 403.8529
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G3 C11 - 445.7555
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G3 C3 - 380.976
CAL CS3/CPM-7604-274 - SMT

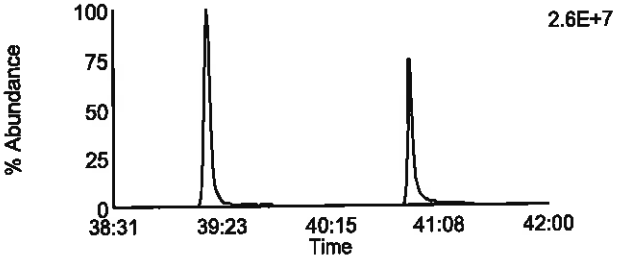


Homologue Group: Heptas

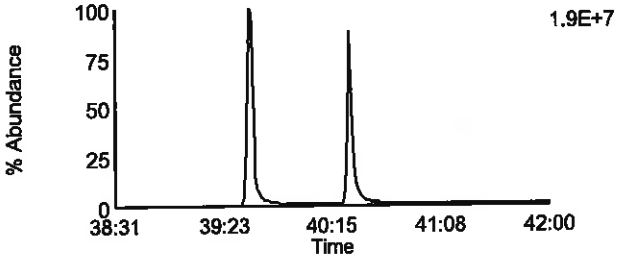
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID:
Instrument: 10MSHR06 (U)

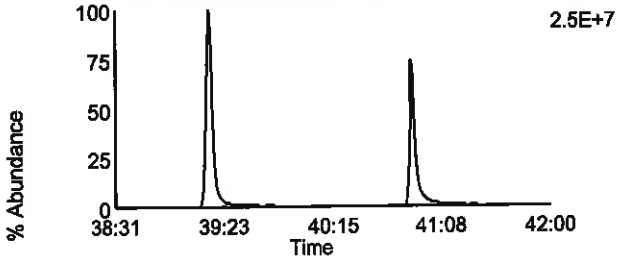
Data File: U130729B_09 G4 C3 - 407.7818
CAL CS3/CPM-7604-274 - SMT



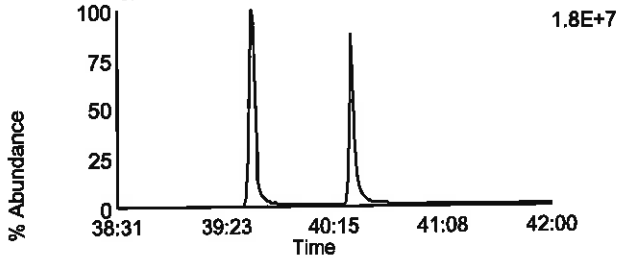
Data File: U130729B_09 G4 C8 - 423.7767
CAL CS3/CPM-7604-274 - SMT



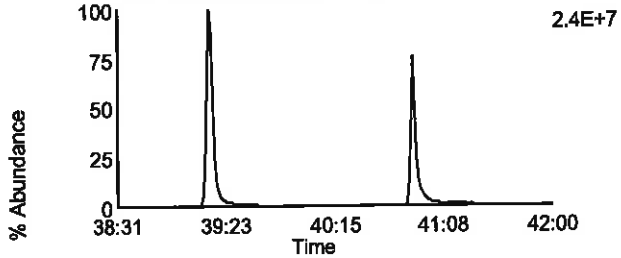
Data File: U130729B_09 G4 C4 - 409.7788
CAL CS3/CPM-7604-274 - SMT



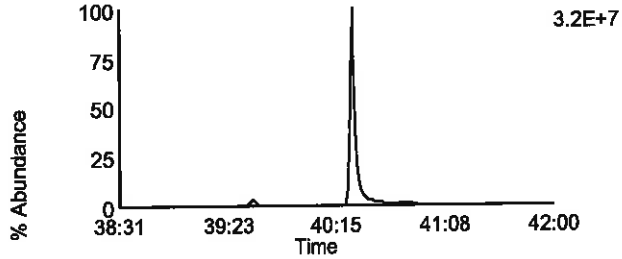
Data File: U130729B_09 G4 C9 - 425.7737
CAL CS3/CPM-7604-274 - SMT



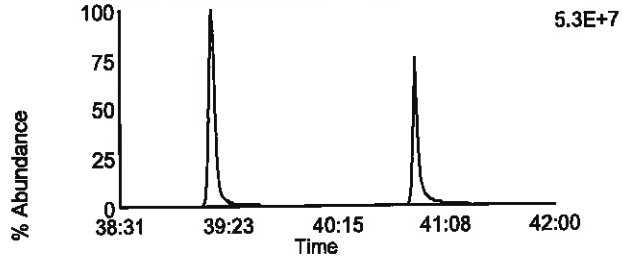
Data File: U130729B_09 G4 C6 - 417.825
CAL CS3/CPM-7604-274 - SMT



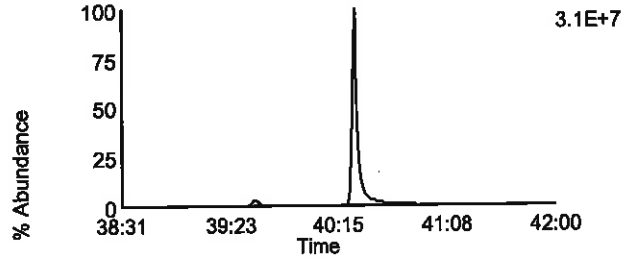
Data File: U130729B_09 G4 C11 - 435.8169
CAL CS3/CPM-7604-274 - SMT



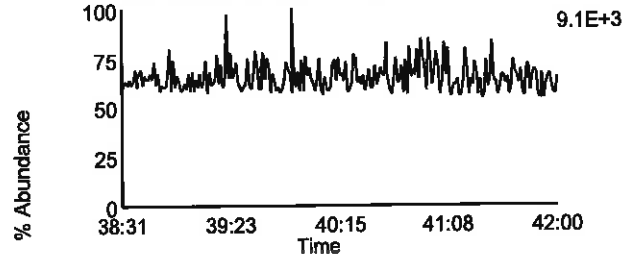
Data File: U130729B_09 G4 C7 - 419.822
CAL CS3/CPM-7604-274 - SMT



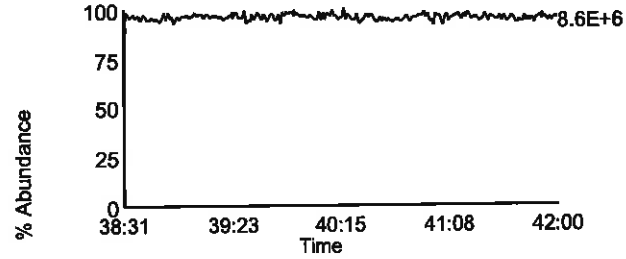
Data File: U130729B_09 G4 C12 - 437.814
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G4 C13 - 479.7165
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G4 C1 - 380.976
CAL CS3/CPM-7604-274 - SMT

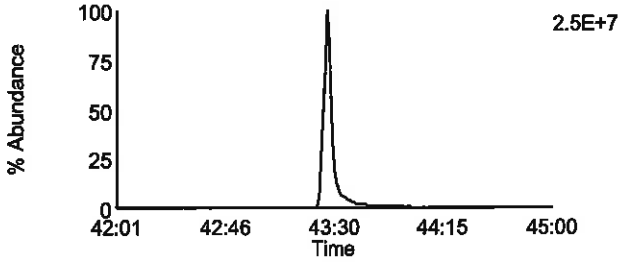


Homologue Group: Octas

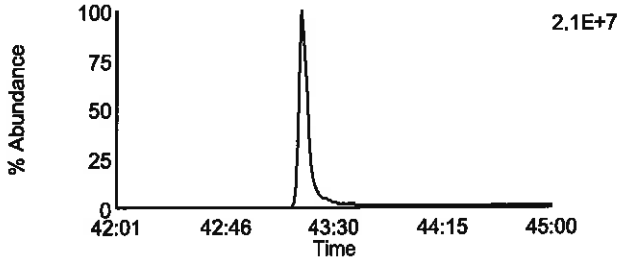
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID:
Instrument: 10MSHR06 (U)

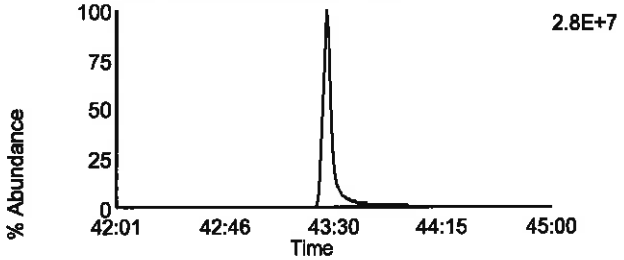
Data File: U130729B_09 G5 C4 - 441.7428
CAL CS3/CPM-7604-274 - SMT



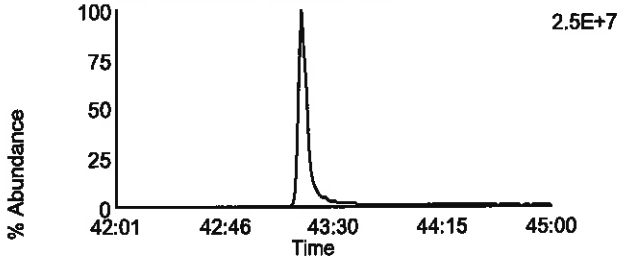
Data File: U130729B_09 G5 C8 - 457.7377
CAL CS3/CPM-7604-274 - SMT



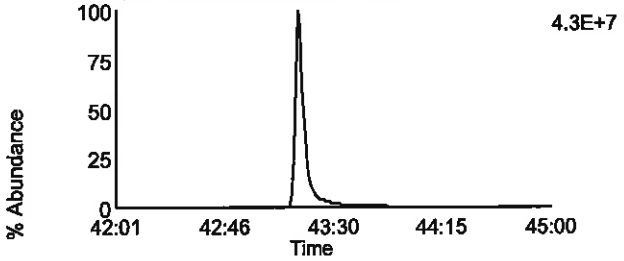
Data File: U130729B_09 G5 C5 - 443.7398
CAL CS3/CPM-7604-274 - SMT



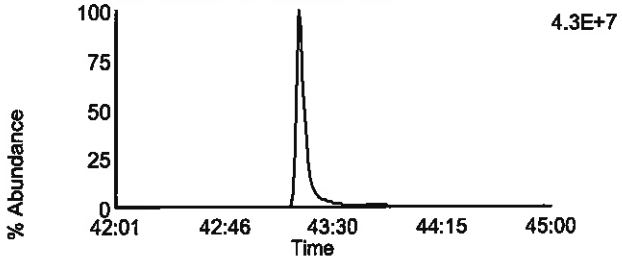
Data File: U130729B_09 G5 C9 - 459.7347
CAL CS3/CPM-7604-274 - SMT



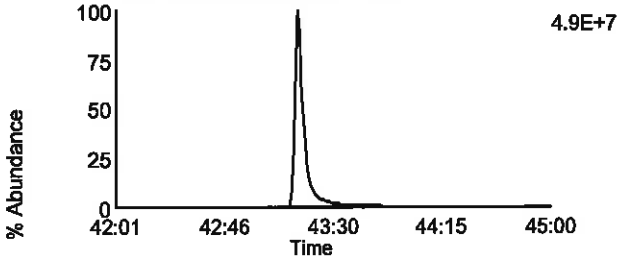
Data File: U130729B_09 G5 C11 - 469.7779
CAL CS3/CPM-7604-274 - SMT



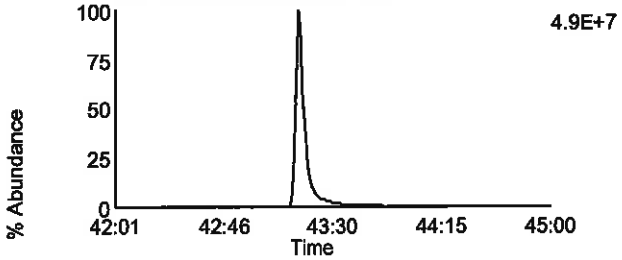
Data File: U130729B_09 G5 C11 - 469.7779
CAL CS3/CPM-7604-274 - SMT



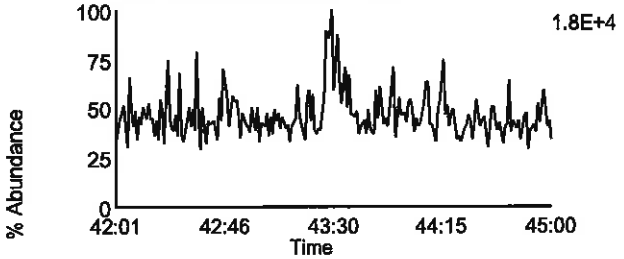
Data File: U130729B_09 G5 C12 - 471.7749
CAL CS3/CPM-7604-274 - SMT



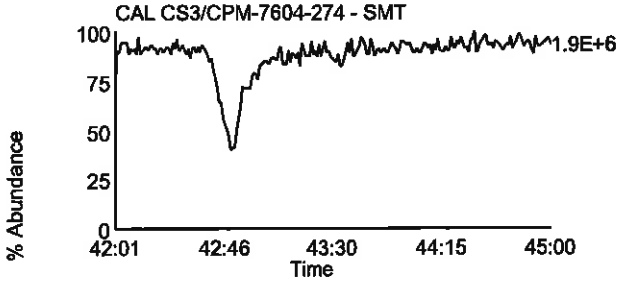
Data File: U130729B_09 G5 C12 - 471.7749
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G5 C13 - 513.6775
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G5 C2 - 430.9728
CAL CS3/CPM-7604-274 - SMT

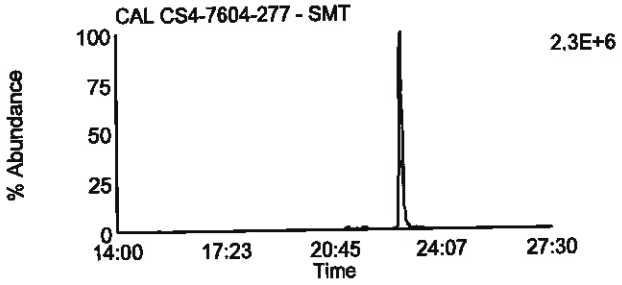


Homologue Group: Tetras

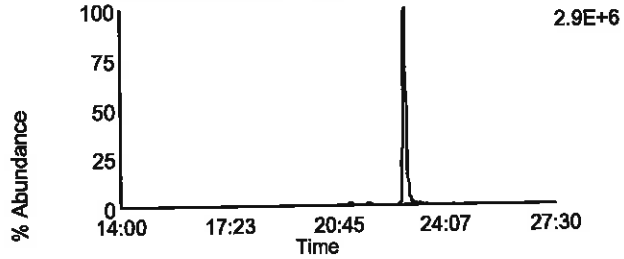
Data File Name: U130729B_13
Date Acquired: 7/30/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR06 (U)

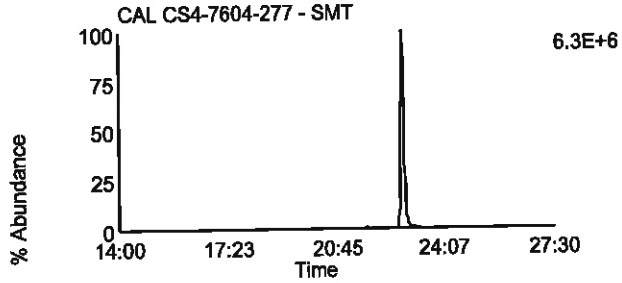
Data File: U130729B_13 G1 C1 - 303.9016
CAL CS4-7604-277 - SMT



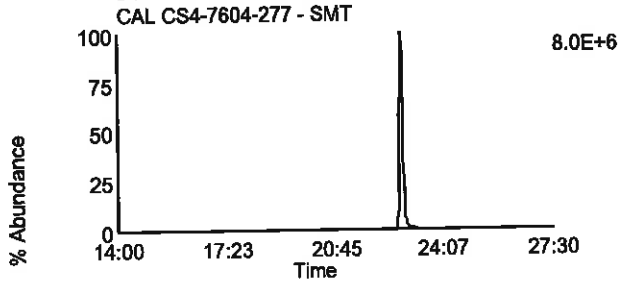
Data File: U130729B_13 G1 C2 - 305.8987
CAL CS4-7604-277 - SMT



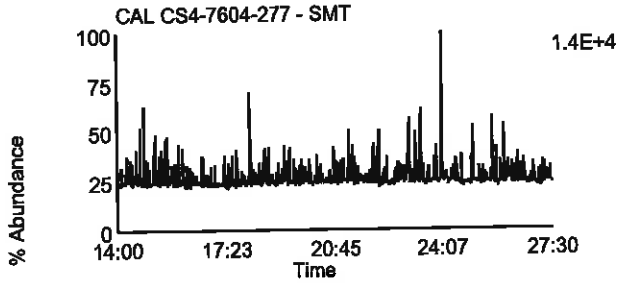
Data File: U130729B_13 G1 C3 - 315.9418
CAL CS4-7604-277 - SMT



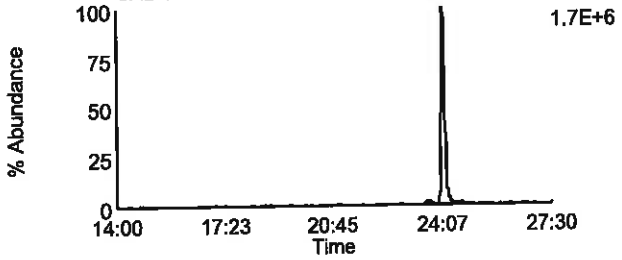
Data File: U130729B_13 G1 C4 - 317.9389
CAL CS4-7604-277 - SMT



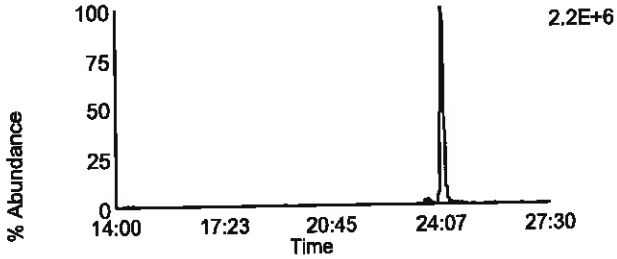
Data File: U130729B_13 G1 C14 - 375.8364
CAL CS4-7604-277 - SMT



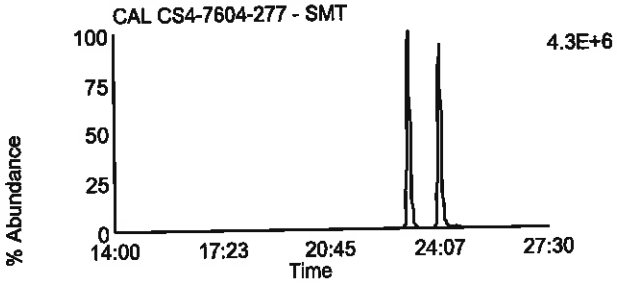
Data File: U130729B_13 G1 C7 - 319.8965
CAL CS4-7604-277 - SMT



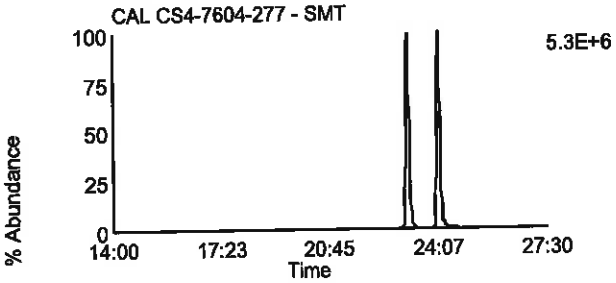
Data File: U130729B_13 G1 C8 - 321.8936
CAL CS4-7604-277 - SMT



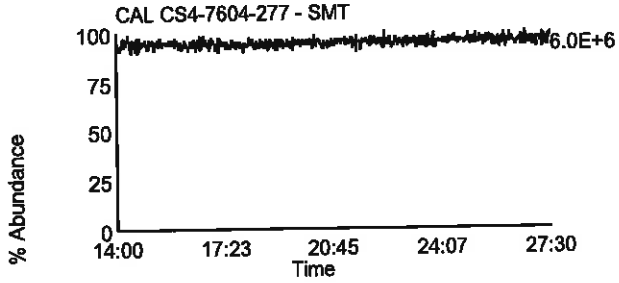
Data File: U130729B_13 G1 C10 - 331.9367
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G1 C11 - 333.9338
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G1 C5 - 318.9792
CAL CS4-7604-277 - SMT

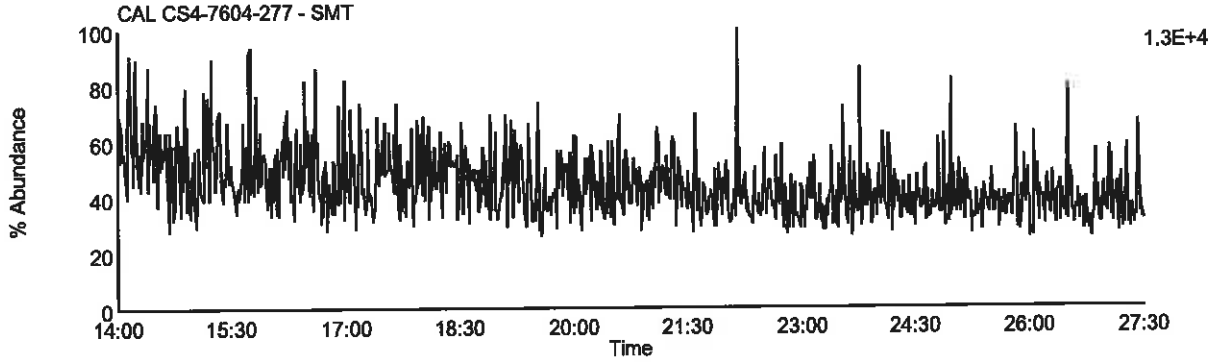


Homologue Group: Penta & Cleanup

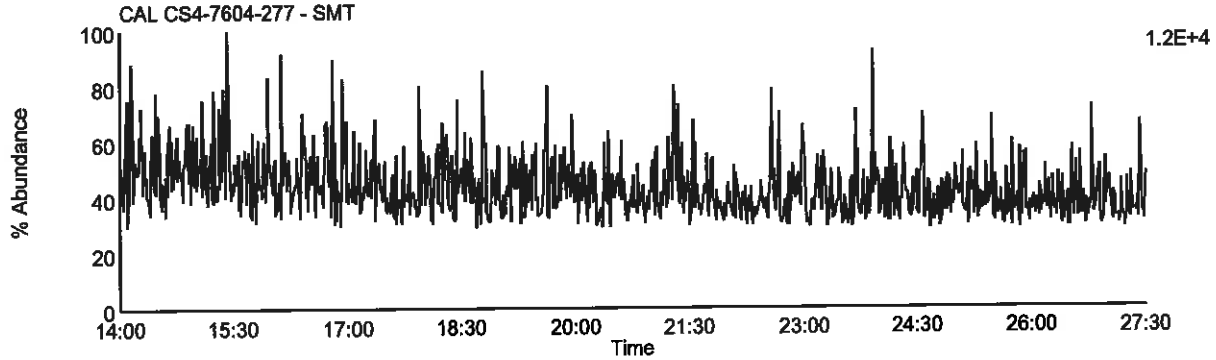
Data File Name: U130729B_13
Date Acquired: 7/30/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR06 (U)

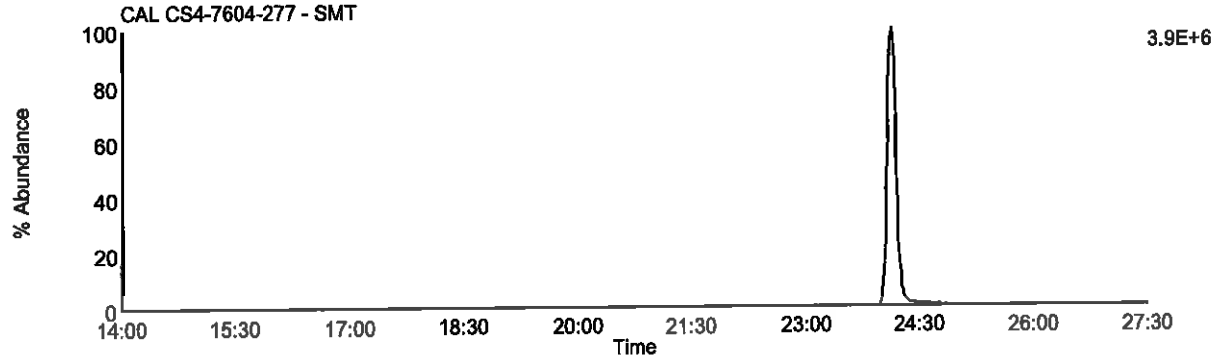
Data File: U130729B_13 G1 C12 - 339.8597
CAL CS4-7604-277 - SMT



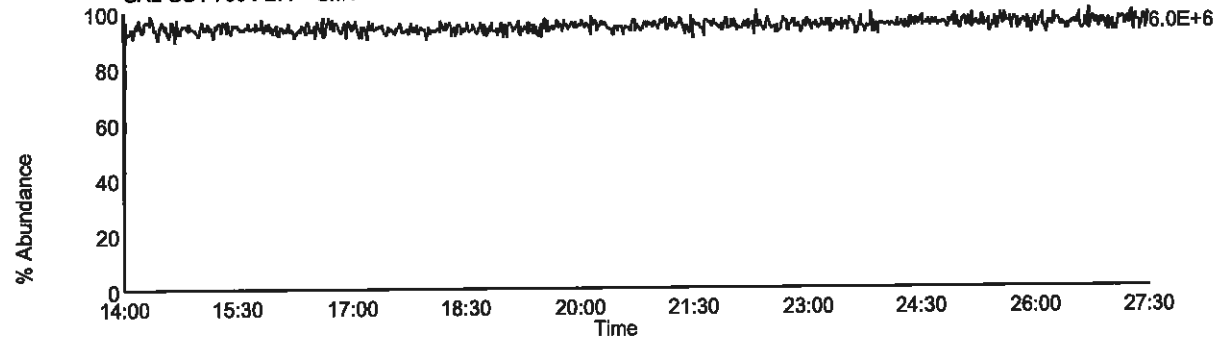
Data File: U130729B_13 G1 C13 - 341.8567
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G1 C9 - 327.8847
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G1 C5 - 318.9792
CAL CS4-7604-277 - SMT

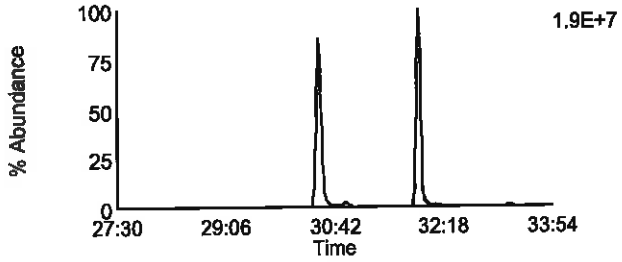


Homologue Group: Pentas

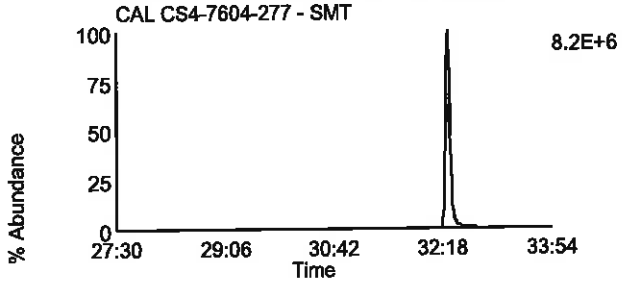
Data File Name: U130729B_13
Date Acquired: 7/30/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR06 (U)

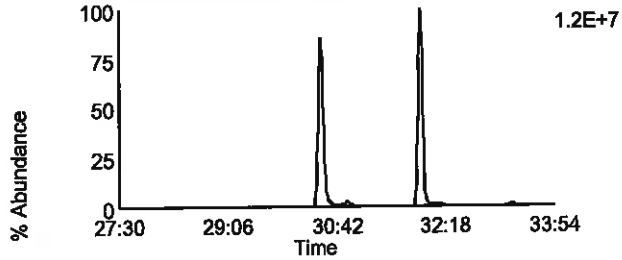
Data File: U130729B_13 G2 C1 - 339.8597
CAL CS4-7604-277 - SMT



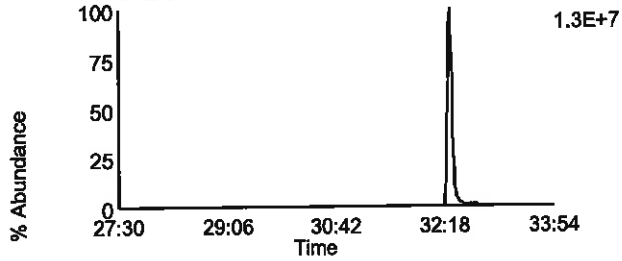
Data File: U130729B_13 G2 C4 - 353.8576
CAL CS4-7604-277 - SMT



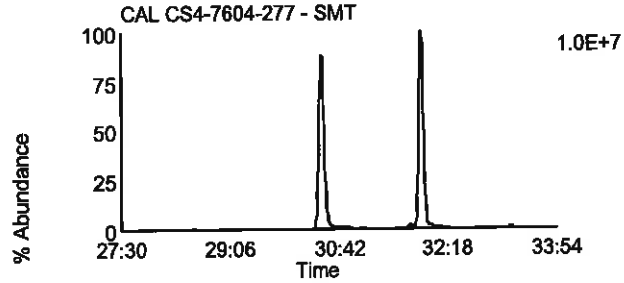
Data File: U130729B_13 G2 C2 - 341.8567
CAL CS4-7604-277 - SMT



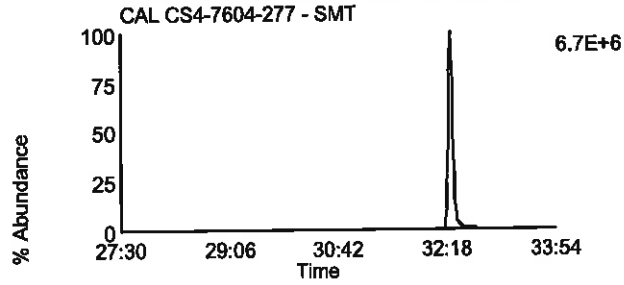
Data File: U130729B_13 G2 C8 - 355.8546
CAL CS4-7604-277 - SMT



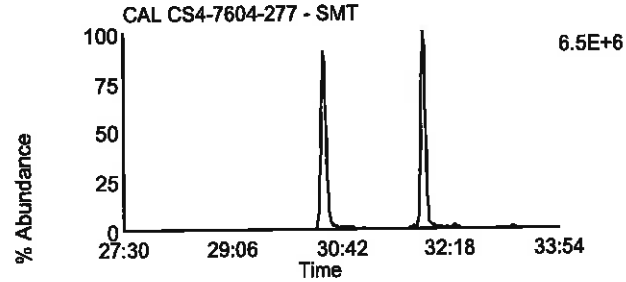
Data File: U130729B_13 G2 C3 - 351.8999
CAL CS4-7604-277 - SMT



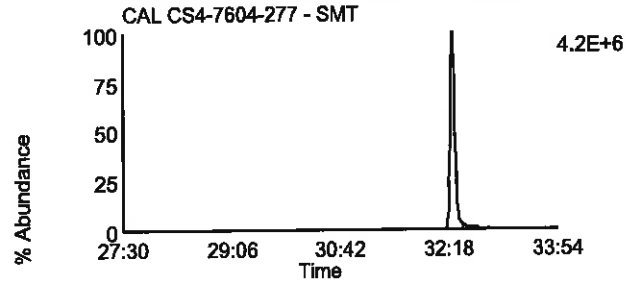
Data File: U130729B_13 G2 C10 - 367.8948
CAL CS4-7604-277 - SMT



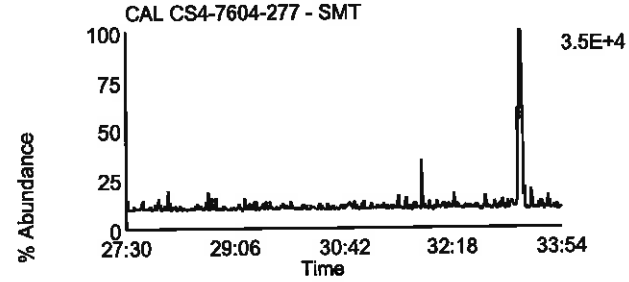
Data File: U130729B_13 G2 C5 - 353.8969
CAL CS4-7604-277 - SMT



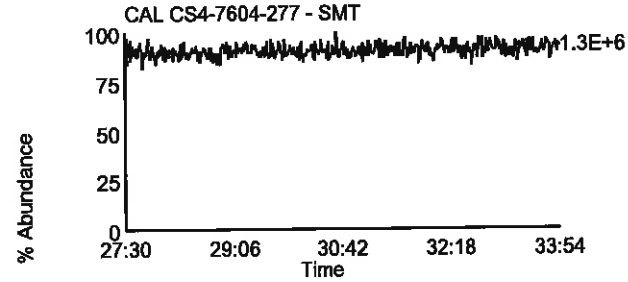
Data File: U130729B_13 G2 C11 - 369.8918
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G2 C12 - 409.7974
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G2 C6 - 354.9792
CAL CS4-7604-277 - SMT

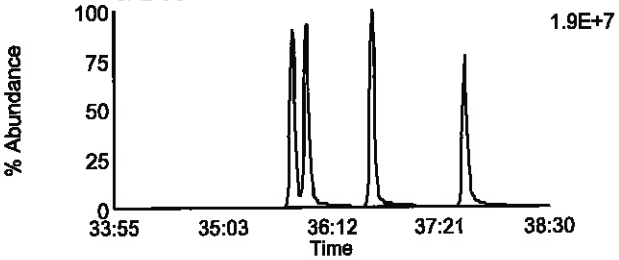


Homologue Group: Hexas

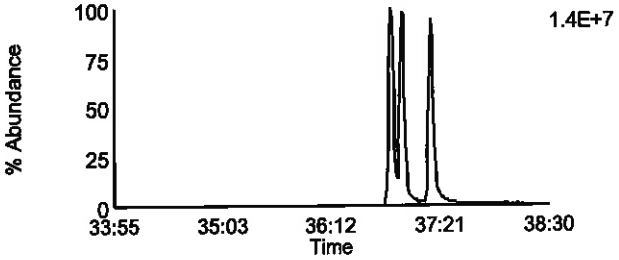
Data File Name: U130729B_13
Date Acquired: 7/30/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR06 (U)

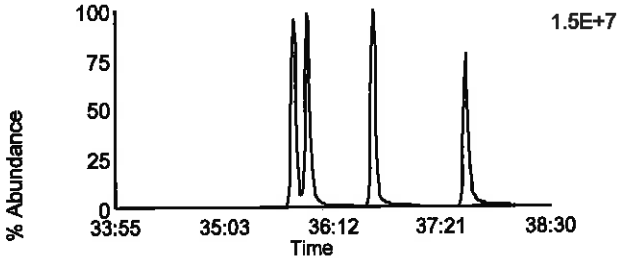
Data File: U130729B_13 G3 C1 - 373.8207
CAL CS4-7604-277 - SMT



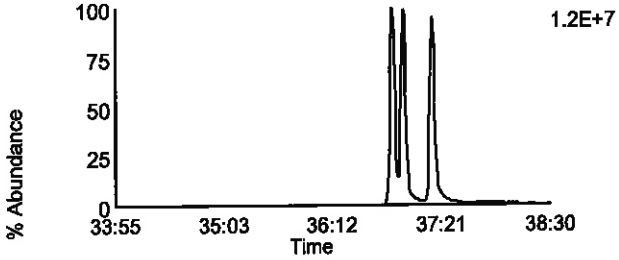
Data File: U130729B_13 G3 C7 - 389.8156
CAL CS4-7604-277 - SMT



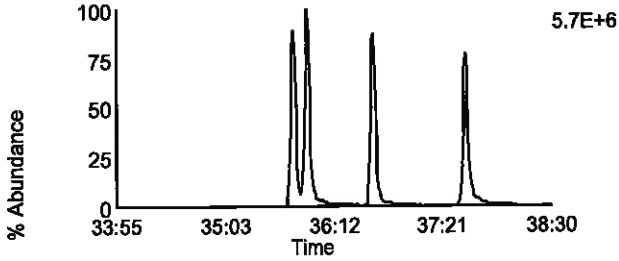
Data File: U130729B_13 G3 C2 - 375.8178
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G3 C8 - 391.8127
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G3 C5 - 383.8639
CAL CS4-7604-277 - SMT



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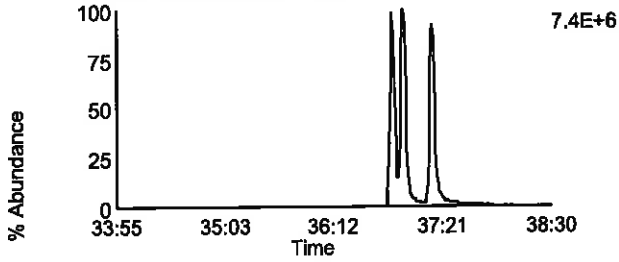
CAL CS4-7604-277 - SMT



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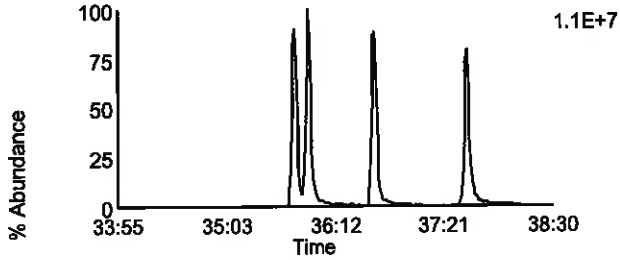
CAL CS4-7604-277 - SMT



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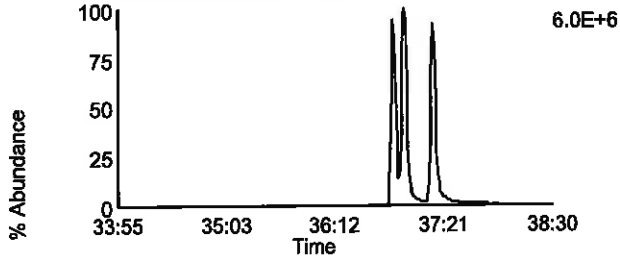
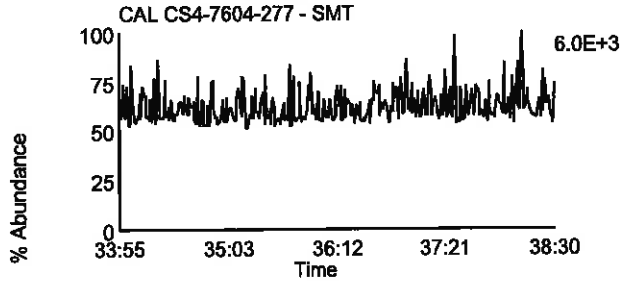
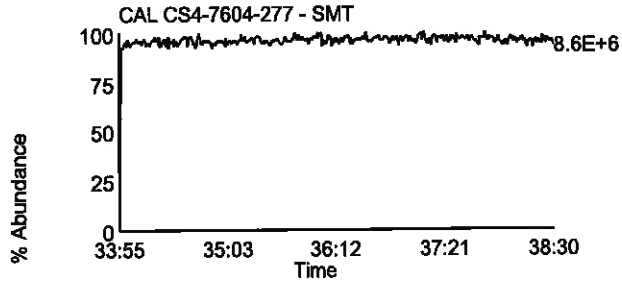
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G3 C11 - 445.7555
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G3 C3 - 380.976
CAL CS4-7604-277 - SMT

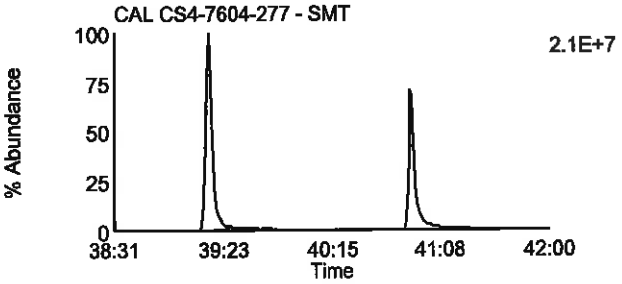


Homologue Group: Heptas

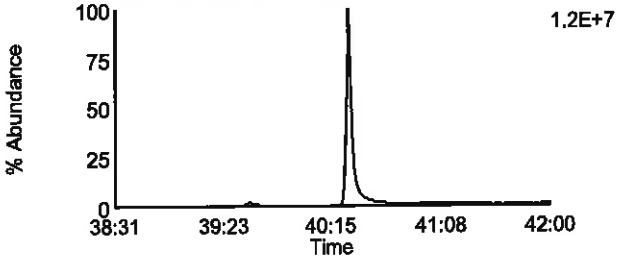
Data File Name: U130729B_13
Date Acquired: 7/30/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR06 (U)

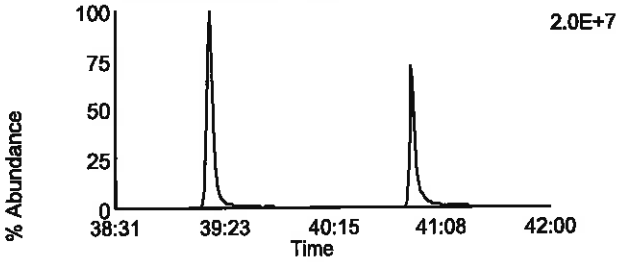
Data File: U130729B_13 G4 C3 - 407.7818
CAL CS4-7604-277 - SMT



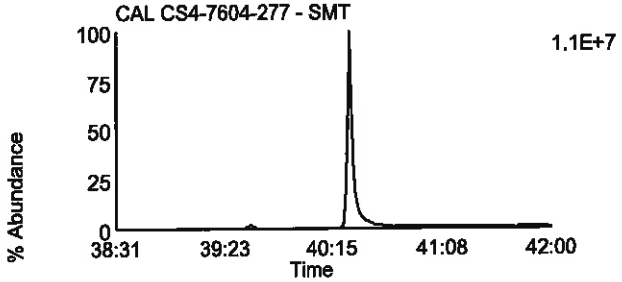
Data File: U130729B_13 G4 C8 - 423.7767
CAL CS4-7604-277 - SMT



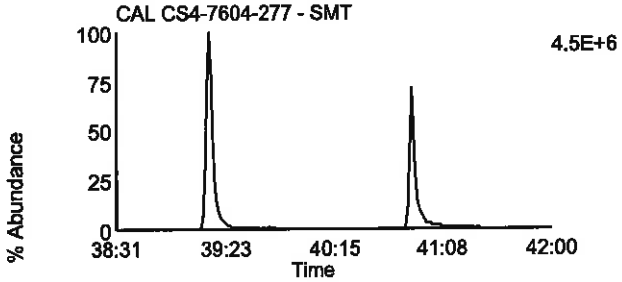
Data File: U130729B_13 G4 C4 - 409.7788
CAL CS4-7604-277 - SMT



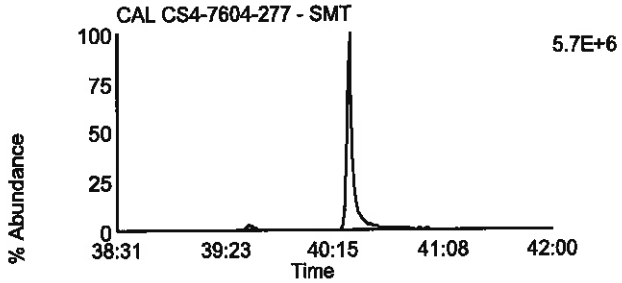
Data File: U130729B_13 G4 C9 - 425.7737
CAL CS4-7604-277 - SMT



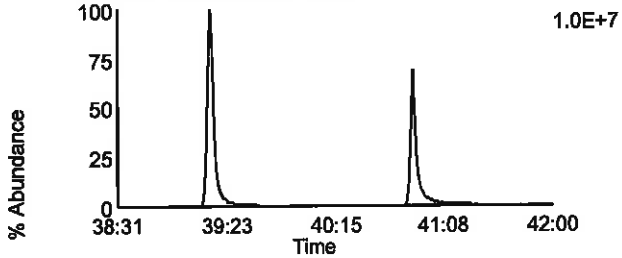
Data File: U130729B_13 G4 C6 - 417.825
CAL CS4-7604-277 - SMT



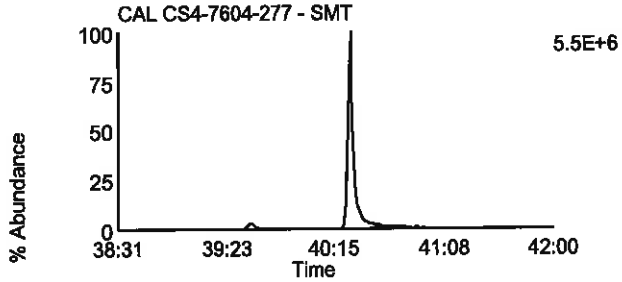
Data File: U130729B_13 G4 C11 - 435.8169
CAL CS4-7604-277 - SMT



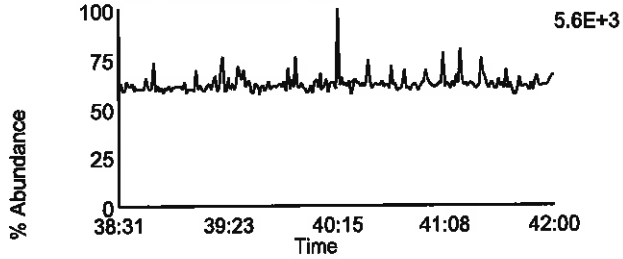
Data File: U130729B_13 G4 C7 - 419.822
CAL CS4-7604-277 - SMT



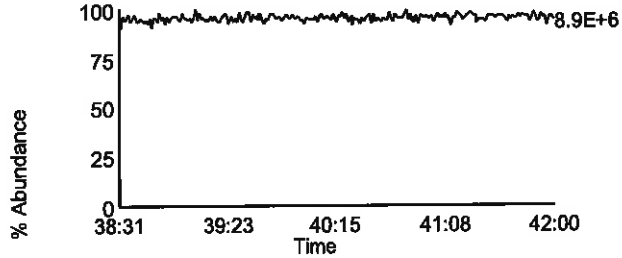
Data File: U130729B_13 G4 C12 - 437.814
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G4 C13 - 479.7165
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G4 C1 - 380.976
CAL CS4-7604-277 - SMT

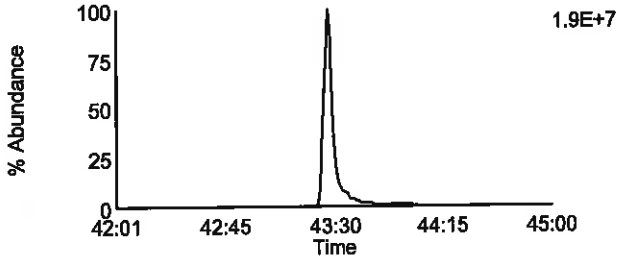


Homologue Group: Octas

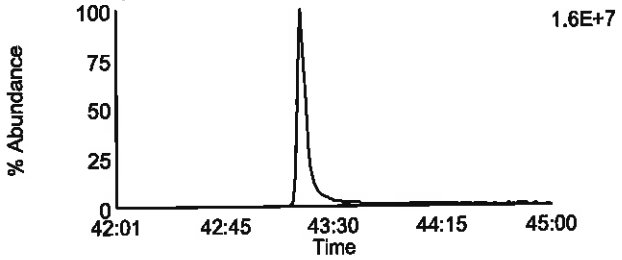
Data File Name: U130729B_13
Date Acquired: 7/30/2013
Sample Description: CAL CS4-7604-277 - SMT

Lab Sample ID: CS4-7604-277
Client Sample ID:
Instrument: 10MSHR06 (U)

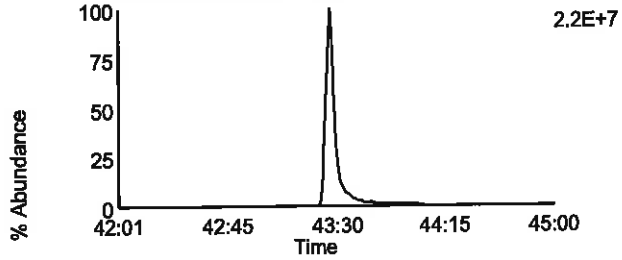
Data File: U130729B_13 G5 C4 - 441.7428
CAL CS4-7604-277 - SMT



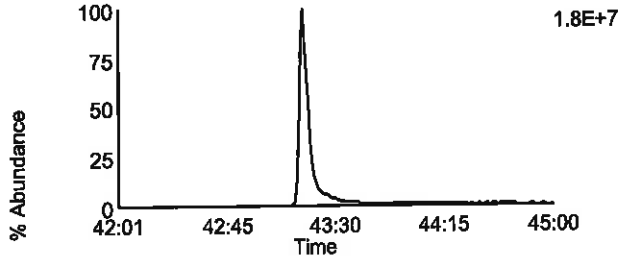
Data File: U130729B_13 G5 C8 - 457.7377
CAL CS4-7604-277 - SMT



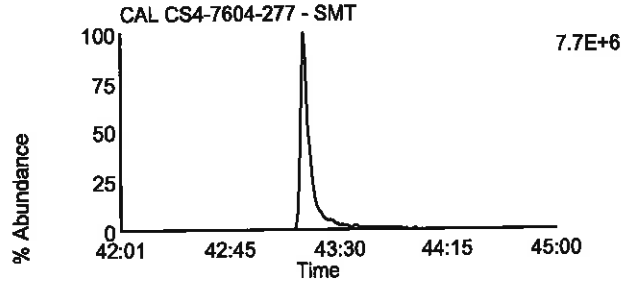
Data File: U130729B_13 G5 C5 - 443.7398
CAL CS4-7604-277 - SMT



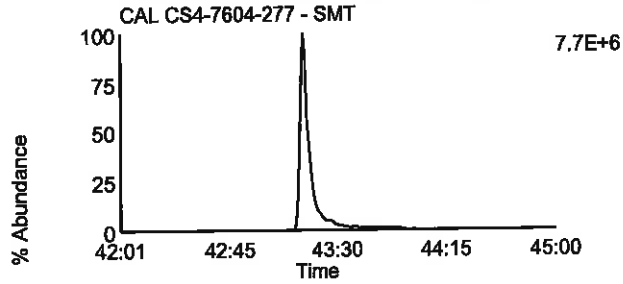
Data File: U130729B_13 G5 C9 - 459.7347
CAL CS4-7604-277 - SMT



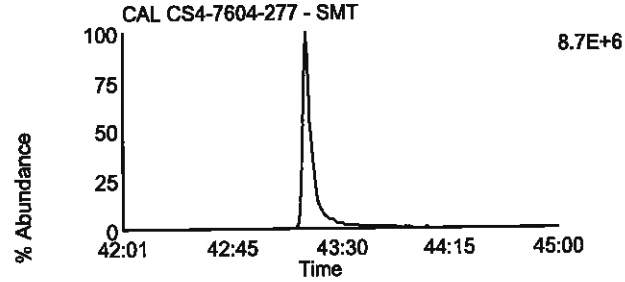
Data File: U130729B_13 G5 C11 - 469.7779
CAL CS4-7604-277 - SMT



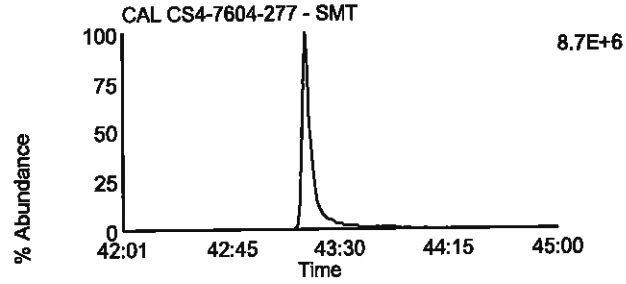
Data File: U130729B_13 G5 C11 - 469.7779
CAL CS4-7604-277 - SMT



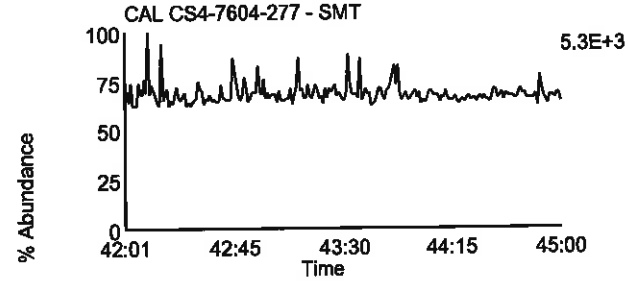
Data File: U130729B_13 G5 C12 - 471.7749
CAL CS4-7604-277 - SMT



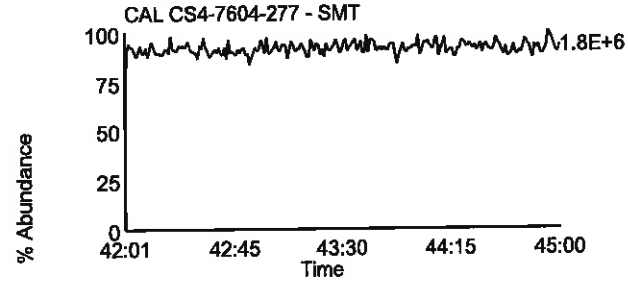
Data File: U130729B_13 G5 C12 - 471.7749
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G5 C13 - 513.6775
CAL CS4-7604-277 - SMT



Data File: U130729B_13 G5 C2 - 430.9728
CAL CS4-7604-277 - SMT

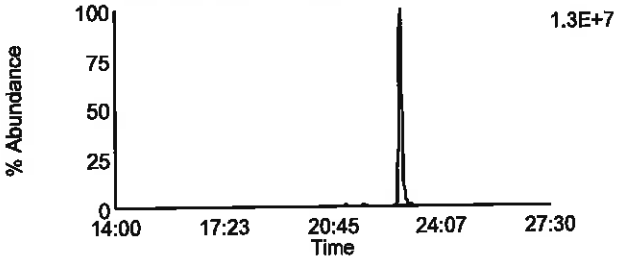


Homologue Group: Tetras

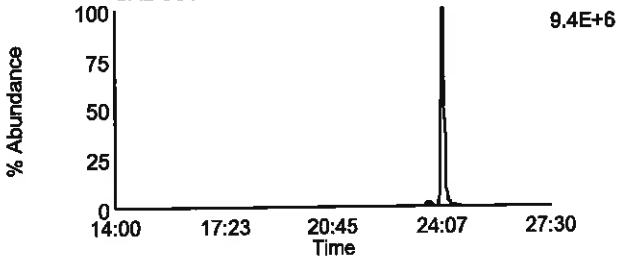
Data File Name: U130729B_12
Date Acquired: 7/30/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR06 (U)

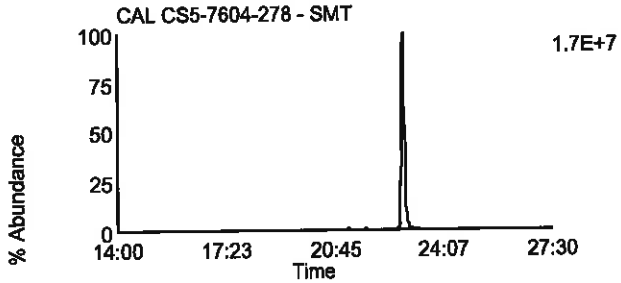
Data File: U130729B_12 G1 C1 - 303.9016
CAL CS5-7604-278 - SMT



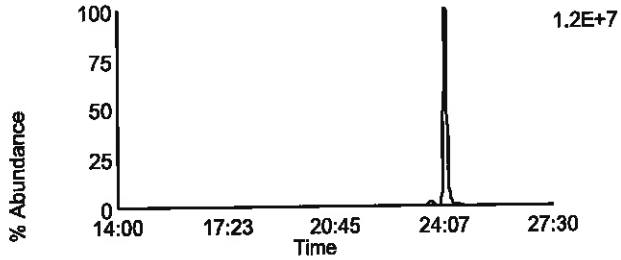
Data File: U130729B_12 G1 C7 - 319.8965
CAL CS5-7604-278 - SMT



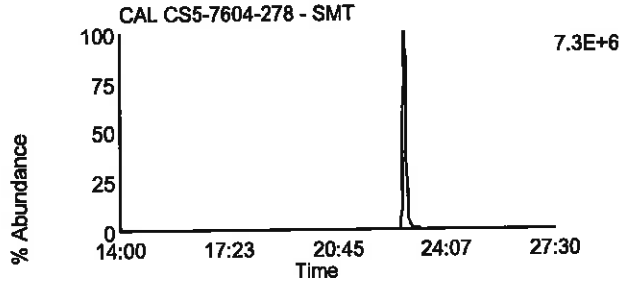
Data File: U130729B_12 G1 C2 - 305.8987
CAL CS5-7604-278 - SMT



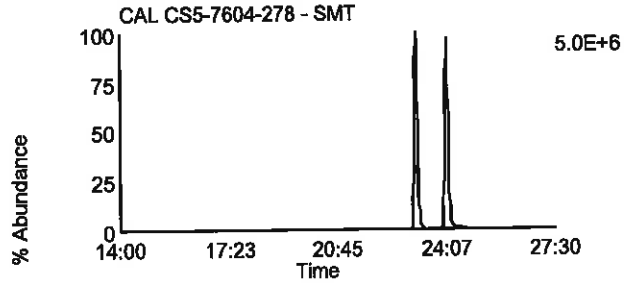
Data File: U130729B_12 G1 C8 - 321.8936
CAL CS5-7604-278 - SMT



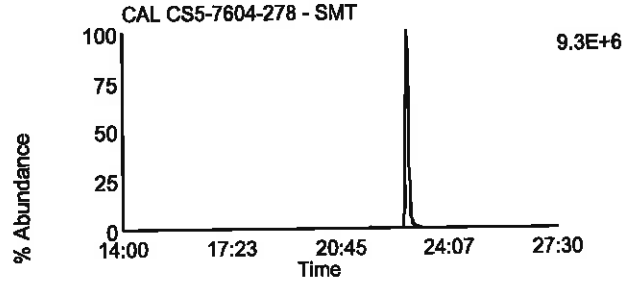
Data File: U130729B_12 G1 C3 - 315.9418
CAL CS5-7604-278 - SMT



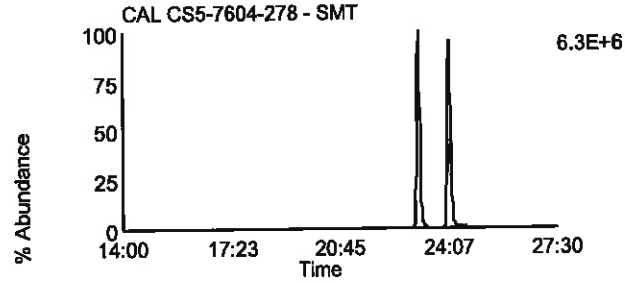
Data File: U130729B_12 G1 C10 - 331.9367
CAL CS5-7604-278 - SMT



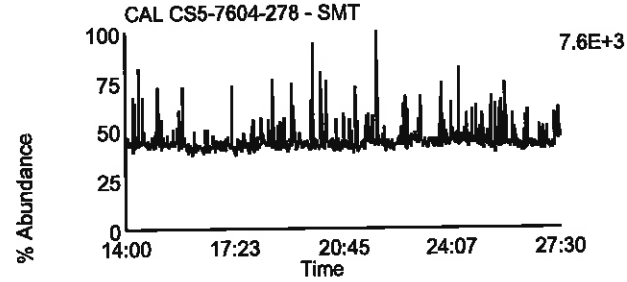
Data File: U130729B_12 G1 C4 - 317.9389
CAL CS5-7604-278 - SMT



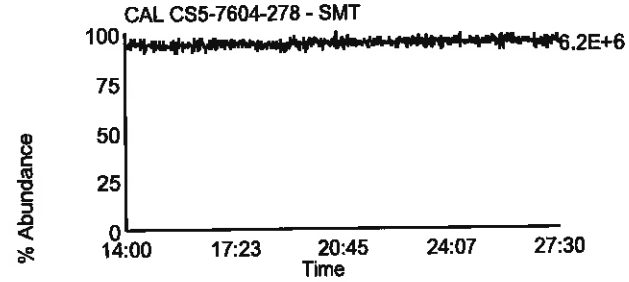
Data File: U130729B_12 G1 C11 - 333.9338
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G1 C14 - 375.8364
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G1 C5 - 318.9792
CAL CS5-7604-278 - SMT

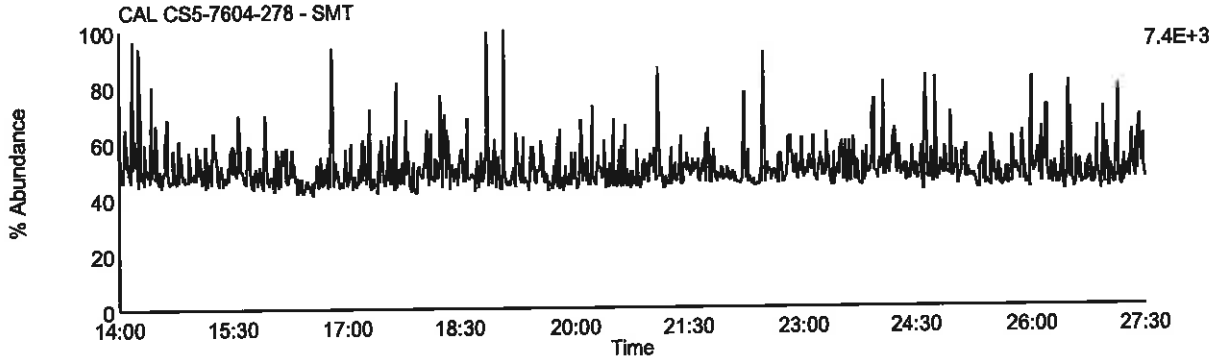


Homologue Group: Penta & Cleanup

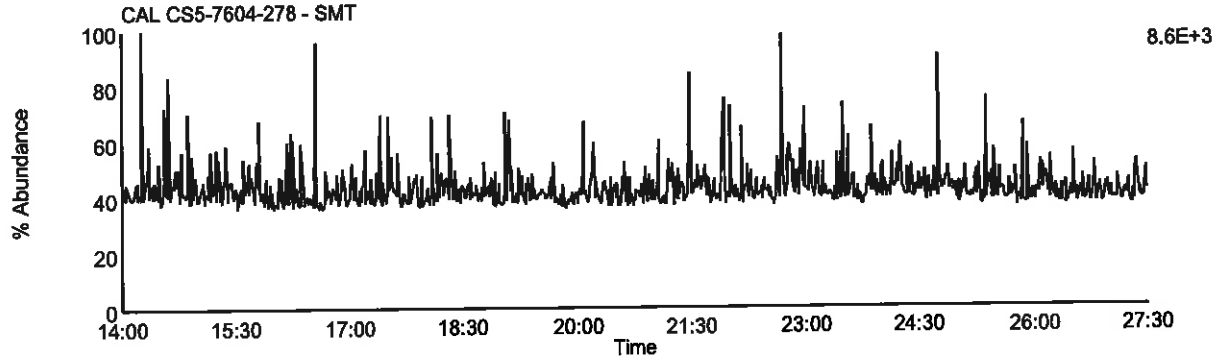
Data File Name: U130729B_12
Date Acquired: 7/30/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR06 (U)

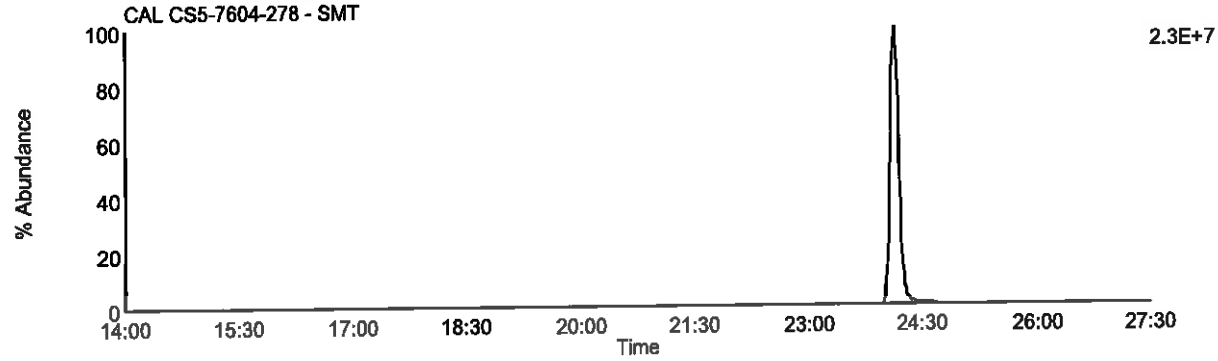
Data File: U130729B_12 G1 C12 - 339.8597
CAL CS5-7604-278 - SMT



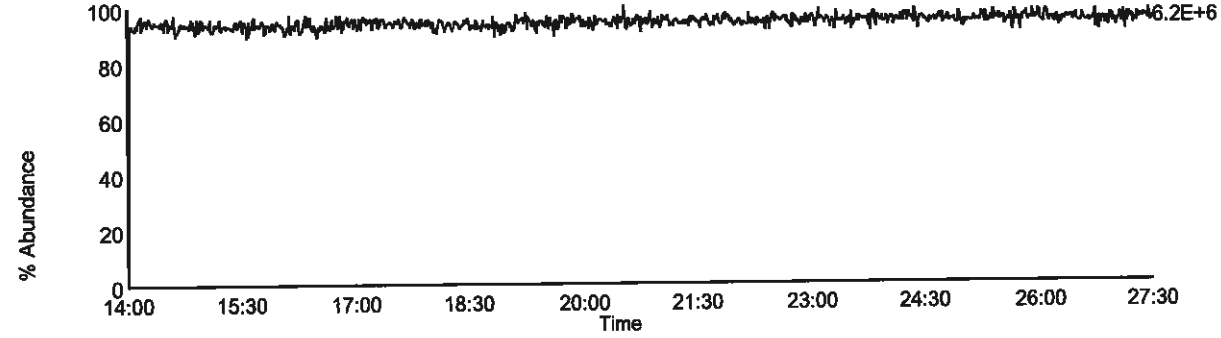
Data File: U130729B_12 G1 C13 - 341.8567
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G1 C9 - 327.8847
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G1 C5 - 318.9792
CAL CS5-7604-278 - SMT

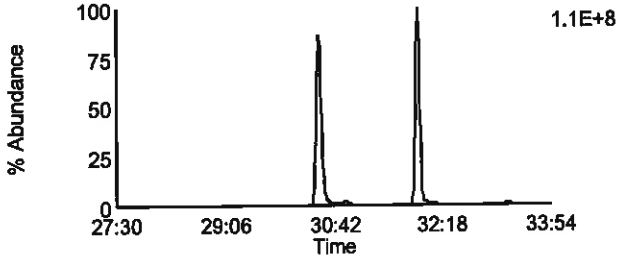


Homologue Group: Pentas

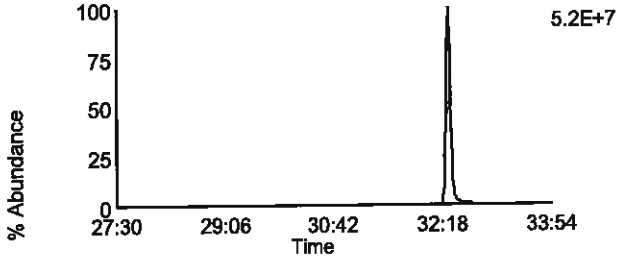
Data File Name: U130729B_12
Date Acquired: 7/30/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR06 (U)

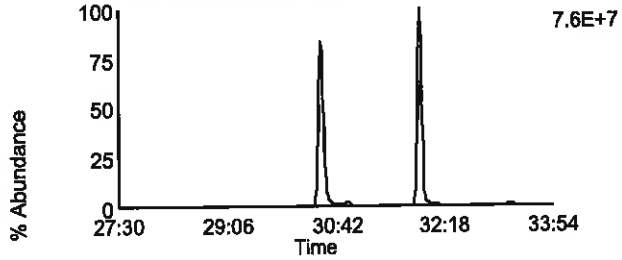
Data File: U130729B_12 G2 C1 - 339.8597
CAL CS5-7604-278 - SMT



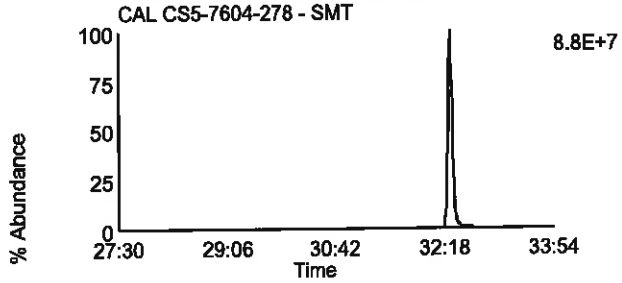
Data File: U130729B_12 G2 C4 - 353.8576
CAL CS5-7604-278 - SMT



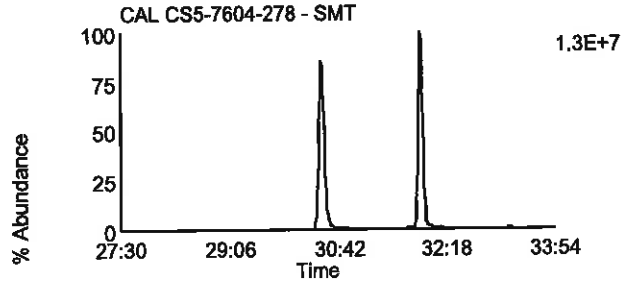
Data File: U130729B_12 G2 C2 - 341.8567
CAL CS5-7604-278 - SMT



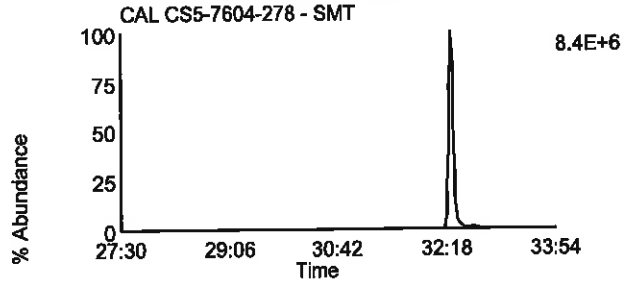
Data File: U130729B_12 G2 C8 - 355.8546
CAL CS5-7604-278 - SMT



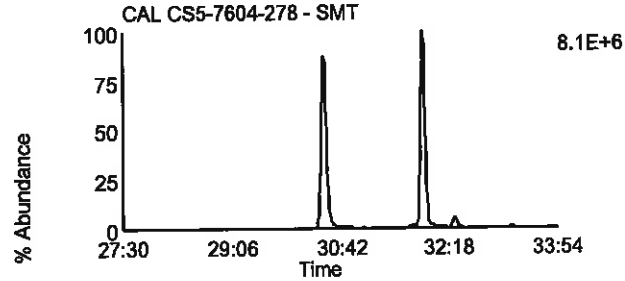
Data File: U130729B_12 G2 C3 - 351.8999
CAL CS5-7604-278 - SMT



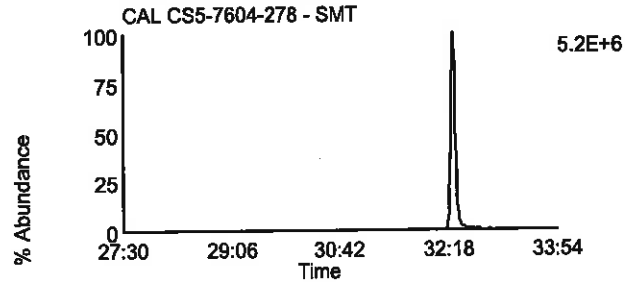
Data File: U130729B_12 G2 C10 - 367.8948
CAL CS5-7604-278 - SMT



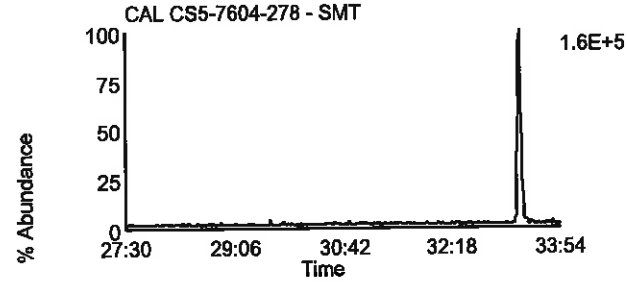
Data File: U130729B_12 G2 C5 - 353.8969
CAL CS5-7604-278 - SMT



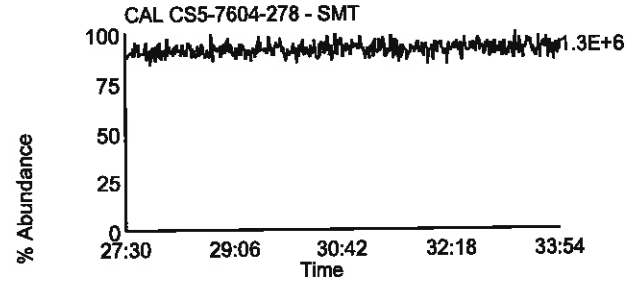
Data File: U130729B_12 G2 C11 - 369.8918
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G2 C12 - 409.7974
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G2 C6 - 354.9792
CAL CS5-7604-278 - SMT

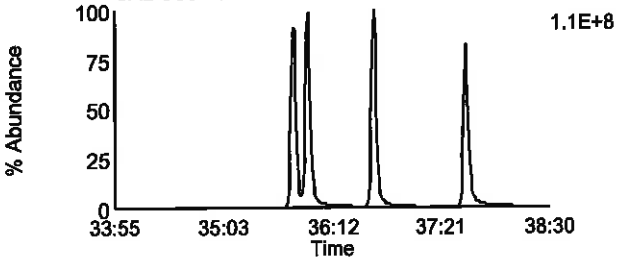


Homologue Group: Hexas

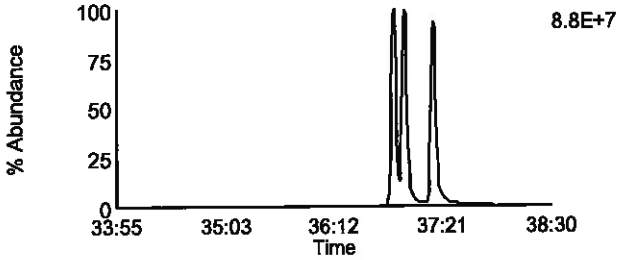
Data File Name: U130729B_12
Date Acquired: 7/30/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR06 (U)

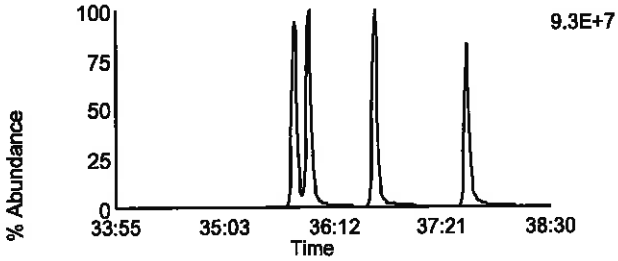
Data File: U130729B_12 G3 C1 - 373.8207
CAL CS5-7604-278 - SMT



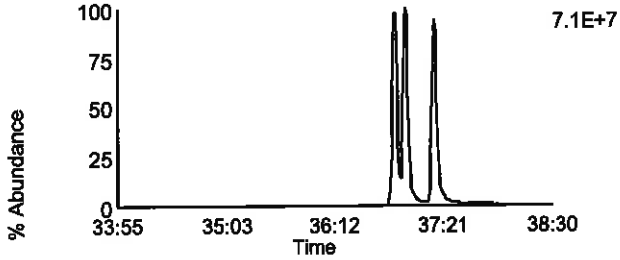
Data File: U130729B_12 G3 C7 - 389.8156
CAL CS5-7604-278 - SMT



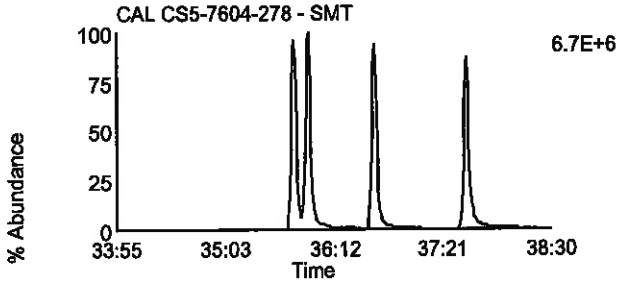
Data File: U130729B_12 G3 C2 - 375.8178
CAL CS5-7604-278 - SMT



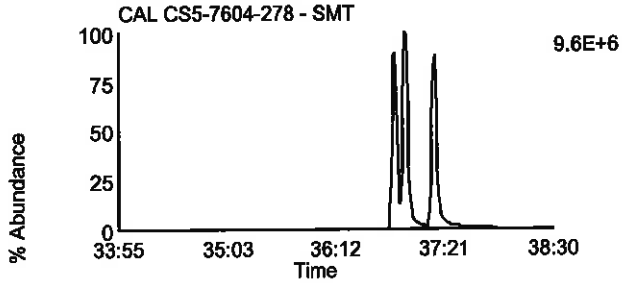
Data File: U130729B_12 G3 C8 - 391.8127
CAL CS5-7604-278 - SMT



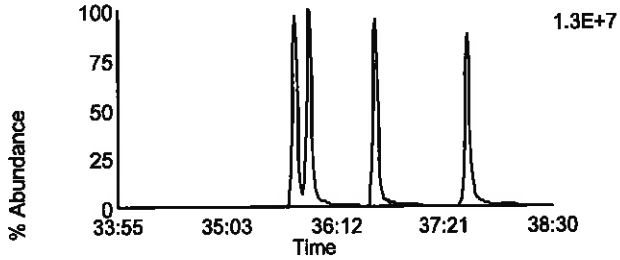
Data File: U130729B_12 G3 C5 - 383.8639
CAL CS5-7604-278 - SMT



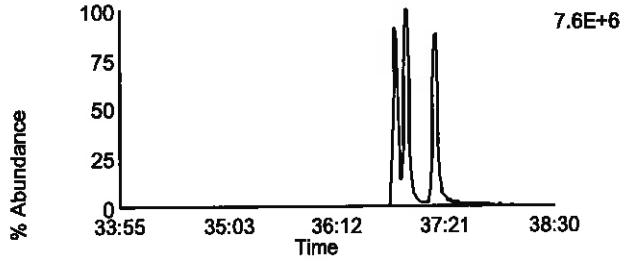
Data File: U130729B_12 G3 C9 - 401.8559
CAL CS5-7604-278 - SMT



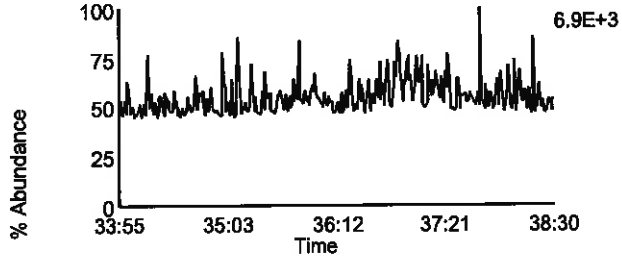
Data File: U130729B_12 G3 C6 - 385.861
CAL CS5-7604-278 - SMT



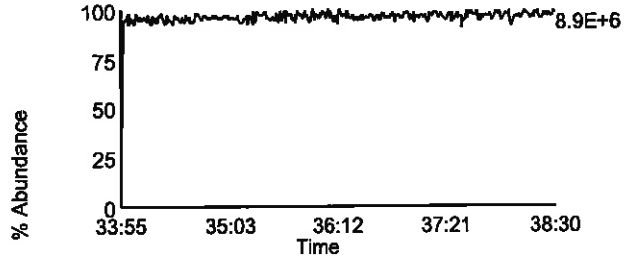
Data File: U130729B_12 G3 C10 - 403.8529
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G3 C11 - 445.7555
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G3 C3 - 380.976
CAL CS5-7604-278 - SMT

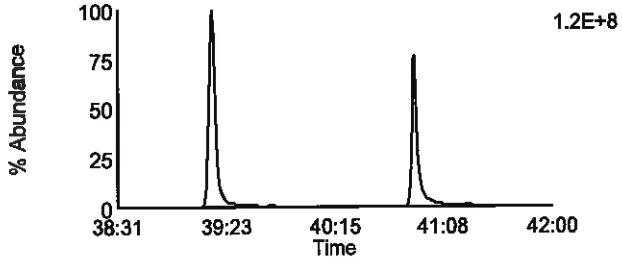


Homologue Group: Heptas

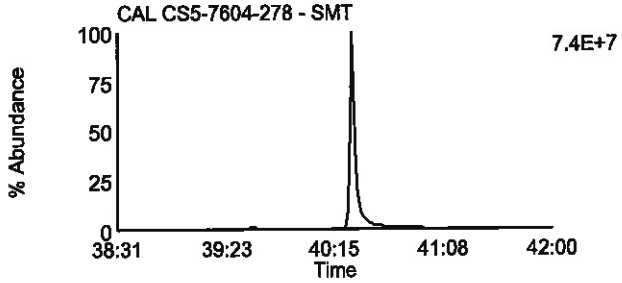
Data File Name: U130729B_12
Date Acquired: 7/30/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR06 (U)

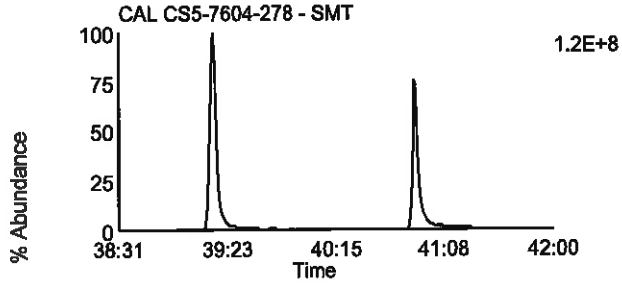
Data File: U130729B_12 G4 C3 - 407.7818
CAL CS5-7604-278 - SMT



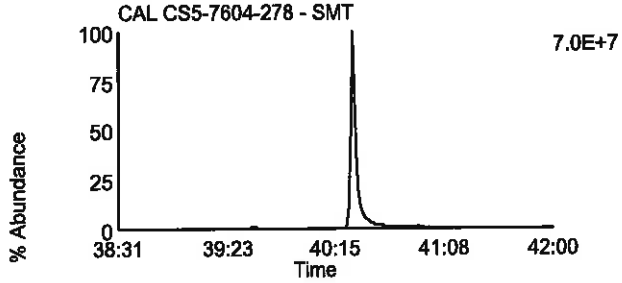
Data File: U130729B_12 G4 C8 - 423.7767
CAL CS5-7604-278 - SMT



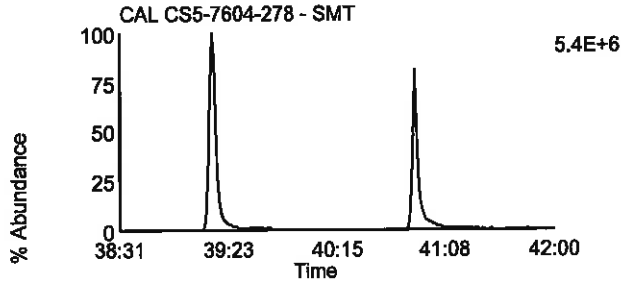
Data File: U130729B_12 G4 C4 - 409.7788
CAL CS5-7604-278 - SMT



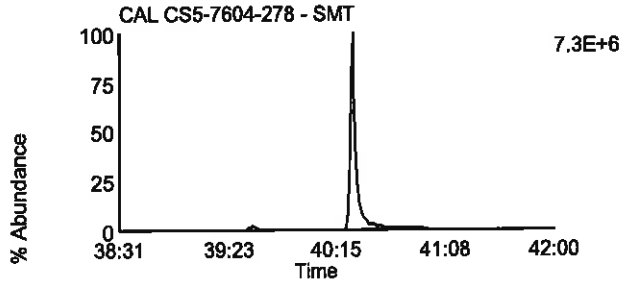
Data File: U130729B_12 G4 C9 - 425.7737
CAL CS5-7604-278 - SMT



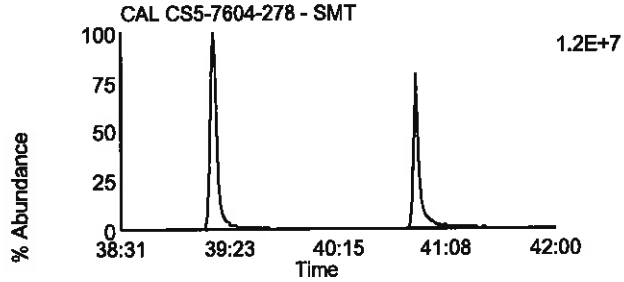
Data File: U130729B_12 G4 C6 - 417.825
CAL CS5-7604-278 - SMT



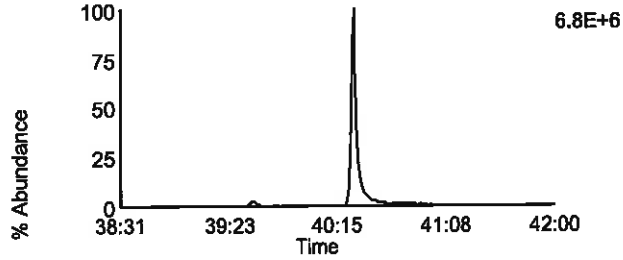
Data File: U130729B_12 G4 C11 - 435.8169
CAL CS5-7604-278 - SMT



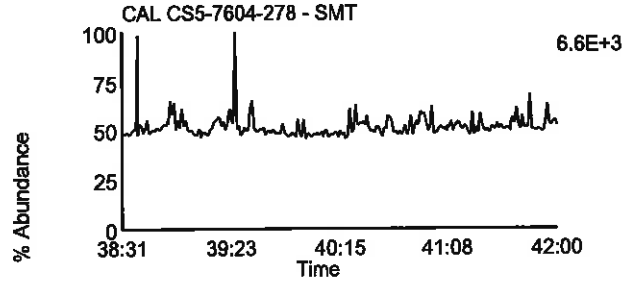
Data File: U130729B_12 G4 C7 - 419.822
CAL CS5-7604-278 - SMT



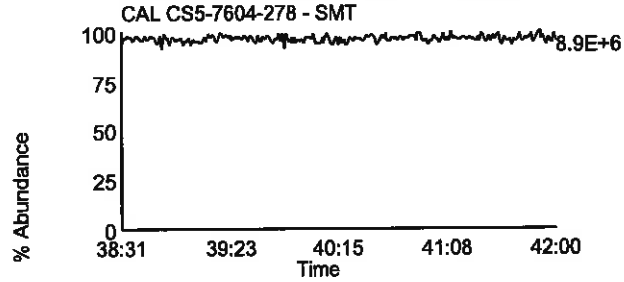
Data File: U130729B_12 G4 C12 - 437.814
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G4 C13 - 479.7165
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G4 C1 - 380.976
CAL CS5-7604-278 - SMT

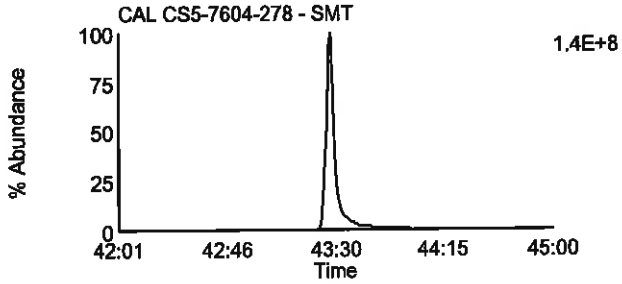


Homologue Group: Octas

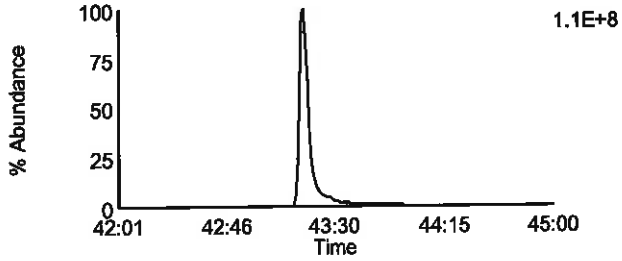
Data File Name: U130729B_12
Date Acquired: 7/30/2013
Sample Description: CAL CS5-7604-278 - SMT

Lab Sample ID: CS5-7604-278
Client Sample ID:
Instrument: 10MSHR06 (U)

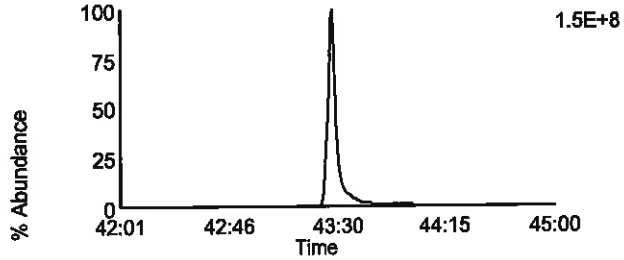
Data File: U130729B_12 G5 C4 - 441.7428
CAL CS5-7604-278 - SMT



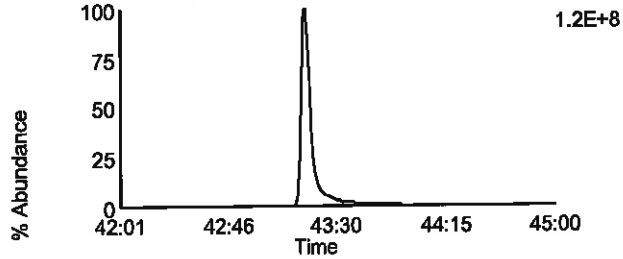
Data File: U130729B_12 G5 C8 - 457.7377
CAL CS5-7604-278 - SMT



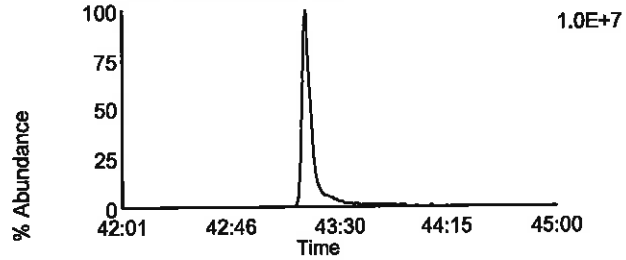
Data File: U130729B_12 G5 C5 - 443.7398
CAL CS5-7604-278 - SMT



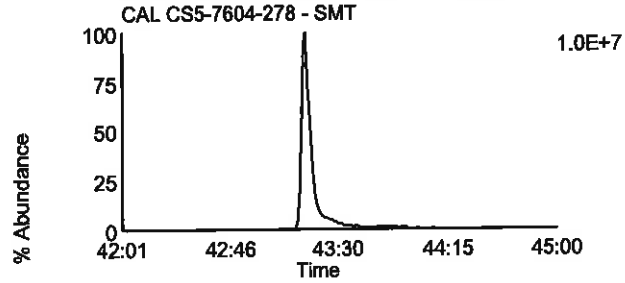
Data File: U130729B_12 G5 C9 - 459.7347
CAL CS5-7604-278 - SMT



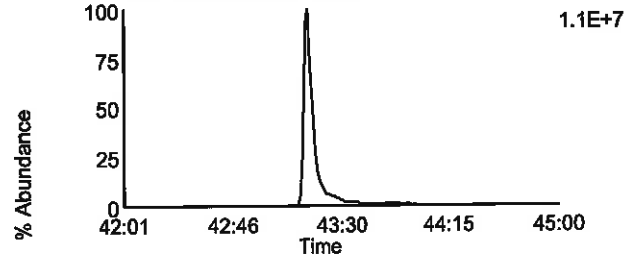
Data File: U130729B_12 G5 C11 - 469.7779
CAL CS5-7604-278 - SMT



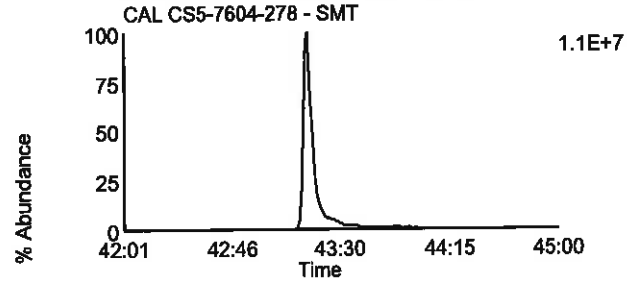
Data File: U130729B_12 G5 C11 - 469.7779
CAL CS5-7604-278 - SMT



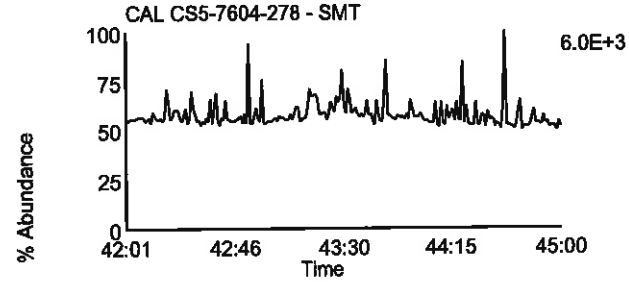
Data File: U130729B_12 G5 C12 - 471.7749
CAL CS5-7604-278 - SMT



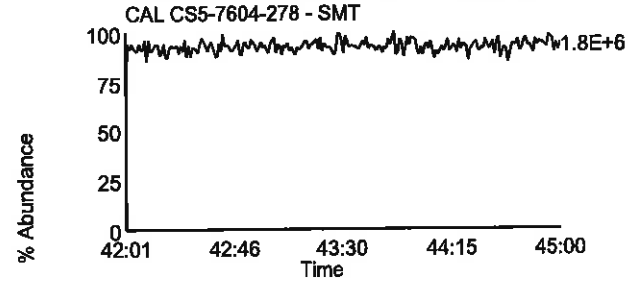
Data File: U130729B_12 G5 C12 - 471.7749
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G5 C13 - 513.6775
CAL CS5-7604-278 - SMT



Data File: U130729B_12 G5 C2 - 430.9728
CAL CS5-7604-278 - SMT

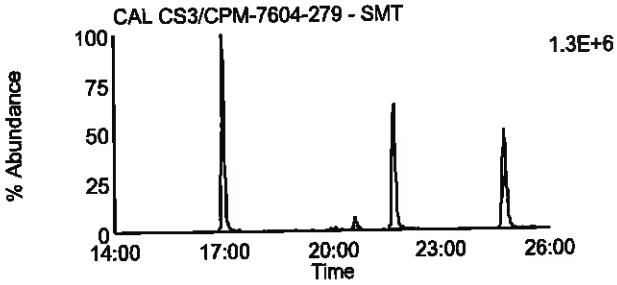


Homologue Group: Tetras

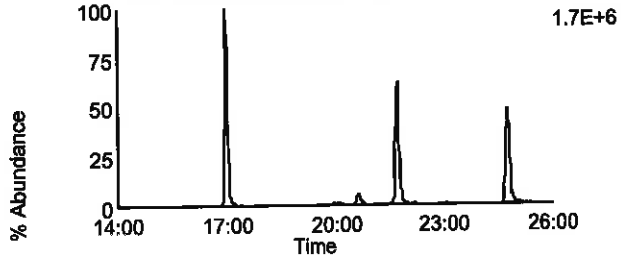
Data File Name: U130917A_22
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

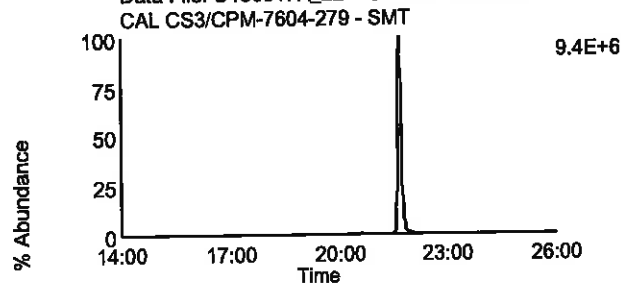
Data File: U130917A_22 G1 C1 - 303.9016
CAL CS3/CPM-7604-279 - SMT



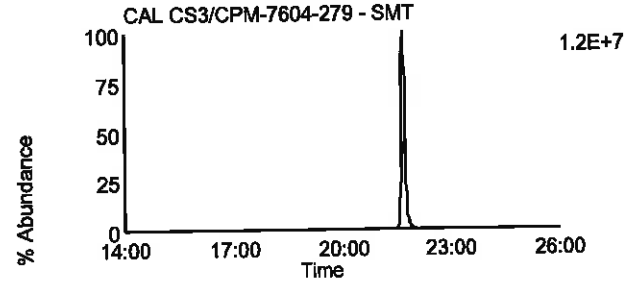
Data File: U130917A_22 G1 C2 - 305.8987
CAL CS3/CPM-7604-279 - SMT



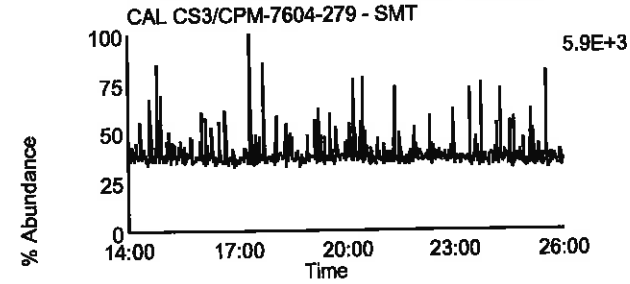
Data File: U130917A_22 G1 C3 - 315.9418
CAL CS3/CPM-7604-279 - SMT



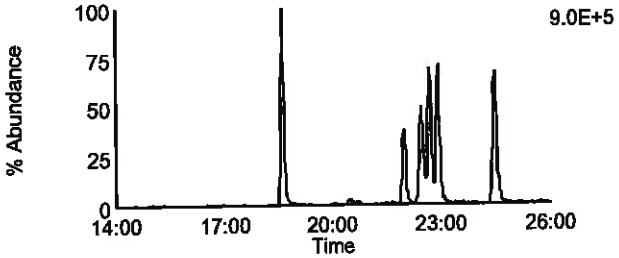
Data File: U130917A_22 G1 C4 - 317.9389
CAL CS3/CPM-7604-279 - SMT



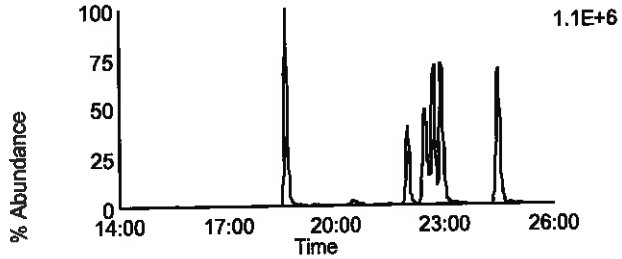
Data File: U130917A_22 G1 C14 - 375.8364
CAL CS3/CPM-7604-279 - SMT



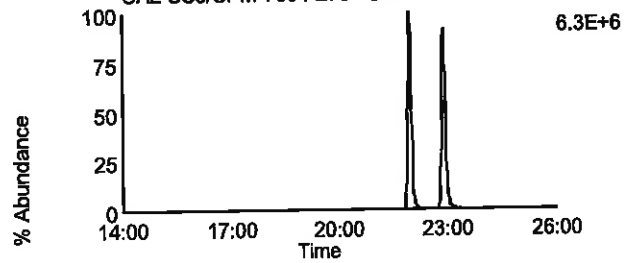
Data File: U130917A_22 G1 C7 - 319.8965
CAL CS3/CPM-7604-279 - SMT



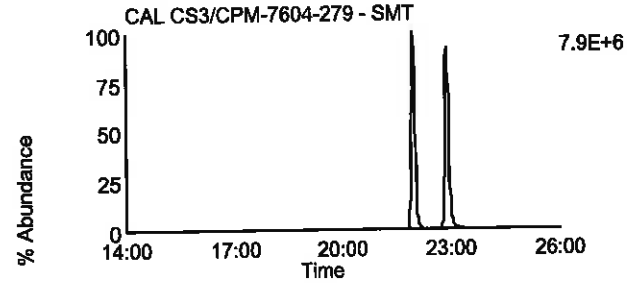
Data File: U130917A_22 G1 C8 - 321.8936
CAL CS3/CPM-7604-279 - SMT



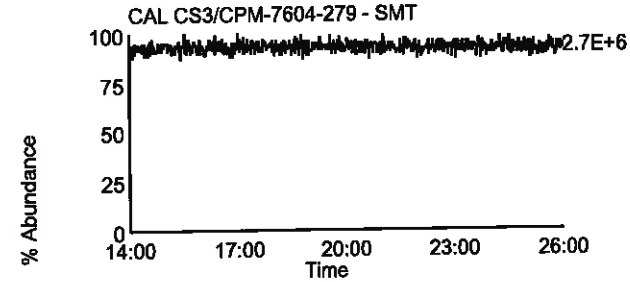
Data File: U130917A_22 G1 C10 - 331.9367
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G1 C11 - 333.9338
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - SMT

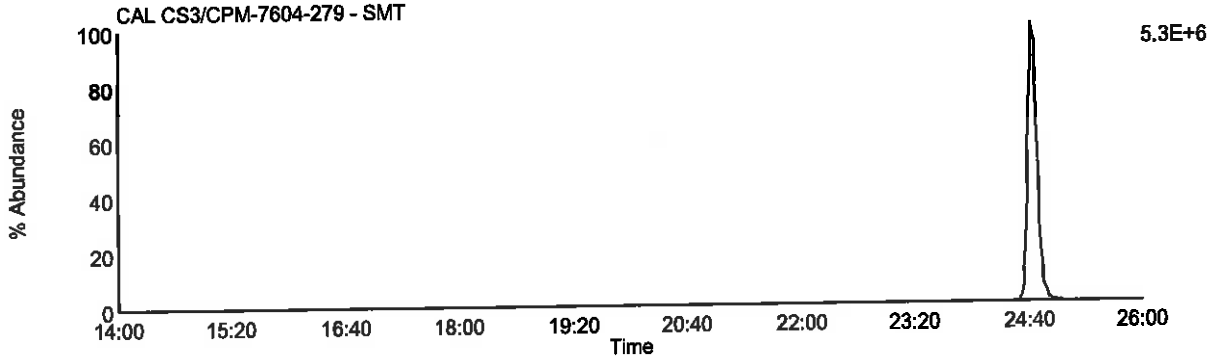


Homologue Group: Penta & Cleanup

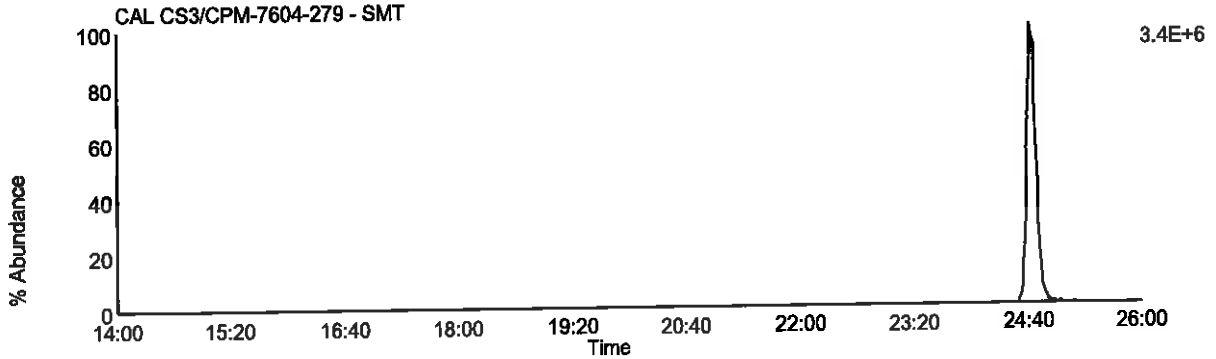
Data File Name: U130917A_22
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

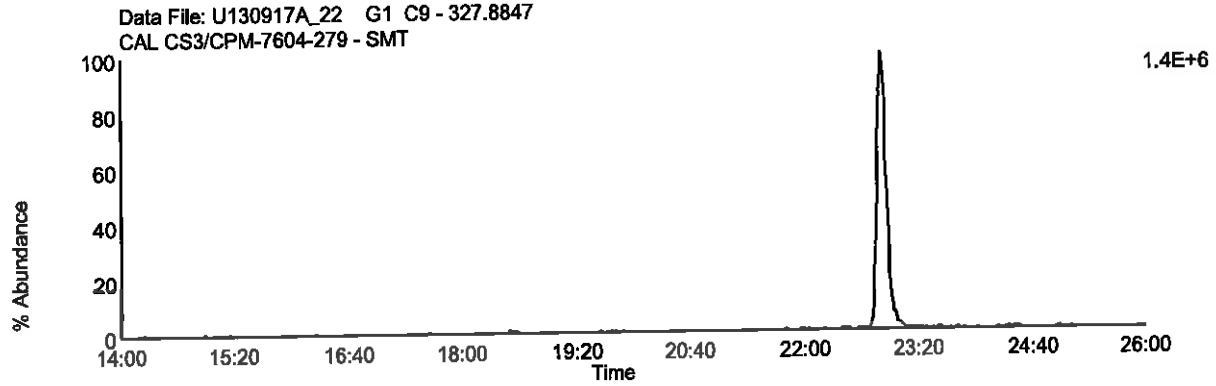
Data File: U130917A_22 G1 C12 - 339.8597
CAL CS3/CPM-7604-279 - SMT



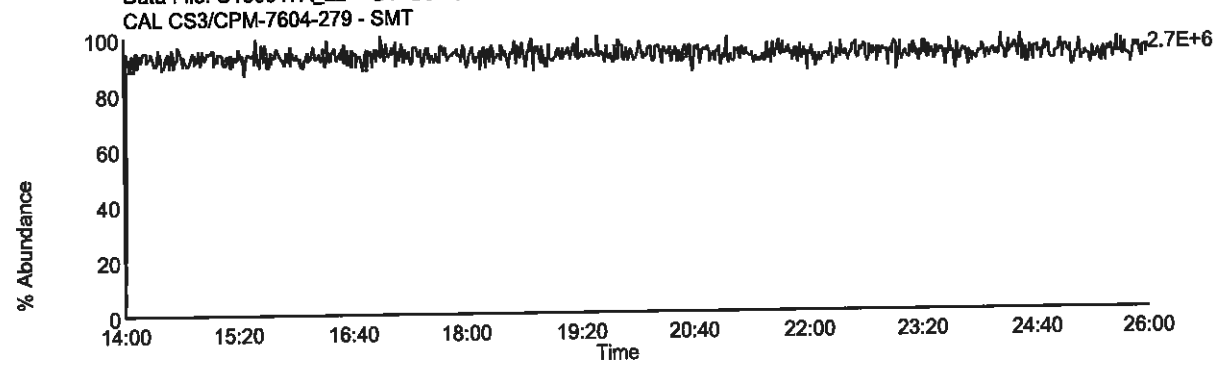
Data File: U130917A_22 G1 C13 - 341.8567
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G1 C9 - 327.8847
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - SMT

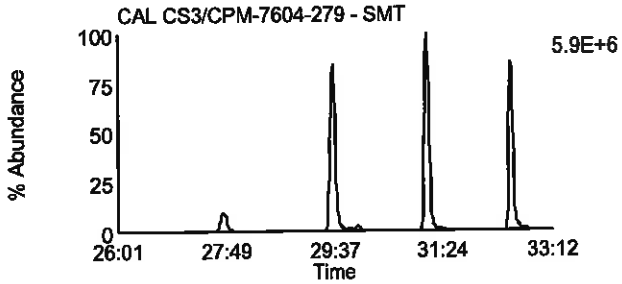


Homologue Group: Pentas

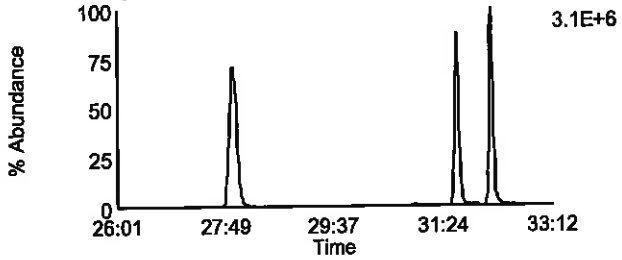
Data File Name: U130917A_22
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

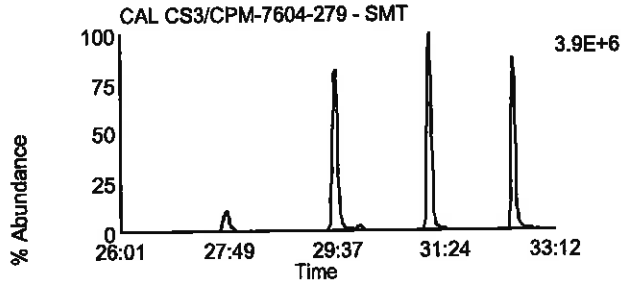
Data File: U130917A_22 G2 C1 - 339.8597
CAL CS3/CPM-7604-279 - SMT



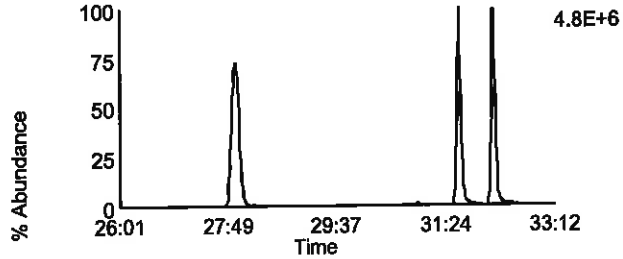
Data File: U130917A_22 G2 C4 - 353.8576
CAL CS3/CPM-7604-279 - SMT



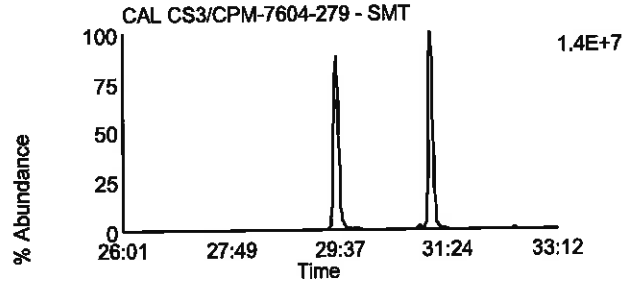
Data File: U130917A_22 G2 C2 - 341.8567
CAL CS3/CPM-7604-279 - SMT



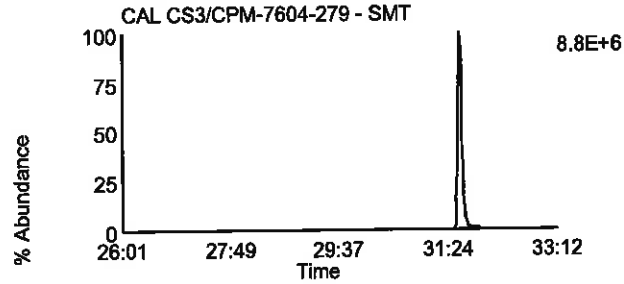
Data File: U130917A_22 G2 C8 - 355.8546
CAL CS3/CPM-7604-279 - SMT



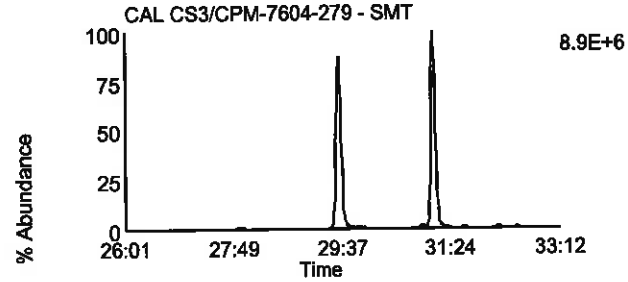
Data File: U130917A_22 G2 C3 - 351.8999
CAL CS3/CPM-7604-279 - SMT



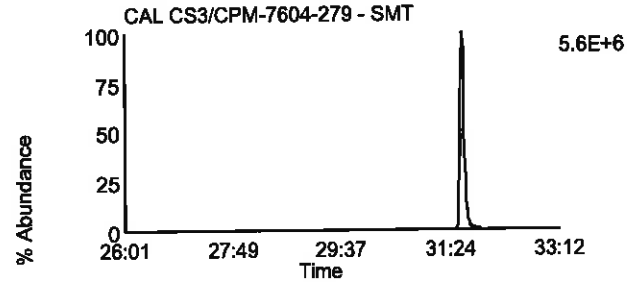
Data File: U130917A_22 G2 C10 - 367.8948
CAL CS3/CPM-7604-279 - SMT



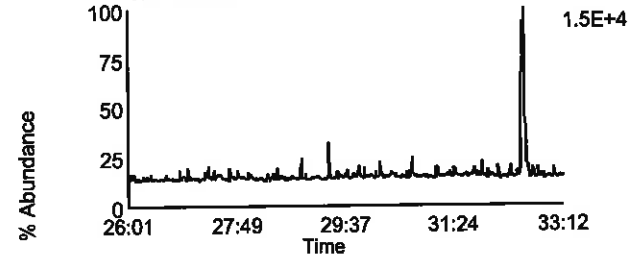
Data File: U130917A_22 G2 C5 - 353.8969
CAL CS3/CPM-7604-279 - SMT



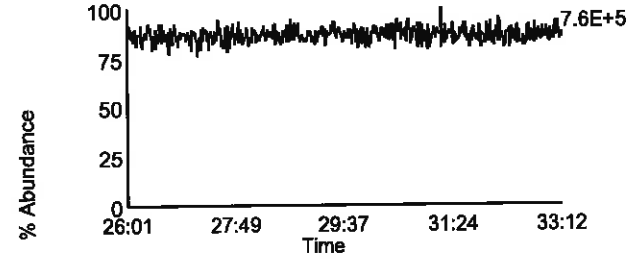
Data File: U130917A_22 G2 C11 - 369.8918
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G2 C12 - 409.7974
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G2 C6 - 354.9792
CAL CS3/CPM-7604-279 - SMT

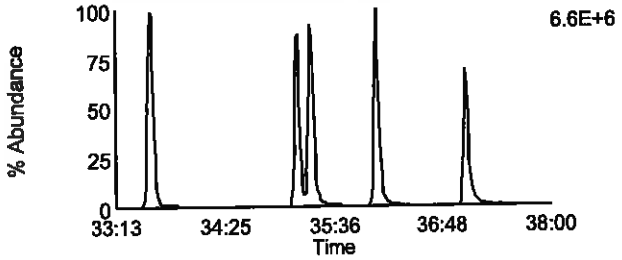


Homologue Group: Hexas

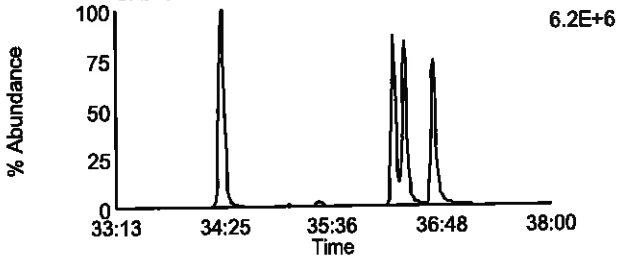
Data File Name: U130917A_22
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

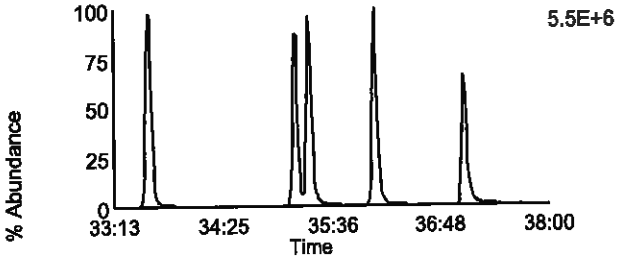
Data File: U130917A_22 G3 C1 - 373.8207
CAL CS3/CPM-7604-279 - SMT



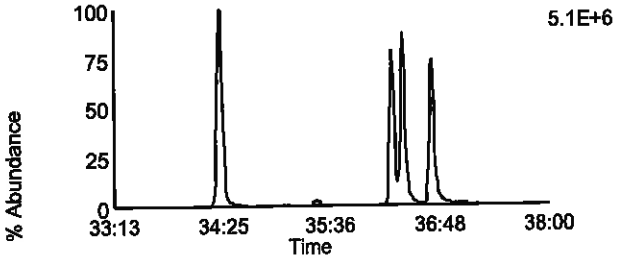
Data File: U130917A_22 G3 C7 - 389.8156
CAL CS3/CPM-7604-279 - SMT



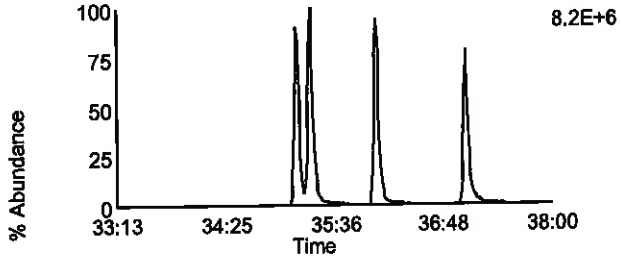
Data File: U130917A_22 G3 C2 - 375.8178
CAL CS3/CPM-7604-279 - SMT



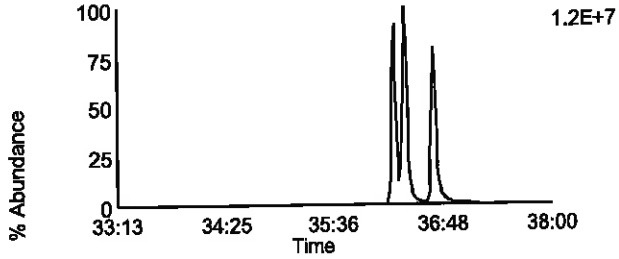
Data File: U130917A_22 G3 C8 - 391.8127
CAL CS3/CPM-7604-279 - SMT



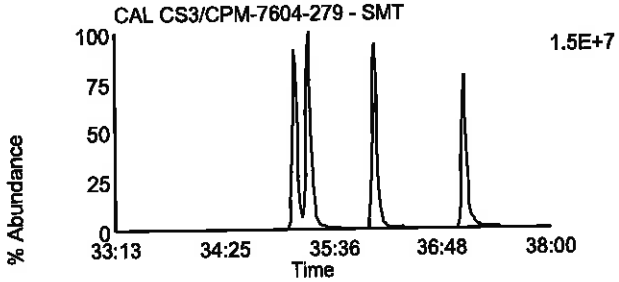
Data File: U130917A_22 G3 C5 - 383.8639
CAL CS3/CPM-7604-279 - SMT



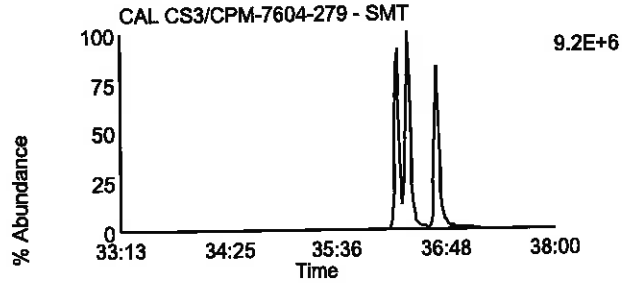
Data File: U130917A_22 G3 C9 - 401.8559
CAL CS3/CPM-7604-279 - SMT



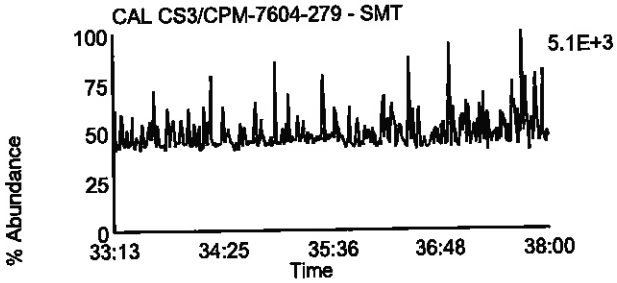
Data File: U130917A_22 G3 C6 - 385.861
CAL CS3/CPM-7604-279 - SMT



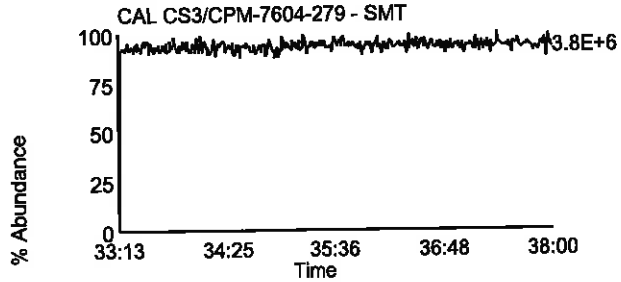
Data File: U130917A_22 G3 C10 - 403.8529
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G3 C11 - 445.7555
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G3 C3 - 380.976
CAL CS3/CPM-7604-279 - SMT

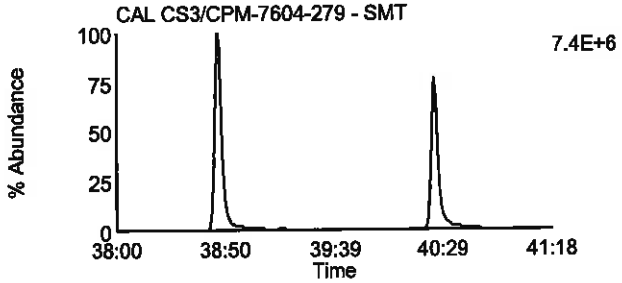


Homologue Group: Heptas

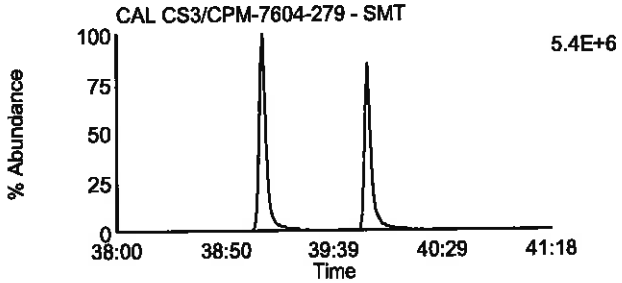
Data File Name: U130917A_22
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

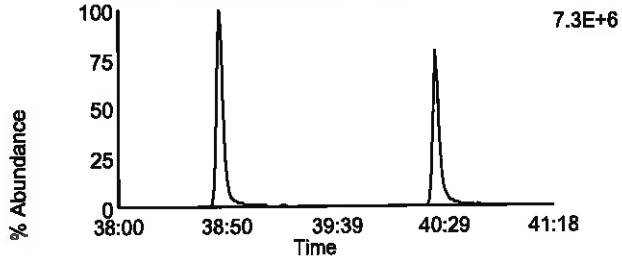
Data File: U130917A_22 G4 C3 - 407.7818
CAL CS3/CPM-7604-279 - SMT



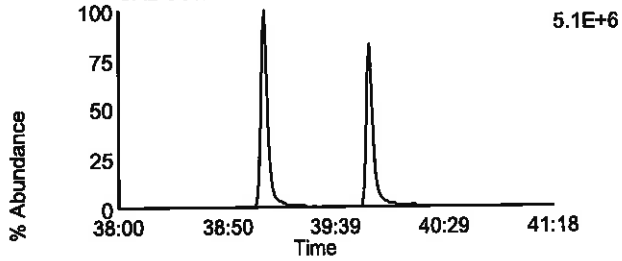
Data File: U130917A_22 G4 C8 - 423.7767
CAL CS3/CPM-7604-279 - SMT



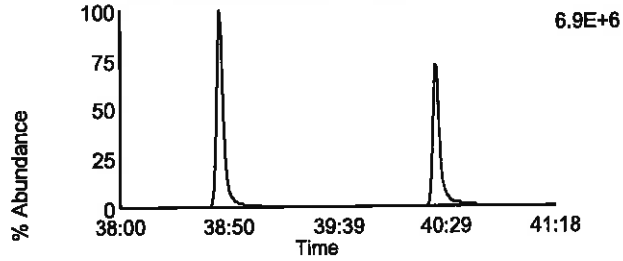
Data File: U130917A_22 G4 C4 - 409.7788
CAL CS3/CPM-7604-279 - SMT



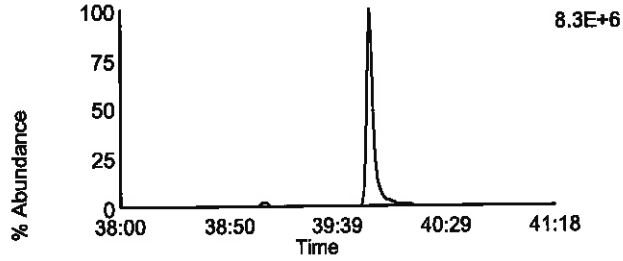
Data File: U130917A_22 G4 C9 - 425.7737
CAL CS3/CPM-7604-279 - SMT



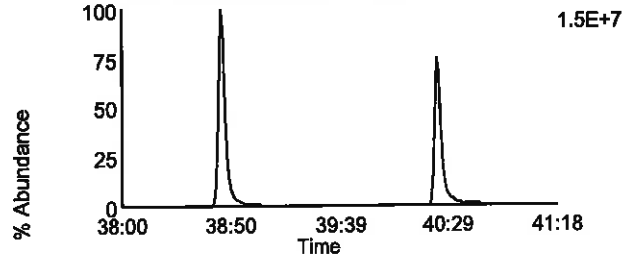
Data File: U130917A_22 G4 C6 - 417.825
CAL CS3/CPM-7604-279 - SMT



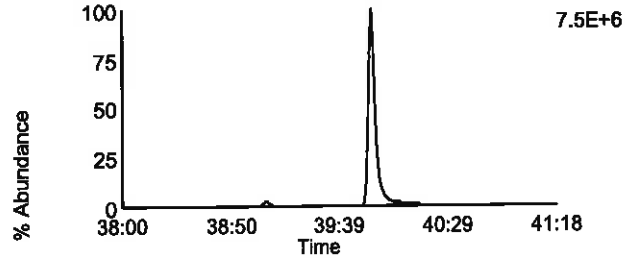
Data File: U130917A_22 G4 C11 - 435.8169
CAL CS3/CPM-7604-279 - SMT



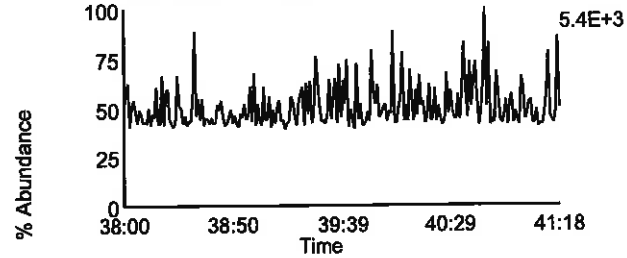
Data File: U130917A_22 G4 C7 - 419.822
CAL CS3/CPM-7604-279 - SMT



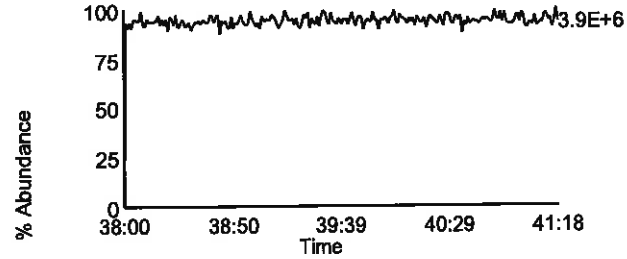
Data File: U130917A_22 G4 C12 - 437.814
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G4 C13 - 479.7165
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G4 C1 - 380.976
CAL CS3/CPM-7604-279 - SMT

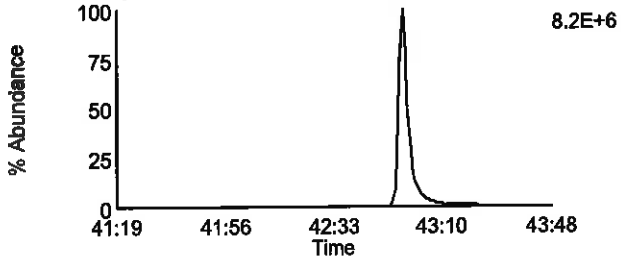


Homologue Group: Octas

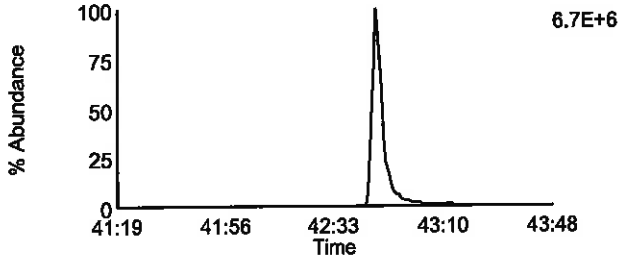
Data File Name: U130917A_22
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

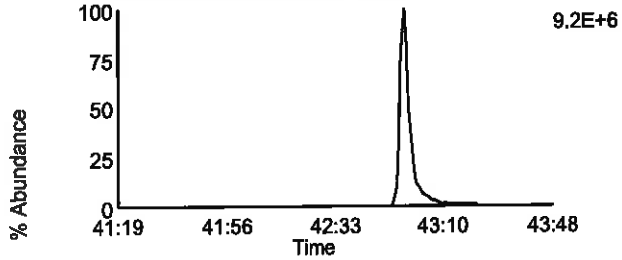
Data File: U130917A_22 G5 C4 - 441.7428
CAL CS3/CPM-7604-279 - SMT



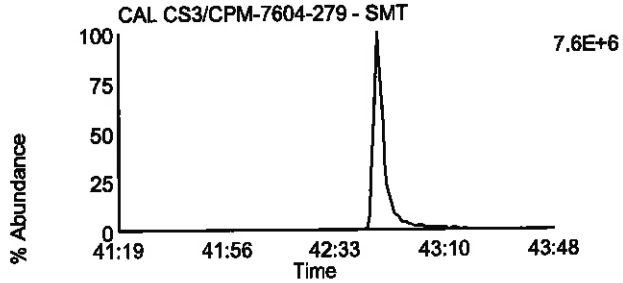
Data File: U130917A_22 G5 C8 - 457.7377
CAL CS3/CPM-7604-279 - SMT



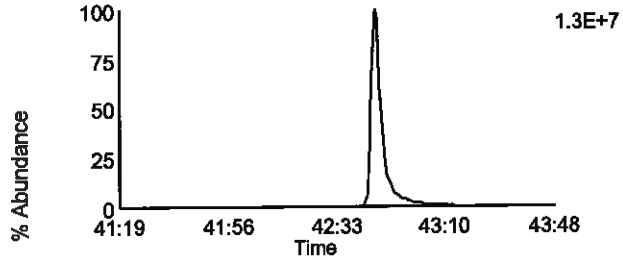
Data File: U130917A_22 G5 C5 - 443.7398
CAL CS3/CPM-7604-279 - SMT



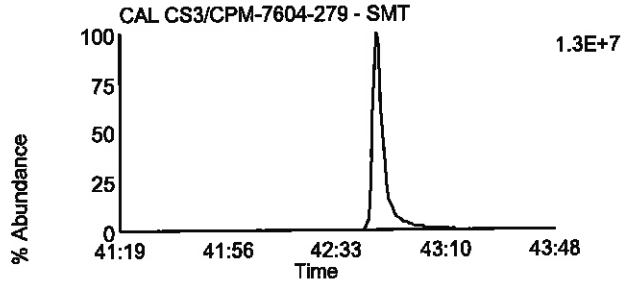
Data File: U130917A_22 G5 C9 - 459.7347
CAL CS3/CPM-7604-279 - SMT



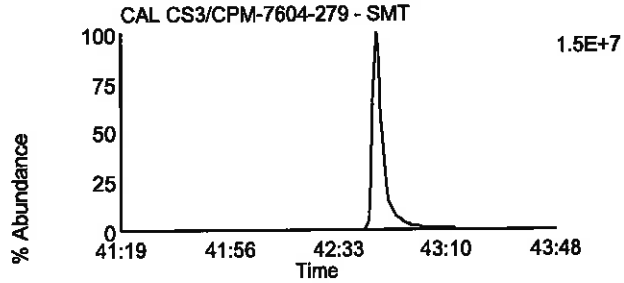
Data File: U130917A_22 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - SMT



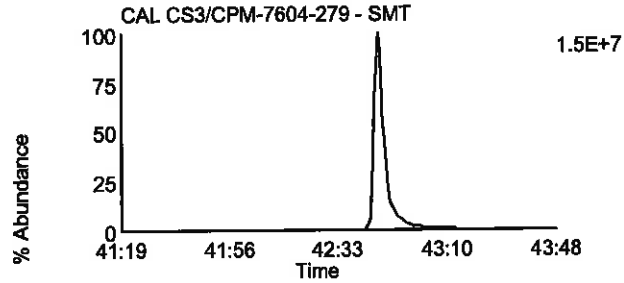
Data File: U130917A_22 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - SMT



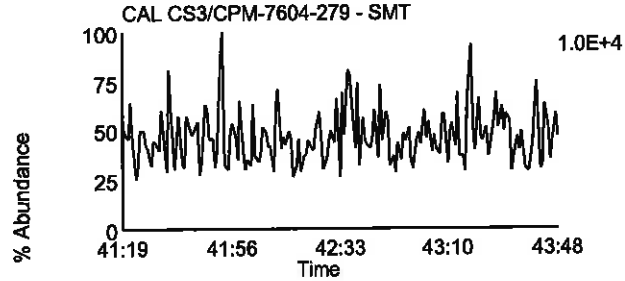
Data File: U130917A_22 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - SMT



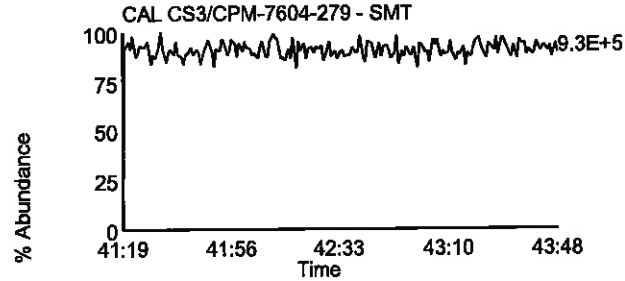
Data File: U130917A_22 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G5 C13 - 513.6775
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G5 C2 - 430.9728
CAL CS3/CPM-7604-279 - SMT

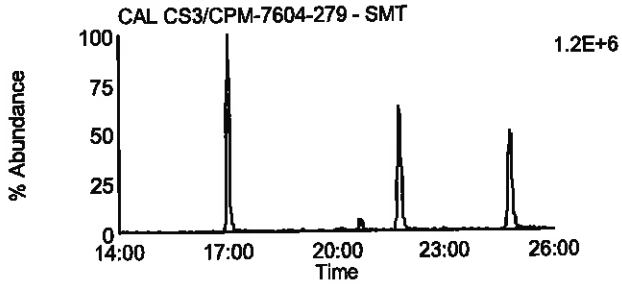


Homologue Group: Tetras

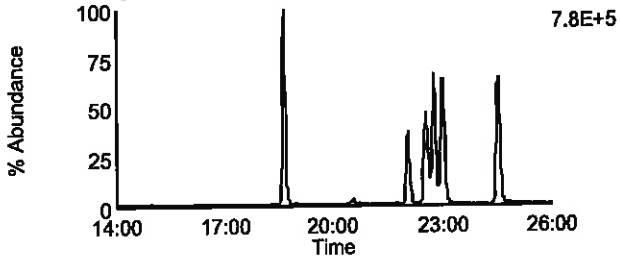
Data File Name: U130917B_15
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

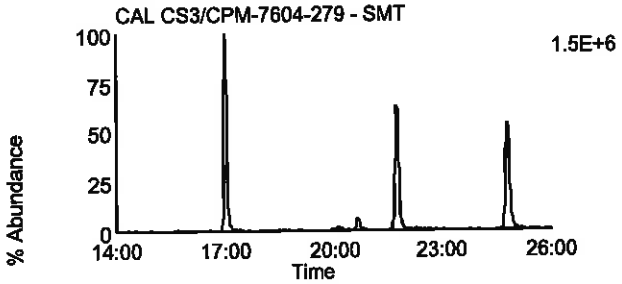
Data File: U130917B_15 G1 C1 - 303.9016
CAL CS3/CPM-7604-279 - SMT



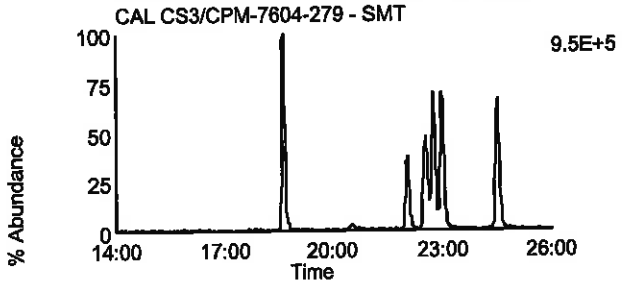
Data File: U130917B_15 G1 C7 - 319.8965
CAL CS3/CPM-7604-279 - SMT



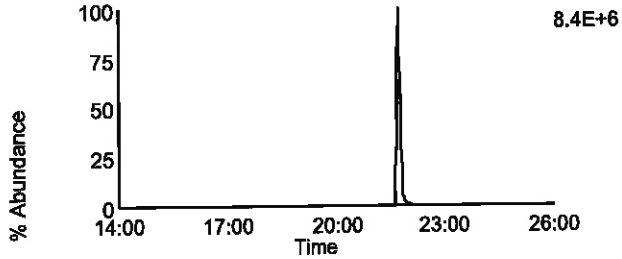
Data File: U130917B_15 G1 C2 - 305.8987
CAL CS3/CPM-7604-279 - SMT



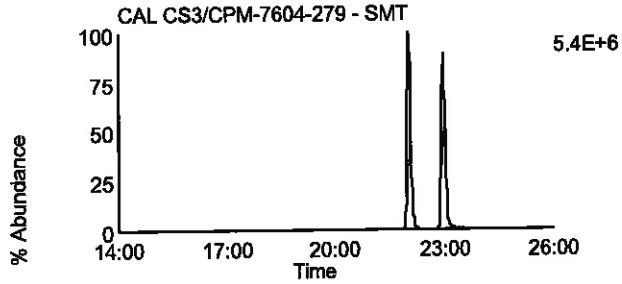
Data File: U130917B_15 G1 C8 - 321.8936
CAL CS3/CPM-7604-279 - SMT



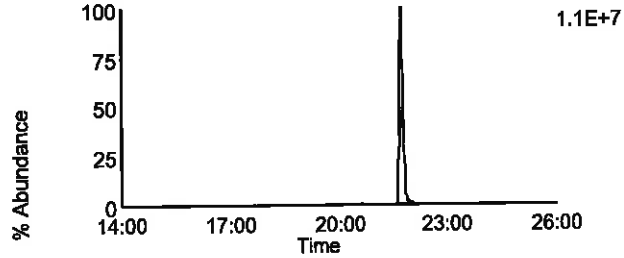
Data File: U130917B_15 G1 C3 - 315.9418
CAL CS3/CPM-7604-279 - SMT



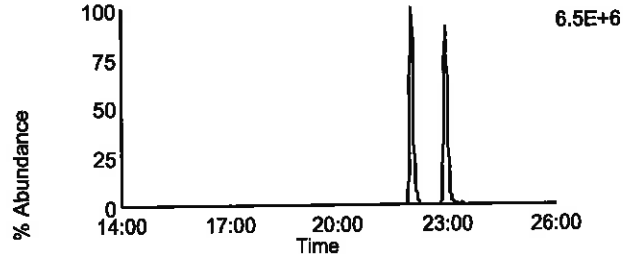
Data File: U130917B_15 G1 C10 - 331.9367
CAL CS3/CPM-7604-279 - SMT



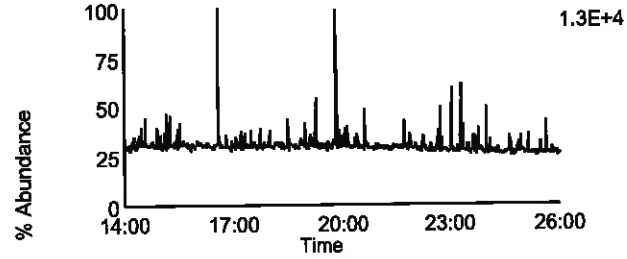
Data File: U130917B_15 G1 C4 - 317.9389
CAL CS3/CPM-7604-279 - SMT



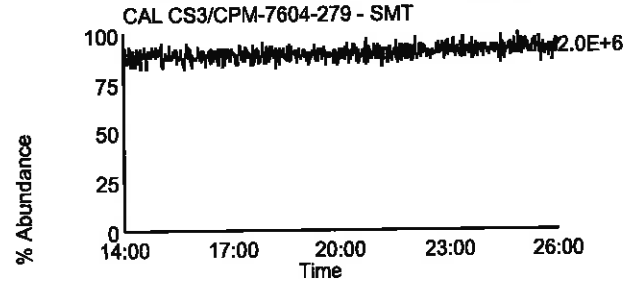
Data File: U130917B_15 G1 C11 - 333.9338
CAL CS3/CPM-7604-279 - SMT



Data File: U130917B_15 G1 C14 - 375.8364
CAL CS3/CPM-7604-279 - SMT



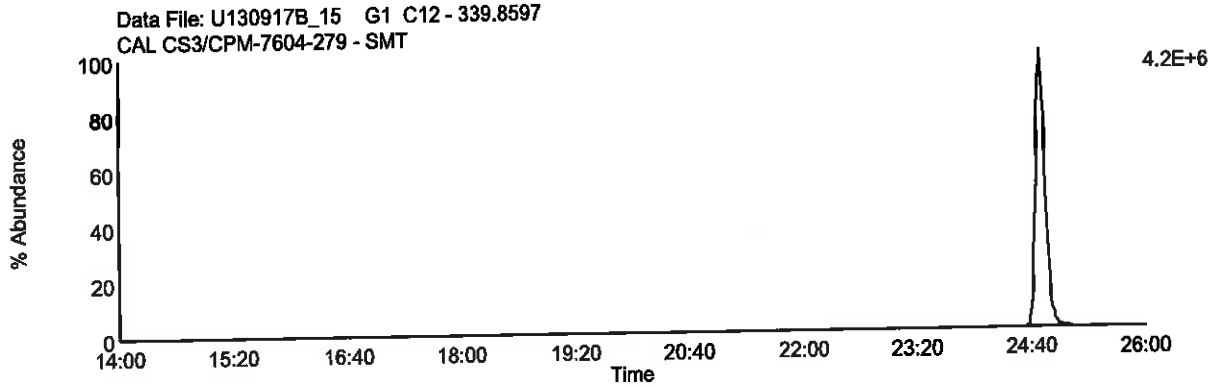
Data File: U130917B_15 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - SMT

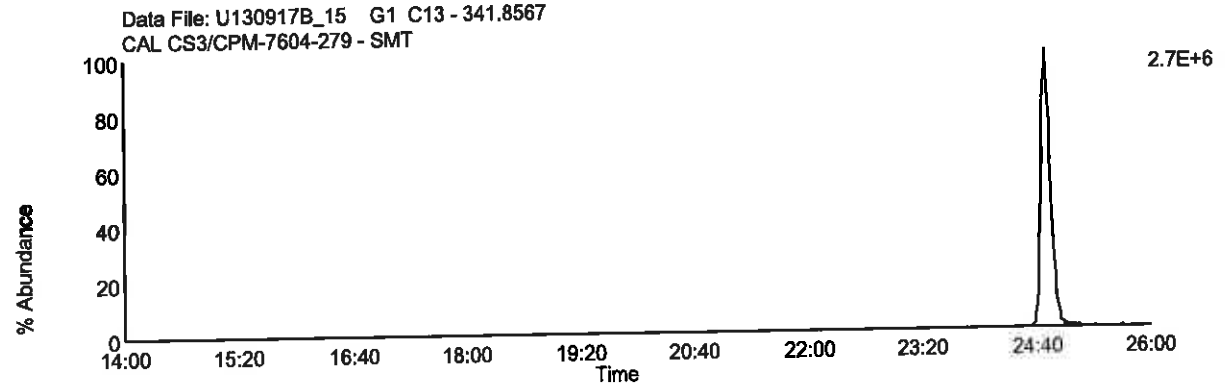


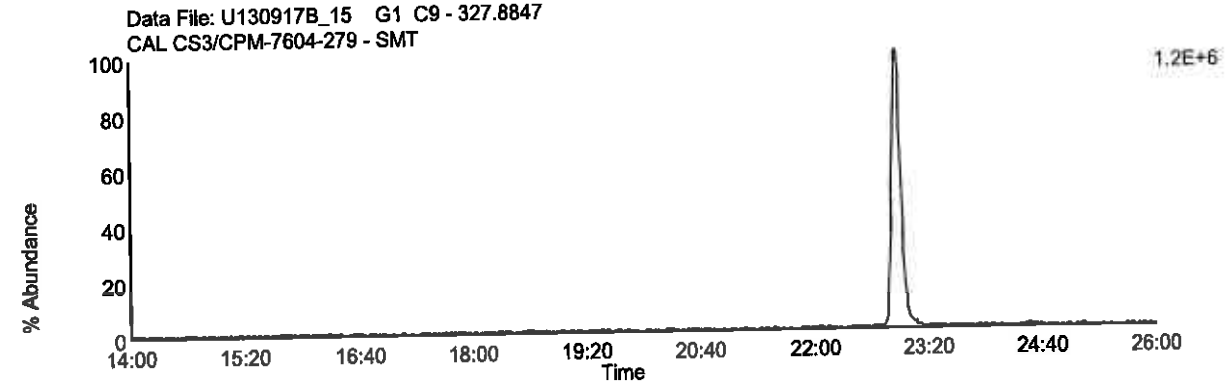
Homologue Group: Penta & Cleanup

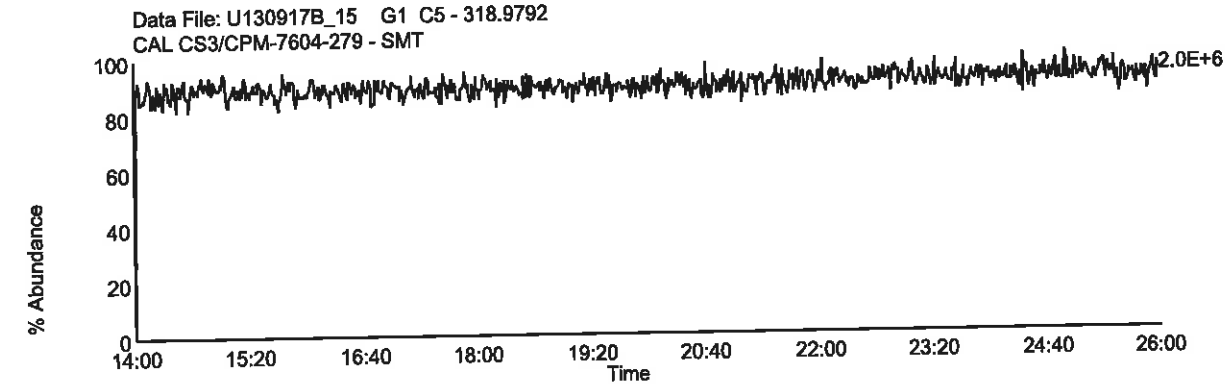
Data File Name: U130917B_15
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)







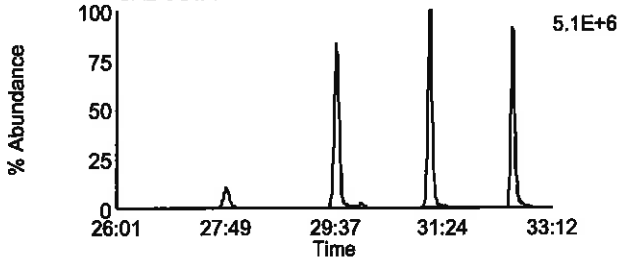


Homologue Group: Pentas

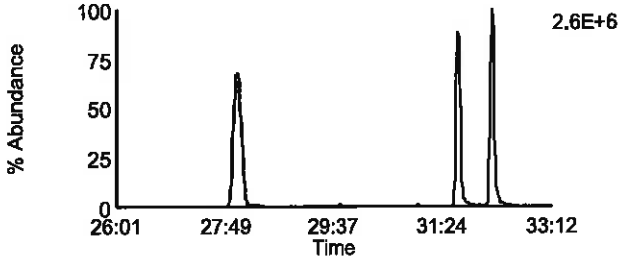
Data File Name: U130917B_15
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

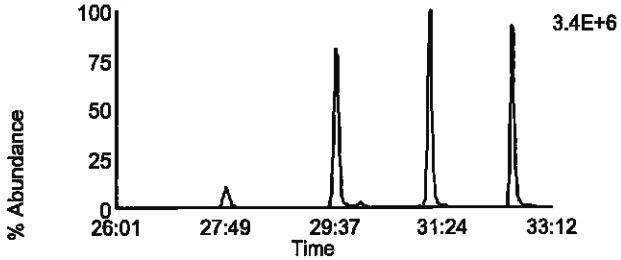
Data File: U130917B_15 G2 C1 - 339.8597
CAL CS3/CPM-7604-279 - SMT



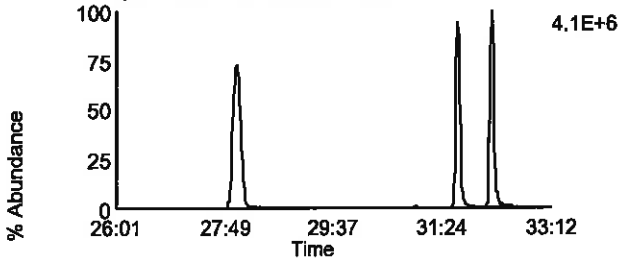
Data File: U130917B_15 G2 C4 - 353.8576
CAL CS3/CPM-7604-279 - SMT



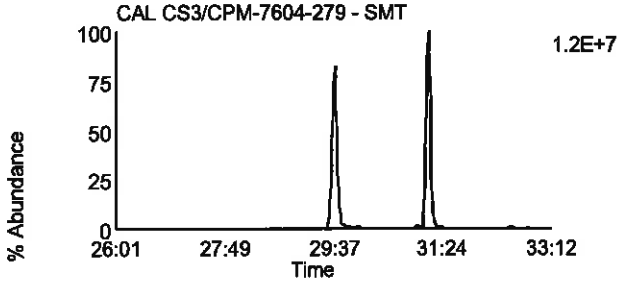
Data File: U130917B_15 G2 C2 - 341.8567
CAL CS3/CPM-7604-279 - SMT



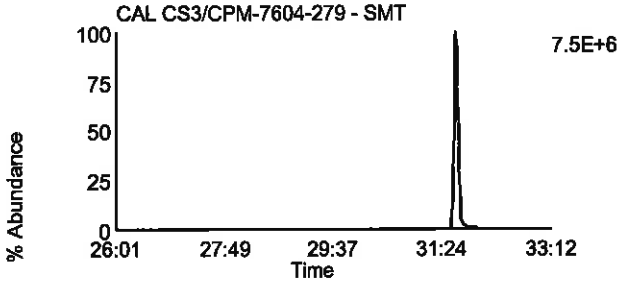
Data File: U130917B_15 G2 C8 - 355.8546
CAL CS3/CPM-7604-279 - SMT



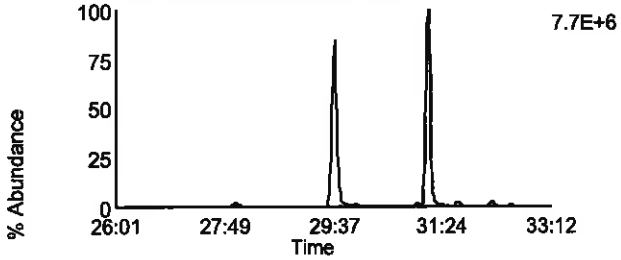
Data File: U130917B_15 G2 C3 - 351.8999
CAL CS3/CPM-7604-279 - SMT



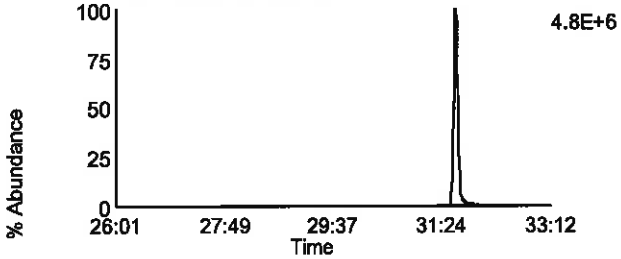
Data File: U130917B_15 G2 C10 - 367.8948
CAL CS3/CPM-7604-279 - SMT



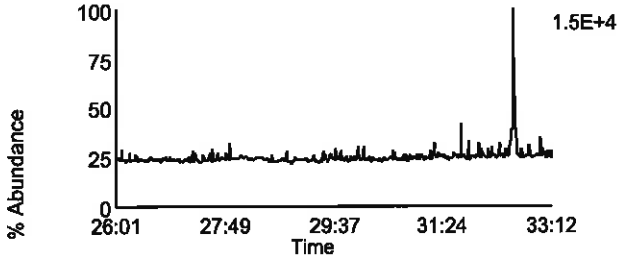
Data File: U130917B_15 G2 C5 - 353.8969
CAL CS3/CPM-7604-279 - SMT



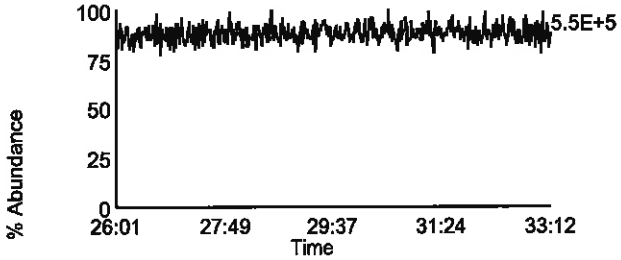
Data File: U130917B_15 G2 C11 - 369.8918
CAL CS3/CPM-7604-279 - SMT



Data File: U130917B_15 G2 C12 - 409.7974
CAL CS3/CPM-7604-279 - SMT



Data File: U130917B_15 G2 C6 - 354.9792
CAL CS3/CPM-7604-279 - SMT

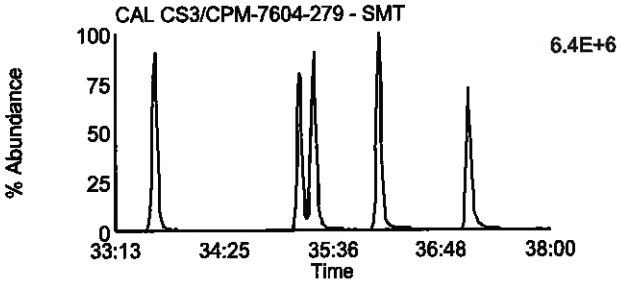


Homologue Group: Hexas

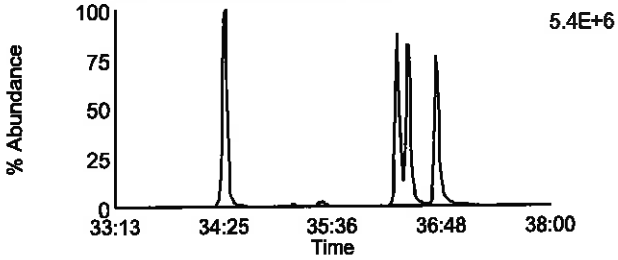
Data File Name: U130917B_15
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

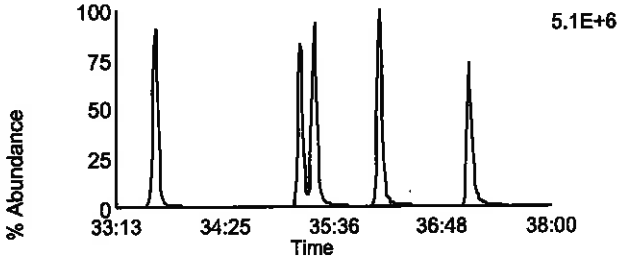
Data File: U130917B_15 G3 C1 - 373.8207
CAL CS3/CPM-7604-279 - SMT



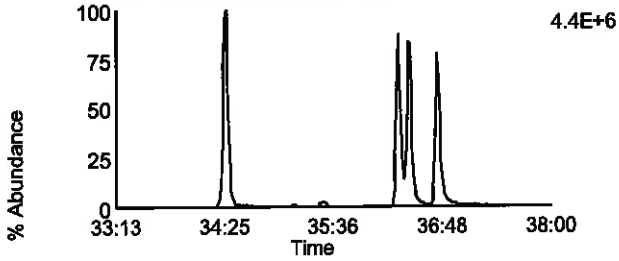
Data File: U130917B_15 G3 C7 - 389.8156
CAL CS3/CPM-7604-279 - SMT



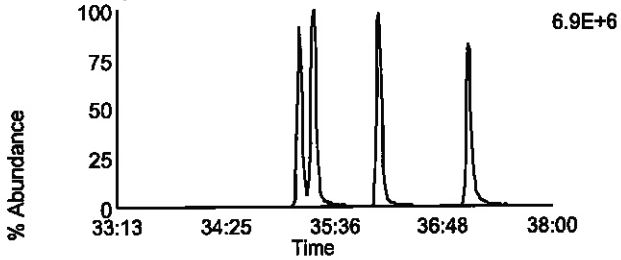
Data File: U130917B_15 G3 C2 - 375.8178
CAL CS3/CPM-7604-279 - SMT



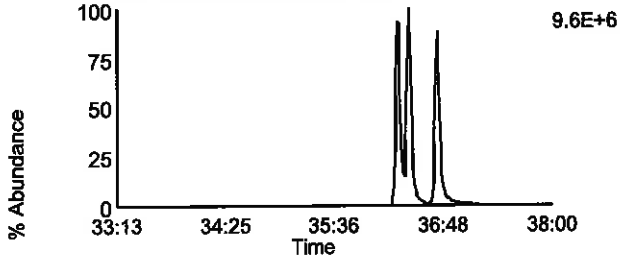
Data File: U130917B_15 G3 C8 - 391.8127
CAL CS3/CPM-7604-279 - SMT



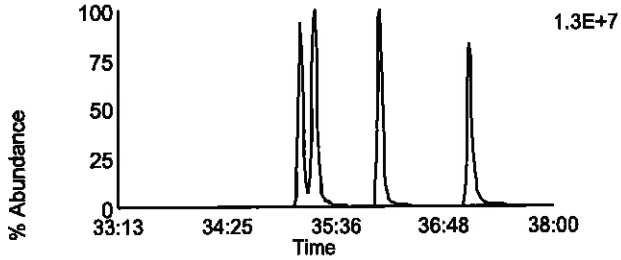
Data File: U130917B_15 G3 C5 - 383.8639
CAL CS3/CPM-7604-279 - SMT



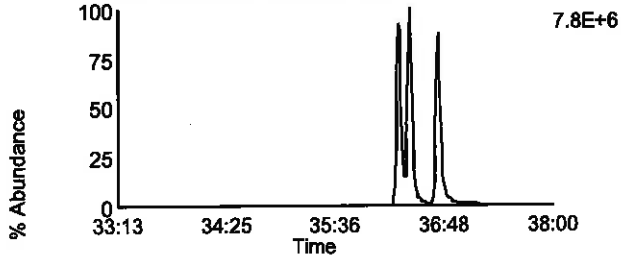
Data File: U130917B_15 G3 C9 - 401.8559
CAL CS3/CPM-7604-279 - SMT



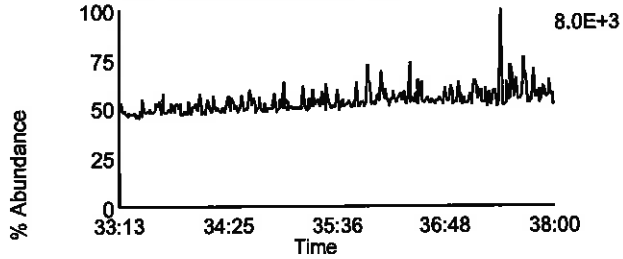
Data File: U130917B_15 G3 C6 - 385.861
CAL CS3/CPM-7604-279 - SMT



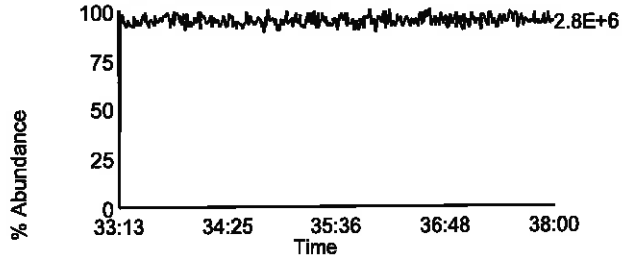
Data File: U130917B_15 G3 C10 - 403.8529
CAL CS3/CPM-7604-279 - SMT



Data File: U130917B_15 G3 C11 - 445.7555
CAL CS3/CPM-7604-279 - SMT



Data File: U130917B_15 G3 C3 - 380.976
CAL CS3/CPM-7604-279 - SMT

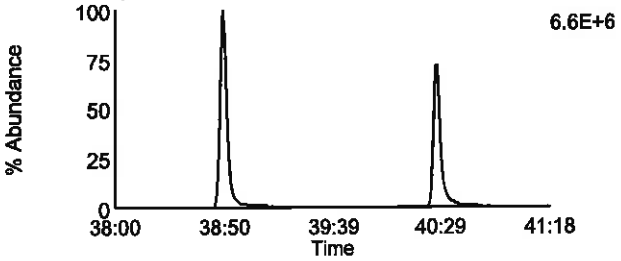


Homologue Group: Heptas

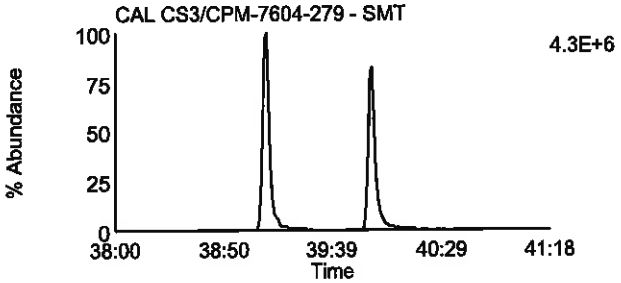
Data File Name: U130917B_15
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

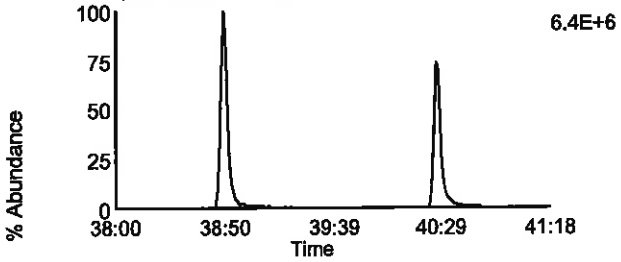
Data File: U130917B_15 G4 C3 - 407.7818
CAL CS3/CPM-7604-279 - SMT



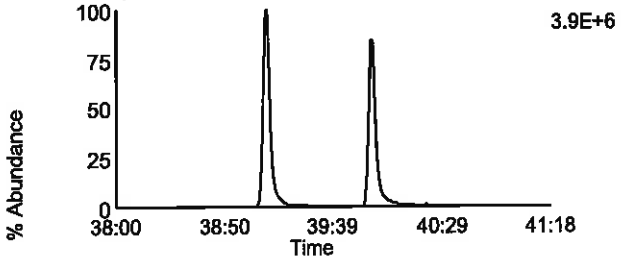
Data File: U130917B_15 G4 C8 - 423.7767
CAL CS3/CPM-7604-279 - SMT



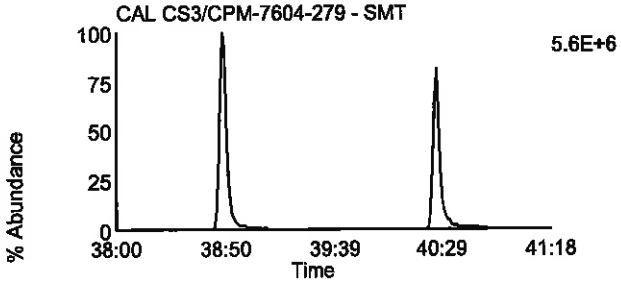
Data File: U130917B_15 G4 C4 - 409.7788
CAL CS3/CPM-7604-279 - SMT



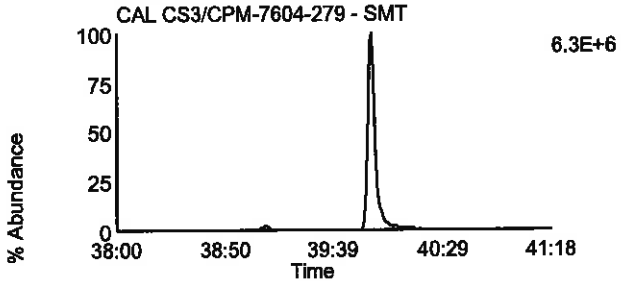
Data File: U130917B_15 G4 C9 - 425.7737
CAL CS3/CPM-7604-279 - SMT



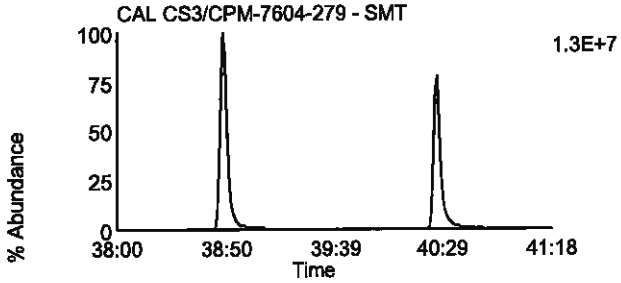
Data File: U130917B_15 G4 C6 - 417.825
CAL CS3/CPM-7604-279 - SMT



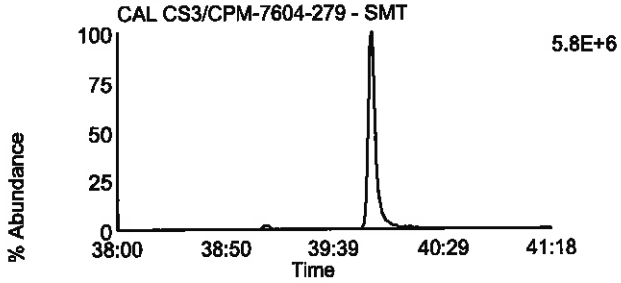
Data File: U130917B_15 G4 C11 - 435.8169
CAL CS3/CPM-7604-279 - SMT



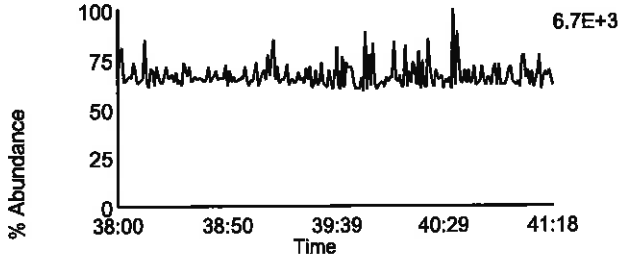
Data File: U130917B_15 G4 C7 - 419.822
CAL CS3/CPM-7604-279 - SMT



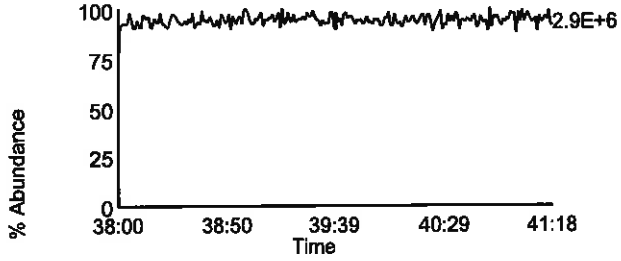
Data File: U130917B_15 G4 C12 - 437.814
CAL CS3/CPM-7604-279 - SMT



Data File: U130917B_15 G4 C13 - 479.7165
CAL CS3/CPM-7604-279 - SMT



Data File: U130917B_15 G4 C1 - 380.976
CAL CS3/CPM-7604-279 - SMT

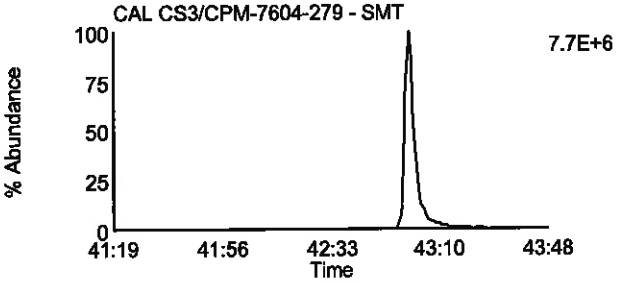


Homologue Group: Octas

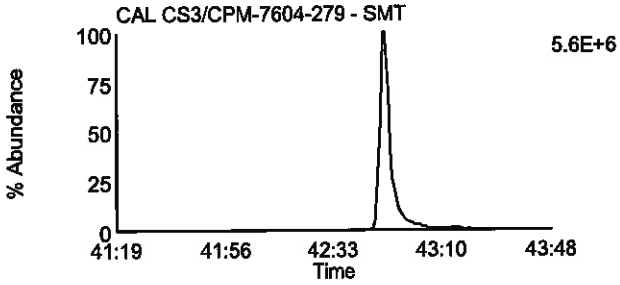
Data File Name: U130917B_15
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR06 (U)

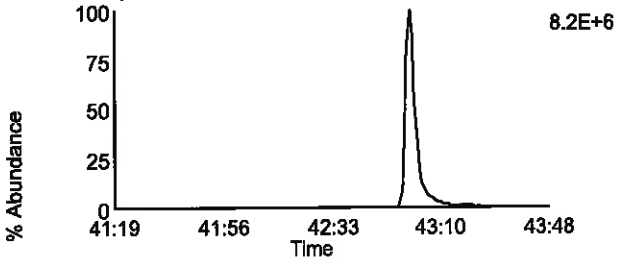
Data File: U130917B_15 G5 C4 - 441.7428
CAL CS3/CPM-7604-279 - SMT



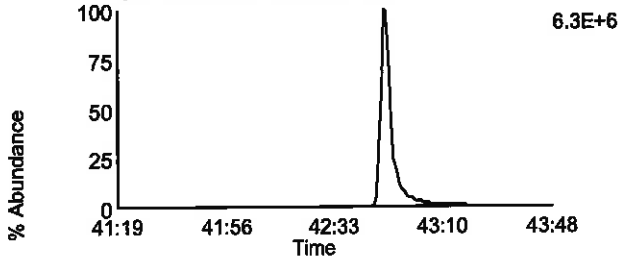
Data File: U130917B_15 G5 C8 - 457.7377
CAL CS3/CPM-7604-279 - SMT



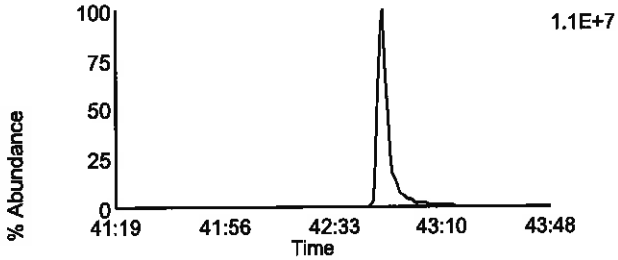
Data File: U130917B_15 G5 C5 - 443.7398
CAL CS3/CPM-7604-279 - SMT



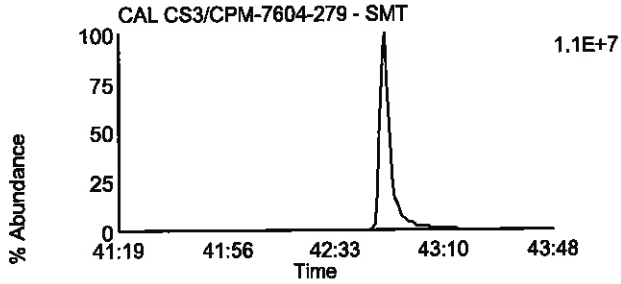
Data File: U130917B_15 G5 C9 - 459.7347
CAL CS3/CPM-7604-279 - SMT



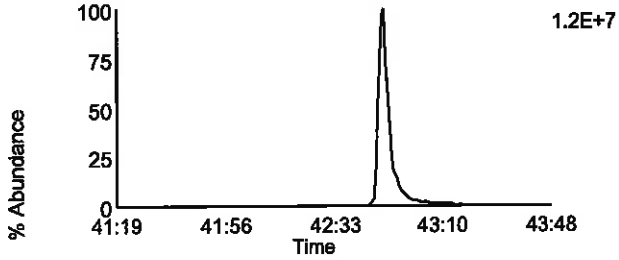
Data File: U130917B_15 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - SMT



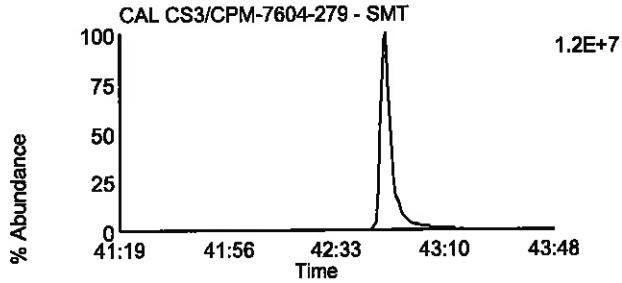
Data File: U130917B_15 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - SMT



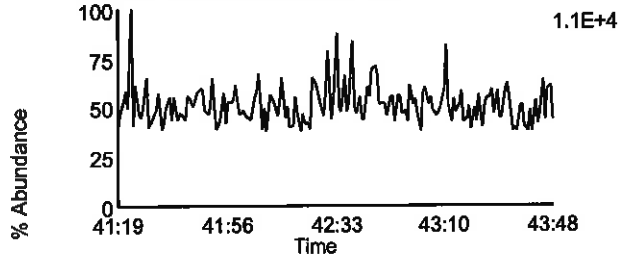
Data File: U130917B_15 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - SMT



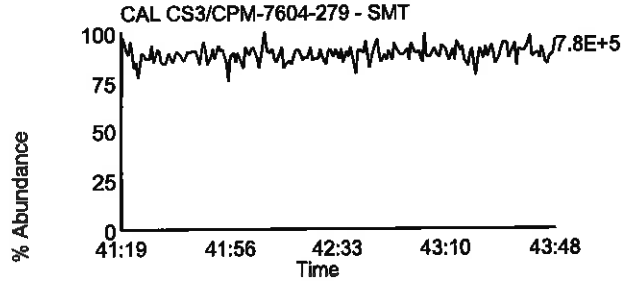
Data File: U130917B_15 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - SMT



Data File: U130917B_15 G5 C13 - 513.6775
CAL CS3/CPM-7604-279 - SMT



Data File: U130917B_15 G5 C2 - 430.9728
CAL CS3/CPM-7604-279 - SMT

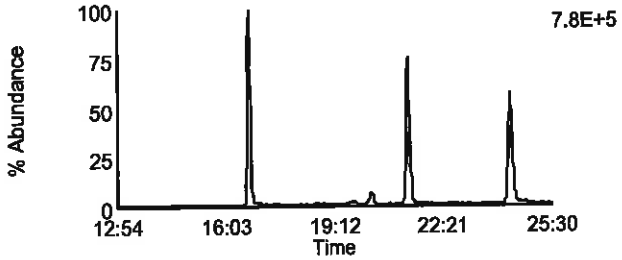


Homologue Group: Tetras

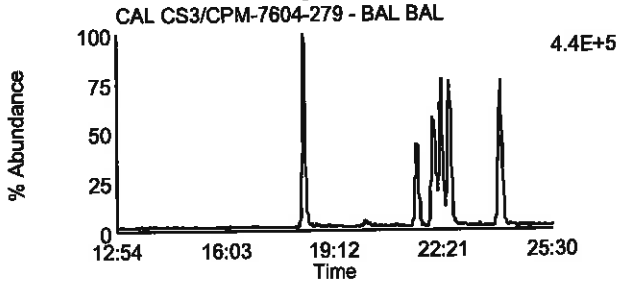
Data File Name: F130921A_16
Date Acquired: 9/21/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

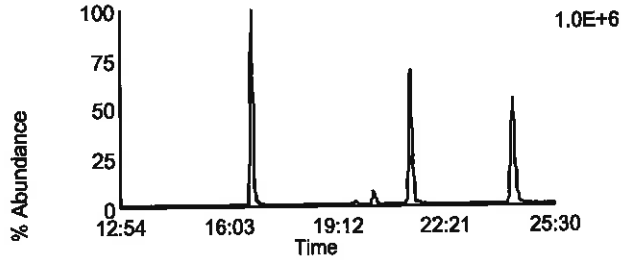
Data File: F130921A_16 G1 C1 - 303.9016
CAL CS3/CPM-7604-279 - BAL BAL



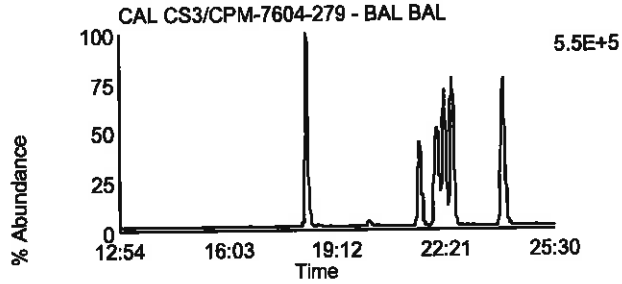
Data File: F130921A_16 G1 C7 - 319.8965
CAL CS3/CPM-7604-279 - BAL BAL



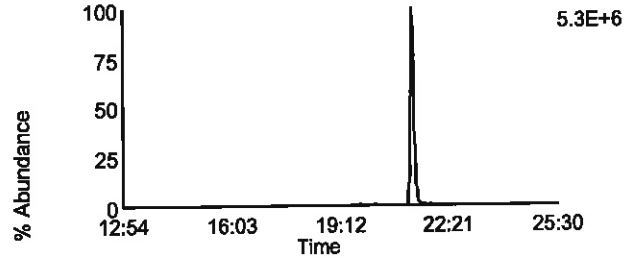
Data File: F130921A_16 G1 C2 - 305.8987
CAL CS3/CPM-7604-279 - BAL BAL



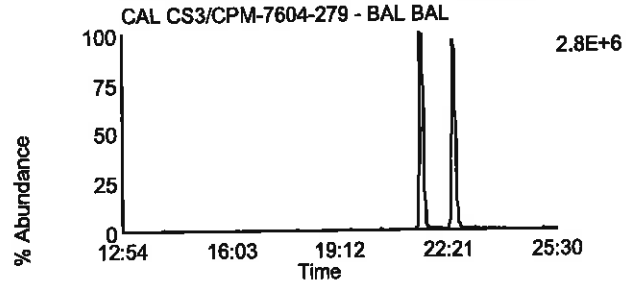
Data File: F130921A_16 G1 C8 - 321.8936
CAL CS3/CPM-7604-279 - BAL BAL



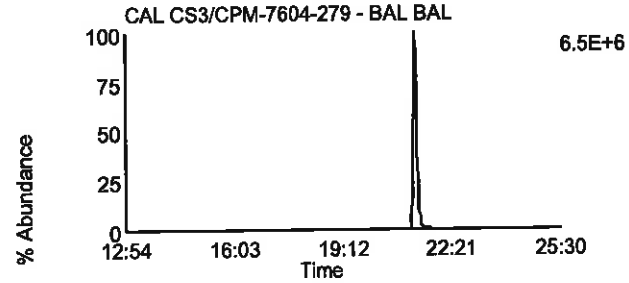
Data File: F130921A_16 G1 C3 - 315.9418
CAL CS3/CPM-7604-279 - BAL BAL



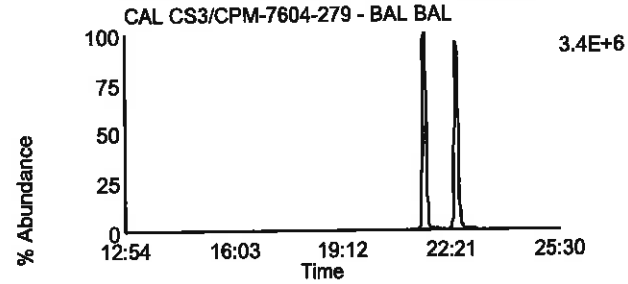
Data File: F130921A_16 G1 C10 - 331.9367
CAL CS3/CPM-7604-279 - BAL BAL



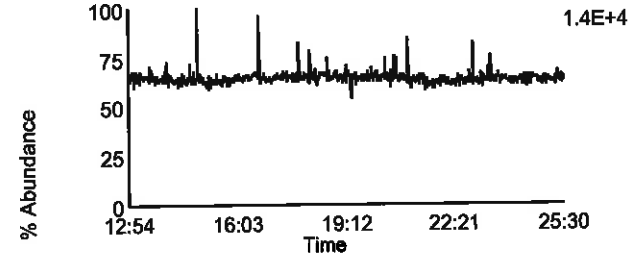
Data File: F130921A_16 G1 C4 - 317.9389
CAL CS3/CPM-7604-279 - BAL BAL



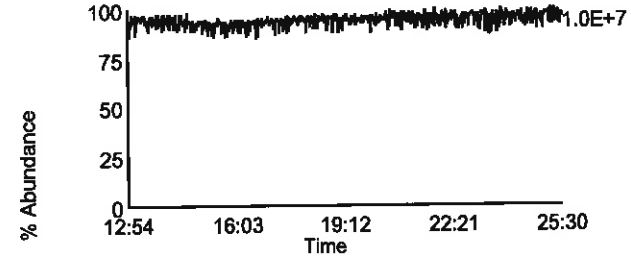
Data File: F130921A_16 G1 C11 - 333.9338
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G1 C14 - 375.8364
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - BAL BAL

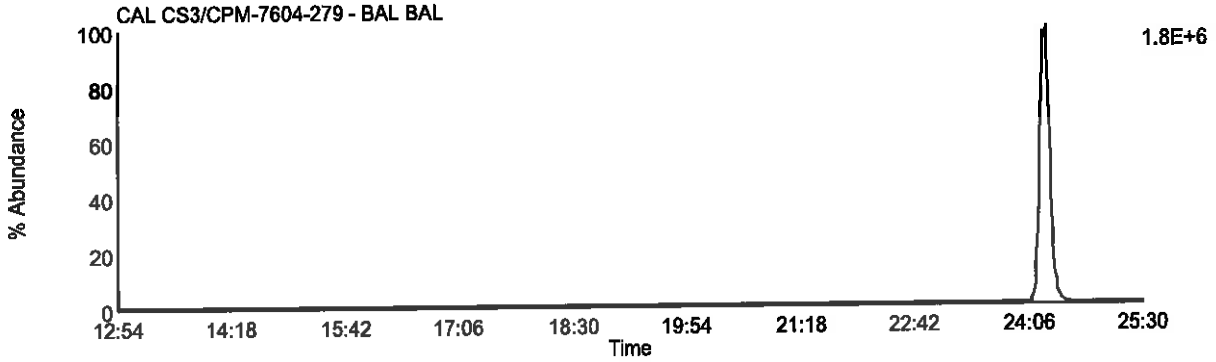


Homologue Group: Penta & Cleanup

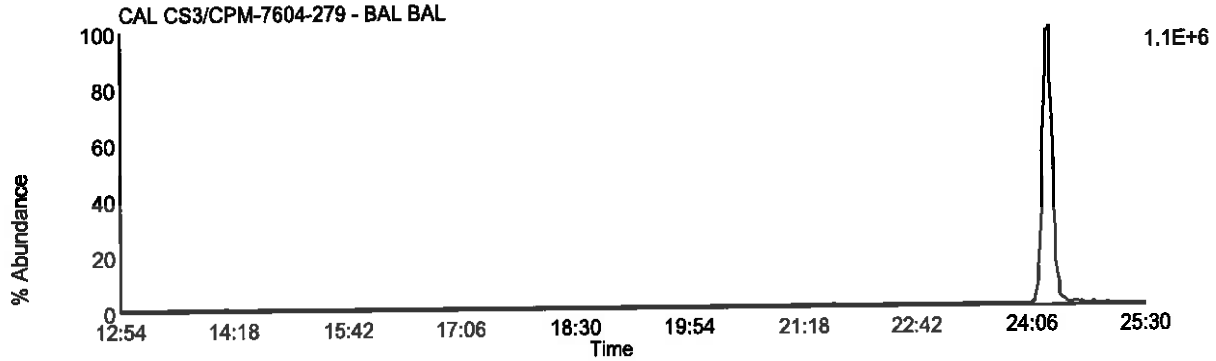
Data File Name: F130921A_16
Date Acquired: 9/21/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

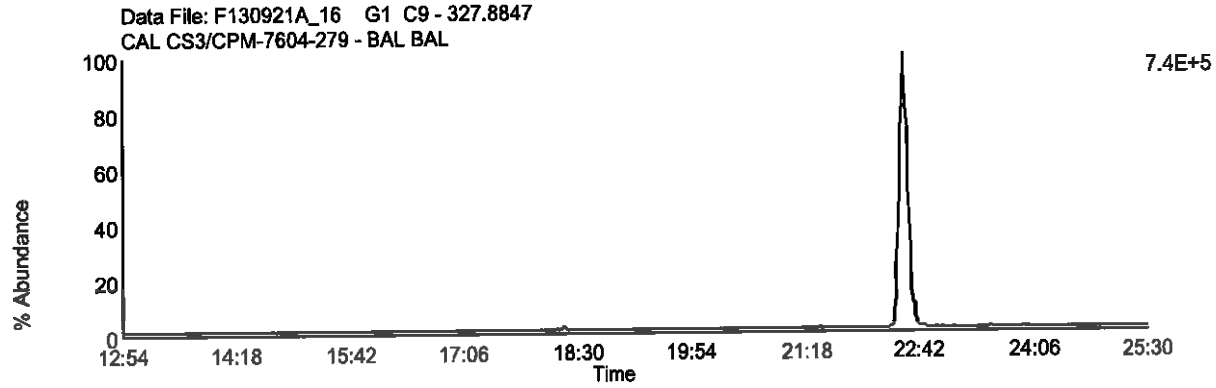
Data File: F130921A_16 G1 C12 - 339.8597
CAL CS3/CPM-7604-279 - BAL BAL



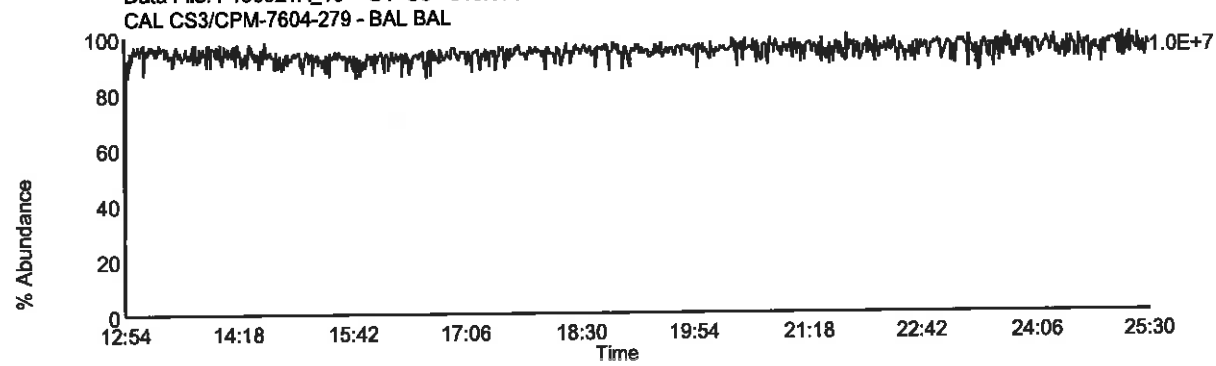
Data File: F130921A_16 G1 C13 - 341.8567
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G1 C9 - 327.8847
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - BAL BAL

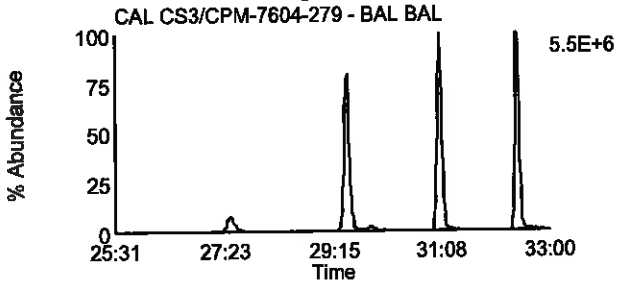


Homologue Group: Pentas

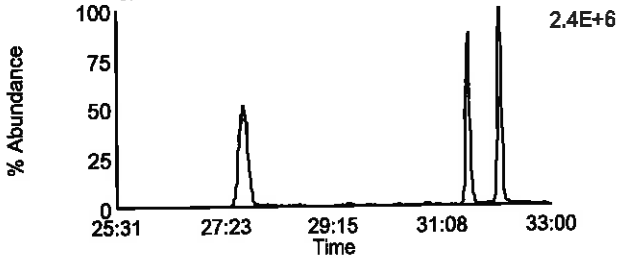
Data File Name: F130921A_16
Date Acquired: 9/21/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

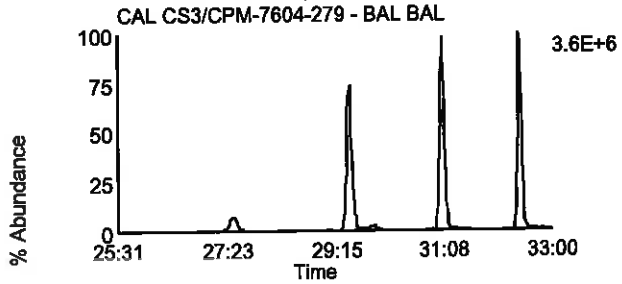
Data File: F130921A_16 G2 C1 - 339.8597
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G2 C4 - 353.8576
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G2 C2 - 341.8567
CAL CS3/CPM-7604-279 - BAL BAL



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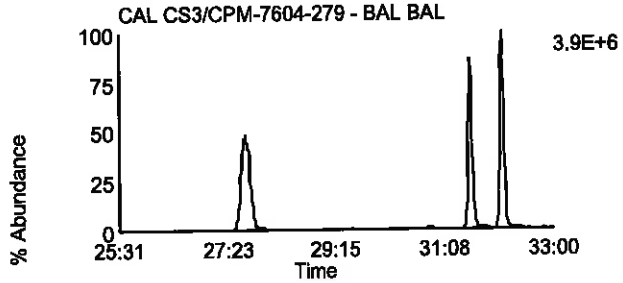
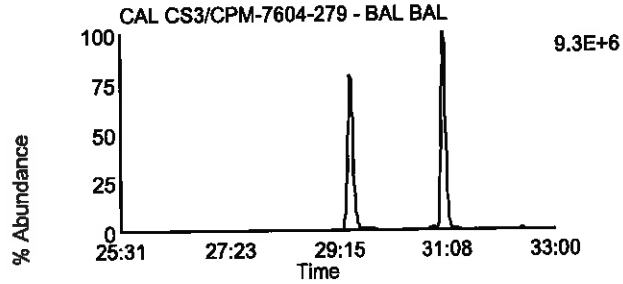
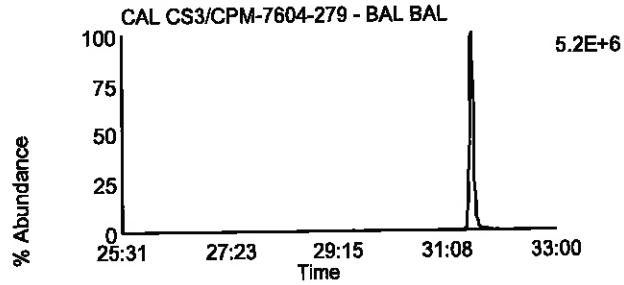
CAL CS3/CPM-7604-279 - BAL BAL



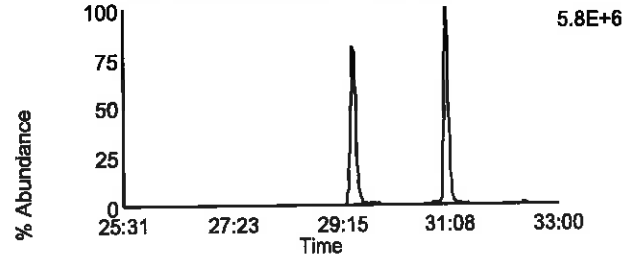
Data File: F130921A_16 G2 C3 - 351.8999
CAL CS3/CPM-7604-279 - BAL BAL



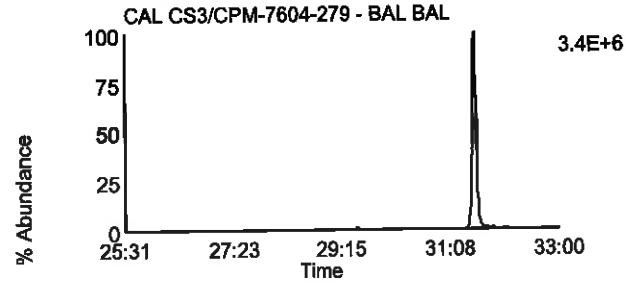
Data File: F130921A_16 G2 C10 - 367.8948
CAL CS3/CPM-7604-279 - BAL BAL



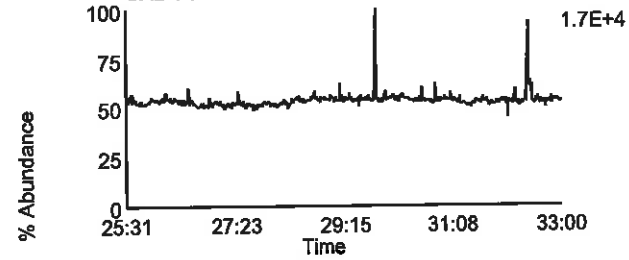
Data File: F130921A_16 G2 C5 - 353.8969
CAL CS3/CPM-7604-279 - BAL BAL



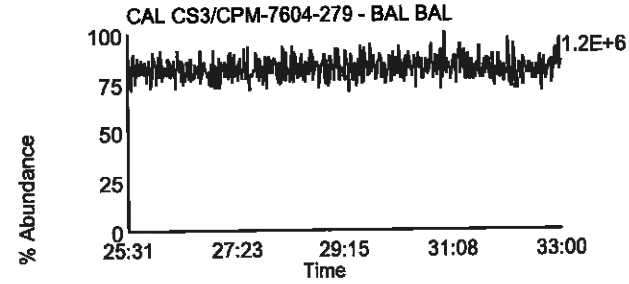
Data File: F130921A_16 G2 C11 - 369.8918
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G2 C12 - 409.7974
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G2 C6 - 354.9792
CAL CS3/CPM-7604-279 - BAL BAL

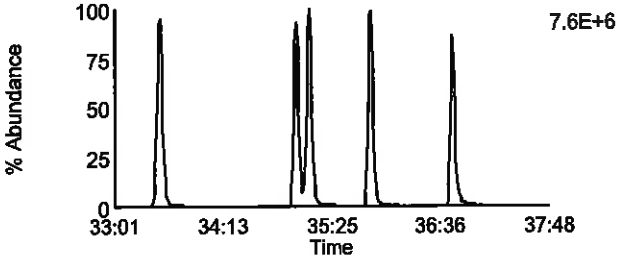


Homologue Group: Hexas

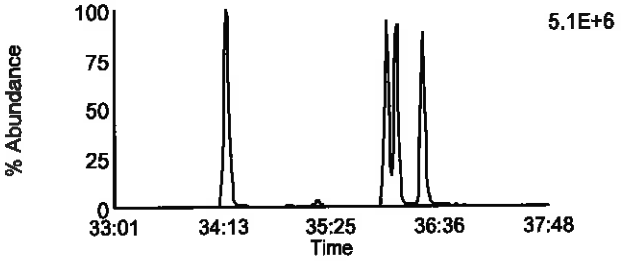
Data File Name: F130921A_16
Date Acquired: 9/21/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

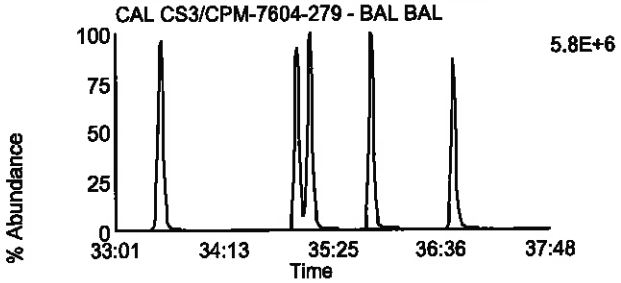
Data File: F130921A_16 G3 C1 - 373.8207
CAL CS3/CPM-7604-279 - BAL BAL



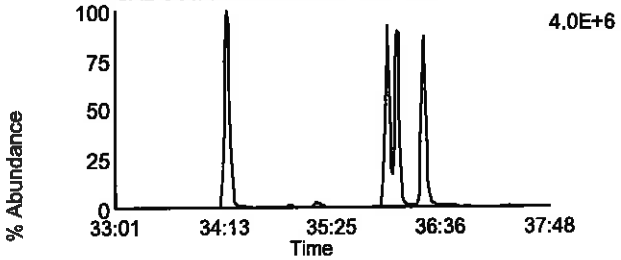
Data File: F130921A_16 G3 C7 - 389.8156
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G3 C2 - 375.8178
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G3 C8 - 391.8127
CAL CS3/CPM-7604-279 - BAL BAL



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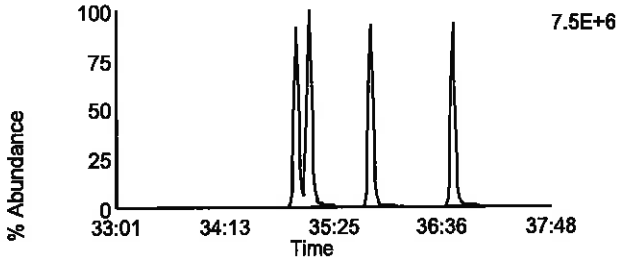
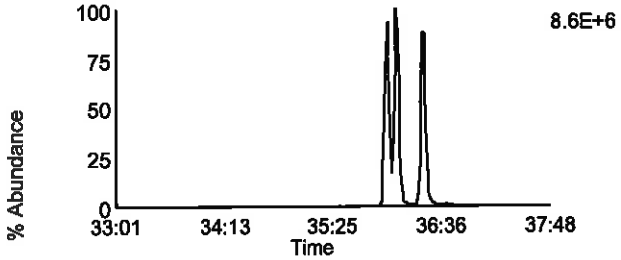
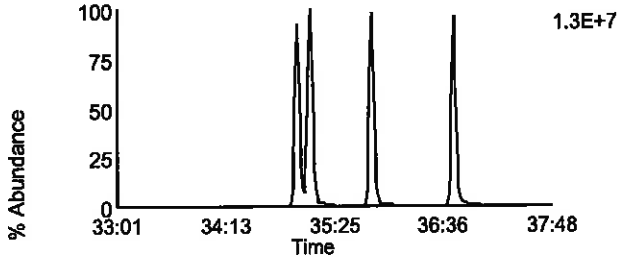
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G3 C9 - 401.8559
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G3 C6 - 385.861
CAL CS3/CPM-7604-279 - BAL BAL



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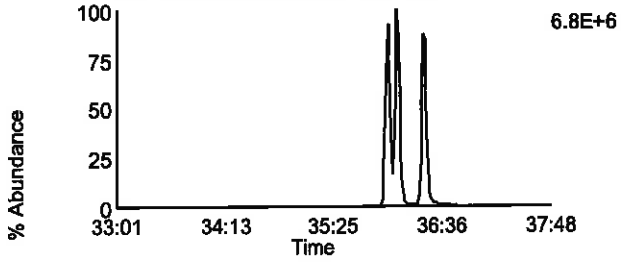
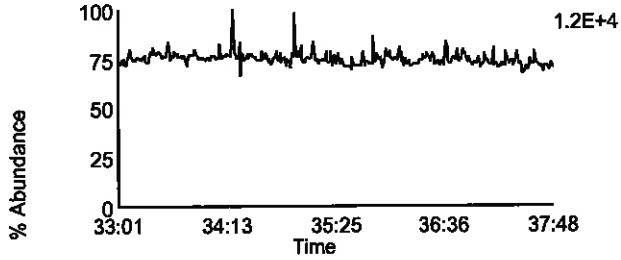
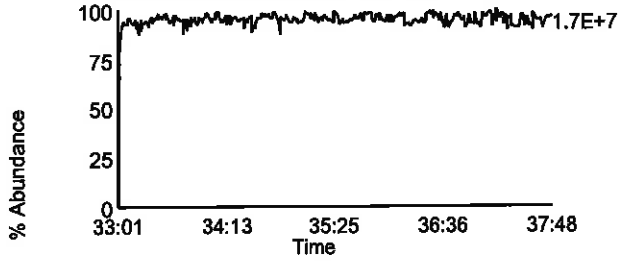
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G3 C11 - 445.7555
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G3 C3 - 380.976
CAL CS3/CPM-7604-279 - BAL BAL

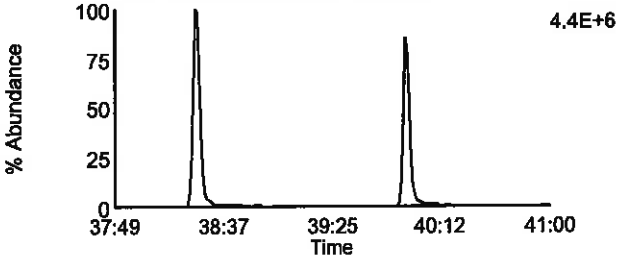


Homologue Group: Heptas

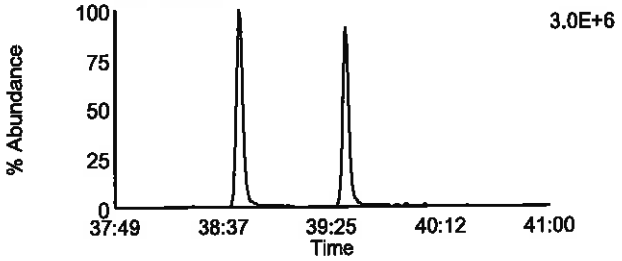
Data File Name: F130921A_16
Date Acquired: 9/21/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

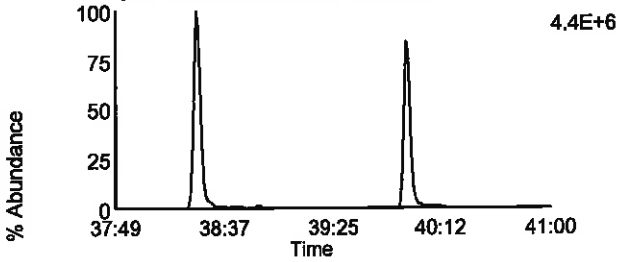
Data File: F130921A_16 G4 C3 - 407.7818
CAL CS3/CPM-7604-279 - BAL BAL



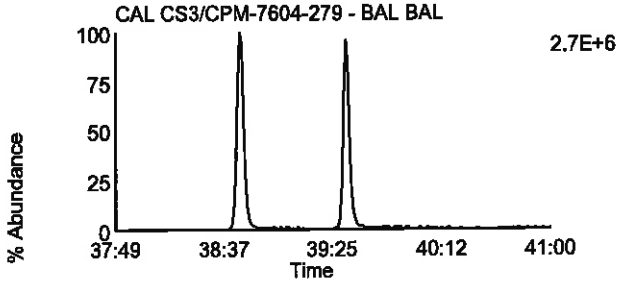
Data File: F130921A_16 G4 C8 - 423.7767
CAL CS3/CPM-7604-279 - BAL BAL



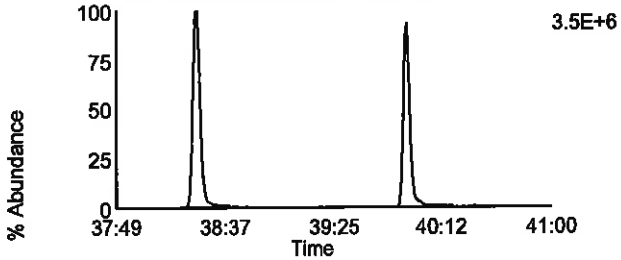
Data File: F130921A_16 G4 C4 - 409.7788
CAL CS3/CPM-7604-279 - BAL BAL



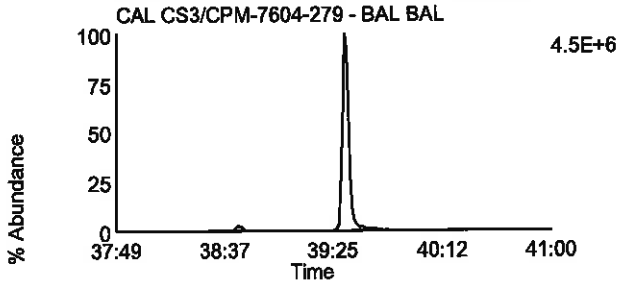
Data File: F130921A_16 G4 C9 - 425.7737
CAL CS3/CPM-7604-279 - BAL BAL



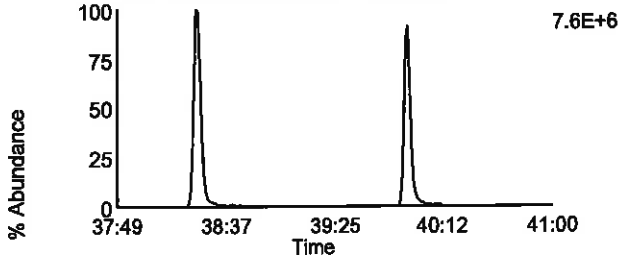
Data File: F130921A_16 G4 C6 - 417.825
CAL CS3/CPM-7604-279 - BAL BAL



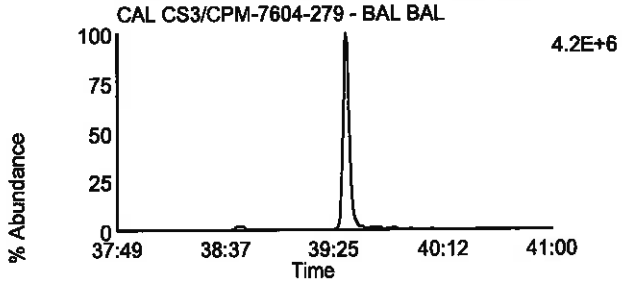
Data File: F130921A_16 G4 C11 - 435.8169
CAL CS3/CPM-7604-279 - BAL BAL



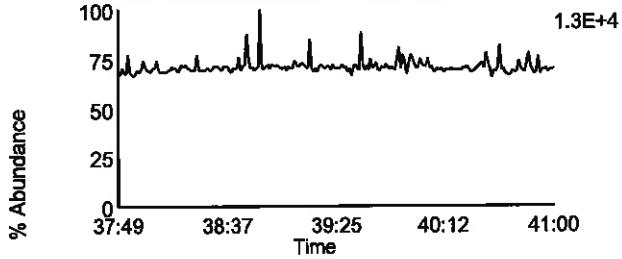
Data File: F130921A_16 G4 C7 - 419.822
CAL CS3/CPM-7604-279 - BAL BAL



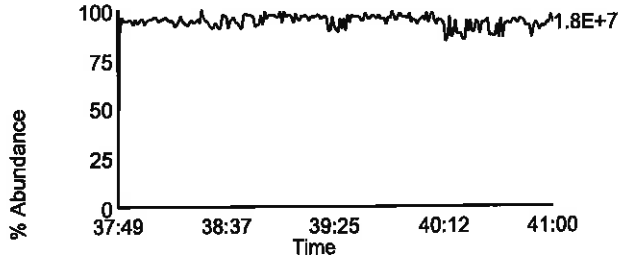
Data File: F130921A_16 G4 C12 - 437.814
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G4 C13 - 479.7165
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G4 C1 - 380.976
CAL CS3/CPM-7604-279 - BAL BAL

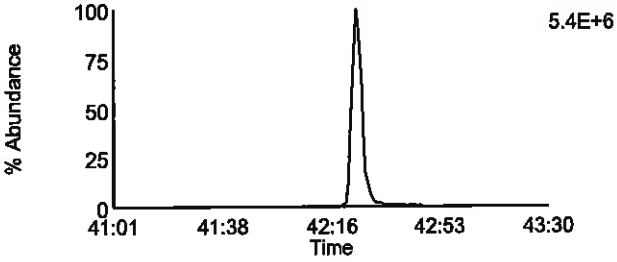


Homologue Group: Octas

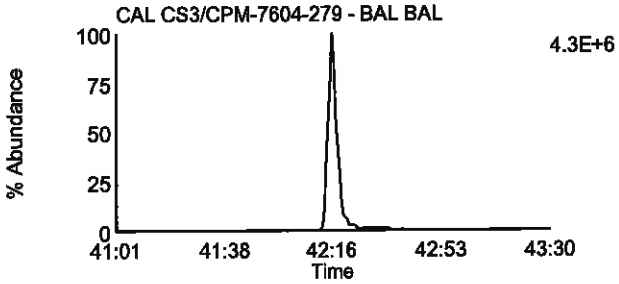
Data File Name: F130921A_16
Date Acquired: 9/21/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

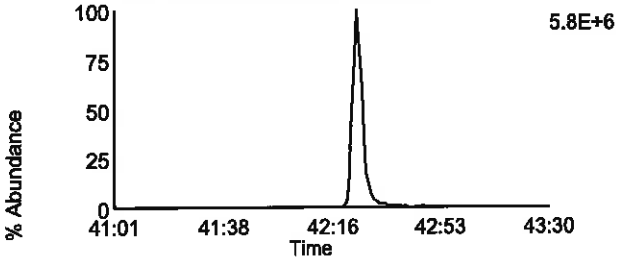
Data File: F130921A_16 G5 C4 - 441.7428
CAL CS3/CPM-7604-279 - BAL BAL



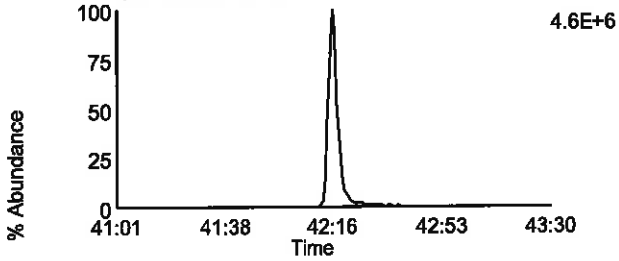
Data File: F130921A_16 G5 C8 - 457.7377
CAL CS3/CPM-7604-279 - BAL BAL



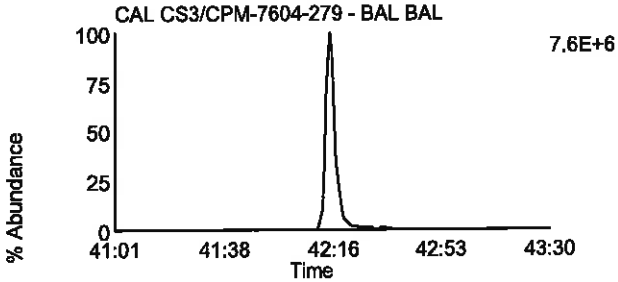
Data File: F130921A_16 G5 C5 - 443.7398
CAL CS3/CPM-7604-279 - BAL BAL



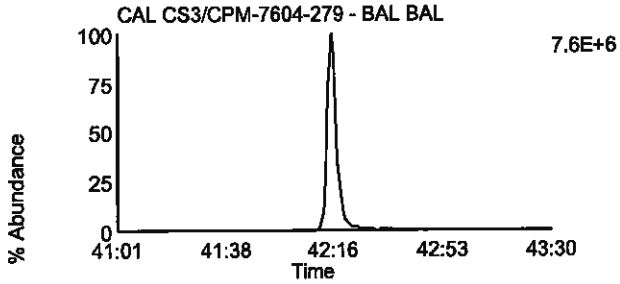
Data File: F130921A_16 G5 C9 - 459.7347
CAL CS3/CPM-7604-279 - BAL BAL



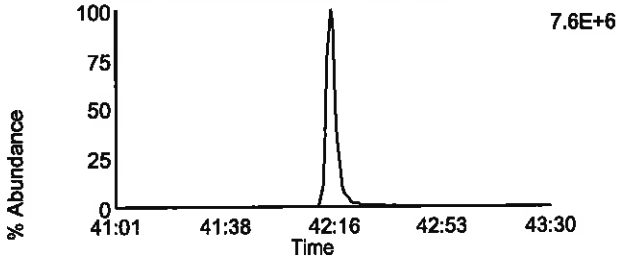
Data File: F130921A_16 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - BAL BAL



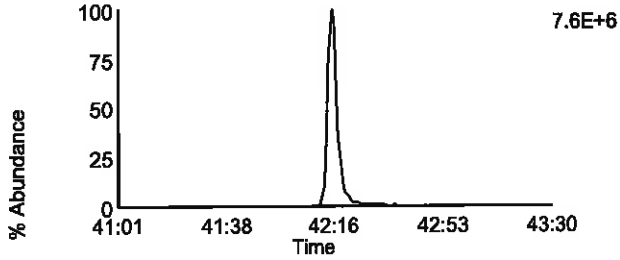
Data File: F130921A_16 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - BAL BAL



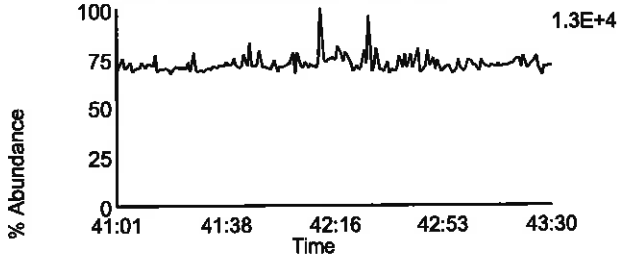
Data File: F130921A_16 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - BAL BAL



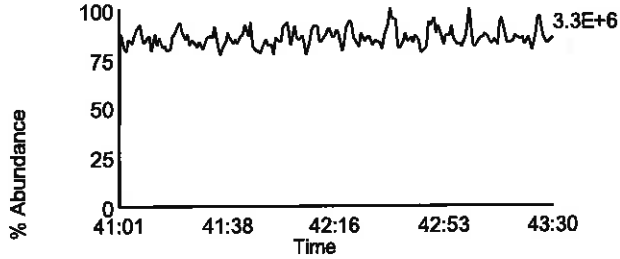
Data File: F130921A_16 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G5 C13 - 513.6775
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G5 C2 - 430.9728
CAL CS3/CPM-7604-279 - BAL BAL

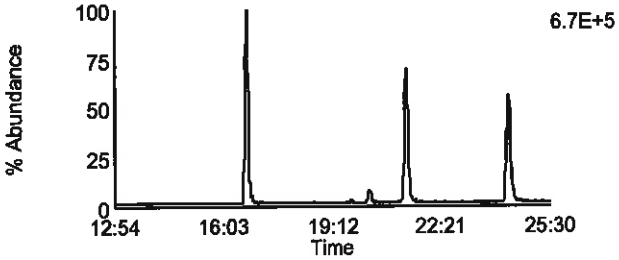


Homologue Group: Tetras

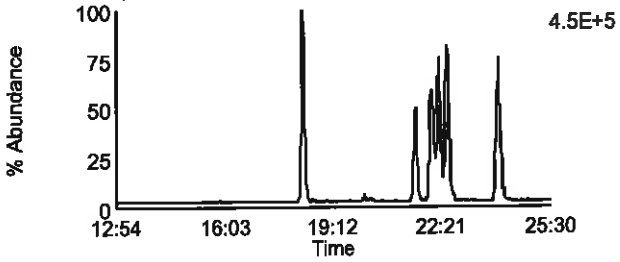
Data File Name: F130921B_16
Date Acquired: 9/22/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

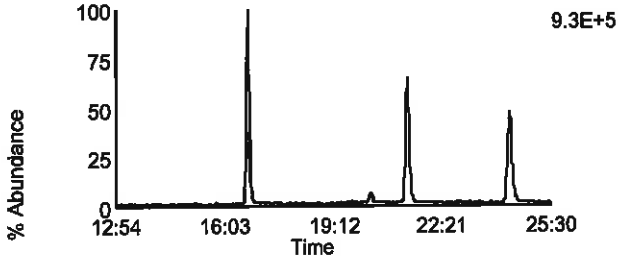
Data File: F130921B_16 G1 C1 - 303.9016
CAL CS3/CPM-7604-279 - BAL BAL



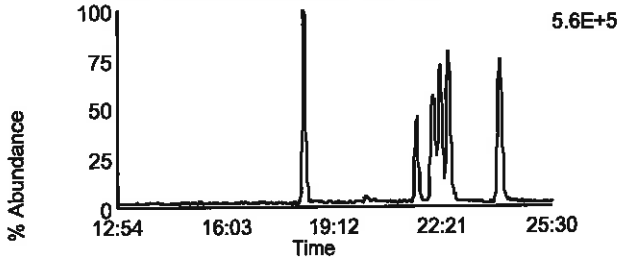
Data File: F130921B_16 G1 C7 - 319.8965
CAL CS3/CPM-7604-279 - BAL BAL



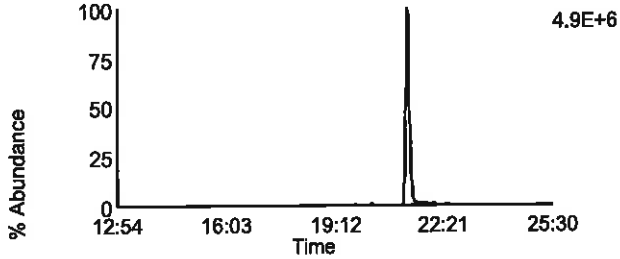
Data File: F130921B_16 G1 C2 - 305.8987
CAL CS3/CPM-7604-279 - BAL BAL



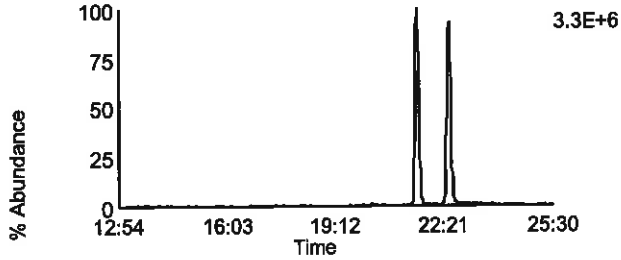
Data File: F130921B_16 G1 C8 - 321.8936
CAL CS3/CPM-7604-279 - BAL BAL



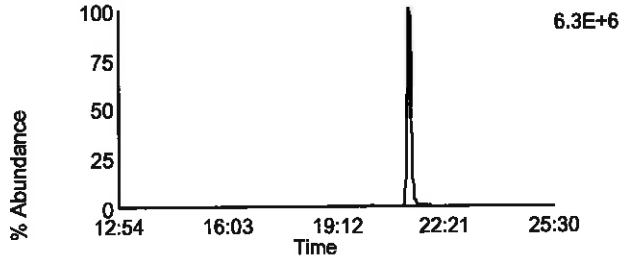
Data File: F130921B_16 G1 C3 - 315.9418
CAL CS3/CPM-7604-279 - BAL BAL



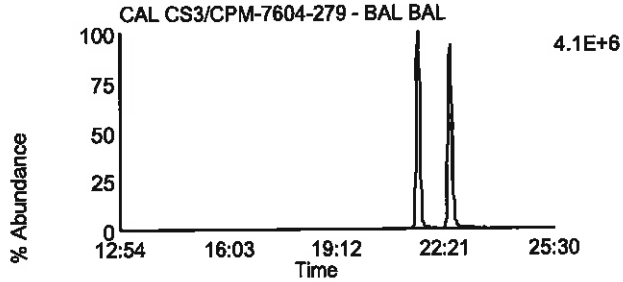
Data File: F130921B_16 G1 C10 - 331.9367
CAL CS3/CPM-7604-279 - BAL BAL



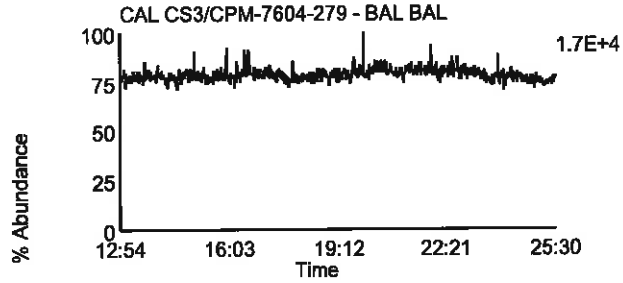
Data File: F130921B_16 G1 C4 - 317.9389
CAL CS3/CPM-7604-279 - BAL BAL



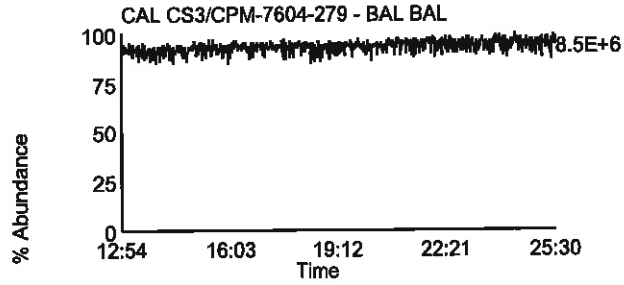
Data File: F130921B_16 G1 C11 - 333.9338
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G1 C14 - 375.8364
CAL CS3/CPM-7604-279 - BAL BAL



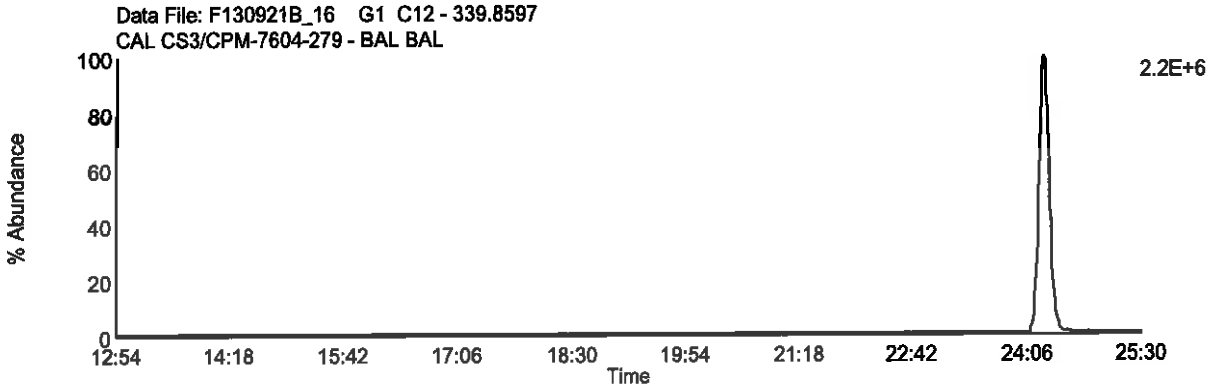
Data File: F130921B_16 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - BAL BAL

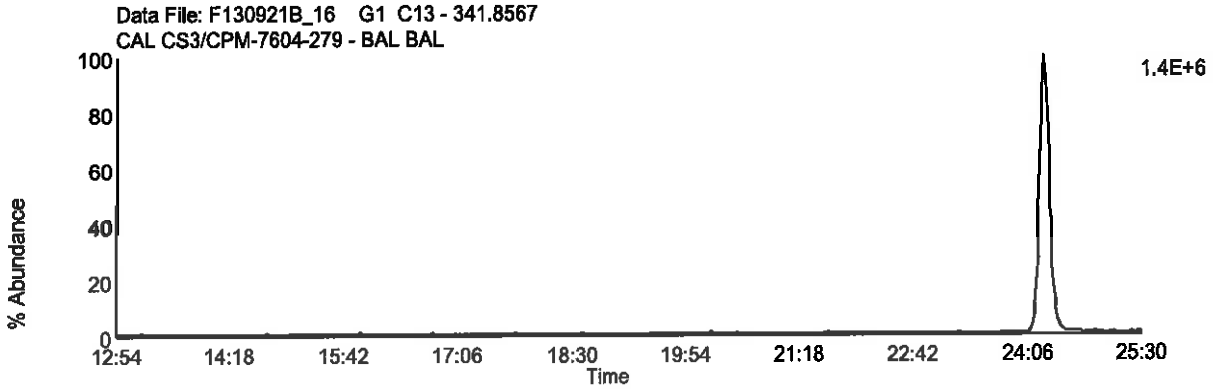


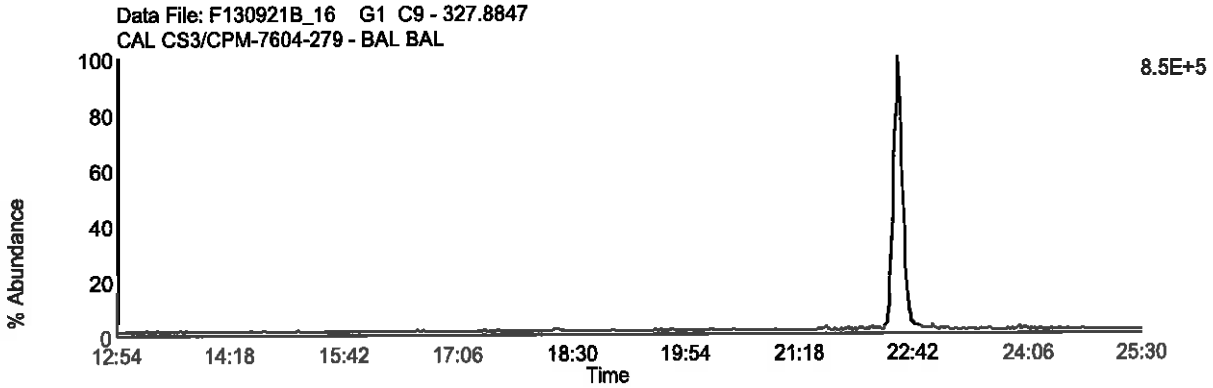
Homologue Group: Penta & Cleanup

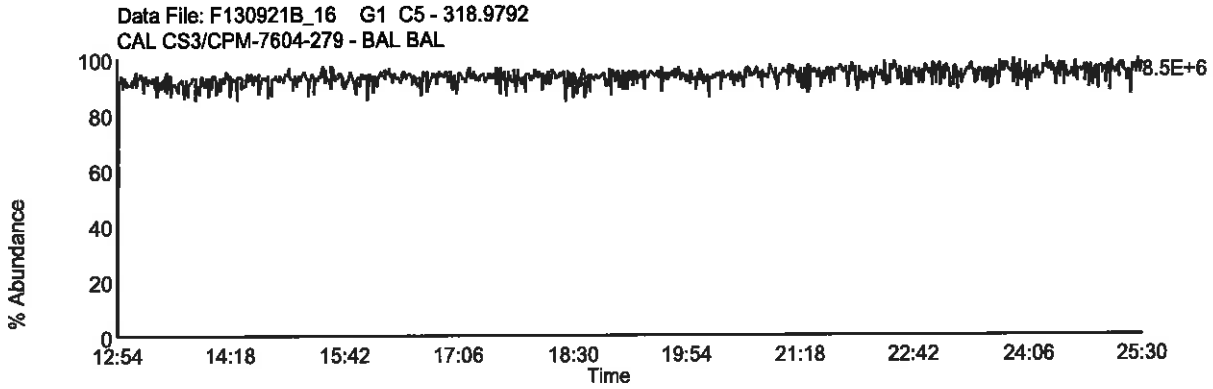
Data File Name: F130921B_16
Date Acquired: 9/22/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)







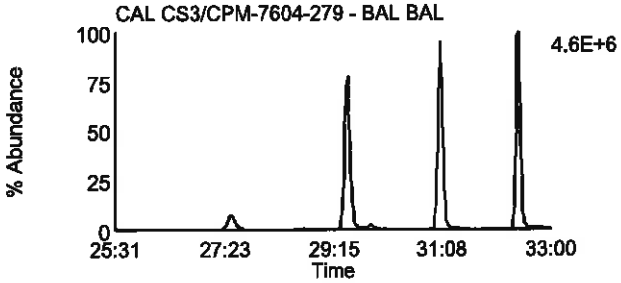


Homologue Group: Pentas

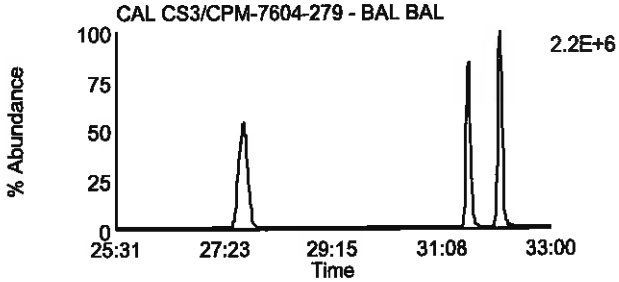
Data File Name: F130921B_16
Date Acquired: 9/22/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

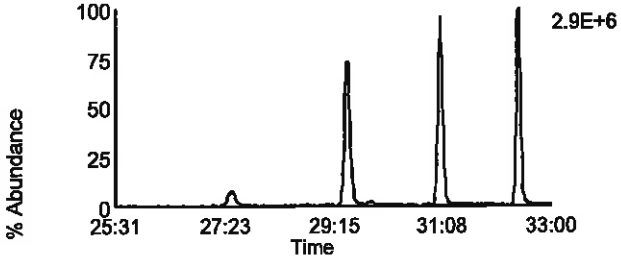
Data File: F130921B_16 G2 C1 - 339.8597
CAL CS3/CPM-7604-279 - BAL BAL



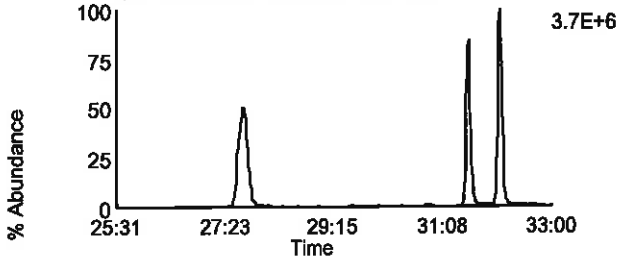
Data File: F130921B_16 G2 C4 - 353.8576
CAL CS3/CPM-7604-279 - BAL BAL



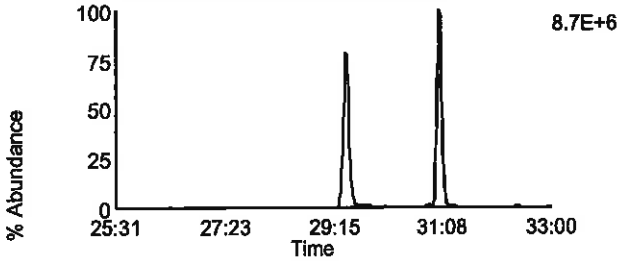
Data File: F130921B_16 G2 C2 - 341.8567
CAL CS3/CPM-7604-279 - BAL BAL



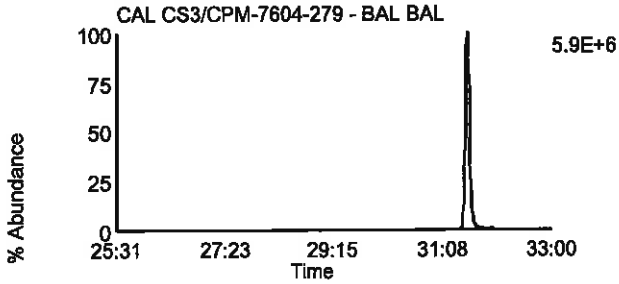
Data File: F130921B_16 G2 C8 - 355.8546
CAL CS3/CPM-7604-279 - BAL BAL



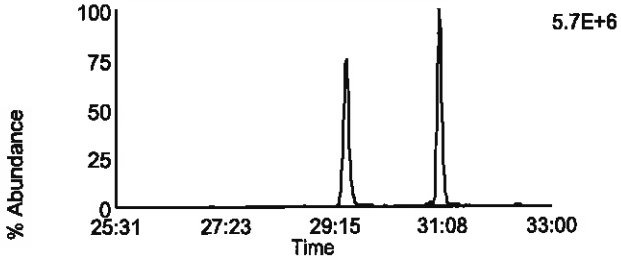
Data File: F130921B_16 G2 C3 - 351.8999
CAL CS3/CPM-7604-279 - BAL BAL



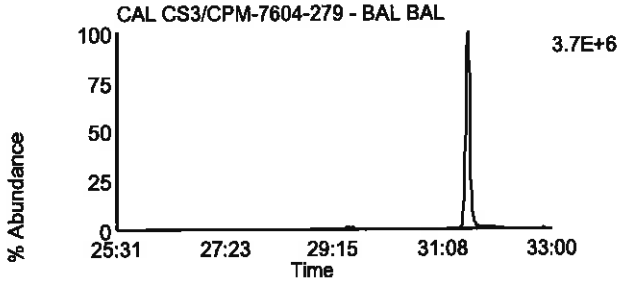
Data File: F130921B_16 G2 C10 - 367.8948
CAL CS3/CPM-7604-279 - BAL BAL



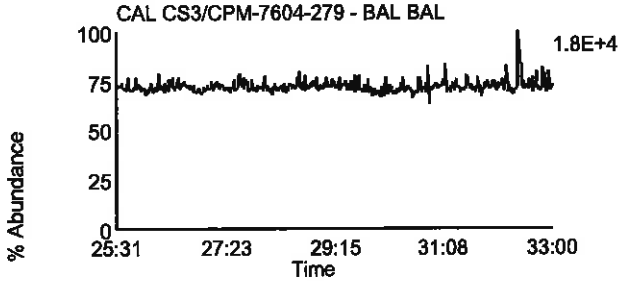
Data File: F130921B_16 G2 C5 - 353.8969
CAL CS3/CPM-7604-279 - BAL BAL



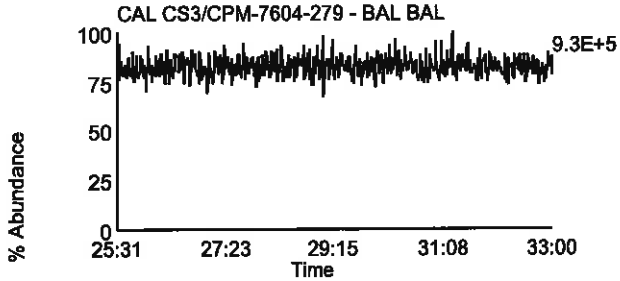
Data File: F130921B_16 G2 C11 - 369.8918
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G2 C12 - 409.7974
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G2 C6 - 354.9792
CAL CS3/CPM-7604-279 - BAL BAL

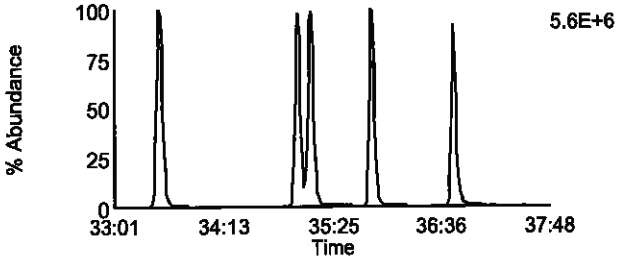


Homologue Group: Hexas

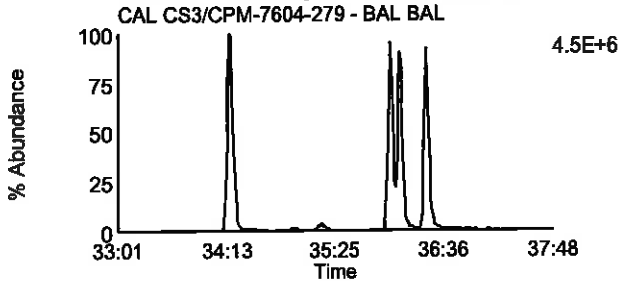
Data File Name: F130921B_16
Date Acquired: 9/22/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

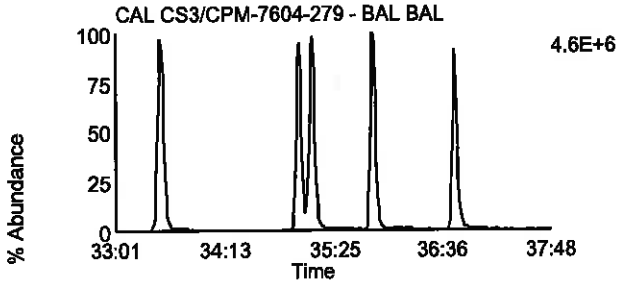
Data File: F130921B_16 G3 C1 - 373.8207
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G3 C7 - 389.8156
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G3 C2 - 375.8178
CAL CS3/CPM-7604-279 - BAL BAL



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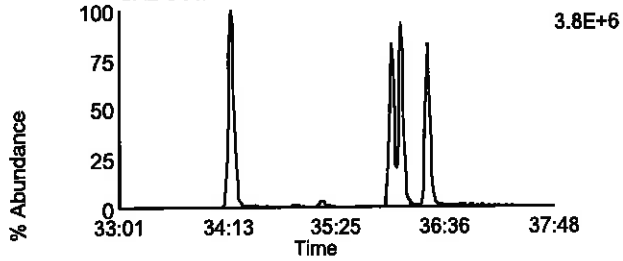
CAL CS3/CPM-7604-279 - BAL BAL



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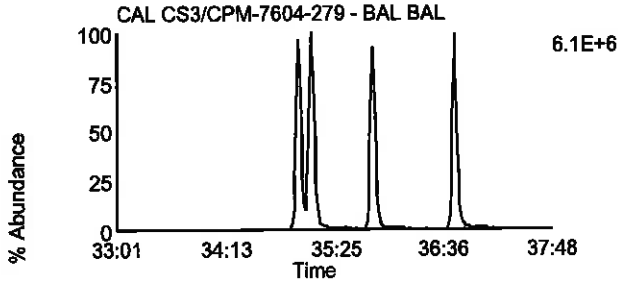
CAL CS3/CPM-7604-279 - BAL BAL



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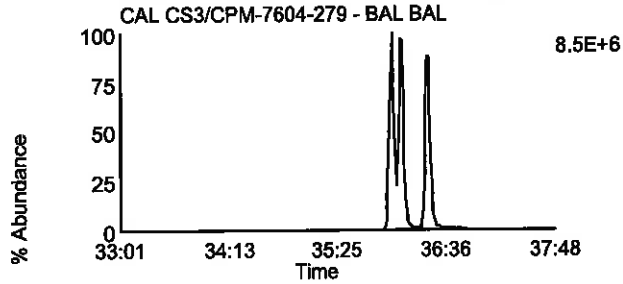
CAL CS3/CPM-7604-279 - BAL BAL



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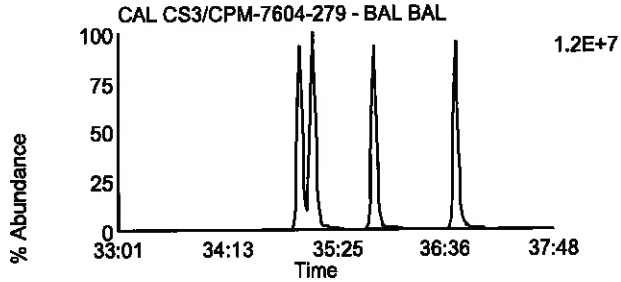
CAL CS3/CPM-7604-279 - BAL BAL



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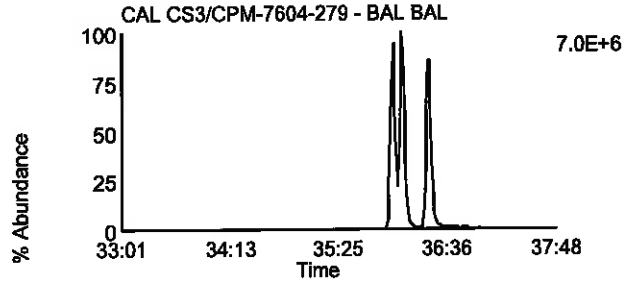
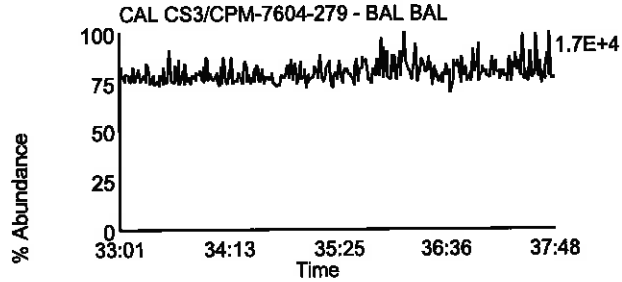
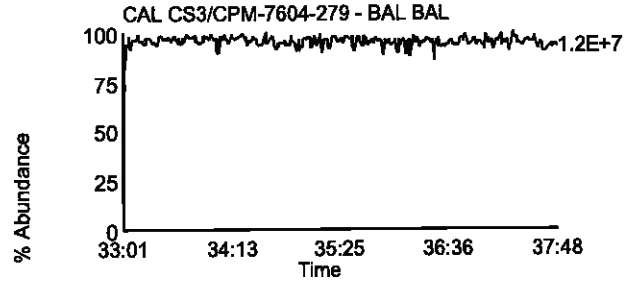
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G3 C11 - 445.7555
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G3 C3 - 380.976
CAL CS3/CPM-7604-279 - BAL BAL

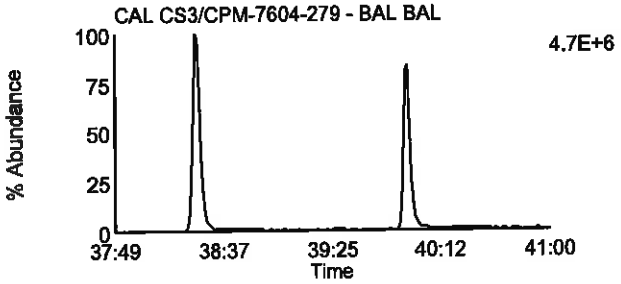


Homologue Group: Heptas

Data File Name: F130921B_16
Date Acquired: 9/22/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

Data File: F130921B_16 G4 C3 - 407.7818
CAL CS3/CPM-7604-279 - BAL BAL



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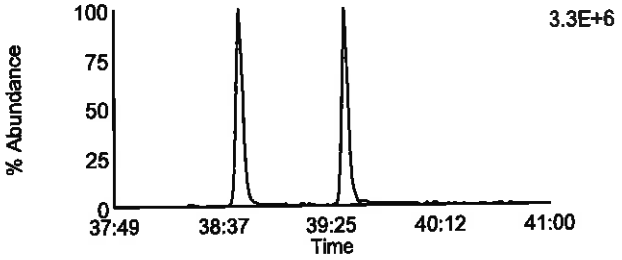
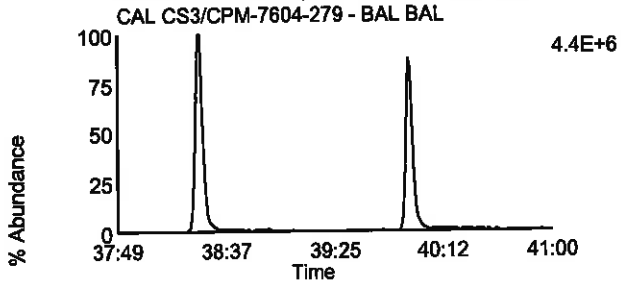
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G4 C4 - 409.7788
CAL CS3/CPM-7604-279 - BAL BAL



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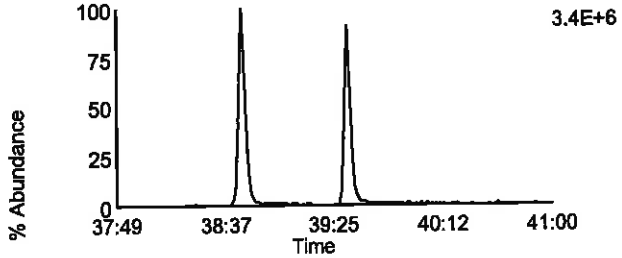
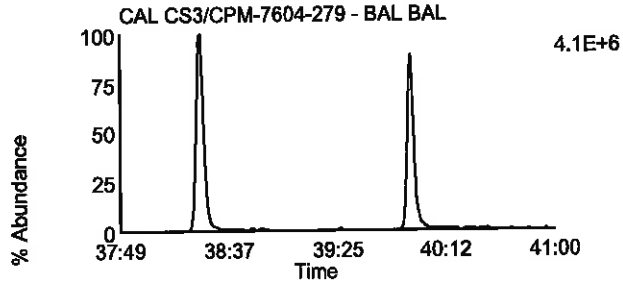
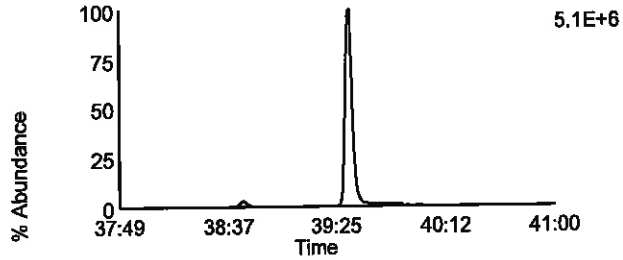
CAL CS3/CPM-7604-279 - BAL BAL



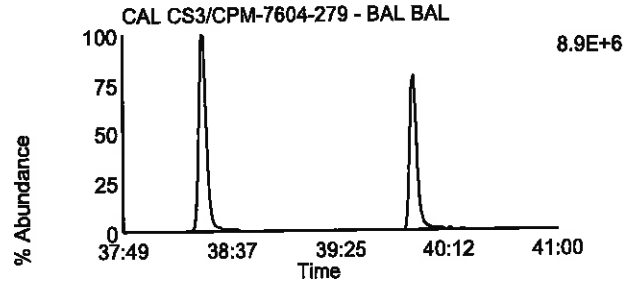
Data File: F130921B_16 G4 C6 - 417.825
CAL CS3/CPM-7604-279 - BAL BAL



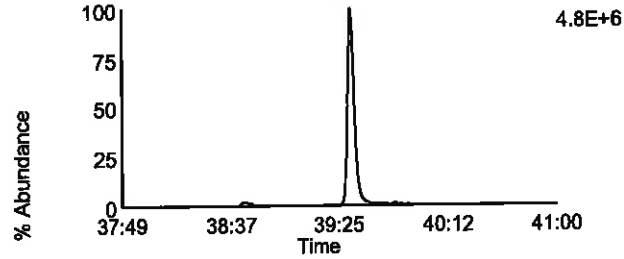
Data File: F130921B_16 G4 C11 - 435.8169
CAL CS3/CPM-7604-279 - BAL BAL



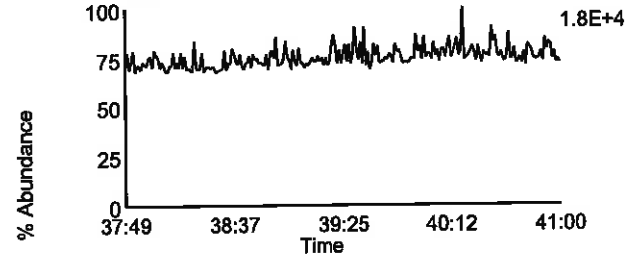
Data File: F130921B_16 G4 C7 - 419.822
CAL CS3/CPM-7604-279 - BAL BAL



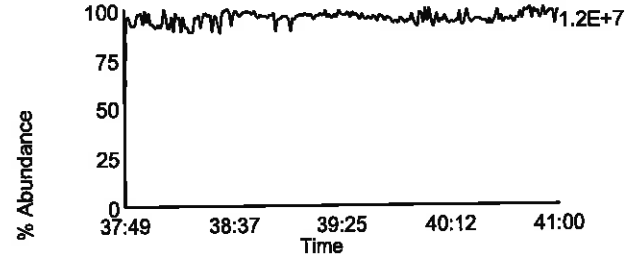
Data File: F130921B_16 G4 C12 - 437.814
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G4 C13 - 479.7165
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G4 C1 - 380.976
CAL CS3/CPM-7604-279 - BAL BAL

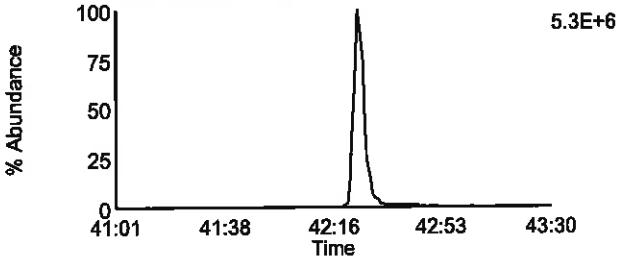


Homologue Group: Octas

Data File Name: F130921B_16
Date Acquired: 9/22/2013
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID:
Instrument: 10MSHR05 (F)

Data File: F130921B_16 G5 C4 - 441.7428
CAL CS3/CPM-7604-279 - BAL BAL



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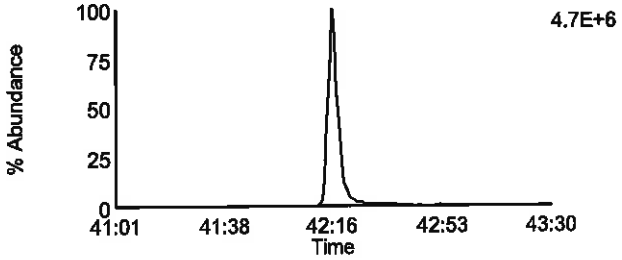
CAL CS3/CPM-7604-279 - BAL BAL



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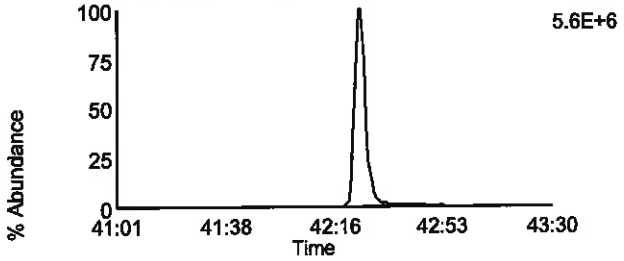
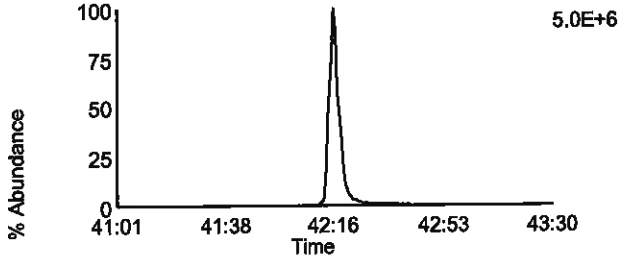
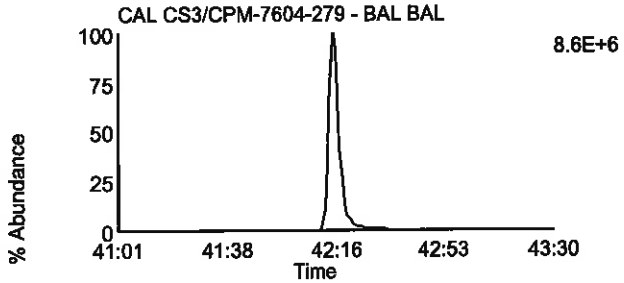
CAL CS3/CPM-7604-279 - BAL BAL



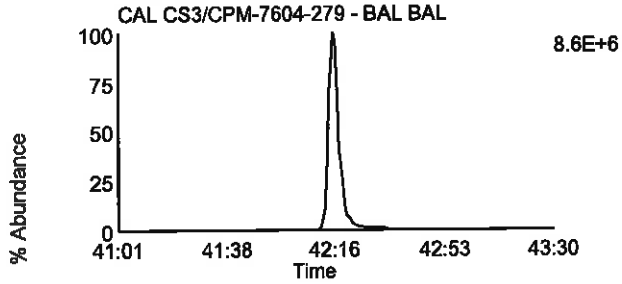
Data File: F130921B_16 G5 C9 - 459.7347
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921B_16 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - BAL BAL



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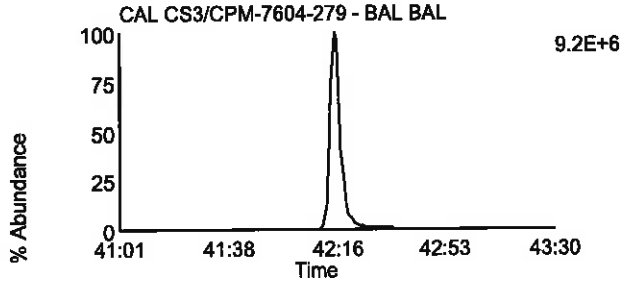
CAL CS3/CPM-7604-279 - BAL BAL



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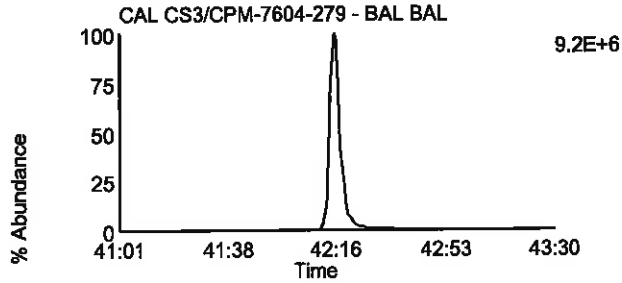
CAL CS3/CPM-7604-279 - BAL BAL



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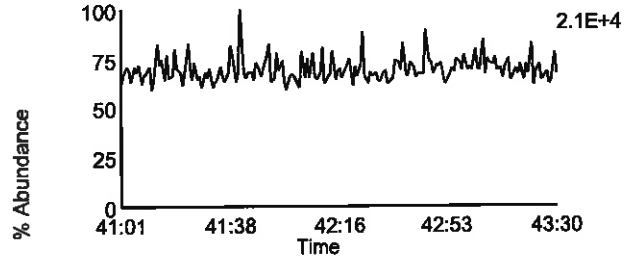

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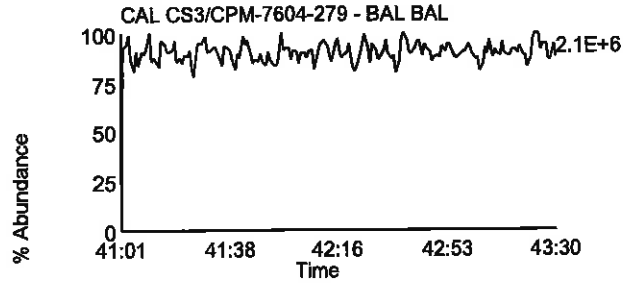

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS1-7604-273	Instrument ID	10MSHR05 (F)
Filename	F130918B_04	GC Column ID	USD174324H
Analyzed	09/18/2013 18:22	ICAL ID	F130918

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:18	6.02e7	7.45e7	9.61e6	1.15e7	----	----	0.81	
2,3,7,8-TCDF	21:20	3.09e5	3.69e5	4.68e4	5.91e4	1.675e3	1.368e3	0.84	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:33	3.77e7	4.66e7	5.65e6	6.91e6	----	----	0.81	
2,3,7,8-TCDD-13C	22:28	3.43e7	4.22e7	4.95e6	6.00e6	----	----	0.81	
2,3,7,8-TCDD-37Cl4	22:30	3.82e5		5.80e4		----	----		
2,3,7,8-TCDD	22:29	2.00e5	2.31e5	3.19e4	3.79e4	7.628e2	8.716e2	0.86	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:27	7.12e7	4.40e7	1.14e7	7.23e6	----	----	1.62	
2,3,4,7,8-PeCDF-13C	31:03	7.06e7	4.34e7	1.48e7	9.29e6	----	----	1.63	
1,2,3,7,8-PeCDF	29:27	1.91e6	1.21e6	3.20e5	2.27e5	2.526e3	1.051e3	1.57	
2,3,4,7,8-PeCDF	31:04	1.93e6	1.28e6	3.61e5	2.38e5	4.564e3	1.951e3	1.51	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:32	3.88e7	2.44e7	7.80e6	4.98e6	----	----	1.59	
1,2,3,7,8-PeCDD	31:34	6.89e5	1.04e6	1.26e5	2.32e5	3.031e3	1.980e3	0.66	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	34:60	3.45e7	6.56e7	9.02e6	1.72e7	----	----	0.53	
1,2,3,6,7,8-HxCDF-13C	35:09	3.86e7	7.13e7	1.00e7	1.77e7	----	----	0.54	
2,3,4,6,7,8-HxCDF-13C	35:49	3.68e7	6.98e7	1.03e7	1.93e7	----	----	0.53	
1,2,3,7,8,9-HxCDF-13C	36:43	3.33e7	6.19e7	8.95e6	1.65e7	----	----	0.54	
1,2,3,4,7,8-HxCDF	35:01	1.80e6	1.38e6	5.30e5	3.99e5	1.117e3	4.226e2	1.30	
1,2,3,6,7,8-HxCDF	35:09	1.98e6	1.54e6	5.20e5	4.01e5	1.700e3	3.871e2	1.29	
2,3,4,6,7,8-HxCDF	35:50	1.80e6	1.42e6	5.14e5	3.77e5	1.036e3	1.030e2	1.26	
1,2,3,7,8,9-HxCDF	36:45	1.48e6	1.26e6	3.83e5	3.37e5	8.472e2	8.312e2	1.18	

REPORT OF LABORATORY ANALYSIS

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Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS1-7604-273	Instrument ID	10MSHR05 (F)
Filename	F130918B_04	GC Column ID	USD174324H
Analyzed	09/18/2013 18:22	ICAL ID	F130918

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	35:60	3.60e7	2.73e7	1.07e7	7.77e6	----	----	1.32	
1,2,3,6,7,8-HxCDD-13C	36:07	3.99e7	3.18e7	1.12e7	8.81e6	----	----	1.26	
1,2,3,7,8,9-HxCDD-13C	36:24	3.89e7	3.13e7	1.08e7	8.73e6	----	----	1.24	
1,2,3,4,7,8-HxCDD	36:01	1.03e6	8.06e5	2.81e5	2.34e5	1.517e3	8.183e2	1.27	
1,2,3,6,7,8-HxCDD	36:07	1.04e6	8.57e5	3.26e5	2.31e5	1.624e3	9.024e2	1.21	
1,2,3,7,8,9-HxCDD	36:25	9.92e5	8.04e5	2.45e5	2.30e5	1.368e3	1.755e3	1.23	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:24	1.78e7	4.05e7	4.64e6	1.12e7	----	----	0.44	
1,2,3,4,7,8,9-HpCDF-13C	39:56	1.35e7	3.19e7	3.81e6	9.31e6	----	----	0.42	
1,2,3,4,6,7,8-HpCDF	38:25	1.01e6	9.29e5	2.78e5	2.68e5	6.039e2	4.329e2	1.09	
1,2,3,4,7,8,9-HpCDF	39:57	7.34e5	7.87e5	2.45e5	2.13e5	1.025e3	5.003e2	0.93	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:29	2.09e7	1.82e7	6.07e6	5.55e6	----	----	1.14	
1,2,3,4,6,7,8-HpCDD	39:30	5.72e5	5.32e5	1.66e5	1.60e5	8.367e2	5.856e2	1.08	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:24	1.69e6	1.84e6	4.13e5	4.71e5	6.889e2	3.526e2	0.91	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:15	4.85e7	5.33e7	1.23e7	1.31e7	----	----	0.91	
OCDD	42:16	1.25e6	1.36e6	3.10e5	3.33e5	2.237e2	7.351e1	0.92	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS2-7604-276	Instrument ID	10MSHR05 (F)
Filename	F130918B_03	GC Column ID	USD174324H
Analyzed	09/18/2013 17:38	ICAL ID	F130918

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:17	6.74e7	8.42e7	1.03e7	1.29e7	----	----	0.80	
2,3,7,8-TCDF	21:18	1.42e6	1.81e6	2.37e5	2.68e5	----	----	0.78	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:32	4.39e7	5.48e7	6.91e6	8.39e6	----	----	0.80	
2,3,7,8-TCDD-13C	22:28	4.02e7	5.00e7	5.76e6	7.04e6	----	----	0.81	
2,3,7,8-TCDD-37Cl4	22:30	2.00e6		2.94e5		----	----		
2,3,7,8-TCDD	22:29	7.98e5	1.10e6	1.21e5	1.69e5	----	----	0.73	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:26	8.51e7	5.20e7	1.37e7	8.25e6	----	----	1.64	
2,3,4,7,8-PeCDF-13C	31:02	8.27e7	5.17e7	1.66e7	1.02e7	----	----	1.60	
1,2,3,7,8-PeCDF	29:27	9.60e6	5.94e6	1.55e6	9.24e5	----	----	1.62	
2,3,4,7,8-PeCDF	31:04	9.62e6	5.92e6	1.86e6	1.17e6	----	----	1.63	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:31	4.59e7	2.90e7	1.02e7	6.25e6	----	----	1.58	
1,2,3,7,8-PeCDD	31:32	3.28e6	5.12e6	7.00e5	1.06e6	----	----	0.64	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	34:59	4.09e7	7.74e7	1.14e7	2.08e7	----	----	0.53	
1,2,3,6,7,8-HxCDF-13C	35:08	4.80e7	8.59e7	1.20e7	2.17e7	----	----	0.56	
2,3,4,6,7,8-HxCDF-13C	35:48	4.24e7	7.64e7	1.15e7	2.11e7	----	----	0.55	
1,2,3,7,8,9-HxCDF-13C	36:43	4.01e7	7.56e7	1.07e7	1.94e7	----	----	0.53	
1,2,3,4,7,8-HxCDF	35:01	8.36e6	6.56e6	2.21e6	1.81e6	----	----	1.27	
1,2,3,6,7,8-HxCDF	35:09	9.15e6	7.36e6	2.40e6	1.86e6	----	----	1.24	
2,3,4,6,7,8-HxCDF	35:49	9.03e6	7.10e6	2.47e6	1.91e6	----	----	1.27	
1,2,3,7,8,9-HxCDF	36:44	7.53e6	5.97e6	2.08e6	1.60e6	----	----	1.26	

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Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS2-7604-276	Instrument ID	10MSHR05 (F)
Filename	F130918B_03	GC Column ID	USD174324H
Analyzed	09/18/2013 17:38	ICAL ID	F130918

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	35:60	4.47e7	3.50e7	1.27e7	9.82e6	----	----	1.28	
1,2,3,6,7,8-HxCDD-13C	36:06	4.91e7	3.93e7	1.31e7	1.06e7	----	----	1.25	
1,2,3,7,8,9-HxCDD-13C	36:24	4.67e7	3.71e7	1.20e7	9.45e6	----	----	1.26	
1,2,3,4,7,8-HxCDD	36:01	5.04e6	3.95e6	1.48e6	1.24e6	----	----	1.28	
1,2,3,6,7,8-HxCDD	36:07	5.49e6	4.19e6	1.51e6	1.14e6	----	----	1.31	
1,2,3,7,8,9-HxCDD	36:25	5.08e6	4.08e6	1.41e6	1.13e6	----	----	1.24	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:23	2.14e7	4.57e7	6.36e6	1.32e7	----	----	0.47	
1,2,3,4,7,8,9-HpCDF-13C	39:56	1.79e7	3.77e7	5.76e6	1.23e7	----	----	0.47	
1,2,3,4,6,7,8-HpCDF	38:24	4.82e6	4.85e6	1.34e6	1.32e6	----	----	0.99	
1,2,3,4,7,8,9-HpCDF	39:57	3.81e6	3.56e6	1.13e6	1.06e6	----	----	1.07	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:29	2.48e7	2.44e7	6.76e6	6.94e6	----	----	1.01	
1,2,3,4,6,7,8-HpCDD	39:30	2.77e6	2.82e6	7.76e5	8.19e5	----	----	0.98	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:24	8.79e6	9.35e6	2.30e6	2.39e6	----	----	0.94	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:15	6.30e7	6.91e7	1.53e7	1.69e7	----	----	0.91	
OCDD	42:15	6.56e6	7.35e6	1.78e6	1.90e6	----	----	0.89	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR05 (F)
Filename	F130918B_02	GC Column ID	USD174324H
Analyzed	09/18/2013 16:50	ICAL ID	F130918

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:18	9.61e7	1.20e8	1.46e7	1.83e7	----	----	0.80	
2,3,7,8-TCDF	21:19	1.09e7	1.34e7	1.64e6	2.06e6	----	----	0.81	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:34	5.71e7	7.00e7	8.57e6	1.09e7	----	----	0.82	
2,3,7,8-TCDD-13C	22:29	5.81e7	7.15e7	8.31e6	1.05e7	----	----	0.81	
2,3,7,8-TCDD-37Cl4	22:31	1.47e7		2.09e6		----	----		
2,3,7,8-TCDD	22:31	6.62e6	8.36e6	9.32e5	1.16e6	----	----	0.79	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:27	1.26e8	7.77e7	2.14e7	1.34e7	----	----	1.62	
2,3,4,7,8-PeCDF-13C	31:03	1.32e8	7.98e7	2.64e7	1.62e7	----	----	1.65	
1,2,3,7,8-PeCDF	29:28	7.04e7	4.48e7	1.16e7	7.37e6	----	----	1.57	
2,3,4,7,8-PeCDF	31:05	7.59e7	4.69e7	1.47e7	9.09e6	----	----	1.62	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:32	7.40e7	4.57e7	1.56e7	9.58e6	----	----	1.62	
1,2,3,7,8-PeCDD	31:34	2.69e7	4.17e7	5.56e6	8.48e6	----	----	0.64	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	34:60	6.31e7	1.18e8	1.80e7	3.31e7	----	----	0.53	
1,2,3,6,7,8-HxCDF-13C	35:09	6.88e7	1.29e8	1.80e7	3.38e7	----	----	0.53	
2,3,4,6,7,8-HxCDF-13C	35:49	6.58e7	1.21e8	1.93e7	3.50e7	----	----	0.54	
1,2,3,7,8,9-HxCDF-13C	36:43	6.67e7	1.24e8	1.75e7	3.27e7	----	----	0.54	
1,2,3,4,7,8-HxCDF	35:01	6.49e7	4.97e7	1.79e7	1.39e7	----	----	1.31	
1,2,3,6,7,8-HxCDF	35:09	6.94e7	5.48e7	1.85e7	1.43e7	----	----	1.27	
2,3,4,6,7,8-HxCDF	35:50	6.97e7	5.44e7	1.99e7	1.54e7	----	----	1.28	
1,2,3,7,8,9-HxCDF	36:45	6.38e7	4.90e7	1.69e7	1.30e7	----	----	1.30	

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Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR05 (F)
Filename	F130918B_02	GC Column ID	USD174324H
Analyzed	09/18/2013 16:50	ICAL ID	F130918

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:01	6.64e7	5.20e7	2.02e7	1.55e7	----	----	1.28	
1,2,3,6,7,8-HxCDD-13C	36:07	7.69e7	6.17e7	2.08e7	1.68e7	----	----	1.25	
1,2,3,7,8,9-HxCDD-13C	36:24	7.33e7	5.74e7	1.98e7	1.51e7	----	----	1.28	
1,2,3,4,7,8-HxCDD	36:01	3.93e7	3.04e7	1.16e7	8.88e6	----	----	1.30	
1,2,3,6,7,8-HxCDD	36:07	4.19e7	3.27e7	1.16e7	9.22e6	----	----	1.28	
1,2,3,7,8,9-HxCDD	36:25	4.16e7	3.31e7	1.14e7	9.02e6	----	----	1.26	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:24	3.39e7	7.35e7	9.84e6	2.07e7	----	----	0.46	
1,2,3,4,7,8,9-HpCDF-13C	39:57	2.60e7	5.64e7	7.80e6	1.58e7	----	----	0.46	
1,2,3,4,6,7,8-HpCDF	38:25	3.61e7	3.53e7	1.00e7	9.66e6	----	----	1.02	
1,2,3,4,7,8,9-HpCDF	39:58	2.87e7	2.94e7	8.62e6	9.07e6	----	----	0.98	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:29	3.90e7	3.60e7	1.25e7	1.13e7	----	----	1.08	
1,2,3,4,6,7,8-HpCDD	39:30	2.23e7	2.19e7	6.22e6	6.32e6	----	----	1.02	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:24	7.10e7	7.54e7	1.77e7	1.93e7	----	----	0.94	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:15	9.54e7	1.05e8	2.45e7	2.65e7	----	----	0.90	
OCDD	42:16	5.13e7	5.73e7	1.31e7	1.46e7	----	----	0.90	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS4-7604-277	Instrument ID	10MSHR05 (F)
Filename	F130918B_06	GC Column ID	USD174324H
Analyzed	09/18/2013 19:54	ICAL ID	F130918

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:17	6.97e7	8.68e7	1.04e7	1.29e7	----	----	0.80	
2,3,7,8-TCDF	21:18	3.16e7	4.00e7	4.84e6	6.11e6	----	----	0.79	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:32	4.33e7	5.46e7	6.62e6	8.08e6	----	----	0.79	
2,3,7,8-TCDD-13C	22:27	4.11e7	5.11e7	5.71e6	7.13e6	----	----	0.80	
2,3,7,8-TCDD-37Cl4	22:29	4.32e7		6.16e6		----	----		
2,3,7,8-TCDD	22:29	1.88e7	2.40e7	2.70e6	3.42e6	----	----	0.78	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:25	8.91e7	5.49e7	1.42e7	8.82e6	----	----	1.62	
2,3,4,7,8-PeCDF-13C	31:02	8.64e7	5.25e7	1.64e7	1.01e7	----	----	1.65	
1,2,3,7,8-PeCDF	29:27	2.06e8	1.28e8	3.31e7	2.10e7	----	----	1.61	
2,3,4,7,8-PeCDF	31:04	2.06e8	1.30e8	3.97e7	2.53e7	----	----	1.59	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:30	4.82e7	3.08e7	9.89e6	6.24e6	----	----	1.57	
1,2,3,7,8-PeCDD	31:32	7.12e7	1.10e8	1.38e7	2.23e7	----	----	0.64	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	34:59	4.27e7	8.16e7	1.12e7	2.26e7	----	----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:08	4.88e7	9.15e7	1.26e7	2.30e7	----	----	0.53	
2,3,4,6,7,8-HxCDF-13C	35:48	4.35e7	7.93e7	1.22e7	2.22e7	----	----	0.55	
1,2,3,7,8,9-HxCDF-13C	36:42	4.21e7	7.76e7	1.09e7	2.07e7	----	----	0.54	
1,2,3,4,7,8-HxCDF	34:60	1.82e8	1.41e8	4.85e7	3.74e7	----	----	1.29	
1,2,3,6,7,8-HxCDF	35:09	2.00e8	1.53e8	5.07e7	3.88e7	----	----	1.30	
2,3,4,6,7,8-HxCDF	35:49	1.91e8	1.46e8	5.35e7	4.09e7	----	----	1.31	
1,2,3,7,8,9-HxCDF	36:44	1.68e8	1.28e8	4.46e7	3.43e7	----	----	1.31	

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Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS4-7604-277	Instrument ID	10MSHR05 (F)
Filename	F130918B_06	GC Column ID	USD174324H
Analyzed	09/18/2013 19:54	ICAL ID	F130918

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	35:60	4.53e7	3.40e7	1.29e7	9.67e6	----	----	1.33	
1,2,3,6,7,8-HxCDD-13C	36:06	5.12e7	4.17e7	1.43e7	1.13e7	----	----	1.23	
1,2,3,7,8,9-HxCDD-13C	36:23	4.69e7	3.73e7	1.30e7	1.00e7	----	----	1.26	
1,2,3,4,7,8-HxCDD	36:01	1.09e8	7.89e7	3.15e7	2.31e7	----	----	1.38	
1,2,3,6,7,8-HxCDD	36:07	1.09e8	8.87e7	3.06e7	2.43e7	----	----	1.23	
1,2,3,7,8,9-HxCDD	36:24	1.10e8	8.45e7	2.92e7	2.35e7	----	----	1.30	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:23	2.17e7	4.81e7	5.95e6	1.29e7	----	----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	39:56	1.85e7	4.11e7	5.87e6	1.23e7	----	----	0.45	
1,2,3,4,6,7,8-HpCDF	38:24	9.59e7	9.42e7	2.73e7	2.50e7	----	----	1.02	
1,2,3,4,7,8,9-HpCDF	39:56	8.50e7	7.81e7	2.48e7	2.50e7	----	----	1.09	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:29	2.81e7	2.52e7	8.61e6	7.37e6	----	----	1.11	
1,2,3,4,6,7,8-HpCDD	39:29	6.64e7	6.30e7	2.15e7	1.95e7	----	----	1.05	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:24	1.98e8	2.11e8	5.18e7	5.14e7	----	----	0.93	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:14	6.43e7	6.89e7	1.66e7	1.75e7	----	----	0.93	
OCDD	42:15	1.42e8	1.60e8	3.54e7	4.03e7	----	----	0.89	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS5-7604-278	Instrument ID	10MSHR05 (F)
Filename	F130918B_05	GC Column ID	USD174324H
Analyzed	09/18/2013 19:08	ICAL ID	F130918

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:18	8.07e7	1.03e8	1.24e7	1.58e7	----	----	0.79	
2,3,7,8-TCDF	21:18	1.86e8	2.33e8	2.87e7	3.51e7	----	----	0.80	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:33	4.95e7	6.21e7	7.54e6	9.48e6	----	----	0.80	
2,3,7,8-TCDD-13C	22:28	4.87e7	6.12e7	7.19e6	8.88e6	----	----	0.80	
2,3,7,8-TCDD-37Cl4	22:30	2.56e8		3.70e7		----	----		
2,3,7,8-TCDD	22:30	1.13e8	1.43e8	1.62e7	2.14e7	----	----	0.79	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:26	1.06e8	6.57e7	1.65e7	1.05e7	----	----	1.61	
2,3,4,7,8-PeCDF-13C	31:03	1.04e8	6.41e7	2.06e7	1.25e7	----	----	1.62	
1,2,3,7,8-PeCDF	29:27	1.24e9	7.66e8	2.04e8	1.26e8	----	----	1.61	
2,3,4,7,8-PeCDF	31:04	1.25e9	7.76e8	2.56e8	1.58e8	----	----	1.61	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:31	5.95e7	3.71e7	1.26e7	7.71e6	----	----	1.61	
1,2,3,7,8-PeCDD	31:33	4.37e8	6.75e8	9.34e7	1.46e8	----	----	0.65	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	34:60	5.32e7	9.94e7	1.47e7	2.69e7	----	----	0.54	
1,2,3,6,7,8-HxCDF-13C	35:09	6.11e7	1.11e8	1.55e7	2.88e7	----	----	0.55	
2,3,4,6,7,8-HxCDF-13C	35:48	5.33e7	9.96e7	1.50e7	2.82e7	----	----	0.53	
1,2,3,7,8,9-HxCDF-13C	36:43	5.43e7	1.01e8	1.53e7	2.82e7	----	----	0.54	
1,2,3,4,7,8-HxCDF	35:01	1.14e9	8.95e8	3.12e8	2.43e8	----	----	1.27	
1,2,3,6,7,8-HxCDF	35:09	1.24e9	9.68e8	3.23e8	2.48e8	----	----	1.28	
2,3,4,6,7,8-HxCDF	35:50	1.16e9	9.15e8	3.20e8	2.56e8	----	----	1.26	
1,2,3,7,8,9-HxCDF	36:44	1.06e9	8.07e8	2.92e8	2.30e8	----	----	1.31	

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Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS5-7604-278	Instrument ID	10MSHR05 (F)
Filename	F130918B_05	GC Column ID	USD174324H
Analyzed	09/18/2013 19:08	ICAL ID	F130918

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	35:60	5.69e7	4.42e7	1.73e7	1.34e7	----	----	1.29	
1,2,3,6,7,8-HxCDD-13C	36:07	6.46e7	5.05e7	1.74e7	1.36e7	----	----	1.28	
1,2,3,7,8,9-HxCDD-13C	36:24	6.00e7	4.71e7	1.64e7	1.27e7	----	----	1.27	
1,2,3,4,7,8-HxCDD	36:01	6.75e8	5.22e8	2.01e8	1.56e8	----	----	1.29	
1,2,3,6,7,8-HxCDD	36:07	6.89e8	5.34e8	1.85e8	1.46e8	----	----	1.29	
1,2,3,7,8,9-HxCDD	36:25	6.77e8	5.31e8	1.81e8	1.40e8	----	----	1.28	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:24	2.70e7	5.90e7	7.89e6	1.63e7	----	----	0.46	
1,2,3,4,7,8,9-HpCDF-13C	39:56	2.23e7	5.05e7	6.64e6	1.57e7	----	----	0.44	
1,2,3,4,6,7,8-HpCDF	38:24	6.03e8	6.24e8	1.84e8	1.77e8	----	----	0.97	
1,2,3,4,7,8,9-HpCDF	39:57	5.61e8	5.22e8	1.81e8	1.65e8	----	----	1.07	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:29	3.42e7	3.09e7	9.56e6	8.75e6	----	----	1.11	
1,2,3,4,6,7,8-HpCDD	39:30	4.09e8	3.86e8	1.20e8	1.11e8	----	----	1.06	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:24	1.39e9	1.47e9	3.66e8	3.91e8	----	----	0.95	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:15	8.74e7	9.61e7	2.23e7	2.41e7	----	----	0.91	
OCDD	42:15	9.71e8	1.07e9	2.41e8	2.69e8	----	----	0.91	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____
Reviewed By _____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS1-7604-273	Instrument ID	10MSHR06 (U)
Filename	U130729B_11	GC Column ID	USD227224H
Analyzed	07/29/2013 23:48	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	22:49	5.76e7	7.40e7	8.39e6	1.11e7	----	----	0.78	
2,3,7,8-TCDF	22:53	2.89e5	3.26e5	4.09e4	4.51e4	----	----	0.89	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	23:08	3.71e7	4.66e7	5.27e6	6.57e6	----	----	0.80	
2,3,7,8-TCDD-13C	24:07	3.70e7	4.76e7	5.21e6	6.42e6	----	----	0.78	
2,3,7,8-TCDD-37Cl4	24:07	4.71e5		7.50e4		----	----		
2,3,7,8-TCDD	24:09	2.10e5	2.82e5	2.76e4	4.45e4	----	----	0.74	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	30:27	5.99e7	3.83e7	1.12e7	7.18e6	----	----	1.56	
2,3,4,7,8-PeCDF-13C	31:54	5.90e7	3.74e7	1.20e7	7.73e6	----	----	1.58	
1,2,3,7,8-PeCDF	30:29	1.24e6	8.50e5	2.51e5	1.68e5	----	----	1.46	
2,3,4,7,8-PeCDF	31:56	1.33e6	9.30e5	2.82e5	2.19e5	----	----	1.43	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:22	3.74e7	2.36e7	8.17e6	5.12e6	----	----	1.58	
1,2,3,7,8-PeCDD	32:23	6.28e5	1.02e6	1.34e5	2.07e5	----	----	0.62	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:47	2.36e7	4.52e7	6.57e6	1.23e7	----	----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:55	2.86e7	5.51e7	7.15e6	1.37e7	----	----	0.52	
2,3,4,6,7,8-HxCDF-13C	36:37	2.68e7	5.12e7	6.51e6	1.29e7	----	----	0.52	
1,2,3,7,8,9-HxCDF-13C	37:36	2.37e7	4.47e7	5.55e6	1.05e7	----	----	0.53	
1,2,3,4,7,8-HxCDF	35:48	1.02e6	8.85e5	3.05e5	2.43e5	----	----	1.15	
1,2,3,6,7,8-HxCDF	35:56	1.17e6	9.33e5	3.09e5	2.50e5	----	----	1.25	
2,3,4,6,7,8-HxCDF	36:39	1.07e6	8.87e5	3.11e5	2.69e5	----	----	1.21	
1,2,3,7,8,9-HxCDF	37:37	8.74e5	7.51e5	2.04e5	1.96e5	----	----	1.16	

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Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS1-7604-273	Instrument ID	10MSHR06 (U)
Filename	U130729B_11	GC Column ID	USD227224H
Analyzed	07/29/2013 23:48	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:49	3.07e7	2.41e7	9.32e6	7.13e6	----	----	1.27	
1,2,3,6,7,8-HxCDD-13C	36:56	3.78e7	2.98e7	9.38e6	7.44e6	----	----	1.27	
1,2,3,7,8,9-HxCDD-13C	37:14	3.56e7	2.82e7	8.26e6	6.71e6	----	----	1.26	
1,2,3,4,7,8-HxCDD	36:51	7.87e5	6.85e5	2.19e5	2.04e5	----	----	1.15	
1,2,3,6,7,8-HxCDD	36:57	8.83e5	7.72e5	2.35e5	1.82e5	----	----	1.14	
1,2,3,7,8,9-HxCDD	37:15	8.71e5	7.38e5	2.01e5	1.70e5	----	----	1.18	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	39:15	2.08e7	4.66e7	5.77e6	1.25e7	----	----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	40:53	1.68e7	3.75e7	4.51e6	9.86e6	----	----	0.45	
1,2,3,4,6,7,8-HpCDF	39:16	1.16e6	1.13e6	3.25e5	3.36e5	----	----	1.03	
1,2,3,4,7,8,9-HpCDF	40:54	9.95e5	9.40e5	2.56e5	2.75e5	----	----	1.06	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	40:23	2.79e7	2.59e7	7.17e6	6.78e6	----	----	1.08	
1,2,3,4,6,7,8-HpCDD	40:23	7.84e5	7.93e5	1.91e5	1.86e5	----	----	0.99	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	43:28	1.35e6	1.44e6	3.57e5	3.34e5	----	----	0.94	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	43:16	4.44e7	4.88e7	1.05e7	1.15e7	----	----	0.91	
OCDD	43:16	1.11e6	1.39e6	2.50e5	3.23e5	----	----	0.79	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS2-7604-276	Instrument ID	10MSHR06 (U)
Filename	U130729B_10	GC Column ID	USD227224H
Analyzed	07/29/2013 23:00	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	22:49	5.19e7	6.80e7	7.11e6	9.25e6	----	----	0.76	
2,3,7,8-TCDF	22:52	9.32e5	1.28e6	1.42e5	1.93e5	----	----	0.73	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	23:08	3.56e7	4.47e7	5.00e6	6.36e6	----	----	0.80	
2,3,7,8-TCDD-13C	24:07	3.51e7	4.48e7	4.86e6	5.99e6	----	----	0.78	
2,3,7,8-TCDD-37Cl4	24:08	1.82e6		2.44e5		----	----		
2,3,7,8-TCDD	24:09	7.28e5	9.24e5	1.01e5	1.29e5	----	----	0.79	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	30:28	5.59e7	3.65e7	1.01e7	6.59e6	----	----	1.53	
2,3,4,7,8-PeCDF-13C	31:54	5.80e7	3.66e7	1.24e7	8.05e6	----	----	1.58	
1,2,3,7,8-PeCDF	30:29	4.87e6	3.18e6	9.66e5	5.95e5	----	----	1.53	
2,3,4,7,8-PeCDF	31:56	5.23e6	3.45e6	1.04e6	7.30e5	----	----	1.52	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:22	3.70e7	2.33e7	7.83e6	5.01e6	----	----	1.59	
1,2,3,7,8-PeCDD	32:23	2.30e6	3.80e6	5.13e5	7.98e5	----	----	0.60	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:47	2.36e7	4.51e7	6.42e6	1.22e7	----	----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:55	2.72e7	5.38e7	6.73e6	1.31e7	----	----	0.51	
2,3,4,6,7,8-HxCDF-13C	36:38	2.49e7	4.75e7	6.45e6	1.24e7	----	----	0.52	
1,2,3,7,8,9-HxCDF-13C	37:36	2.36e7	4.58e7	5.88e6	1.12e7	----	----	0.52	
1,2,3,4,7,8-HxCDF	35:48	4.13e6	3.32e6	1.03e6	8.73e5	----	----	1.24	
1,2,3,6,7,8-HxCDF	35:57	4.44e6	3.62e6	1.14e6	8.91e5	----	----	1.23	
2,3,4,6,7,8-HxCDF	36:39	4.52e6	3.63e6	1.22e6	1.01e6	----	----	1.25	
1,2,3,7,8,9-HxCDF	37:37	3.78e6	2.95e6	9.75e5	7.58e5	----	----	1.28	

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Fax: 612- 607-6444

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS2-7604-276	Instrument ID	10MSHR06 (U)
Filename	U130729B_10	GC Column ID	USD227224H
Analyzed	07/29/2013 23:00	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:49	3.15e7	2.40e7	8.65e6	6.86e6	-----	-----	1.31	
1,2,3,6,7,8-HxCDD-13C	36:56	3.74e7	3.08e7	9.89e6	7.83e6	-----	-----	1.21	
1,2,3,7,8,9-HxCDD-13C	37:15	3.53e7	2.78e7	8.10e6	6.49e6	-----	-----	1.27	
1,2,3,4,7,8-HxCDD	36:50	3.16e6	2.66e6	8.77e5	7.46e5	-----	-----	1.19	
1,2,3,6,7,8-HxCDD	36:57	3.51e6	3.02e6	8.69e5	7.05e5	-----	-----	1.17	
1,2,3,7,8,9-HxCDD	37:15	3.47e6	2.93e6	8.75e5	6.90e5	-----	-----	1.18	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	39:15	2.07e7	4.54e7	6.02e6	1.28e7	-----	-----	0.46	
1,2,3,4,7,8,9-HpCDF-13C	40:53	1.66e7	3.65e7	4.32e6	9.68e6	-----	-----	0.45	
1,2,3,4,6,7,8-HpCDF	39:16	4.58e6	4.49e6	1.25e6	1.23e6	-----	-----	1.02	
1,2,3,4,7,8,9-HpCDF	40:53	3.86e6	3.43e6	1.00e6	9.19e5	-----	-----	1.13	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	40:23	2.80e7	2.61e7	7.12e6	6.80e6	-----	-----	1.07	
1,2,3,4,6,7,8-HpCDD	40:23	2.91e6	2.81e6	7.69e5	7.64e5	-----	-----	1.04	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	43:28	5.28e6	5.89e6	1.24e6	1.39e6	-----	-----	0.90	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	43:16	4.45e7	4.95e7	1.03e7	1.14e7	-----	-----	0.90	
OCDD	43:17	4.63e6	5.25e6	1.07e6	1.22e6	-----	-----	0.88	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS3/CPM-7604-274	Instrument ID	10MSHR06 (U)
Filename	U130729B_09	GC Column ID	USD227224H
Analyzed	07/29/2013 22:12	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	22:51	2.12e8	2.73e8	3.05e7	3.91e7	-----	-----	0.78	
2,3,7,8-TCDF	22:52	1.84e7	2.44e7	2.63e6	3.51e6	-----	-----	0.76	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	23:10	1.41e8	1.79e8	2.03e7	2.58e7	-----	-----	0.79	
2,3,7,8-TCDD-13C	24:08	1.43e8	1.85e8	1.89e7	2.39e7	-----	-----	0.77	
2,3,7,8-TCDD-37Cl4	24:09	3.55e7		4.75e6		-----	-----		
2,3,7,8-TCDD	24:09	1.49e7	2.02e7	1.86e6	2.61e6	-----	-----	0.74	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	30:28	2.36e8	1.50e8	4.38e7	2.91e7	-----	-----	1.57	
2,3,4,7,8-PeCDF-13C	31:55	2.39e8	1.57e8	5.06e7	3.21e7	-----	-----	1.53	
1,2,3,7,8-PeCDF	30:29	1.01e8	6.63e7	1.95e7	1.25e7	-----	-----	1.53	
2,3,4,7,8-PeCDF	31:56	1.06e8	6.98e7	2.25e7	1.52e7	-----	-----	1.52	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:22	1.61e8	1.02e8	3.42e7	2.22e7	-----	-----	1.58	
1,2,3,7,8-PeCDD	32:23	4.76e7	7.89e7	1.08e7	1.73e7	-----	-----	0.60	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:48	9.66e7	1.86e8	2.56e7	5.07e7	-----	-----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:56	1.17e8	2.18e8	2.76e7	5.32e7	-----	-----	0.53	
2,3,4,6,7,8-HxCDF-13C	36:38	6.84e7	1.37e8	1.87e7	3.57e7	-----	-----	0.50	
1,2,3,7,8,9-HxCDF-13C	37:36	9.71e7	1.88e8	2.36e7	4.52e7	-----	-----	0.52	
1,2,3,4,7,8-HxCDF	35:49	7.94e7	6.53e7	2.22e7	1.79e7	-----	-----	1.22	
1,2,3,6,7,8-HxCDF	35:57	9.42e7	7.52e7	2.30e7	1.90e7	-----	-----	1.25	
2,3,4,6,7,8-HxCDF	36:39	5.95e7	4.91e7	1.58e7	1.31e7	-----	-----	1.21	
1,2,3,7,8,9-HxCDF	37:37	7.28e7	5.96e7	1.76e7	1.41e7	-----	-----	1.22	

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Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS3/CPM-7604-274	Instrument ID	10MSHR06 (U)
Filename	U130729B_09	GC Column ID	USD227224H
Analyzed	07/29/2013 22:12	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:50	1.17e8	9.30e7	3.34e7	2.62e7	----	----	1.25	
1,2,3,6,7,8-HxCDD-13C	36:57	1.51e8	1.20e8	3.77e7	3.04e7	----	----	1.26	
1,2,3,7,8,9-HxCDD-13C	37:15	1.52e8	1.23e8	3.51e7	2.80e7	----	----	1.23	
1,2,3,4,7,8-HxCDD	36:51	5.73e7	4.64e7	1.68e7	1.33e7	----	----	1.24	
1,2,3,6,7,8-HxCDD	36:58	6.90e7	5.58e7	1.76e7	1.42e7	----	----	1.24	
1,2,3,7,8,9-HxCDD	37:16	7.25e7	5.65e7	1.67e7	1.35e7	----	----	1.28	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	39:15	8.55e7	1.92e8	2.40e7	5.34e7	----	----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	40:54	6.91e7	1.49e8	1.83e7	4.01e7	----	----	0.46	
1,2,3,4,6,7,8-HpCDF	39:16	9.14e7	9.08e7	2.58e7	2.53e7	----	----	1.01	
1,2,3,4,7,8,9-HpCDF	40:54	7.46e7	7.10e7	1.90e7	1.88e7	----	----	1.05	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	40:23	1.17e8	1.10e8	3.25e7	3.05e7	----	----	1.06	
1,2,3,4,6,7,8-HpCDD	40:24	6.06e7	5.93e7	1.65e7	1.58e7	----	----	1.02	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	43:28	1.03e8	1.16e8	2.53e7	2.76e7	----	----	0.89	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	43:16	1.88e8	2.09e8	4.29e7	4.86e7	----	----	0.90	
OCDD	43:17	9.16e7	1.03e8	2.13e7	2.45e7	----	----	0.89	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS4-7604-277	Instrument ID	10MSHR06 (U)
Filename	U130729B_13	GC Column ID	USD227224H
Analyzed	07/30/2013 01:25	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	22:50	4.59e7	5.90e7	6.30e6	7.97e6	----	----	0.78	
2,3,7,8-TCDF	22:51	1.60e7	2.15e7	2.26e6	2.94e6	----	----	0.75	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	23:08	3.11e7	3.88e7	4.30e6	5.24e6	----	----	0.80	
2,3,7,8-TCDD-13C	24:07	3.06e7	3.94e7	4.00e6	5.27e6	----	----	0.78	
2,3,7,8-TCDD-37Cl4	24:09	3.11e7		3.94e6		----	----		
2,3,7,8-TCDD	24:08	1.25e7	1.63e7	1.70e6	2.16e6	----	----	0.77	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	30:27	4.93e7	3.12e7	8.98e6	5.87e6	----	----	1.58	
2,3,4,7,8-PeCDF-13C	31:54	4.81e7	3.11e7	1.01e7	6.51e6	----	----	1.55	
1,2,3,7,8-PeCDF	30:29	8.62e7	5.62e7	1.64e7	1.06e7	----	----	1.53	
2,3,4,7,8-PeCDF	31:56	8.83e7	5.68e7	1.91e7	1.23e7	----	----	1.55	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:21	3.13e7	1.97e7	6.67e6	4.22e6	----	----	1.59	
1,2,3,7,8-PeCDD	32:23	3.86e7	6.36e7	8.23e6	1.34e7	----	----	0.61	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:47	1.92e7	3.71e7	5.15e6	1.00e7	----	----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:55	2.30e7	4.33e7	5.75e6	1.11e7	----	----	0.53	
2,3,4,6,7,8-HxCDF-13C	36:38	2.02e7	3.88e7	5.03e6	9.80e6	----	----	0.52	
1,2,3,7,8,9-HxCDF-13C	37:36	1.87e7	3.75e7	4.44e6	8.78e6	----	----	0.50	
1,2,3,4,7,8-HxCDF	35:48	6.58e7	5.43e7	1.75e7	1.47e7	----	----	1.21	
1,2,3,6,7,8-HxCDF	35:56	7.47e7	6.22e7	1.78e7	1.51e7	----	----	1.20	
2,3,4,6,7,8-HxCDF	36:39	7.29e7	5.84e7	1.93e7	1.54e7	----	----	1.25	
1,2,3,7,8,9-HxCDF	37:37	6.00e7	4.74e7	1.48e7	1.20e7	----	----	1.27	

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Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS4-7604-277	Instrument ID	10MSHR06 (U)
Filename	U130729B_13	GC Column ID	USD227224H
Analyzed	07/30/2013 01:25	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:49	2.43e7	1.92e7	7.24e6	5.67e6	----	----	1.27	
1,2,3,6,7,8-HxCDD-13C	36:56	3.07e7	2.45e7	7.37e6	6.00e6	----	----	1.25	
1,2,3,7,8,9-HxCDD-13C	37:14	2.82e7	2.23e7	6.76e6	5.53e6	----	----	1.26	
1,2,3,4,7,8-HxCDD	36:50	4.99e7	3.94e7	1.42e7	1.16e7	----	----	1.27	
1,2,3,6,7,8-HxCDD	36:57	5.49e7	4.56e7	1.39e7	1.15e7	----	----	1.20	
1,2,3,7,8,9-HxCDD	37:15	5.41e7	4.41e7	1.34e7	1.10e7	----	----	1.23	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	39:15	1.63e7	3.63e7	4.54e6	1.02e7	----	----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	40:54	1.31e7	2.87e7	3.27e6	7.05e6	----	----	0.46	
1,2,3,4,6,7,8-HpCDF	39:16	7.40e7	6.88e7	2.06e7	2.00e7	----	----	1.08	
1,2,3,4,7,8,9-HpCDF	40:54	5.81e7	5.50e7	1.46e7	1.44e7	----	----	1.06	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	40:23	2.15e7	2.02e7	5.72e6	5.54e6	----	----	1.07	
1,2,3,4,6,7,8-HpCDD	40:24	4.40e7	4.25e7	1.17e7	1.13e7	----	----	1.04	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	43:28	8.61e7	9.66e7	1.92e7	2.23e7	----	----	0.89	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	43:16	3.46e7	3.90e7	7.70e6	8.69e6	----	----	0.89	
OCDD	43:17	7.04e7	8.08e7	1.59e7	1.77e7	----	----	0.87	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS5-7604-278	Instrument ID	10MSHR06 (U)
Filename	U130729B_12	GC Column ID	USD227224H
Analyzed	07/30/2013 00:36	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	22:49	5.21e7	6.79e7	7.27e6	9.34e6	----	----	0.77	
2,3,7,8-TCDF	22:51	9.09e7	1.21e8	1.34e7	1.75e7	----	----	0.75	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	23:09	3.49e7	4.39e7	4.99e6	6.28e6	----	----	0.80	
2,3,7,8-TCDD-13C	24:07	3.58e7	4.54e7	4.82e6	5.97e6	----	----	0.79	
2,3,7,8-TCDD-37Cl4	24:08	1.81e8		2.33e7		----	----		
2,3,7,8-TCDD	24:09	7.37e7	9.46e7	9.39e6	1.21e7	----	----	0.78	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	30:27	5.85e7	3.69e7	1.07e7	7.12e6	----	----	1.59	
2,3,4,7,8-PeCDF-13C	31:54	5.79e7	3.80e7	1.26e7	8.11e6	----	----	1.52	
1,2,3,7,8-PeCDF	30:29	5.20e8	3.38e8	9.90e7	6.35e7	----	----	1.54	
2,3,4,7,8-PeCDF	31:56	5.24e8	3.55e8	1.14e8	7.59e7	----	----	1.48	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:22	3.83e7	2.41e7	8.37e6	5.20e6	----	----	1.59	
1,2,3,7,8-PeCDD	32:23	2.35e8	3.84e8	5.17e7	8.80e7	----	----	0.61	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:47	2.36e7	4.54e7	6.48e6	1.23e7	----	----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:56	2.78e7	5.39e7	6.73e6	1.27e7	----	----	0.52	
2,3,4,6,7,8-HxCDF-13C	36:38	2.44e7	4.64e7	6.32e6	1.21e7	----	----	0.52	
1,2,3,7,8,9-HxCDF-13C	37:36	2.42e7	4.56e7	5.86e6	1.11e7	----	----	0.53	
1,2,3,4,7,8-HxCDF	35:48	4.02e8	3.29e8	1.04e8	8.67e7	----	----	1.22	
1,2,3,6,7,8-HxCDF	35:57	4.70e8	3.81e8	1.14e8	9.25e7	----	----	1.23	
2,3,4,6,7,8-HxCDF	36:39	4.50e8	3.53e8	1.14e8	9.21e7	----	----	1.28	
1,2,3,7,8,9-HxCDF	37:37	3.82e8	3.10e8	9.41e7	7.67e7	----	----	1.23	

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Client Name	Advanced Technology Labs		
Client ID		Injected By	SMT
Lab ID	CS5-7604-278	Instrument ID	10MSHR06 (U)
Filename	U130729B_12	GC Column ID	USD227224H
Analyzed	07/30/2013 00:36	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:50	3.10e7	2.38e7	8.59e6	6.86e6	-----	-----	1.30	
1,2,3,6,7,8-HxCDD-13C	36:56	3.73e7	3.06e7	9.63e6	7.63e6	-----	-----	1.22	
1,2,3,7,8,9-HxCDD-13C	37:15	3.47e7	2.80e7	8.48e6	6.65e6	-----	-----	1.24	
1,2,3,4,7,8-HxCDD	36:51	3.08e8	2.50e8	8.77e7	6.96e7	-----	-----	1.23	
1,2,3,6,7,8-HxCDD	36:57	3.42e8	2.77e8	8.67e7	7.13e7	-----	-----	1.23	
1,2,3,7,8,9-HxCDD	37:15	3.42e8	2.82e8	8.18e7	6.70e7	-----	-----	1.21	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	39:16	2.04e7	4.51e7	5.43e6	1.23e7	-----	-----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	40:54	1.69e7	3.65e7	4.43e6	9.66e6	-----	-----	0.46	
1,2,3,4,6,7,8-HpCDF	39:16	4.50e8	4.34e8	1.23e8	1.19e8	-----	-----	1.04	
1,2,3,4,7,8,9-HpCDF	40:54	3.72e8	3.58e8	9.45e7	8.99e7	-----	-----	1.04	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	40:23	2.72e7	2.50e7	7.31e6	6.78e6	-----	-----	1.09	
1,2,3,4,6,7,8-HpCDD	40:24	2.83e8	2.70e8	7.41e7	7.04e7	-----	-----	1.05	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	43:29	5.96e8	6.61e8	1.36e8	1.51e8	-----	-----	0.90	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	43:17	4.60e7	5.15e7	1.02e7	1.12e7	-----	-----	0.89	
OCDD	43:18	4.81e8	5.49e8	1.05e8	1.16e8	-----	-----	0.88	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client ID		Injected By	SMT
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR06 (U)
Filename	U130917A_22	GC Column ID	USD227224H
Analyzed	09/18/2013 02:01	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:41	6.70e7	8.61e7	9.41e6	1.21e7	----	----	0.78	
2,3,7,8-TCDF	21:43	5.75e6	7.43e6	8.05e5	1.07e6	----	----	0.77	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:58	4.42e7	5.57e7	6.32e6	7.91e6	----	----	0.79	
2,3,7,8-TCDD-13C	22:53	4.31e7	5.53e7	5.77e6	7.27e6	----	----	0.78	
2,3,7,8-TCDD-37Cl4	22:55	1.10e7		1.43e6		----	----		
2,3,7,8-TCDD	22:55	4.79e6	6.18e6	6.40e5	8.07e5	----	----	0.78	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:34	6.78e7	4.38e7	1.20e7	7.74e6	----	----	1.55	
2,3,4,7,8-PeCDF-13C	31:08	6.93e7	4.46e7	1.36e7	8.90e6	----	----	1.56	
1,2,3,7,8-PeCDF	29:35	2.91e7	1.91e7	4.99e6	3.22e6	----	----	1.53	
2,3,4,7,8-PeCDF	31:09	2.94e7	1.97e7	5.94e6	3.94e6	----	----	1.49	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:36	4.44e7	2.81e7	8.82e6	5.62e6	----	----	1.58	
1,2,3,7,8-PeCDD	31:38	1.38e7	2.26e7	2.71e6	4.81e6	----	----	0.61	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:11	2.81e7	5.38e7	7.33e6	1.41e7	----	----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:21	3.29e7	6.32e7	8.15e6	1.55e7	----	----	0.52	
2,3,4,6,7,8-HxCDF-13C	36:04	2.91e7	5.71e7	7.69e6	1.46e7	----	----	0.51	
1,2,3,7,8,9-HxCDF-13C	37:03	2.63e7	5.02e7	6.42e6	1.21e7	----	----	0.52	
1,2,3,4,7,8-HxCDF	35:13	2.24e7	1.86e7	5.78e6	4.79e6	----	----	1.20	
1,2,3,6,7,8-HxCDF	35:22	2.58e7	2.12e7	6.11e6	5.24e6	----	----	1.21	
2,3,4,6,7,8-HxCDF	36:05	2.44e7	2.06e7	6.61e6	5.48e6	----	----	1.18	
1,2,3,7,8,9-HxCDF	37:04	1.89e7	1.58e7	4.56e6	3.64e6	----	----	1.20	

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Client ID		Injected By	SMT
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR06 (U)
Filename	U130917A_22	GC Column ID	USD227224H
Analyzed	09/18/2013 02:01	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:16	3.67e7	2.97e7	1.06e7	8.35e6	-----	-----	1.24	
1,2,3,6,7,8-HxCDD-13C	36:23	4.64e7	3.68e7	1.16e7	9.17e6	-----	-----	1.26	
1,2,3,7,8,9-HxCDD-13C	36:42	4.07e7	3.23e7	9.30e6	7.52e6	-----	-----	1.26	
1,2,3,4,7,8-HxCDD	36:17	1.86e7	1.50e7	5.32e6	4.03e6	-----	-----	1.24	
1,2,3,6,7,8-HxCDD	36:24	2.05e7	1.71e7	5.19e6	4.44e6	-----	-----	1.20	
1,2,3,7,8,9-HxCDD	36:43	1.93e7	1.58e7	4.58e6	3.77e6	-----	-----	1.22	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:46	2.54e7	5.54e7	6.93e6	1.51e7	-----	-----	0.46	
1,2,3,4,7,8,9-HpCDF-13C	40:24	1.91e7	4.22e7	4.95e6	1.12e7	-----	-----	0.45	
1,2,3,4,6,7,8-HpCDF	38:47	2.79e7	2.66e7	7.38e6	7.26e6	-----	-----	1.05	
1,2,3,4,7,8,9-HpCDF	40:25	2.07e7	2.04e7	5.66e6	5.72e6	-----	-----	1.02	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:55	2.99e7	2.82e7	8.27e6	7.45e6	-----	-----	1.06	
1,2,3,4,6,7,8-HpCDD	39:55	1.63e7	1.56e7	4.52e6	4.24e6	-----	-----	1.05	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:57	3.29e7	3.72e7	8.18e6	9.18e6	-----	-----	0.89	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:47	5.58e7	6.23e7	1.28e7	1.47e7	-----	-----	0.89	
OCDD	42:48	2.77e7	3.12e7	6.67e6	7.59e6	-----	-----	0.89	

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Prepared By _____ Date _____

Reviewed By _____ Date _____

Client ID		Injected By	SMT
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR06 (U)
Filename	U130917B_15	GC Column ID	USD227224H
Analyzed	09/18/2013 13:51	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:43	5.73e7	7.32e7	8.35e6	1.06e7	----	----	0.78	
2,3,7,8-TCDF	21:45	5.04e6	6.61e6	7.27e5	9.27e5	----	----	0.76	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:60	3.55e7	4.41e7	5.36e6	6.53e6	----	----	0.80	
2,3,7,8-TCDD-13C	22:57	3.54e7	4.45e7	4.80e6	5.87e6	----	----	0.80	
2,3,7,8-TCDD-37Cl4	22:59	9.18e6		1.21e6		----	----		
2,3,7,8-TCDD	22:59	4.02e6	5.12e6	4.98e5	6.63e5	----	----	0.79	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:37	5.86e7	3.76e7	1.00e7	6.55e6	----	----	1.56	
2,3,4,7,8-PeCDF-13C	31:10	5.89e7	3.85e7	1.21e7	7.72e6	----	----	1.53	
1,2,3,7,8-PeCDF	29:38	2.54e7	1.67e7	4.27e6	2.78e6	----	----	1.52	
2,3,4,7,8-PeCDF	31:12	2.61e7	1.77e7	5.09e6	3.44e6	----	----	1.48	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:39	3.69e7	2.32e7	7.54e6	4.76e6	----	----	1.59	
1,2,3,7,8-PeCDD	31:40	1.18e7	1.93e7	2.31e6	3.81e6	----	----	0.61	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:14	2.47e7	4.84e7	6.27e6	1.23e7	----	----	0.51	
1,2,3,6,7,8-HxCDF-13C	35:23	2.94e7	5.69e7	6.85e6	1.31e7	----	----	0.52	
2,3,4,6,7,8-HxCDF-13C	36:07	2.64e7	5.12e7	6.73e6	1.31e7	----	----	0.51	
1,2,3,7,8,9-HxCDF-13C	37:05	2.41e7	4.61e7	5.64e6	1.08e7	----	----	0.52	
1,2,3,4,7,8-HxCDF	35:15	2.03e7	1.70e7	5.08e6	4.22e6	----	----	1.19	
1,2,3,6,7,8-HxCDF	35:24	2.34e7	1.92e7	5.77e6	4.79e6	----	----	1.22	
2,3,4,6,7,8-HxCDF	36:08	2.28e7	1.87e7	6.40e6	5.12e6	----	----	1.22	
1,2,3,7,8,9-HxCDF	37:05	1.81e7	1.51e7	4.57e6	3.75e6	----	----	1.20	

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Client ID		Injected By	SMT
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR06 (U)
Filename	U130917B_15	GC Column ID	USD227224H
Analyzed	09/18/2013 13:51	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:18	3.29e7	2.61e7	8.95e6	7.19e6	----	----	1.26	
1,2,3,6,7,8-HxCDD-13C	36:26	3.89e7	3.09e7	9.59e6	7.78e6	----	----	1.26	
1,2,3,7,8,9-HxCDD-13C	36:44	3.51e7	2.81e7	8.43e6	6.79e6	----	----	1.25	
1,2,3,4,7,8-HxCDD	36:19	1.67e7	1.36e7	4.72e6	3.84e6	----	----	1.23	
1,2,3,6,7,8-HxCDD	36:26	1.81e7	1.47e7	4.45e6	3.67e6	----	----	1.23	
1,2,3,7,8,9-HxCDD	36:45	1.73e7	1.43e7	4.12e6	3.42e6	----	----	1.21	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:49	2.07e7	4.65e7	5.57e6	1.25e7	----	----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	40:27	1.60e7	3.60e7	4.53e6	9.76e6	----	----	0.44	
1,2,3,4,6,7,8-HpCDF	38:49	2.40e7	2.31e7	6.63e6	6.43e6	----	----	1.04	
1,2,3,4,7,8,9-HpCDF	40:28	1.84e7	1.78e7	4.78e6	4.73e6	----	----	1.03	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:57	2.43e7	2.25e7	6.33e6	5.84e6	----	----	1.08	
1,2,3,4,6,7,8-HpCDD	39:58	1.32e7	1.23e7	3.54e6	3.29e6	----	----	1.08	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	43:00	3.09e7	3.39e7	7.67e6	8.15e6	----	----	0.91	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:50	4.78e7	5.30e7	1.12e7	1.21e7	----	----	0.90	
OCDD	42:51	2.47e7	2.75e7	5.59e6	6.25e6	----	----	0.90	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client ID		Injected By	BAL
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR05 (F)
Filename	F130921A_16	GC Column ID	USD174324H
Analyzed	09/21/2013 13:44	ICAL ID	F130918

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:18	3.72e7	4.60e7	5.24e6	6.50e6	-----	-----	0.81	
2,3,7,8-TCDF	21:19	4.15e6	5.24e6	5.81e5	7.06e5	-----	-----	0.79	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:32	1.98e7	2.45e7	2.77e6	3.36e6	-----	-----	0.81	
2,3,7,8-TCDD-13C	22:29	1.98e7	2.50e7	2.68e6	3.19e6	-----	-----	0.79	
2,3,7,8-TCDD-37Cl4	22:31	5.33e6		7.27e5		-----	-----		
2,3,7,8-TCDD	22:31	2.45e6	3.02e6	3.22e5	4.08e5	-----	-----	0.81	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:27	4.82e7	2.98e7	7.37e6	4.65e6	-----	-----	1.62	
2,3,4,7,8-PeCDF-13C	31:04	5.00e7	3.09e7	9.33e6	5.80e6	-----	-----	1.62	
1,2,3,7,8-PeCDF	29:30	2.82e7	1.74e7	4.37e6	2.60e6	-----	-----	1.62	
2,3,4,7,8-PeCDF	31:06	2.95e7	1.86e7	5.50e6	3.46e6	-----	-----	1.59	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:33	2.72e7	1.74e7	5.16e6	3.42e6	-----	-----	1.56	
1,2,3,7,8-PeCDD	31:35	1.04e7	1.67e7	2.07e6	3.38e6	-----	-----	0.62	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:01	2.61e7	4.87e7	6.81e6	1.22e7	-----	-----	0.54	
1,2,3,6,7,8-HxCDF-13C	35:09	3.03e7	5.55e7	7.45e6	1.32e7	-----	-----	0.55	
2,3,4,6,7,8-HxCDF-13C	35:49	2.66e7	4.96e7	6.90e6	1.30e7	-----	-----	0.54	
1,2,3,7,8,9-HxCDF-13C	36:44	2.57e7	4.68e7	6.95e6	1.27e7	-----	-----	0.55	
1,2,3,4,7,8-HxCDF	35:02	2.79e7	2.14e7	7.10e6	5.33e6	-----	-----	1.31	
1,2,3,6,7,8-HxCDF	35:10	3.05e7	2.32e7	7.60e6	5.76e6	-----	-----	1.31	
2,3,4,6,7,8-HxCDF	35:51	2.87e7	2.20e7	7.50e6	5.77e6	-----	-----	1.31	
1,2,3,7,8,9-HxCDF	36:45	2.46e7	1.93e7	6.60e6	4.98e6	-----	-----	1.28	

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Fax: 612- 607-6444

Client ID		Injected By	BAL
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR05 (F)
Filename	F130921A_16	GC Column ID	USD174324H
Analyzed	09/21/2013 13:44	ICAL ID	F130918

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:01	2.83e7	2.21e7	8.06e6	6.26e6	-----	-----	1.28	
1,2,3,6,7,8-HxCDD-13C	36:07	3.23e7	2.50e7	8.62e6	6.81e6	-----	-----	1.29	
1,2,3,7,8,9-HxCDD-13C	36:24	2.96e7	2.28e7	7.59e6	5.98e6	-----	-----	1.30	
1,2,3,4,7,8-HxCDD	36:01	1.66e7	1.26e7	4.75e6	3.67e6	-----	-----	1.32	
1,2,3,6,7,8-HxCDD	36:08	1.74e7	1.36e7	4.63e6	3.56e6	-----	-----	1.28	
1,2,3,7,8,9-HxCDD	36:26	1.68e7	1.30e7	4.48e6	3.44e6	-----	-----	1.29	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:25	1.35e7	2.93e7	3.45e6	7.58e6	-----	-----	0.46	
1,2,3,4,7,8,9-HpCDF-13C	39:57	1.10e7	2.35e7	3.21e6	6.93e6	-----	-----	0.47	
1,2,3,4,6,7,8-HpCDF	38:25	1.66e7	1.61e7	4.40e6	4.34e6	-----	-----	1.04	
1,2,3,4,7,8,9-HpCDF	39:57	1.26e7	1.25e7	3.74e6	3.68e6	-----	-----	1.01	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:29	1.55e7	1.39e7	4.51e6	4.16e6	-----	-----	1.12	
1,2,3,4,6,7,8-HpCDD	39:30	9.20e6	8.69e6	2.75e6	2.59e6	-----	-----	1.06	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:24	2.22e7	2.34e7	5.35e6	5.83e6	-----	-----	0.95	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:15	2.97e7	3.12e7	7.57e6	7.58e6	-----	-----	0.95	
OCDD	42:16	1.66e7	1.85e7	4.32e6	4.63e6	-----	-----	0.90	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____
Reviewed By _____ Date _____

Client ID		Injected By	BAL
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR05 (F)
Filename	F130921B_16	GC Column ID	USD174324H
Analyzed	09/22/2013 01:59	ICAL ID	F130918

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:18	3.82e7	4.81e7	4.90e6	6.24e6	----	----	0.80	
2,3,7,8-TCDF	21:19	3.39e6	4.58e6	4.60e5	5.87e5	----	----	0.74	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:34	2.46e7	3.01e7	3.32e6	4.11e6	----	----	0.82	
2,3,7,8-TCDD-13C	22:30	2.49e7	3.04e7	3.10e6	3.84e6	----	----	0.82	
2,3,7,8-TCDD-37Cl4	22:31	6.22e6		8.41e5		----	----		
2,3,7,8-TCDD	22:31	2.83e6	3.38e6	3.59e5	4.28e5	----	----	0.84	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:27	4.77e7	2.99e7	6.82e6	4.26e6	----	----	1.60	
2,3,4,7,8-PeCDF-13C	31:04	4.92e7	3.10e7	8.71e6	5.69e6	----	----	1.59	
1,2,3,7,8-PeCDF	29:30	2.36e7	1.49e7	3.57e6	2.10e6	----	----	1.58	
2,3,4,7,8-PeCDF	31:06	2.45e7	1.56e7	4.35e6	2.77e6	----	----	1.57	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:33	3.17e7	2.00e7	5.91e6	3.70e6	----	----	1.58	
1,2,3,7,8-PeCDD	31:35	1.05e7	1.72e7	1.86e6	3.12e6	----	----	0.61	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:01	2.42e7	4.56e7	5.88e6	1.09e7	----	----	0.53	
1,2,3,6,7,8-HxCDF-13C	35:09	2.64e7	5.02e7	6.14e6	1.17e7	----	----	0.53	
2,3,4,6,7,8-HxCDF-13C	35:49	2.36e7	4.46e7	5.67e6	1.10e7	----	----	0.53	
1,2,3,7,8,9-HxCDF-13C	36:44	2.31e7	4.33e7	6.06e6	1.12e7	----	----	0.53	
1,2,3,4,7,8-HxCDF	35:02	2.26e7	1.78e7	5.52e6	4.41e6	----	----	1.27	
1,2,3,6,7,8-HxCDF	35:10	2.47e7	1.96e7	5.54e6	4.54e6	----	----	1.26	
2,3,4,6,7,8-HxCDF	35:50	2.30e7	1.88e7	5.60e6	4.63e6	----	----	1.22	
1,2,3,7,8,9-HxCDF	36:45	1.99e7	1.58e7	5.18e6	4.24e6	----	----	1.26	

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Client ID		Injected By	BAL
Lab ID	CS3/CPM-7604-279	Instrument ID	10MSHR05 (F)
Filename	F130921B_16	GC Column ID	USD174324H
Analyzed	09/22/2013 01:59	ICAL ID	F130918

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:01	2.99e7	2.36e7	8.52e6	6.60e6	----	----	1.27	
1,2,3,6,7,8-HxCDD-13C	36:07	3.32e7	2.69e7	8.30e6	7.02e6	----	----	1.24	
1,2,3,7,8,9-HxCDD-13C	36:24	3.13e7	2.52e7	7.56e6	5.97e6	----	----	1.24	
1,2,3,4,7,8-HxCDD	36:01	1.58e7	1.25e7	4.28e6	3.17e6	----	----	1.26	
1,2,3,6,7,8-HxCDD	36:07	1.62e7	1.32e7	4.02e6	3.57e6	----	----	1.23	
1,2,3,7,8,9-HxCDD	36:25	1.62e7	1.25e7	4.12e6	3.15e6	----	----	1.30	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:25	1.66e7	3.58e7	4.12e6	8.89e6	----	----	0.46	
1,2,3,4,7,8,9-HpCDF-13C	39:57	1.31e7	2.71e7	3.67e6	6.97e6	----	----	0.48	
1,2,3,4,6,7,8-HpCDF	38:25	1.82e7	1.74e7	4.68e6	4.39e6	----	----	1.05	
1,2,3,4,7,8,9-HpCDF	39:58	1.43e7	1.40e7	3.90e6	3.85e6	----	----	1.03	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:30	1.95e7	1.71e7	5.06e6	4.77e6	----	----	1.14	
1,2,3,4,6,7,8-HpCDD	39:30	1.14e7	1.05e7	3.34e6	3.09e6	----	----	1.09	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:24	2.29e7	2.51e7	5.32e6	5.60e6	----	----	0.91	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:15	3.71e7	4.01e7	8.58e6	9.17e6	----	----	0.93	
OCDD	42:16	1.93e7	2.07e7	4.68e6	4.98e6	----	----	0.93	

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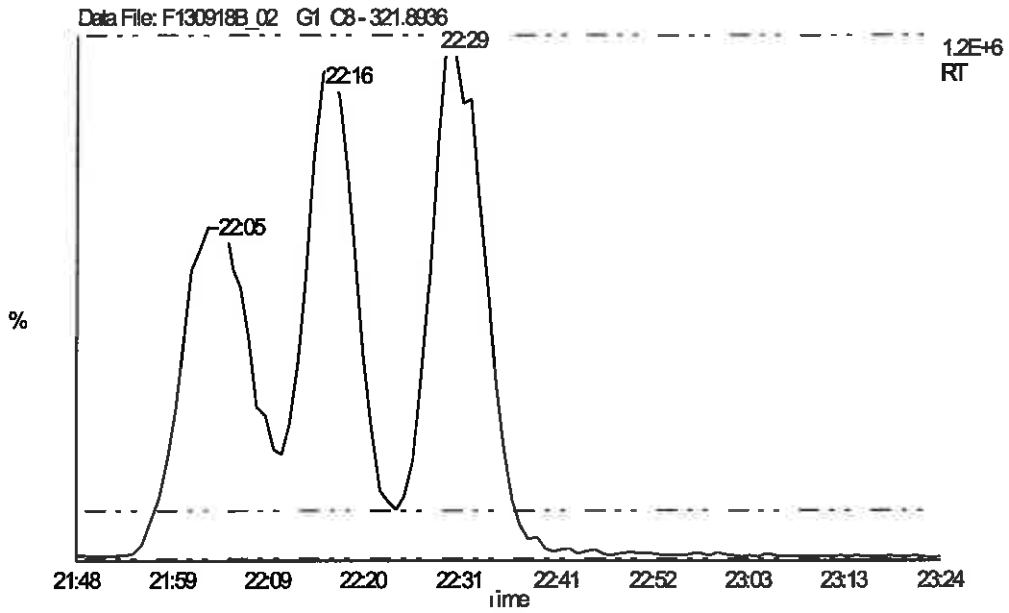
Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID	CS3/CPM-7604-279	Injected By	SMT	
Raw Data File	F130918B_02	Instrument ID	10MSHR05 (F)	
Date Analyzed	9/18/2013	GC Column Type	DB-5MS	0.25 uM
Time Analyzed	16:50	GC Column S/N	USD174324H	
Resolution	**9.1%**			



Group	Mass	First Eluter	Last Eluter
TCDF	305.8987	16:43	24:16
PeCDF	341.8567	24:17	32:25
HxCDF	373.8207	33:29	36:44
HpCDF	407.7818	38:25	39:58
OCDF	441.7428	42:24	42:24
TCDD	321.8936	18:18	23:59
PeCDD	357.8517	27:40	32:06
HxCDD	391.8127	34:14	36:24
HpCDD	425.7737	38:44	39:30
OCDD	459.7347	42:15	42:15
1234-TCDD-13C(RS)	331.9367	21:33	21:33
123789-HxCDD-13C(RS)	401.8559	36:23	36:23

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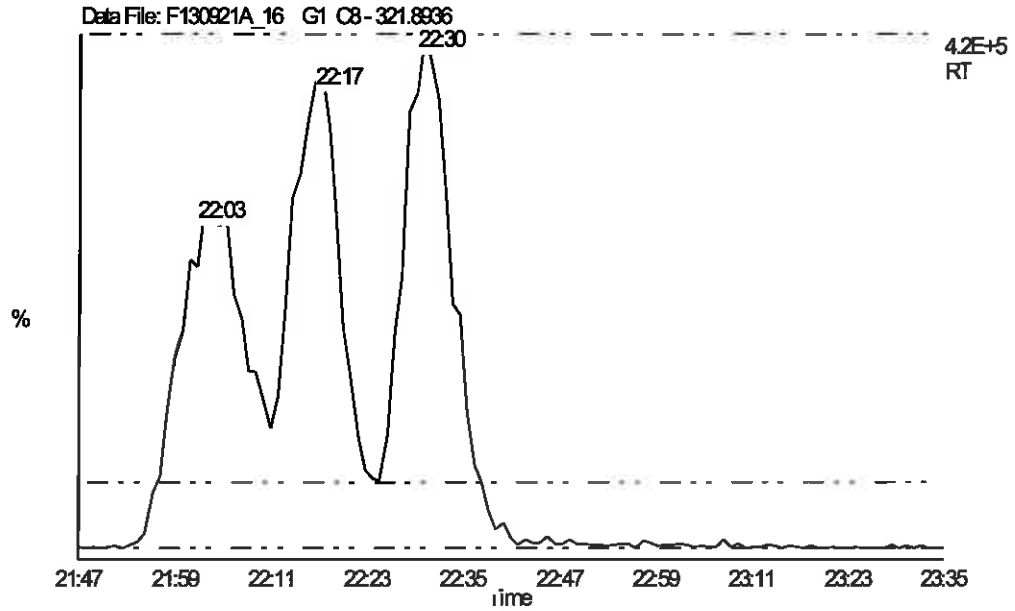
Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID	CS3/CPM-7604-279	Injected By	BAL	
Raw Data File	F130921A_16	Instrument ID	10MSHR05 (F)	
Date Analyzed	12/30/1899	GC Column Type	DB-5MS	0.25 uM
Time Analyzed	13:44	GC Column S/N	USD174324H	
Resolution	**12.9%**			



Group	Mass	First Eluter	Last Eluter
TCDF	305.8987	16:42	24:17
PeCDF	341.8567	24:18	32:25
HxCDF	373.8207	33:31	36:44
HpCDF	407.7818	38:25	39:57
OCDF	441.7428	42:24	0:00
TCDD	321.8936	18:17	23:58
PeCDD	357.8517	27:41	32:06
HxCDD	391.8127	34:14	36:24
HpCDD	425.7737	38:44	39:30
OCDD	459.7347	42:15	0:00
1234-TCDD-13C(RS)	331.9367	21:32	0:00
123789-HxCDD-13C(RS)	401.8559	36:23	0:00

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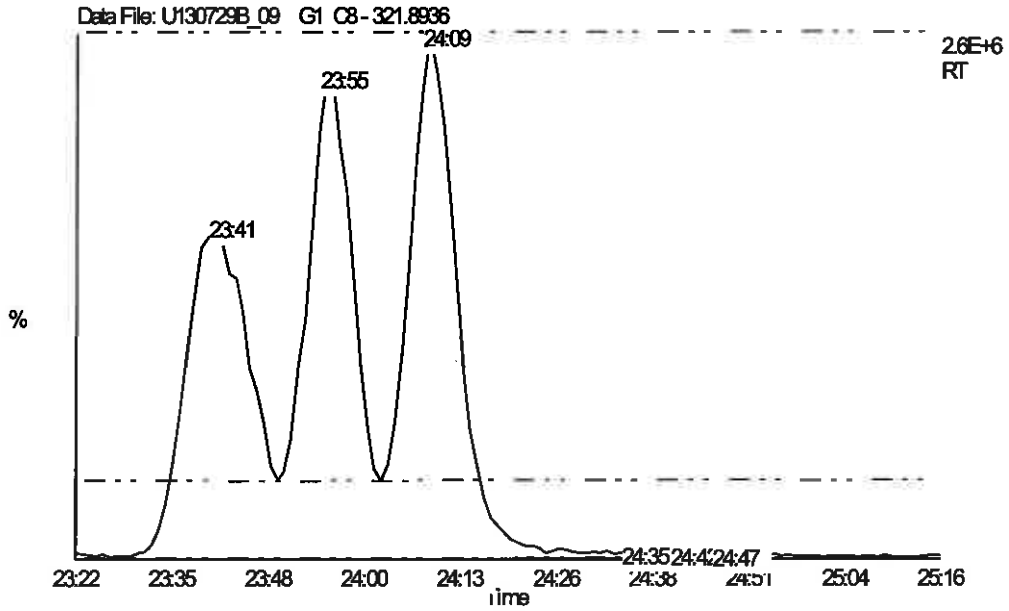
Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID	CS3/CPM-7604-274	Injected By	SMT	
Raw Data File	U130729B_09	Instrument ID	10MSHR06 (U)	
Date Analyzed	7/29/2013	GC Column Type	DB-5MS	0.25 uM
Time Analyzed	22:12	GC Column S/N	USD227224H	
Resolution	**14.9%**			



Group	Mass	First Eluter	Last Eluter
TCDF	305.8987	17:52	26:07
PeCDF	341.8567	26:04	33:15
HxCDF	373.8207	34:15	37:37
HpCDF	407.7818	39:16	40:53
OCDF	441.7428	43:27	0:00
TCDD	321.8936	19:36	25:48
PeCDD	357.8517	28:59	32:55
HxCDD	391.8127	35:00	37:15
HpCDD	425.7737	39:35	40:24
OCDD	459.7347	43:17	0:00
1234-TCDD-13C(RS)	331.9367	23:10	0:00
123789-HxCDD-13C(RS)	401.8559	37:15	0:00

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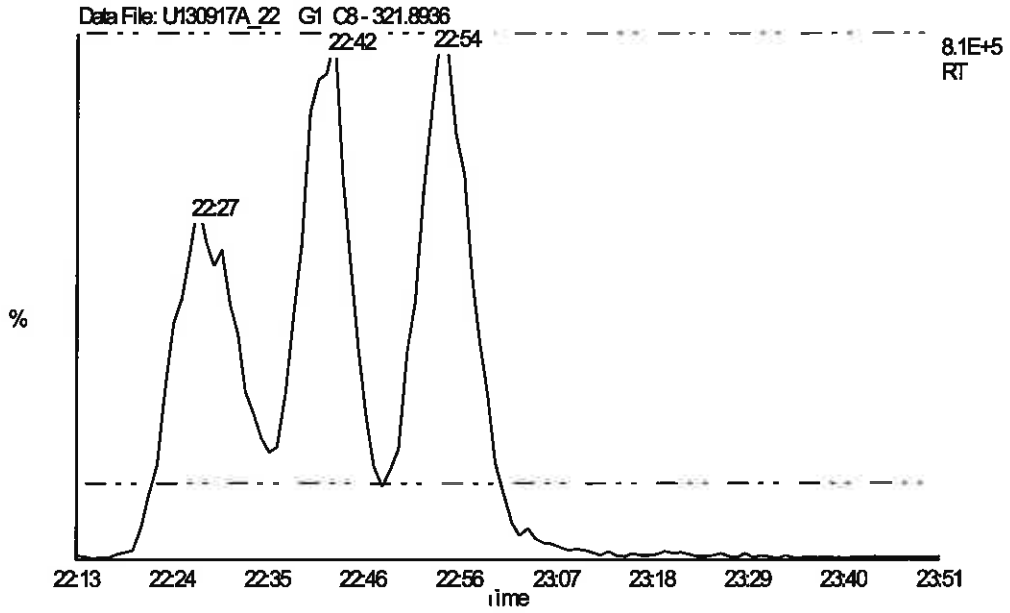
Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID	CS3/CPM-7604-279	Injected By	SMT	
Raw Data File	U130917A_22	Instrument ID	10MSHR06 (U)	
Date Analyzed	12/30/1899	GC Column Type	DB-5MS	0.25 uM
Time Analyzed	02:01	GC Column S/N	USD227224H	
Resolution	**14.4%**			



Group	Mass	First Eluter	Last Eluter
TCDF	305.8987	16:58	24:44
PeCDF	341.8567	24:43	32:31
HxCDF	373.8207	33:36	37:03
HpCDF	407.7818	38:46	40:24
OCDF	441.7428	42:57	0:00
TCDD	321.8936	18:37	24:27
PeCDD	357.8517	27:57	32:10
HxCDD	391.8127	34:23	36:42
HpCDD	425.7737	39:06	39:55
OCDD	459.7347	42:47	0:00
1234-TCDD-13C(RS)	331.9367	21:57	0:00
123789-HxCDD-13C(RS)	401.8559	36:41	0:00

REPORT OF LABORATORY ANALYSIS

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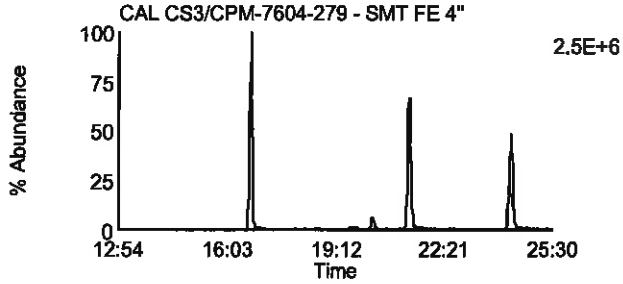
Homologue Group: Tetras

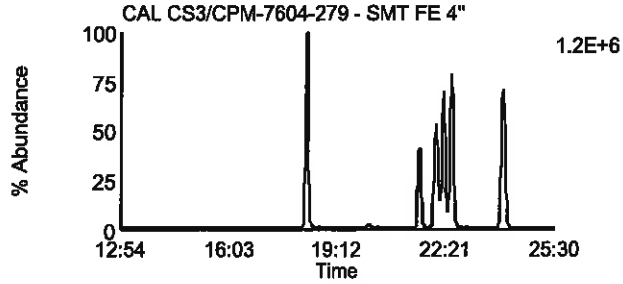
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

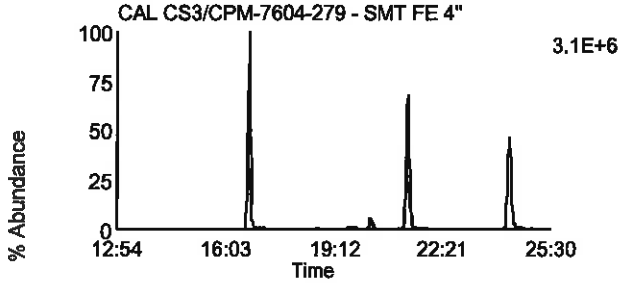
Data File: F130918B_02 G1 C1 - 303.9016
CAL CS3/CPM-7604-279 - SMT FE 4"



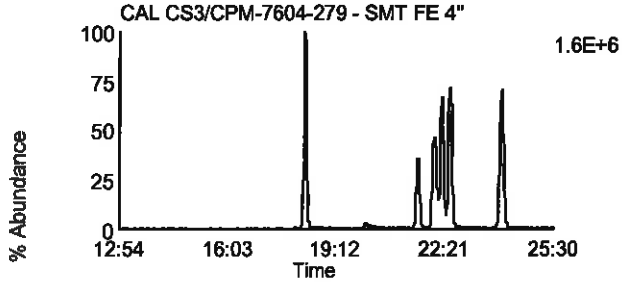
Data File: F130918B_02 G1 C7 - 319.8965
CAL CS3/CPM-7604-279 - SMT FE 4"



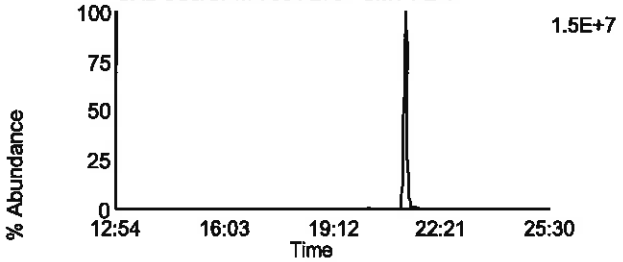
Data File: F130918B_02 G1 C2 - 305.8987
CAL CS3/CPM-7604-279 - SMT FE 4"



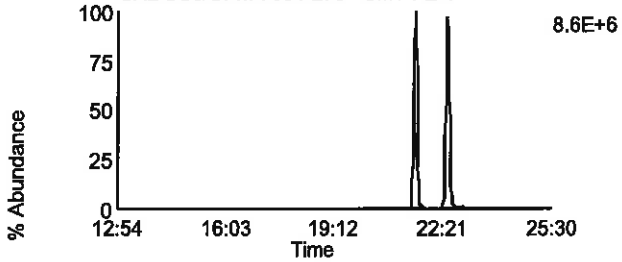
Data File: F130918B_02 G1 C8 - 321.8936
CAL CS3/CPM-7604-279 - SMT FE 4"



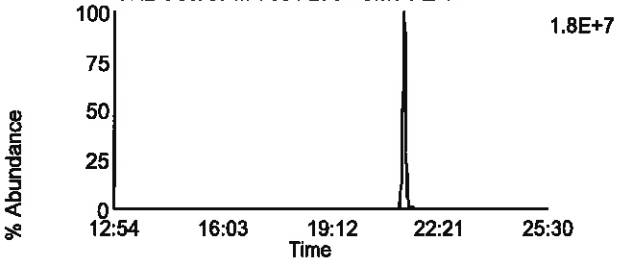
Data File: F130918B_02 G1 C3 - 315.9418
CAL CS3/CPM-7604-279 - SMT FE 4"



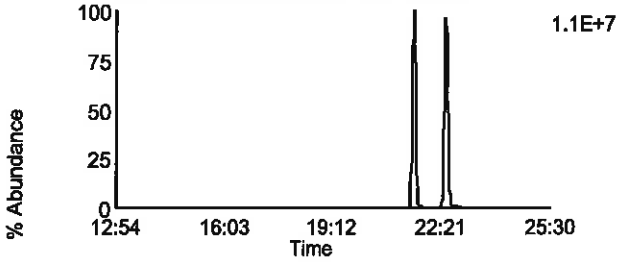
Data File: F130918B_02 G1 C10 - 331.9367
CAL CS3/CPM-7604-279 - SMT FE 4"



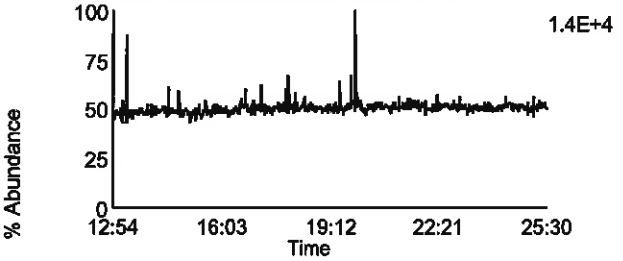
Data File: F130918B_02 G1 C4 - 317.9389
CAL CS3/CPM-7604-279 - SMT FE 4"



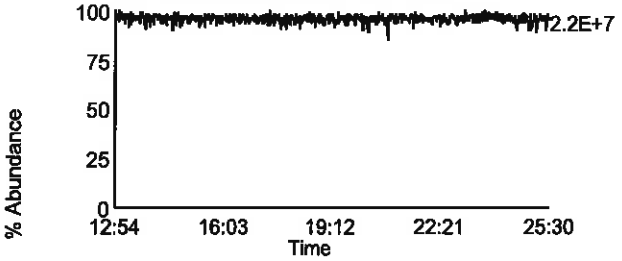
Data File: F130918B_02 G1 C11 - 333.9338
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G1 C14 - 375.8364
CAL CS3/CPM-7604-279 - SMT FE 4"



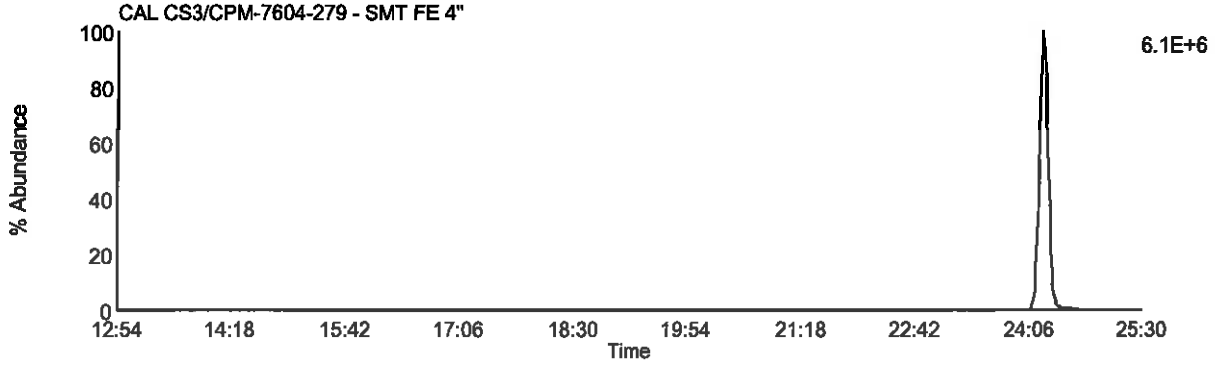
Data File: F130918B_02 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - SMT FE 4"



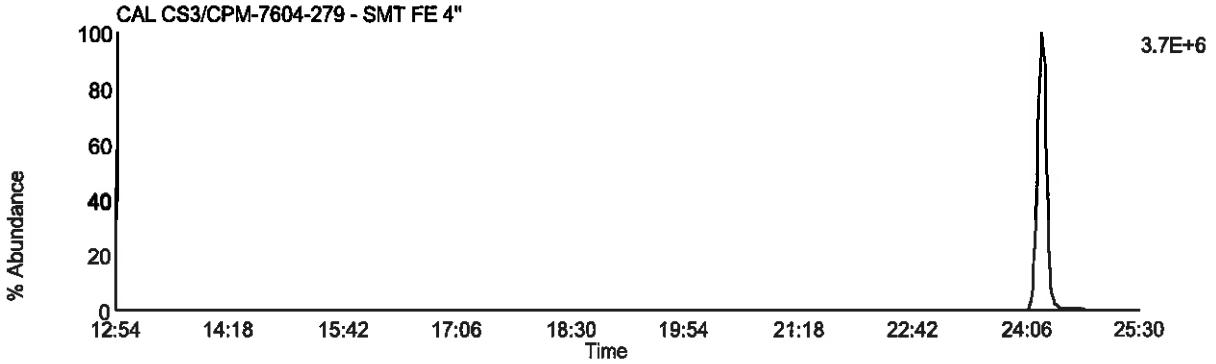
Homologue Group: Penta & Cleanup

Data File Name: F130918B_02	Lab Sample ID: CS3/CPM-7604-279
Date Acquired: 9/18/2013	Client Sample ID: CPM/WDM
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"	Instrument: 10MSHR05 (F)

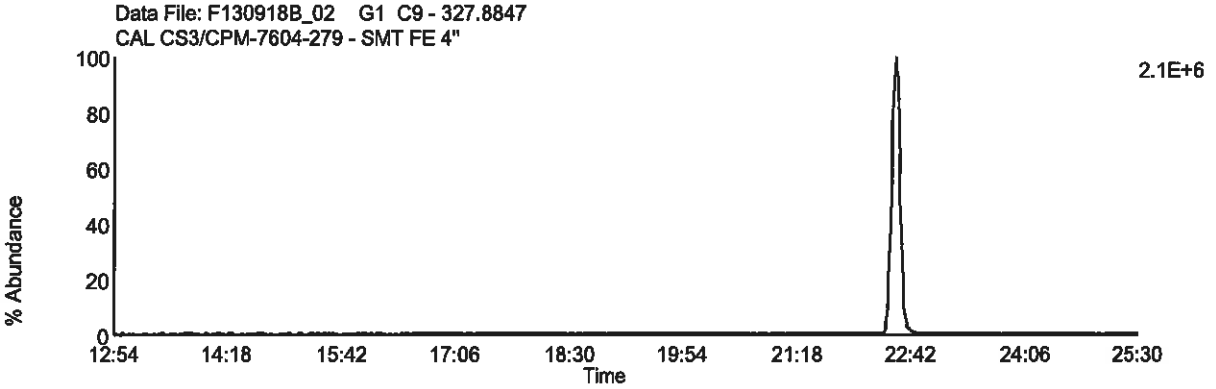
Data File: F130918B_02 G1 C12 - 339.8597
CAL CS3/CPM-7604-279 - SMT FE 4"



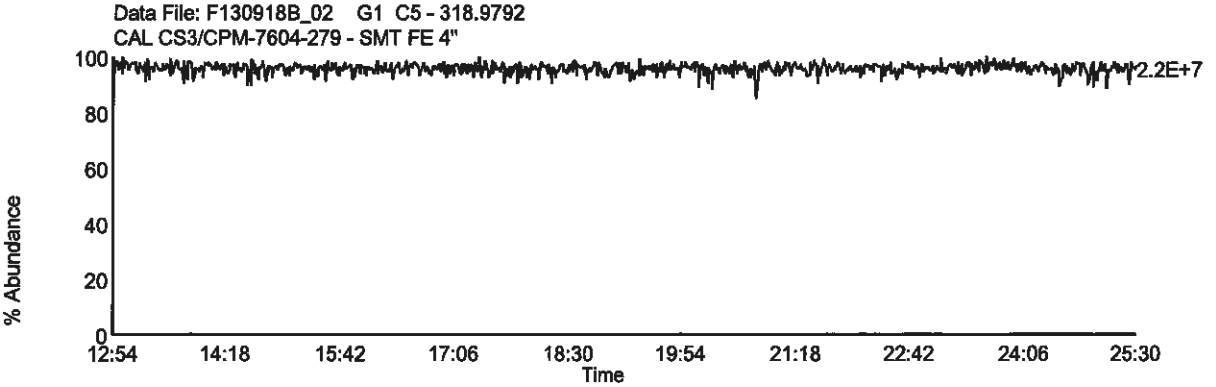
Data File: F130918B_02 G1 C13 - 341.8567
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G1 C9 - 327.8847
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - SMT FE 4"

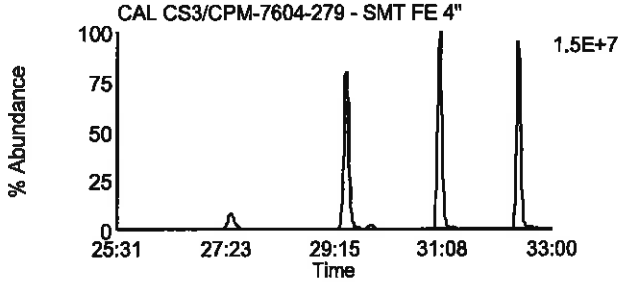


Homologue Group: Pentas

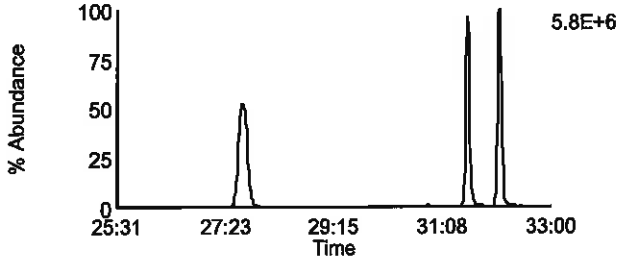
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

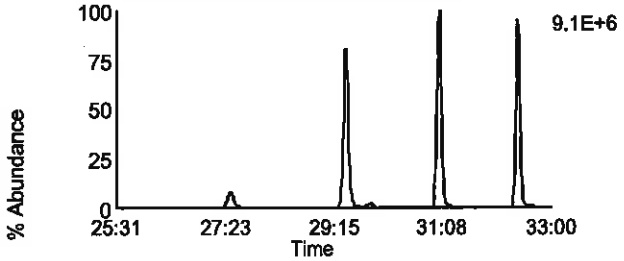
Data File: F130918B_02 G2 C1 - 339.8597
CAL CS3/CPM-7604-279 - SMT FE 4"



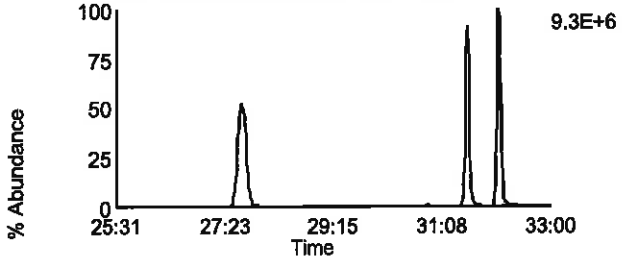
Data File: F130918B_02 G2 C4 - 353.8576
CAL CS3/CPM-7604-279 - SMT FE 4"



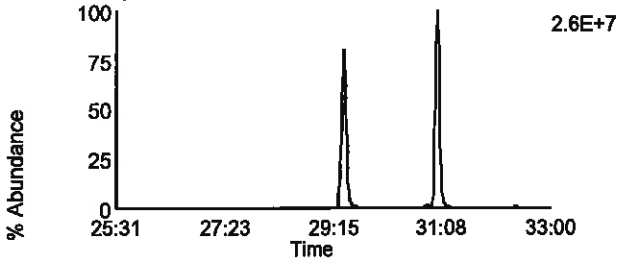
Data File: F130918B_02 G2 C2 - 341.8567
CAL CS3/CPM-7604-279 - SMT FE 4"



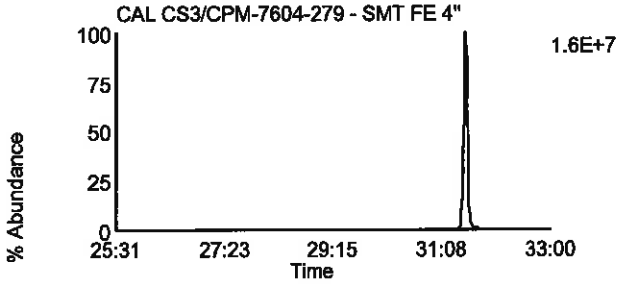
Data File: F130918B_02 G2 C8 - 355.8546
CAL CS3/CPM-7604-279 - SMT FE 4"



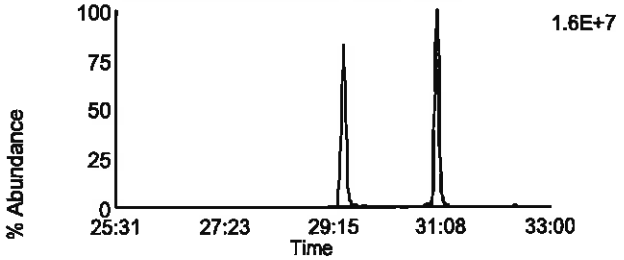
Data File: F130918B_02 G2 C3 - 351.8999
CAL CS3/CPM-7604-279 - SMT FE 4"



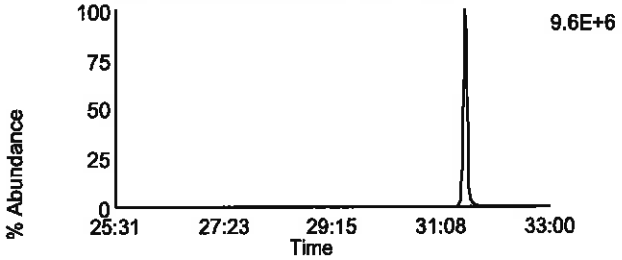
Data File: F130918B_02 G2 C10 - 367.8948
CAL CS3/CPM-7604-279 - SMT FE 4"



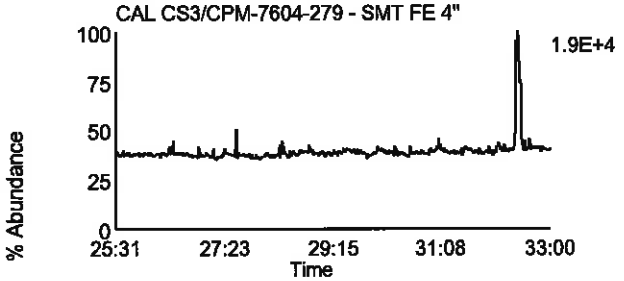
Data File: F130918B_02 G2 C5 - 353.8969
CAL CS3/CPM-7604-279 - SMT FE 4"



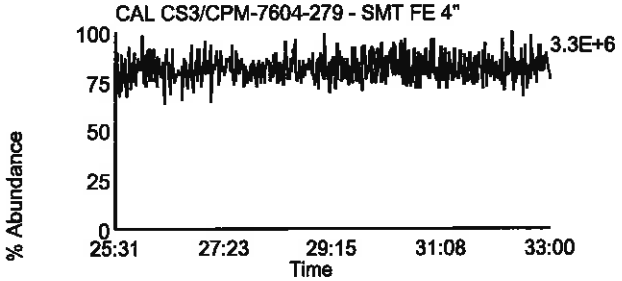
Data File: F130918B_02 G2 C11 - 369.8918
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G2 C12 - 409.7974
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G2 C6 - 354.9792
CAL CS3/CPM-7604-279 - SMT FE 4"

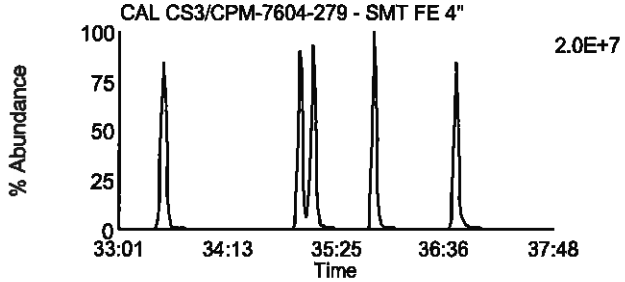


Homologue Group: Hexas

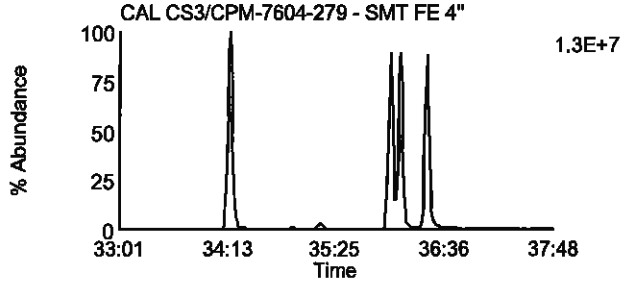
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

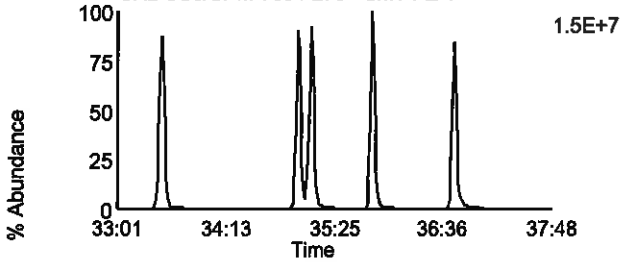
Data File: F130918B_02 G3 C1 - 373.8207
CAL CS3/CPM-7604-279 - SMT FE 4"



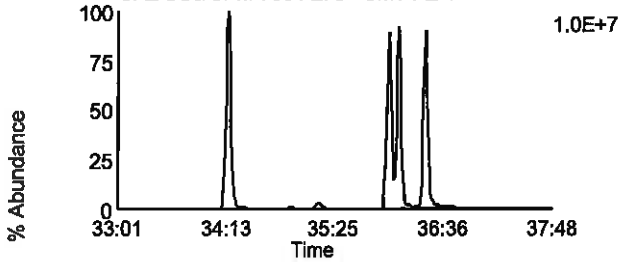
Data File: F130918B_02 G3 C7 - 389.8156
CAL CS3/CPM-7604-279 - SMT FE 4"



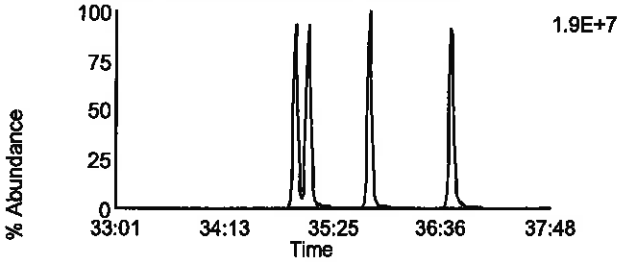
Data File: F130918B_02 G3 C2 - 375.8178
CAL CS3/CPM-7604-279 - SMT FE 4"



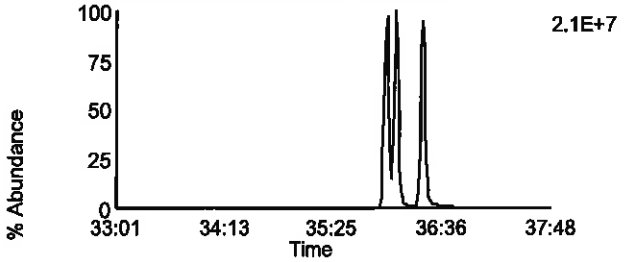
Data File: F130918B_02 G3 C8 - 391.8127
CAL CS3/CPM-7604-279 - SMT FE 4"



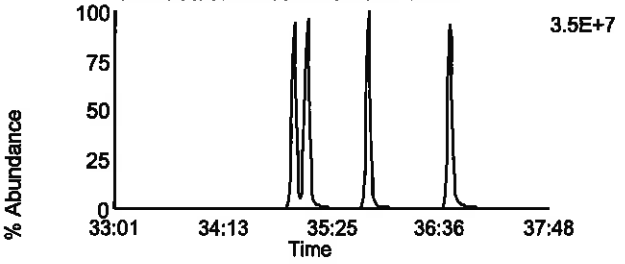
Data File: F130918B_02 G3 C5 - 383.8639
CAL CS3/CPM-7604-279 - SMT FE 4"



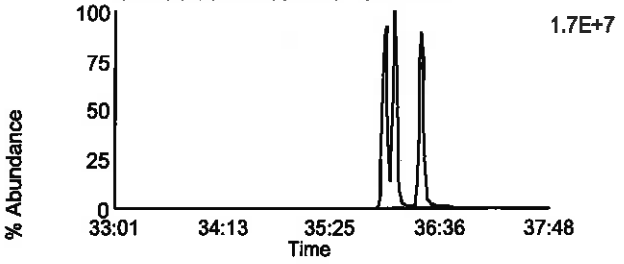
Data File: F130918B_02 G3 C9 - 401.8559
CAL CS3/CPM-7604-279 - SMT FE 4"



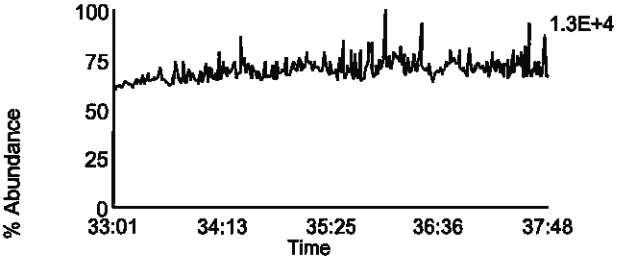
Data File: F130918B_02 G3 C6 - 385.861
CAL CS3/CPM-7604-279 - SMT FE 4"



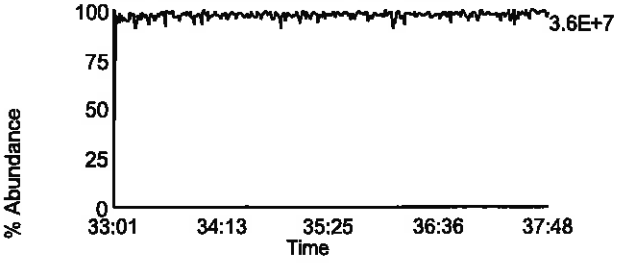
Data File: F130918B_02 G3 C10 - 403.8529
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G3 C11 - 445.7555
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G3 C3 - 380.976
CAL CS3/CPM-7604-279 - SMT FE 4"

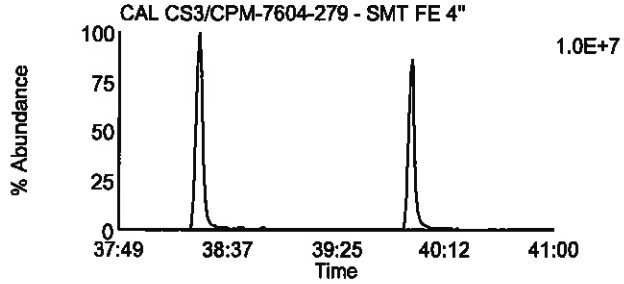


Homologue Group: Heptas

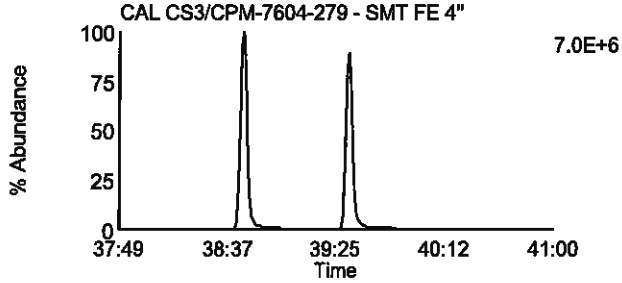
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

Data File: F130918B_02 G4 C3 - 407.7818
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G4 C8 - 423.7767
CAL CS3/CPM-7604-279 - SMT FE 4"



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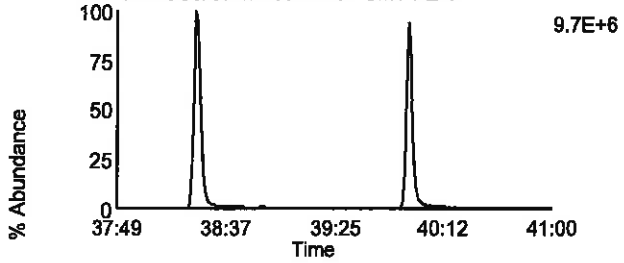
CAL CS3/CPM-7604-279 - SMT FE 4"



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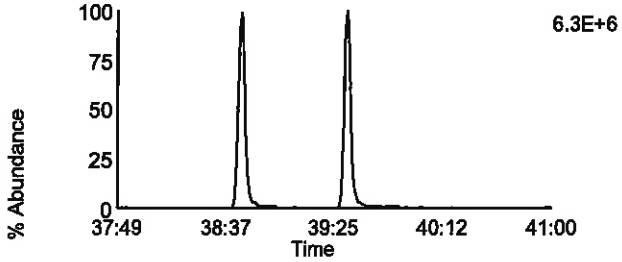
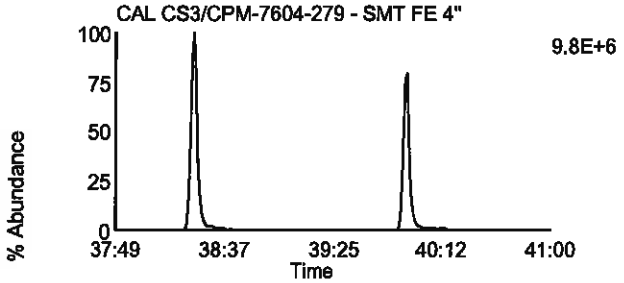
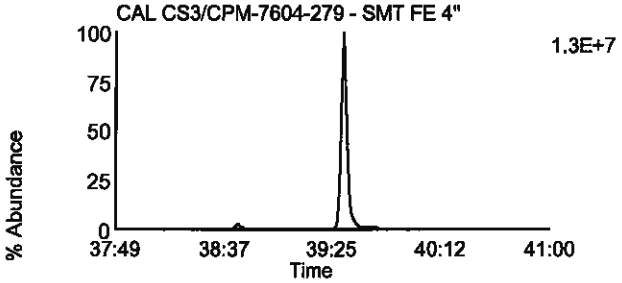
CAL CS3/CPM-7604-279 - SMT FE 4"



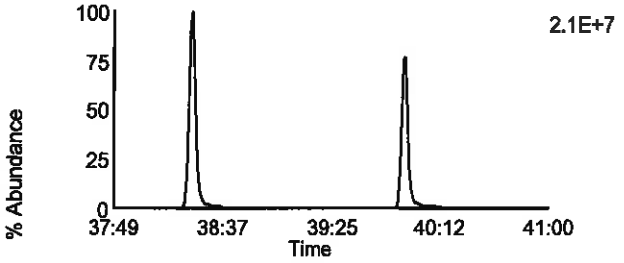
Data File: F130918B_02 G4 C6 - 417.825
CAL CS3/CPM-7604-279 - SMT FE 4"



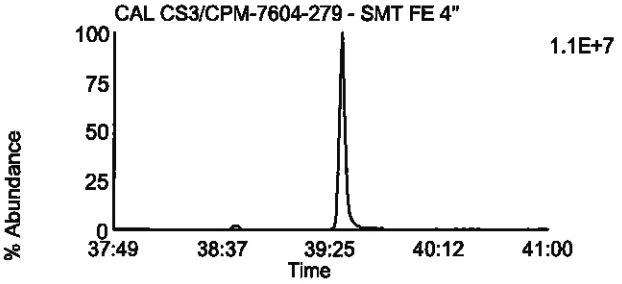
Data File: F130918B_02 G4 C11 - 435.8169
CAL CS3/CPM-7604-279 - SMT FE 4"



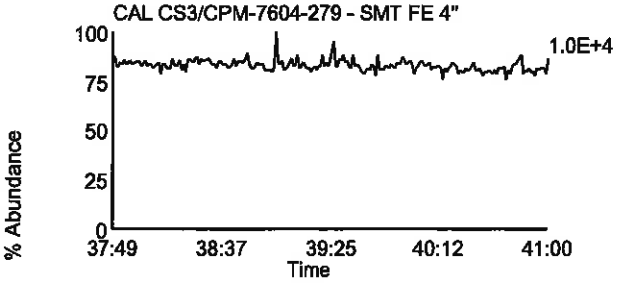
Data File: F130918B_02 G4 C7 - 419.822
CAL CS3/CPM-7604-279 - SMT FE 4"



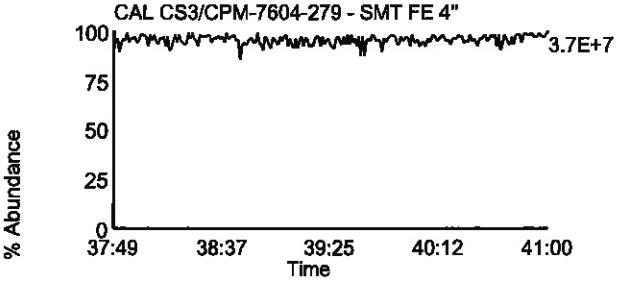
Data File: F130918B_02 G4 C12 - 437.814
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G4 C13 - 479.7165
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G4 C1 - 380.976
CAL CS3/CPM-7604-279 - SMT FE 4"

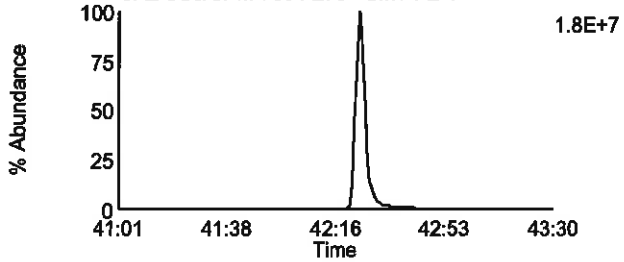


Homologue Group: Octas

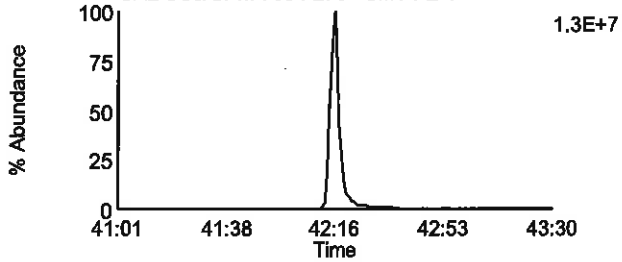
Data File Name: F130918B_02
Date Acquired: 9/18/2013
Sample Description: CAL CS3/CPM-7604-279 - SMT FE 4"

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

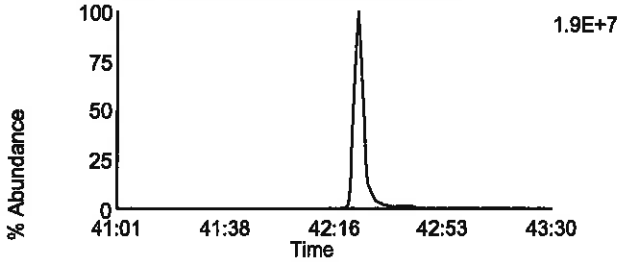
Data File: F130918B_02 G5 C4 - 441.7428
CAL CS3/CPM-7604-279 - SMT FE 4"



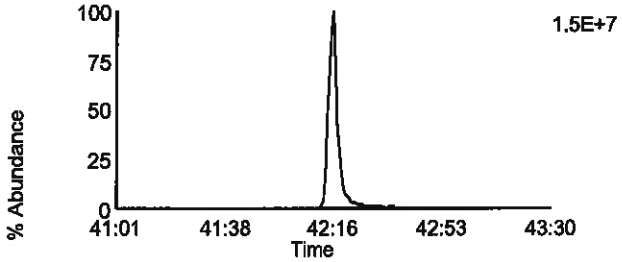
Data File: F130918B_02 G5 C8 - 457.7377
CAL CS3/CPM-7604-279 - SMT FE 4"



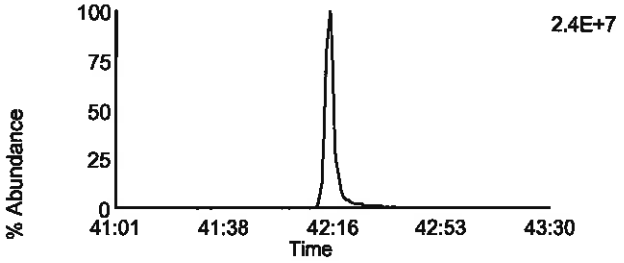
Data File: F130918B_02 G5 C5 - 443.7398
CAL CS3/CPM-7604-279 - SMT FE 4"



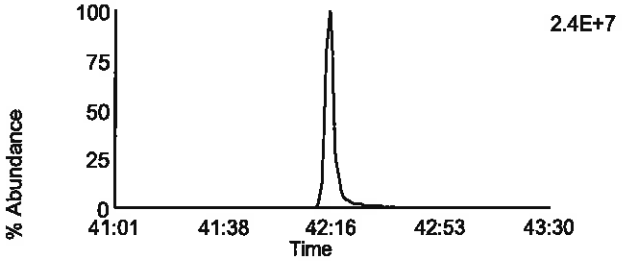
Data File: F130918B_02 G5 C9 - 459.7347
CAL CS3/CPM-7604-279 - SMT FE 4"



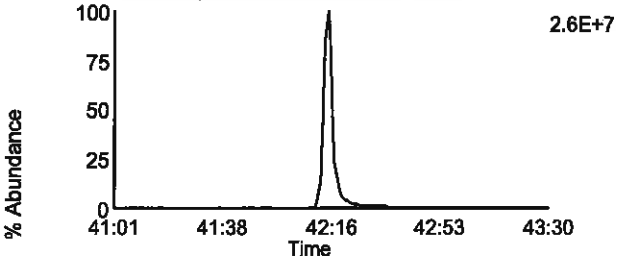
Data File: F130918B_02 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - SMT FE 4"



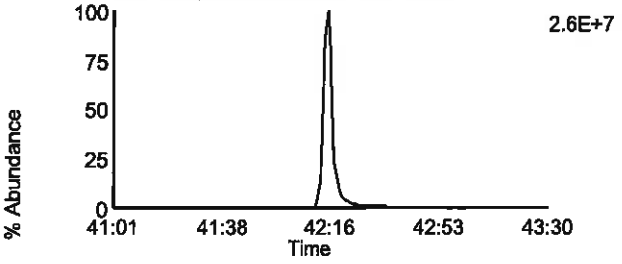
Data File: F130918B_02 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - SMT FE 4"



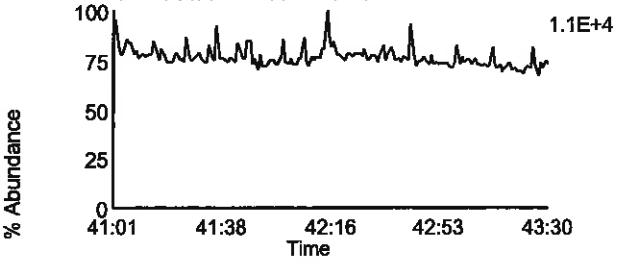
Data File: F130918B_02 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - SMT FE 4"



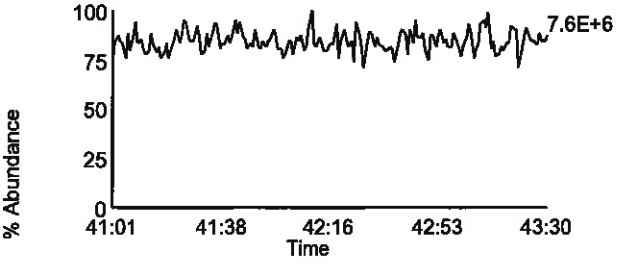
Data File: F130918B_02 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G5 C13 - 513.6775
CAL CS3/CPM-7604-279 - SMT FE 4"



Data File: F130918B_02 G5 C2 - 430.9728
CAL CS3/CPM-7604-279 - SMT FE 4"

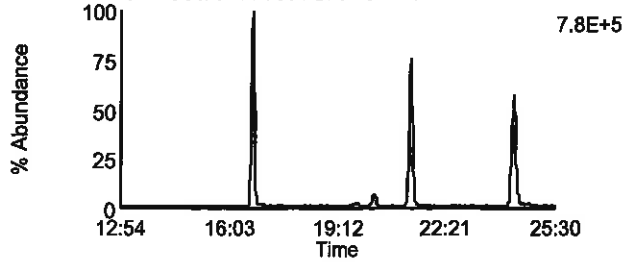


Homologue Group: Tetras

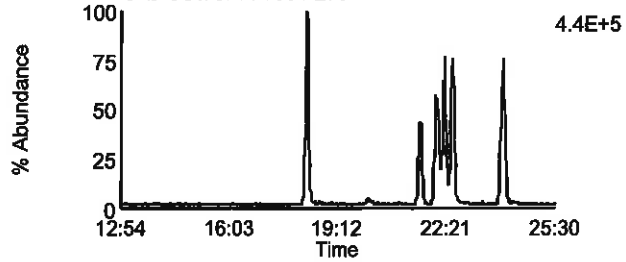
Data File Name: F130921A_16
Date Acquired: 12/30/1899
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

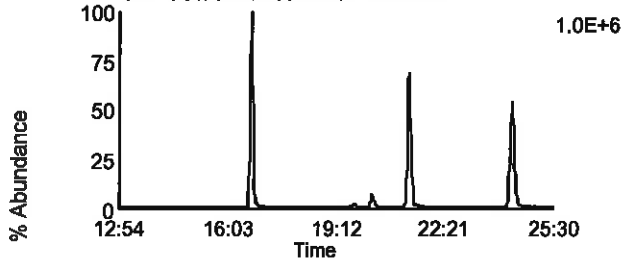
Data File: F130921A_16 G1 C1 - 303.9016
CAL CS3/CPM-7604-279 - BAL BAL



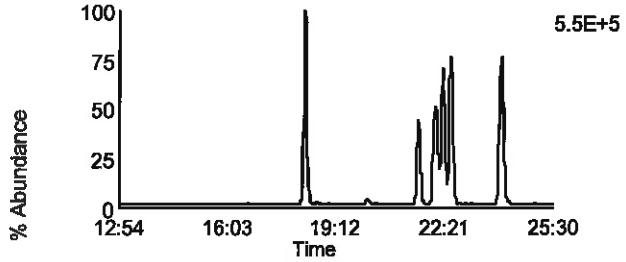
Data File: F130921A_16 G1 C7 - 319.8965
CAL CS3/CPM-7604-279 - BAL BAL



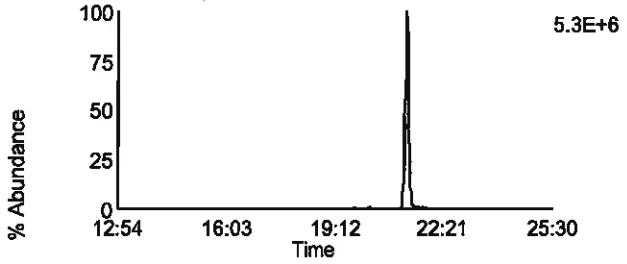
Data File: F130921A_16 G1 C2 - 305.8987
CAL CS3/CPM-7604-279 - BAL BAL



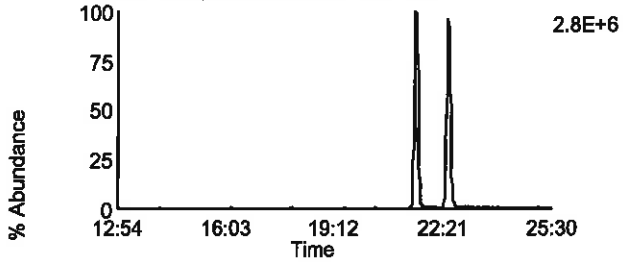
Data File: F130921A_16 G1 C8 - 321.8936
CAL CS3/CPM-7604-279 - BAL BAL



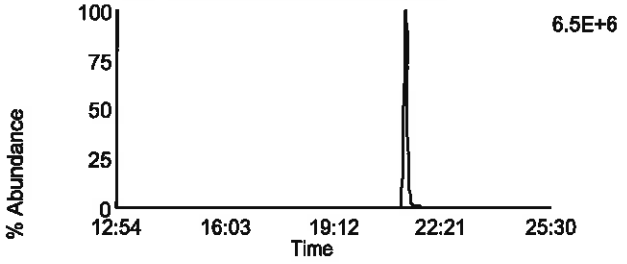
Data File: F130921A_16 G1 C3 - 315.9418
CAL CS3/CPM-7604-279 - BAL BAL



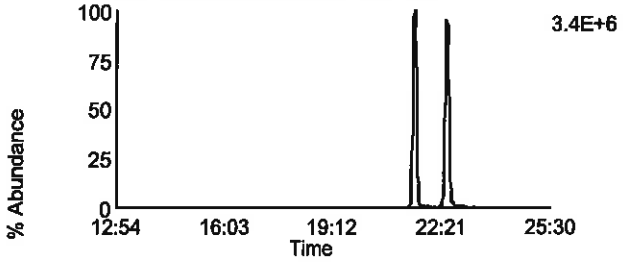
Data File: F130921A_16 G1 C10 - 331.9367
CAL CS3/CPM-7604-279 - BAL BAL



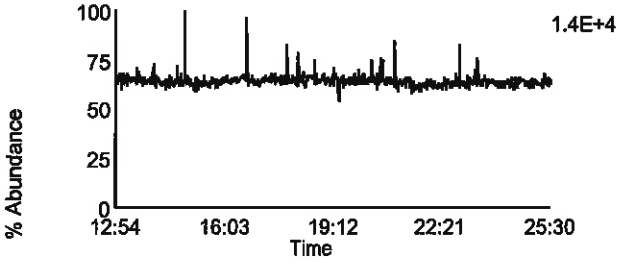
Data File: F130921A_16 G1 C4 - 317.9389
CAL CS3/CPM-7604-279 - BAL BAL



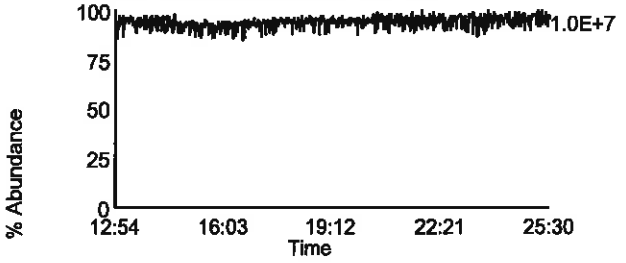
Data File: F130921A_16 G1 C11 - 333.9338
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G1 C14 - 375.8364
CAL CS3/CPM-7604-279 - BAL BAL



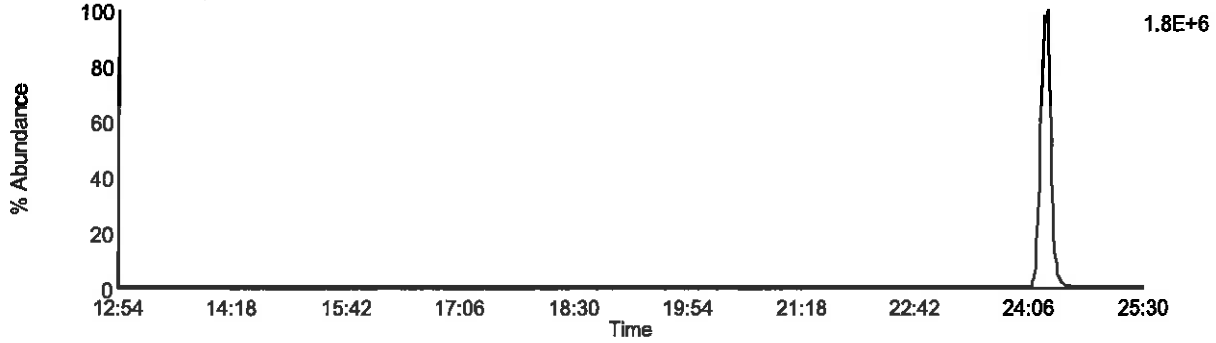
Data File: F130921A_16 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - BAL BAL



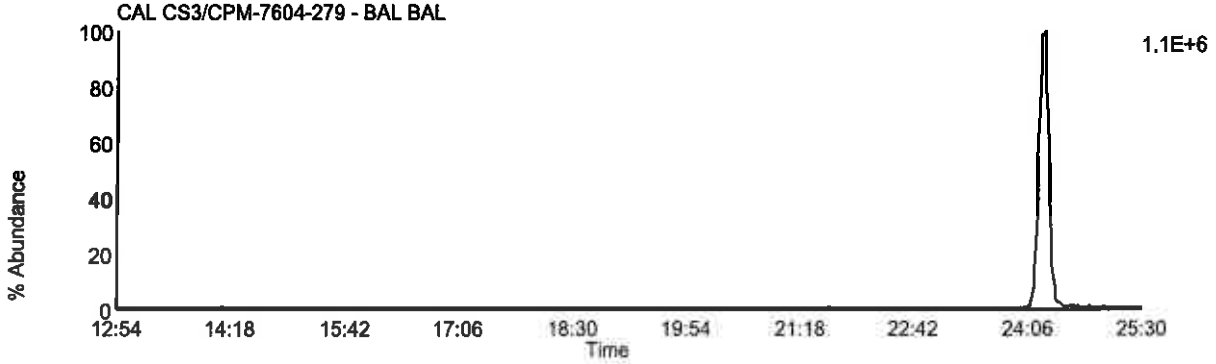
Homologue Group: Penta & Cleanup

Data File Name: F130921A_16	Lab Sample ID: CS3/CPM-7604-279
Date Acquired: 12/30/1899	Client Sample ID: CPM/WDM
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL	Instrument: 10MSHR05 (F)

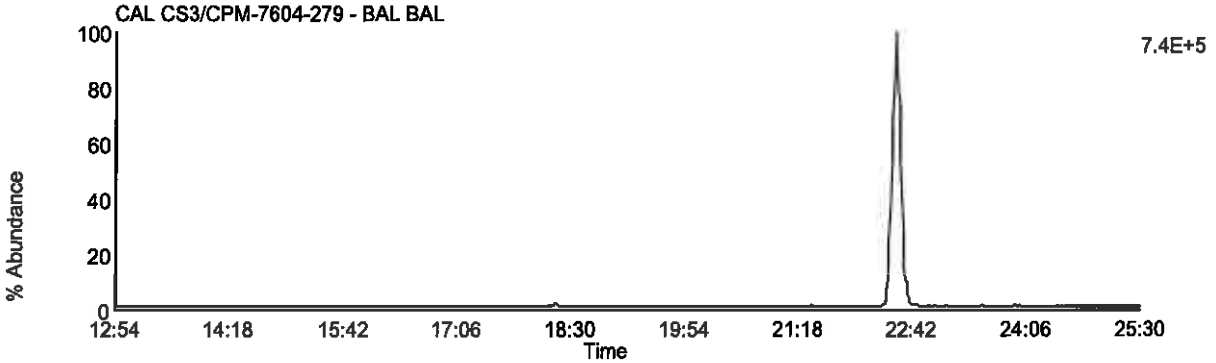
Data File: F130921A_16 G1 C12 - 339.8597
CAL CS3/CPM-7604-279 - BAL BAL



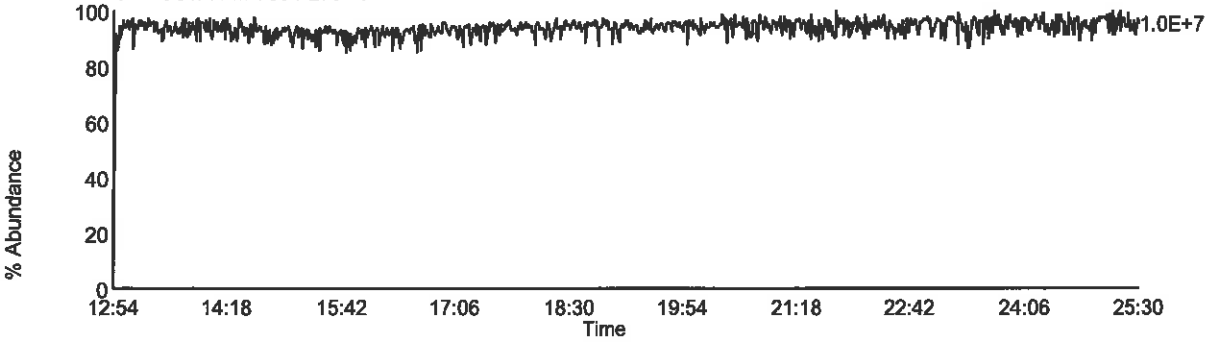
Data File: F130921A_16 G1 C13 - 341.8567
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G1 C9 - 327.8847
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - BAL BAL

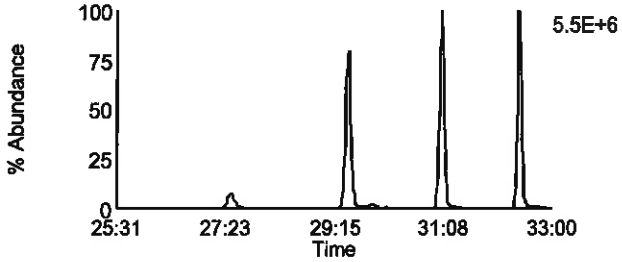


Homologue Group: Pentas

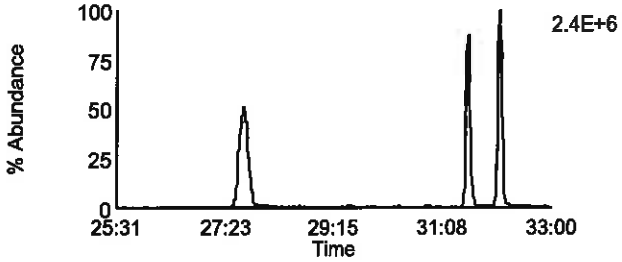
Data File Name: F130921A_16
Date Acquired: 12/30/1899
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

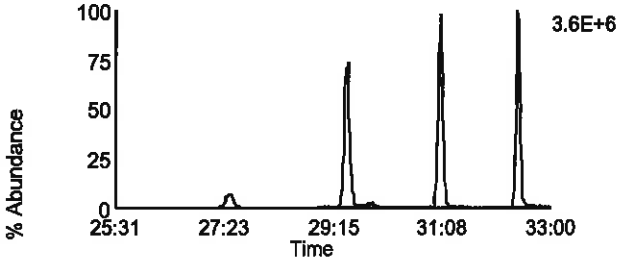
Data File: F130921A_16 G2 C1 - 339.8597
CAL CS3/CPM-7604-279 - BAL BAL



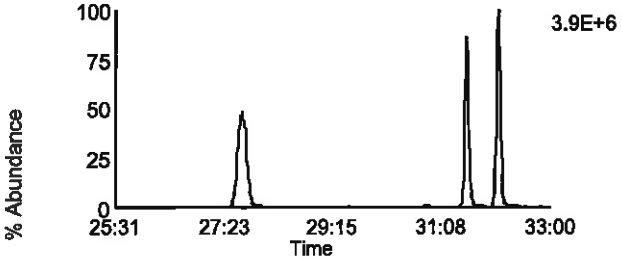
Data File: F130921A_16 G2 C4 - 353.8576
CAL CS3/CPM-7604-279 - BAL BAL



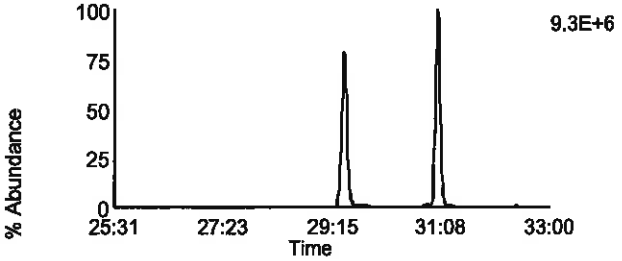
Data File: F130921A_16 G2 C2 - 341.8567
CAL CS3/CPM-7604-279 - BAL BAL



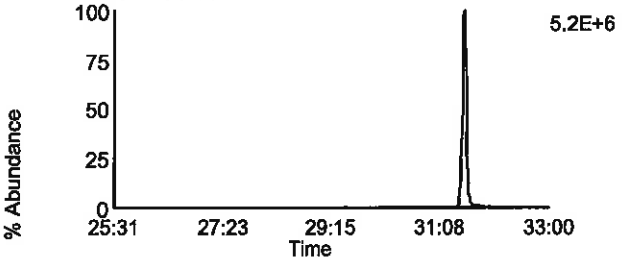
Data File: F130921A_16 G2 C8 - 355.8546
CAL CS3/CPM-7604-279 - BAL BAL



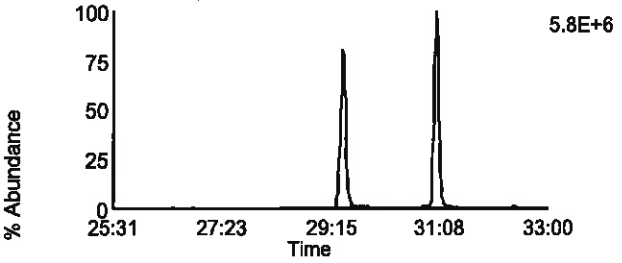
Data File: F130921A_16 G2 C3 - 351.8999
CAL CS3/CPM-7604-279 - BAL BAL



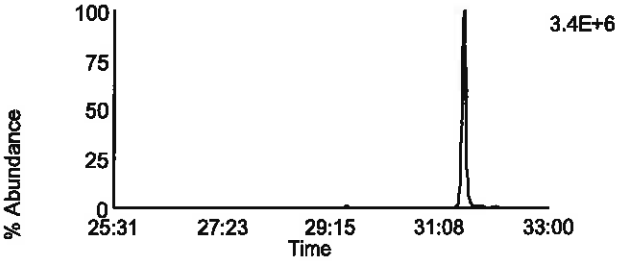
Data File: F130921A_16 G2 C10 - 367.8948
CAL CS3/CPM-7604-279 - BAL BAL



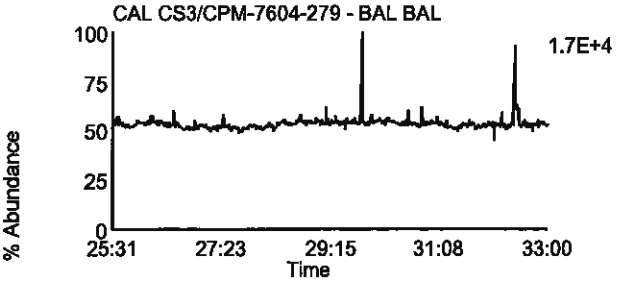
Data File: F130921A_16 G2 C5 - 353.8969
CAL CS3/CPM-7604-279 - BAL BAL



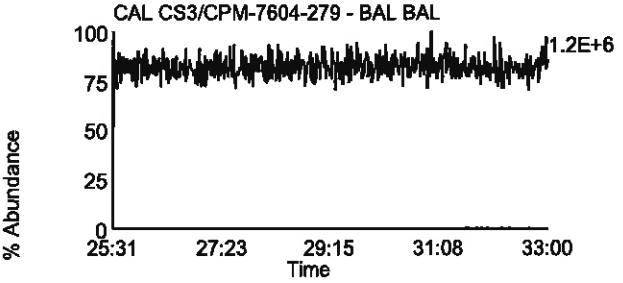
Data File: F130921A_16 G2 C11 - 369.8918
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G2 C12 - 409.7974
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G2 C6 - 354.9792
CAL CS3/CPM-7604-279 - BAL BAL

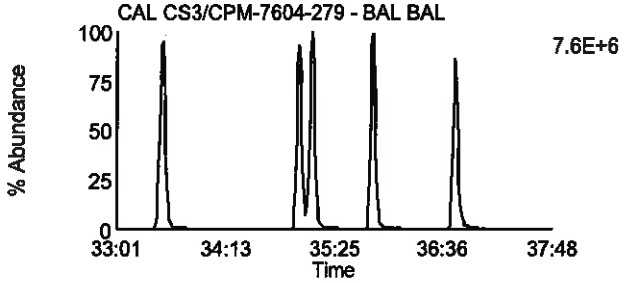


Homologue Group: Hexas

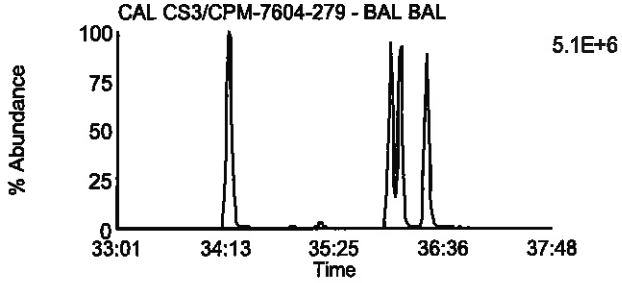
Data File Name: F130921A_16
Date Acquired: 12/30/1899
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

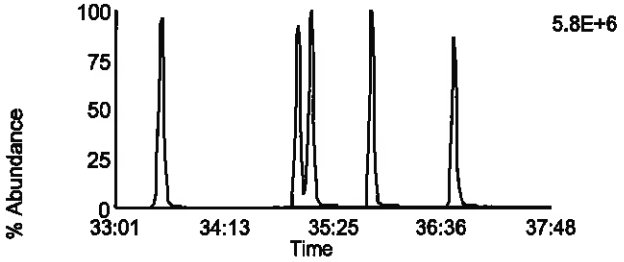
Data File: F130921A_16 G3 C1 - 373.8207
CAL CS3/CPM-7604-279 - BAL BAL



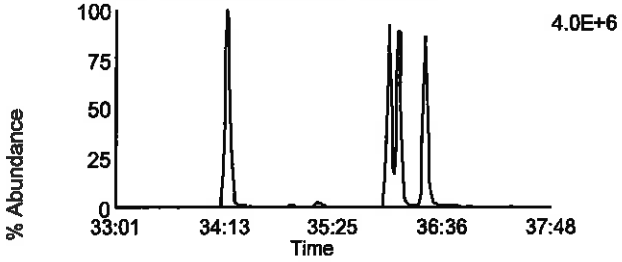
Data File: F130921A_16 G3 C7 - 389.8156
CAL CS3/CPM-7604-279 - BAL BAL



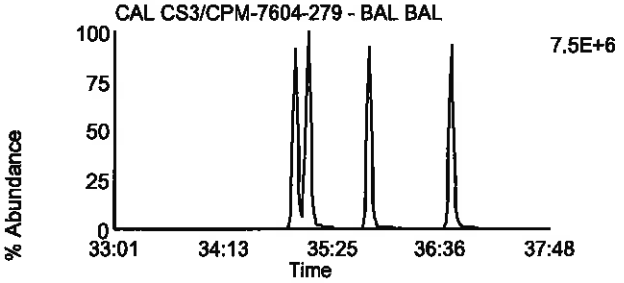
Data File: F130921A_16 G3 C2 - 375.8178
CAL CS3/CPM-7604-279 - BAL BAL



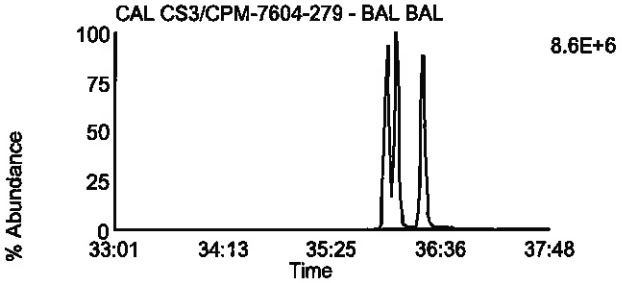
Data File: F130921A_16 G3 C8 - 391.8127
CAL CS3/CPM-7604-279 - BAL BAL



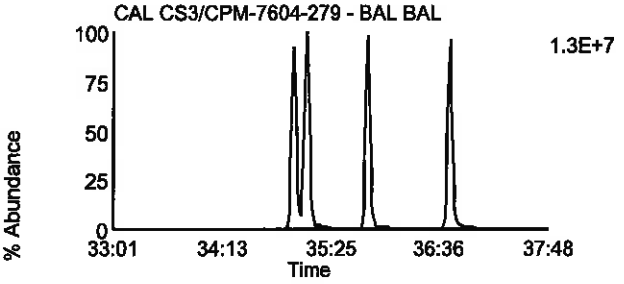
Data File: F130921A_16 G3 C5 - 383.8639
CAL CS3/CPM-7604-279 - BAL BAL



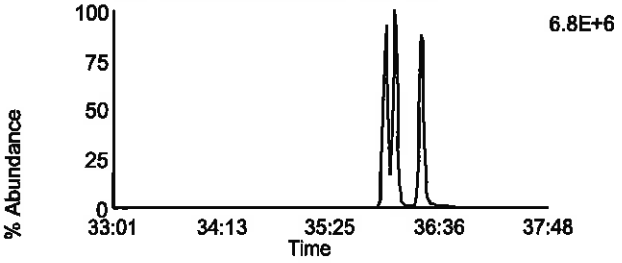
Data File: F130921A_16 G3 C9 - 401.8559
CAL CS3/CPM-7604-279 - BAL BAL



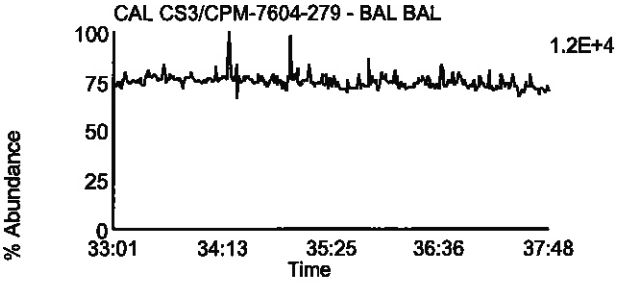
Data File: F130921A_16 G3 C6 - 385.861
CAL CS3/CPM-7604-279 - BAL BAL



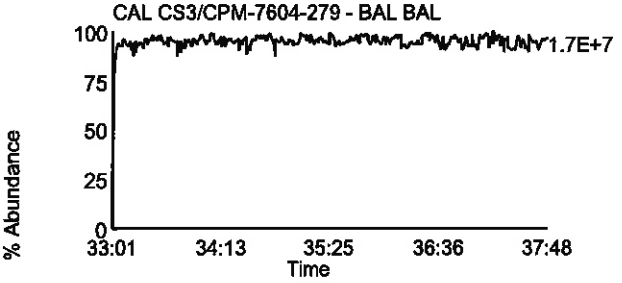
Data File: F130921A_16 G3 C10 - 403.8529
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G3 C11 - 445.7555
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G3 C3 - 380.976
CAL CS3/CPM-7604-279 - BAL BAL

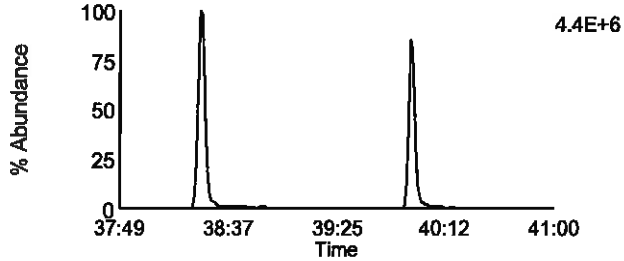


Homologue Group: Heptas

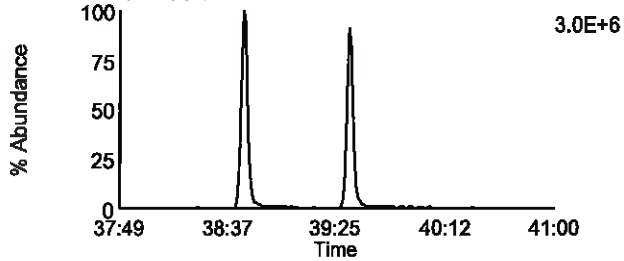
Data File Name: F130921A_16
Date Acquired: 12/30/1899
Sample Description: CAL CS3/CPM-7604-279 - **BAL BAL**

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

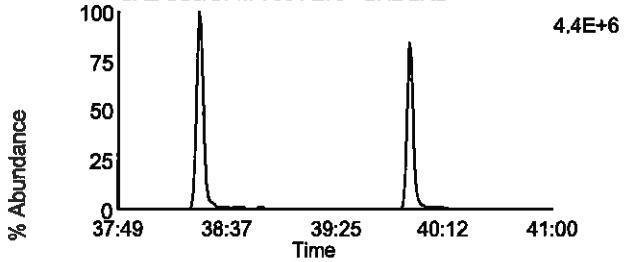
Data File: F130921A_16 G4 C3 - 407.7818
CAL CS3/CPM-7604-279 - BAL BAL



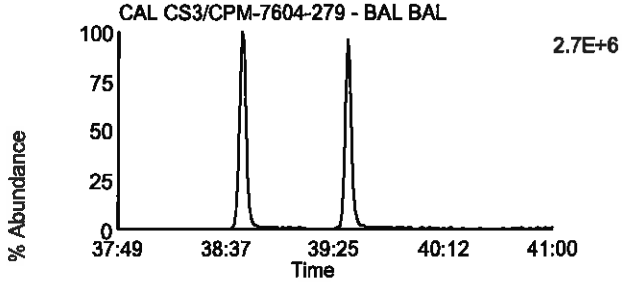
Data File: F130921A_16 G4 C8 - 423.7767
CAL CS3/CPM-7604-279 - BAL BAL



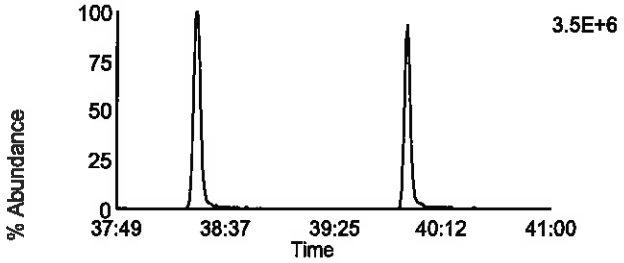
Data File: F130921A_16 G4 C4 - 409.7788
CAL CS3/CPM-7604-279 - BAL BAL



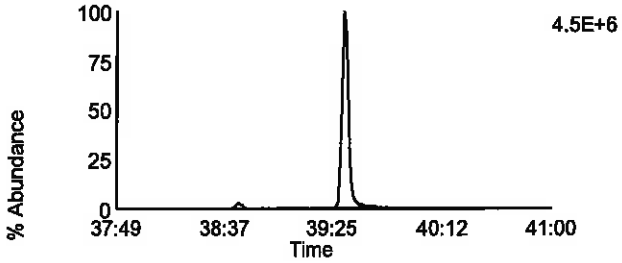
Data File: F130921A_16 G4 C9 - 425.7737
CAL CS3/CPM-7604-279 - BAL BAL



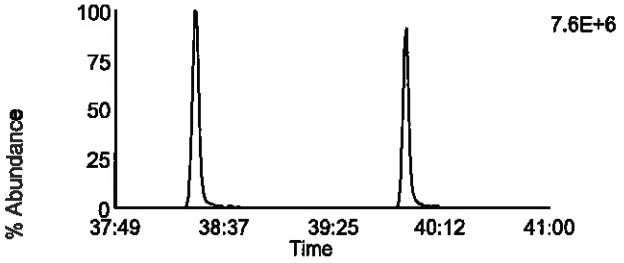
Data File: F130921A_16 G4 C6 - 417.825
CAL CS3/CPM-7604-279 - BAL BAL



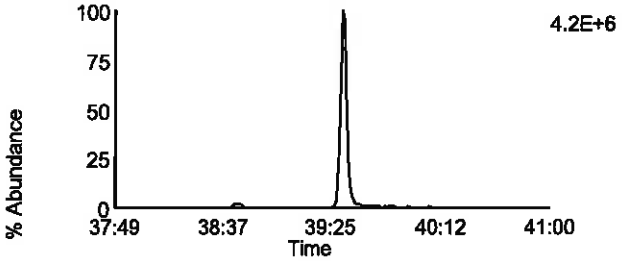
Data File: F130921A_16 G4 C11 - 435.8169
CAL CS3/CPM-7604-279 - BAL BAL



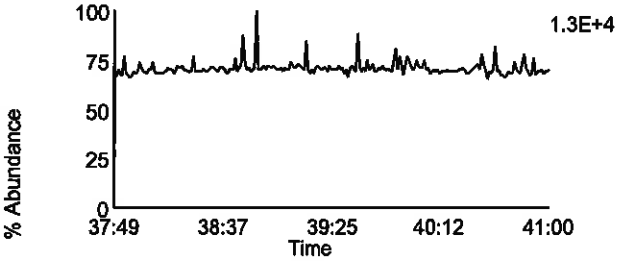
Data File: F130921A_16 G4 C7 - 419.822
CAL CS3/CPM-7604-279 - BAL BAL



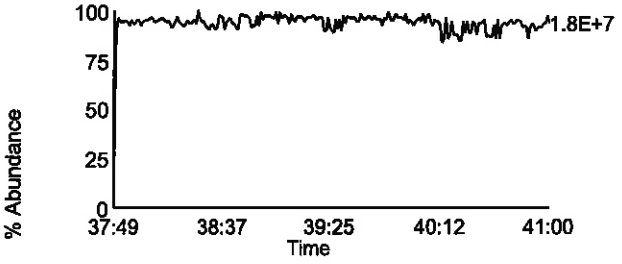
Data File: F130921A_16 G4 C12 - 437.814
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G4 C13 - 479.7165
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G4 C1 - 380.976
CAL CS3/CPM-7604-279 - BAL BAL

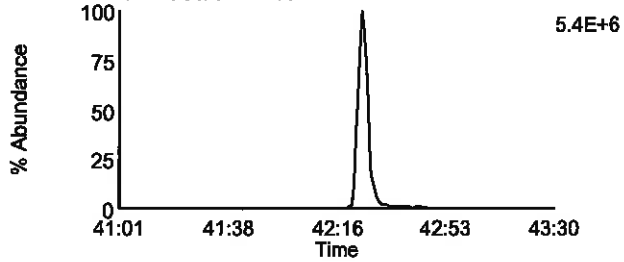


Homologue Group: Octas

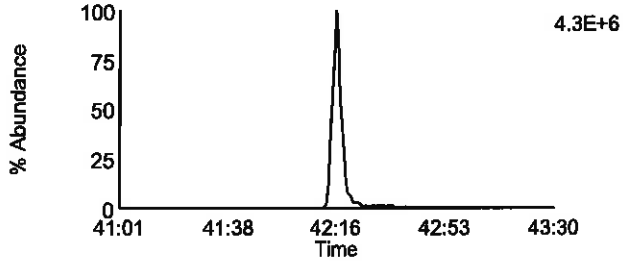
Data File Name: F130921A_16
Date Acquired: 12/30/1899
Sample Description: CAL CS3/CPM-7604-279 - BAL BAL

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR05 (F)

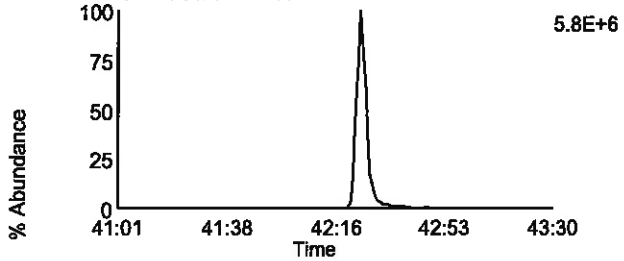
Data File: F130921A_16 G5 C4 - 441.7428
CAL CS3/CPM-7604-279 - BAL BAL



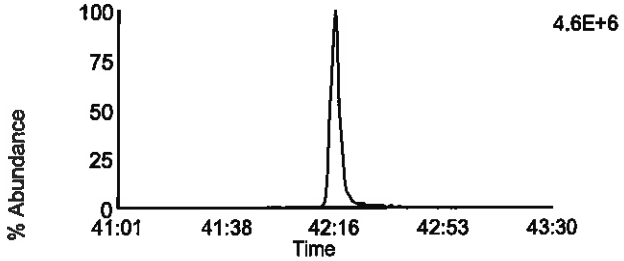
Data File: F130921A_16 G5 C8 - 457.7377
CAL CS3/CPM-7604-279 - BAL BAL



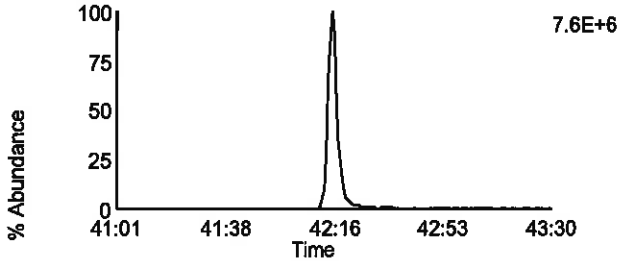
Data File: F130921A_16 G5 C5 - 443.7398
CAL CS3/CPM-7604-279 - BAL BAL



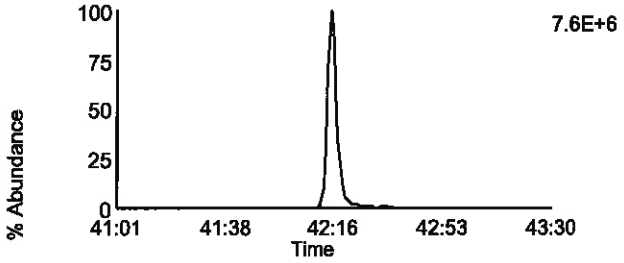
Data File: F130921A_16 G5 C9 - 459.7347
CAL CS3/CPM-7604-279 - BAL BAL



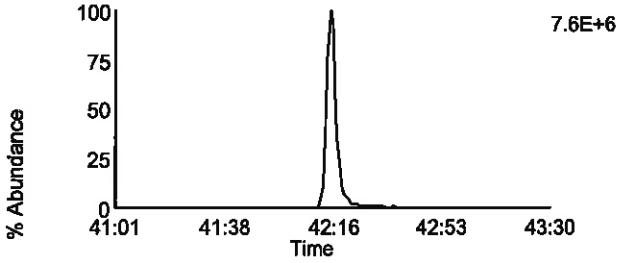
Data File: F130921A_16 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - BAL BAL



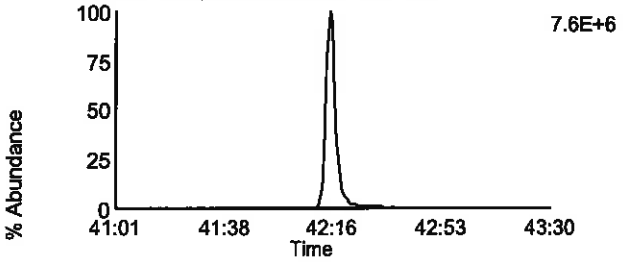
Data File: F130921A_16 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - BAL BAL



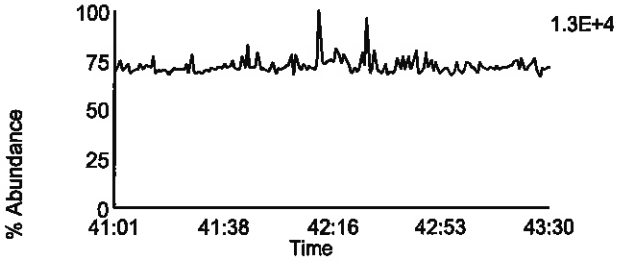
Data File: F130921A_16 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - BAL BAL



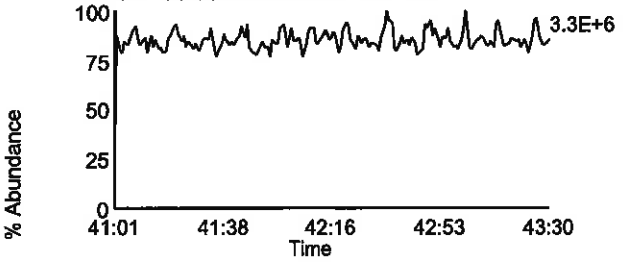
Data File: F130921A_16 G5 C12 - 471.7749
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G5 C13 - 513.6775
CAL CS3/CPM-7604-279 - BAL BAL



Data File: F130921A_16 G5 C2 - 430.9728
CAL CS3/CPM-7604-279 - BAL BAL

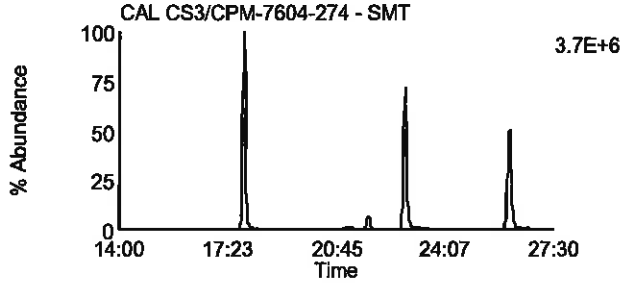


Homologue Group: Tetras

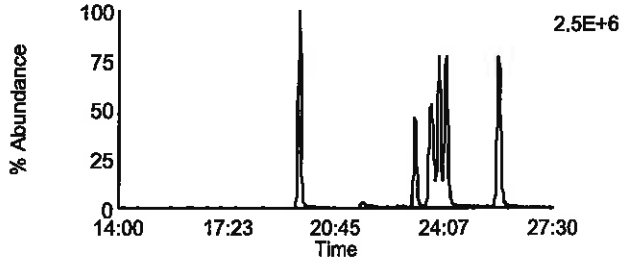
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

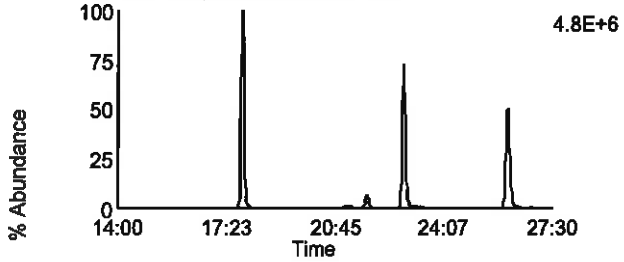
Data File: U130729B_09 G1 C1 - 303.9016
CAL CS3/CPM-7604-274 - SMT



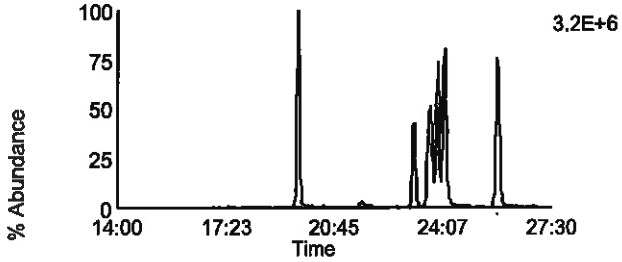
Data File: U130729B_09 G1 C7 - 319.8965
CAL CS3/CPM-7604-274 - SMT



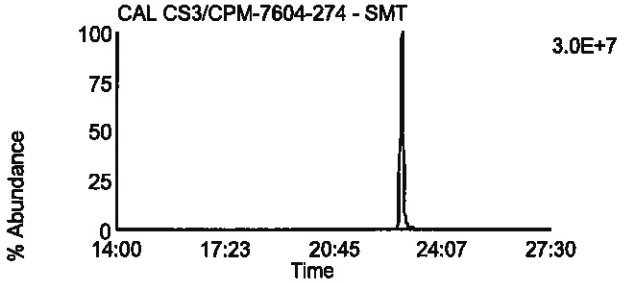
Data File: U130729B_09 G1 C2 - 305.8987
CAL CS3/CPM-7604-274 - SMT



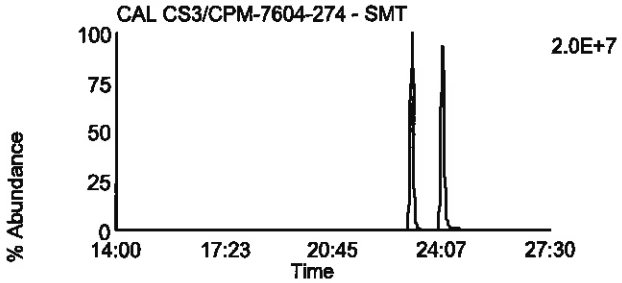
Data File: U130729B_09 G1 C8 - 321.8936
CAL CS3/CPM-7604-274 - SMT



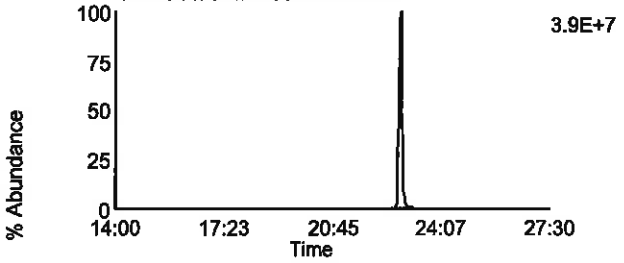
Data File: U130729B_09 G1 C3 - 315.9418
CAL CS3/CPM-7604-274 - SMT



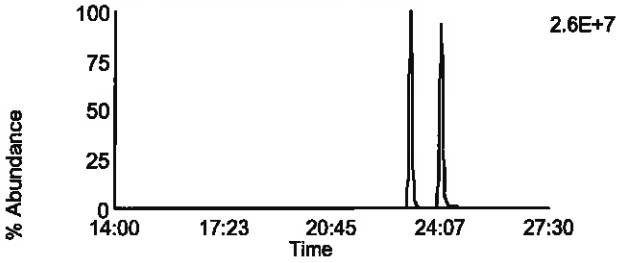
Data File: U130729B_09 G1 C10 - 331.9367
CAL CS3/CPM-7604-274 - SMT



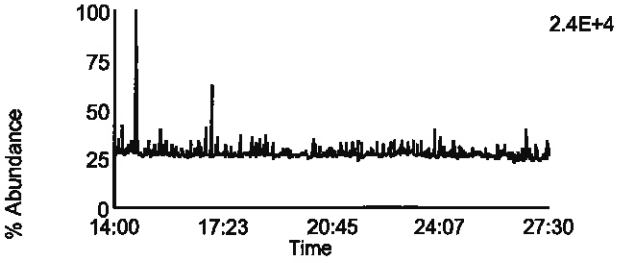
Data File: U130729B_09 G1 C4 - 317.9389
CAL CS3/CPM-7604-274 - SMT



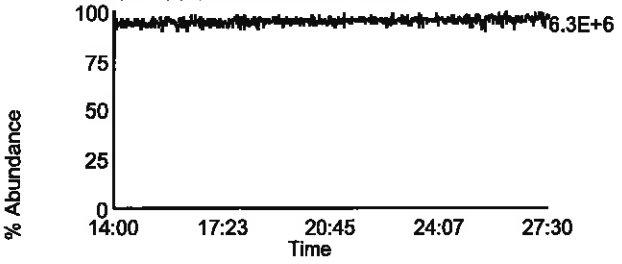
Data File: U130729B_09 G1 C11 - 333.9338
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G1 C14 - 375.8364
CAL CS3/CPM-7604-274 - SMT



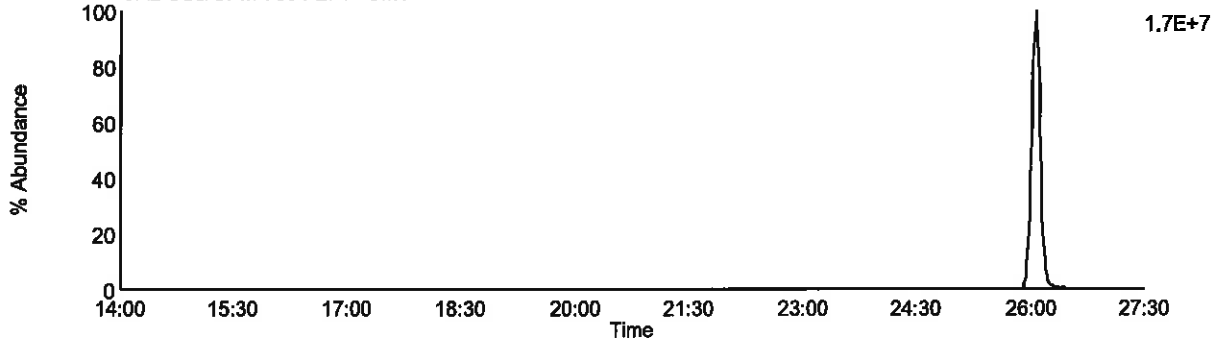
Data File: U130729B_09 G1 C5 - 318.9792
CAL CS3/CPM-7604-274 - SMT



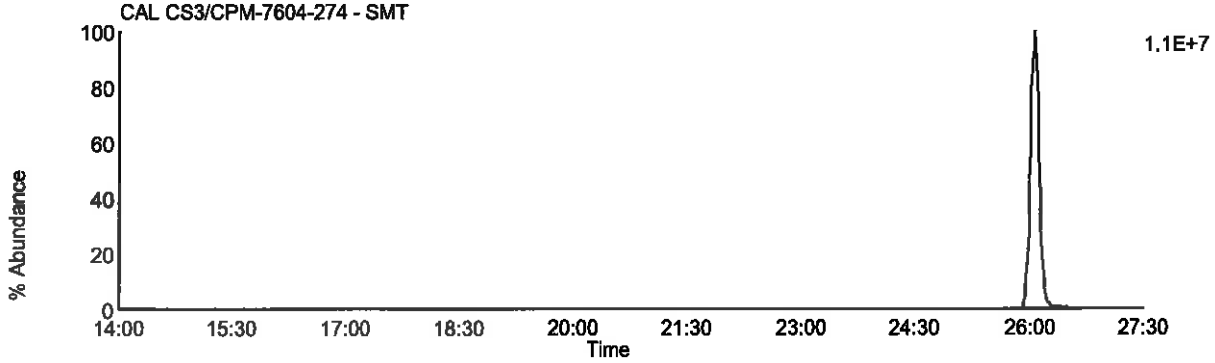
Homologue Group: Penta & Cleanup

Data File Name: U130729B_09	Lab Sample ID: CS3/CPM-7604-274
Date Acquired: 7/29/2013	Client Sample ID: CPM/WDM
Sample Description: CAL CS3/CPM-7604-274 - SMT	Instrument: 10MSHR06 (U)

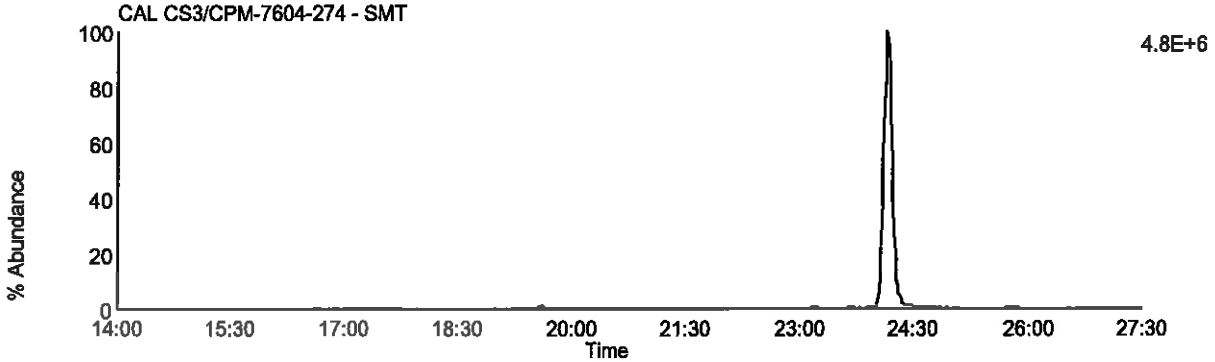
Data File: U130729B_09 G1 C12 - 339.8597
CAL CS3/CPM-7604-274 - SMT



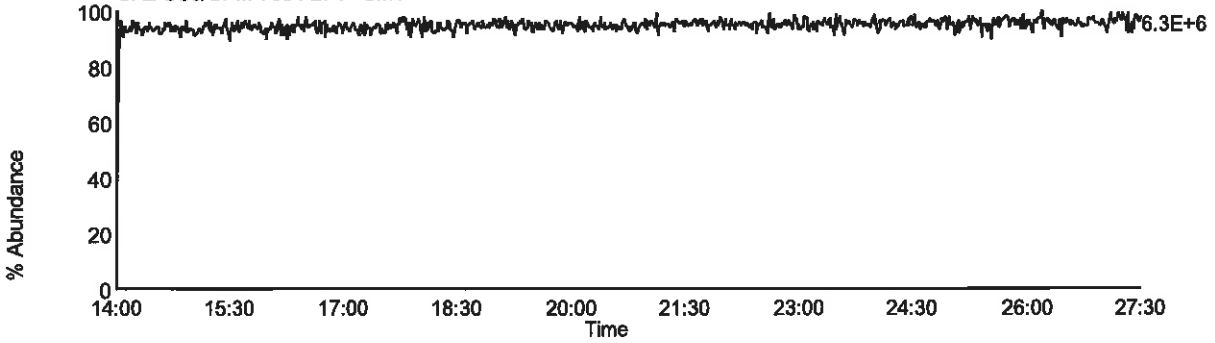
Data File: U130729B_09 G1 C13 - 341.8567
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G1 C9 - 327.8847
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G1 C5 - 318.9792
CAL CS3/CPM-7604-274 - SMT

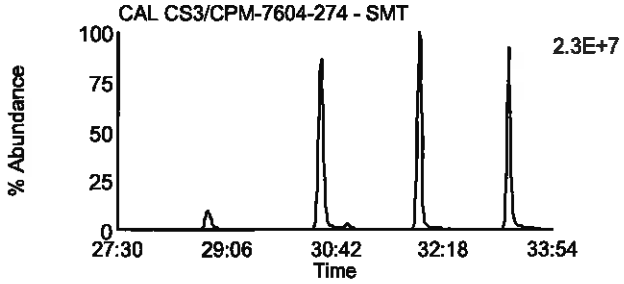


Homologue Group: Pentas

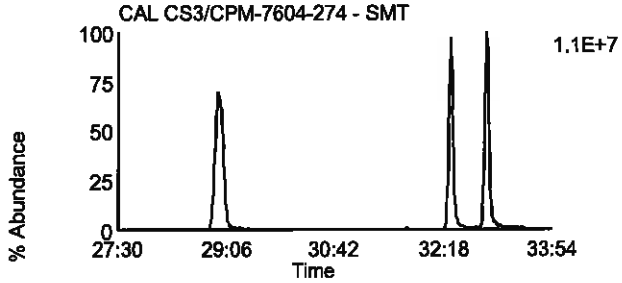
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

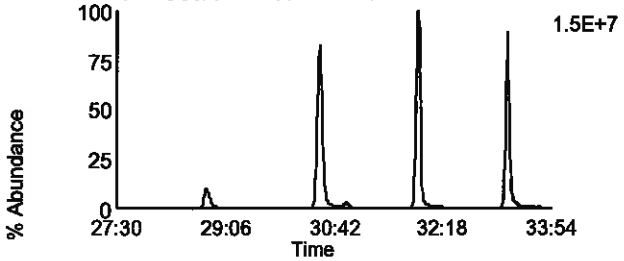
Data File: U130729B_09 G2 C1 - 339.8597
CAL CS3/CPM-7604-274 - SMT



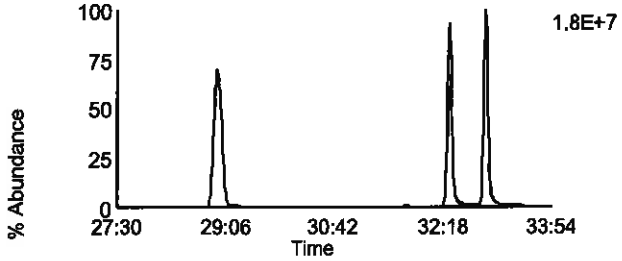
Data File: U130729B_09 G2 C4 - 353.8576
CAL CS3/CPM-7604-274 - SMT



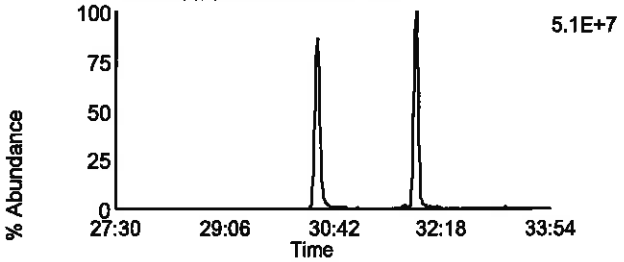
Data File: U130729B_09 G2 C2 - 341.8567
CAL CS3/CPM-7604-274 - SMT



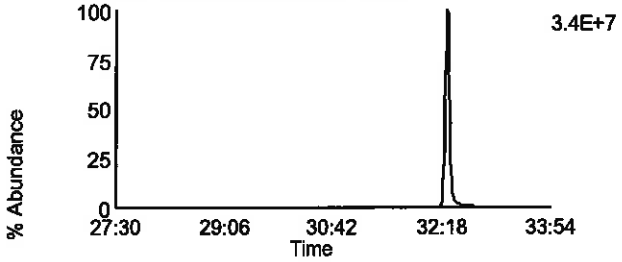
Data File: U130729B_09 G2 C8 - 355.8546
CAL CS3/CPM-7604-274 - SMT



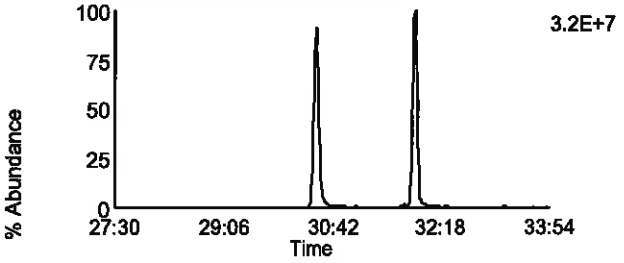
Data File: U130729B_09 G2 C3 - 351.8999
CAL CS3/CPM-7604-274 - SMT



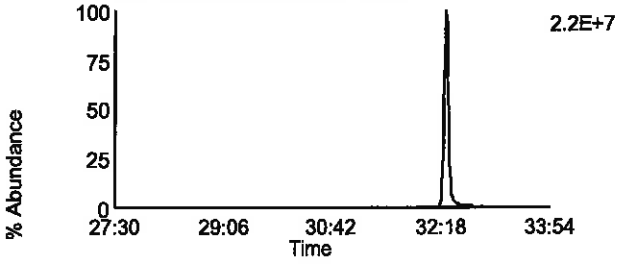
Data File: U130729B_09 G2 C10 - 367.8948
CAL CS3/CPM-7604-274 - SMT



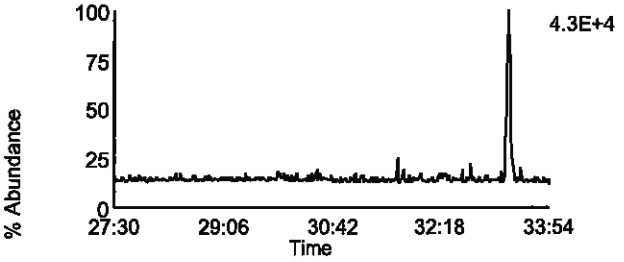
Data File: U130729B_09 G2 C5 - 353.8969
CAL CS3/CPM-7604-274 - SMT



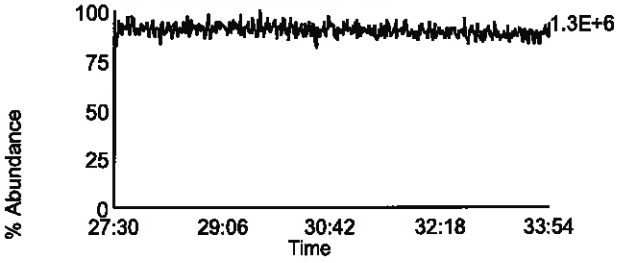
Data File: U130729B_09 G2 C11 - 369.8918
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G2 C12 - 409.7974
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G2 C6 - 354.9792
CAL CS3/CPM-7604-274 - SMT

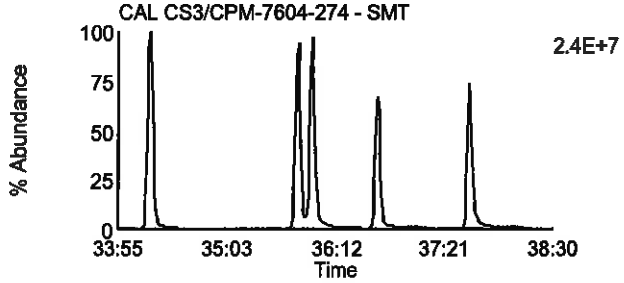


Homologue Group: Hexas

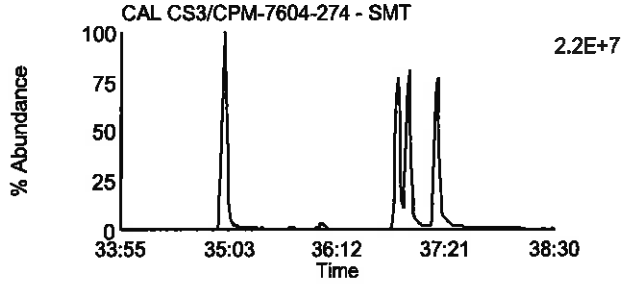
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

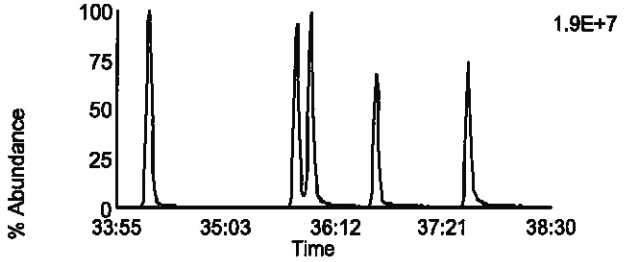
Data File: U130729B_09 G3 C1 - 373.8207
CAL CS3/CPM-7604-274 - SMT



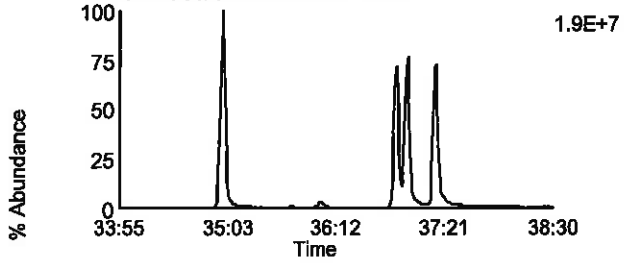
Data File: U130729B_09 G3 C7 - 389.8156
CAL CS3/CPM-7604-274 - SMT



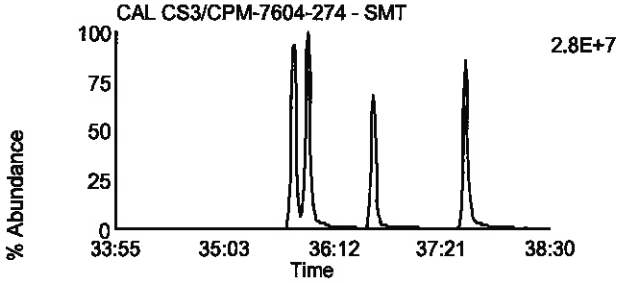
Data File: U130729B_09 G3 C2 - 375.8178
CAL CS3/CPM-7604-274 - SMT



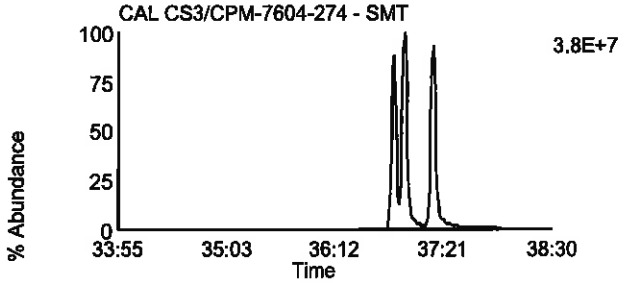
Data File: U130729B_09 G3 C8 - 391.8127
CAL CS3/CPM-7604-274 - SMT



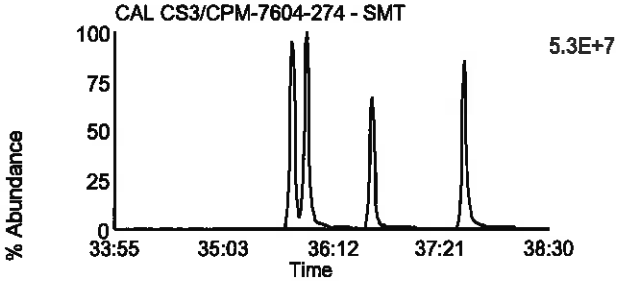
Data File: U130729B_09 G3 C5 - 383.8639
CAL CS3/CPM-7604-274 - SMT



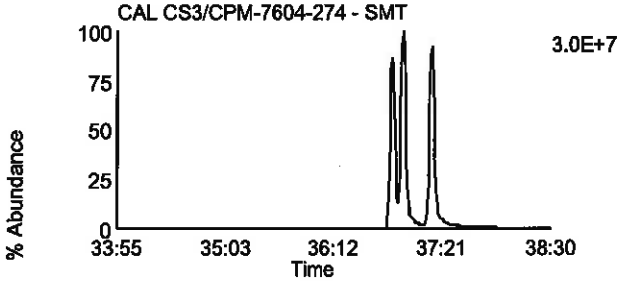
Data File: U130729B_09 G3 C9 - 401.8559
CAL CS3/CPM-7604-274 - SMT



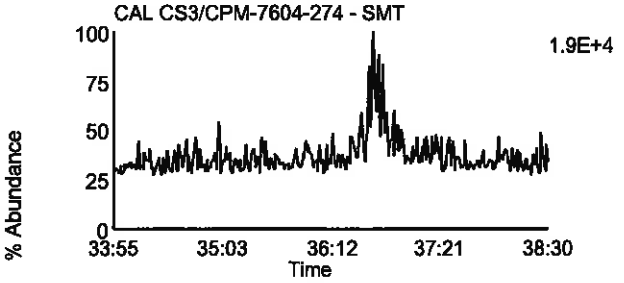
Data File: U130729B_09 G3 C6 - 385.861
CAL CS3/CPM-7604-274 - SMT



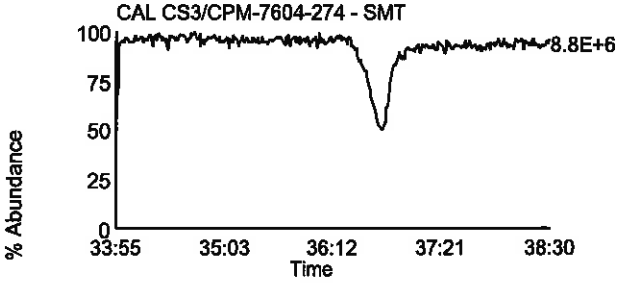
Data File: U130729B_09 G3 C10 - 403.8529
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G3 C11 - 445.7555
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G3 C3 - 380.976
CAL CS3/CPM-7604-274 - SMT

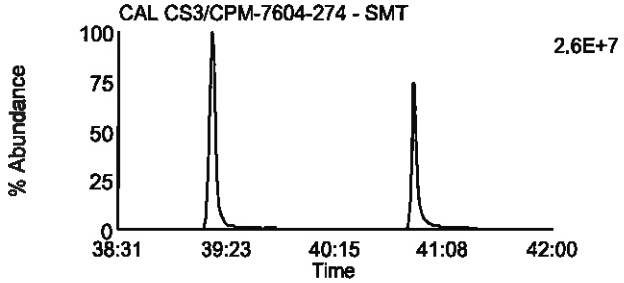


Homologue Group: Heptas

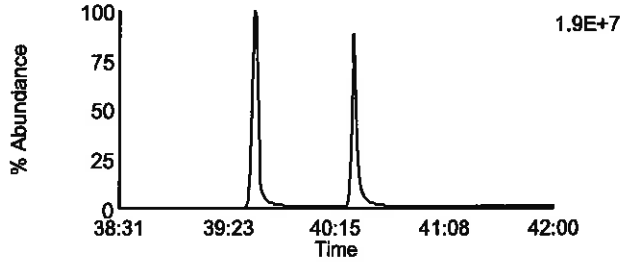
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

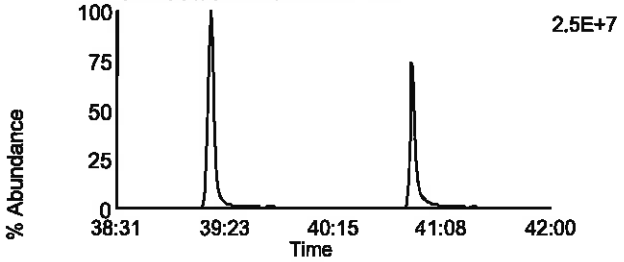
Data File: U130729B_09 G4 C3 - 407.7818
CAL CS3/CPM-7604-274 - SMT



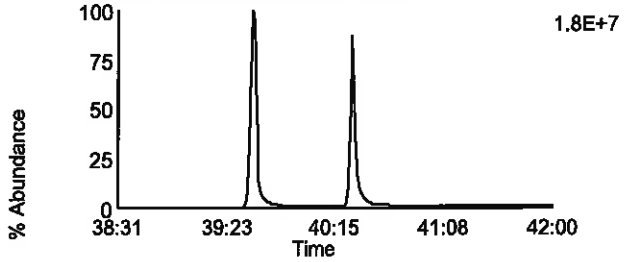
Data File: U130729B_09 G4 C8 - 423.7767
CAL CS3/CPM-7604-274 - SMT



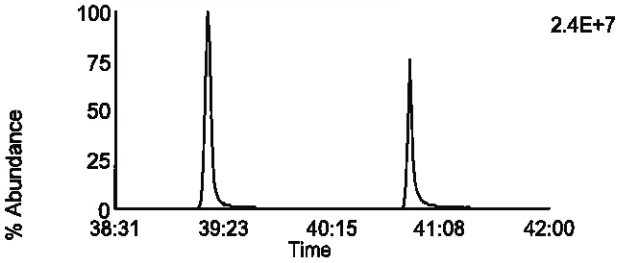
Data File: U130729B_09 G4 C4 - 409.7788
CAL CS3/CPM-7604-274 - SMT



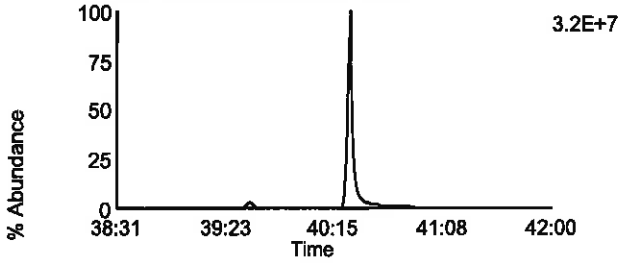
Data File: U130729B_09 G4 C9 - 425.7737
CAL CS3/CPM-7604-274 - SMT



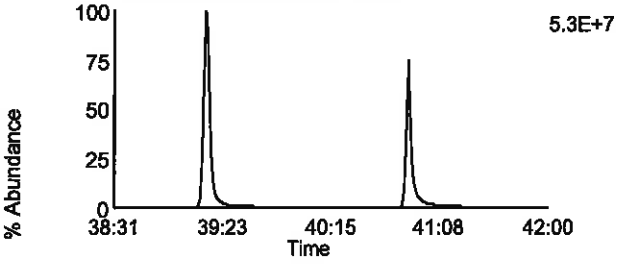
Data File: U130729B_09 G4 C6 - 417.825
CAL CS3/CPM-7604-274 - SMT



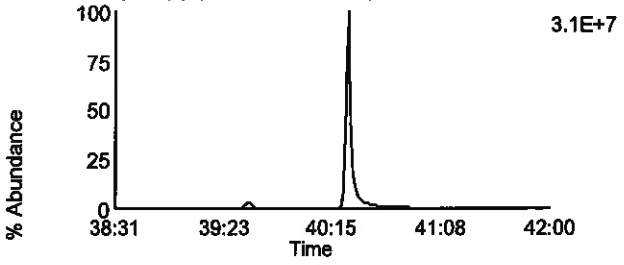
Data File: U130729B_09 G4 C11 - 435.8169
CAL CS3/CPM-7604-274 - SMT



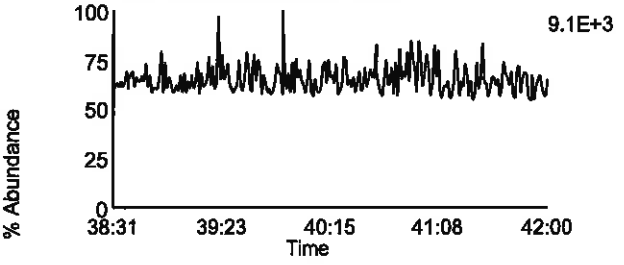
Data File: U130729B_09 G4 C7 - 419.822
CAL CS3/CPM-7604-274 - SMT



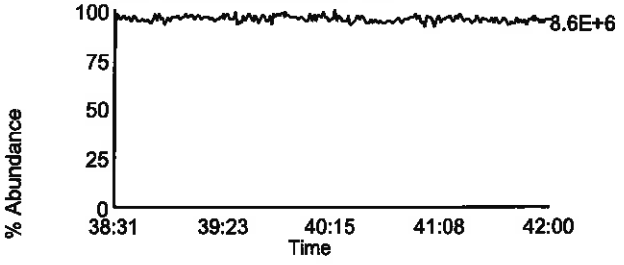
Data File: U130729B_09 G4 C12 - 437.814
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G4 C13 - 479.7165
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G4 C1 - 380.976
CAL CS3/CPM-7604-274 - SMT

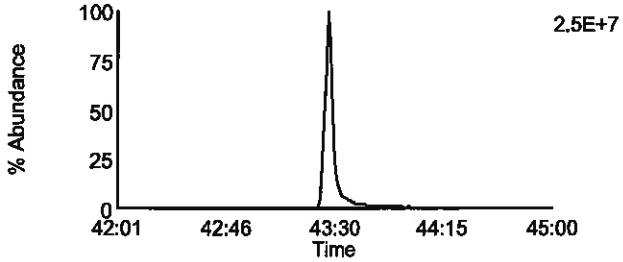


Homologue Group: Octas

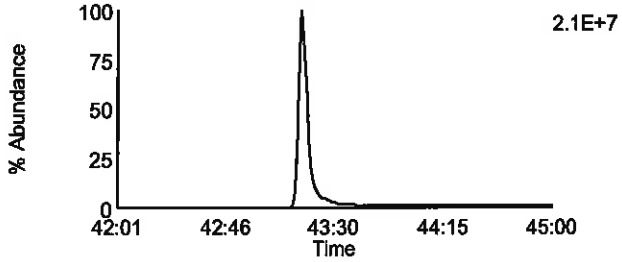
Data File Name: U130729B_09
Date Acquired: 7/29/2013
Sample Description: CAL CS3/CPM-7604-274 - SMT

Lab Sample ID: CS3/CPM-7604-274
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

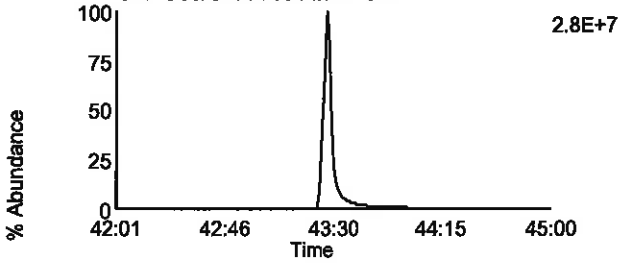
Data File: U130729B_09 G5 C4 - 441.7428
CAL CS3/CPM-7604-274 - SMT



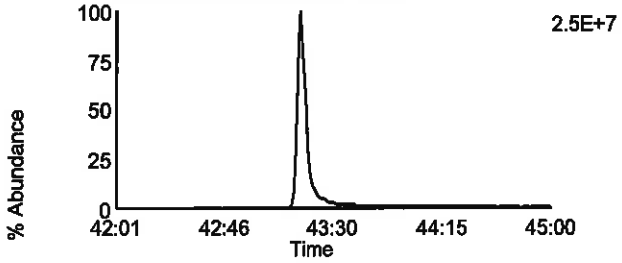
Data File: U130729B_09 G5 C8 - 457.7377
CAL CS3/CPM-7604-274 - SMT



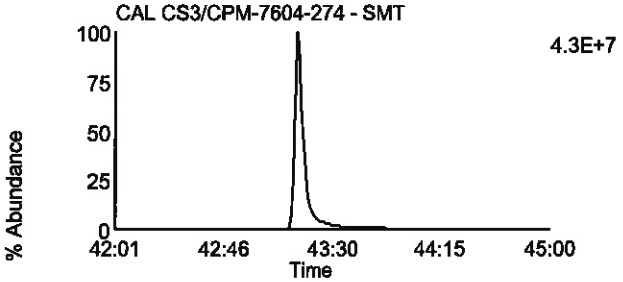
Data File: U130729B_09 G5 C5 - 443.7398
CAL CS3/CPM-7604-274 - SMT



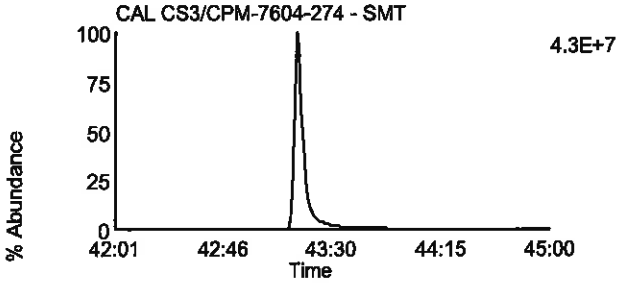
Data File: U130729B_09 G5 C9 - 459.7347
CAL CS3/CPM-7604-274 - SMT



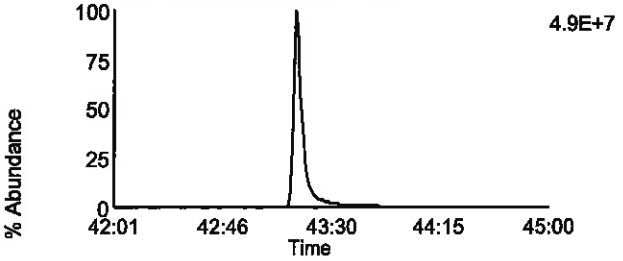
Data File: U130729B_09 G5 C11 - 469.7779
CAL CS3/CPM-7604-274 - SMT



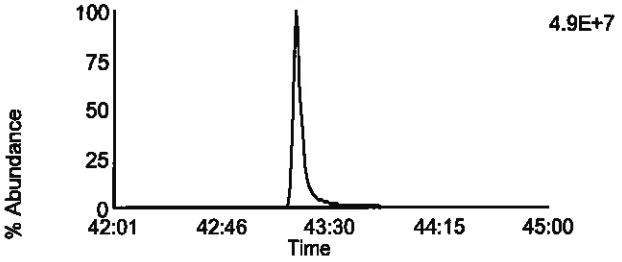
Data File: U130729B_09 G5 C11 - 469.7779
CAL CS3/CPM-7604-274 - SMT



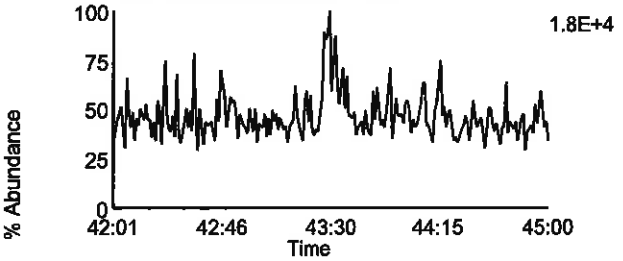
Data File: U130729B_09 G5 C12 - 471.7749
CAL CS3/CPM-7604-274 - SMT



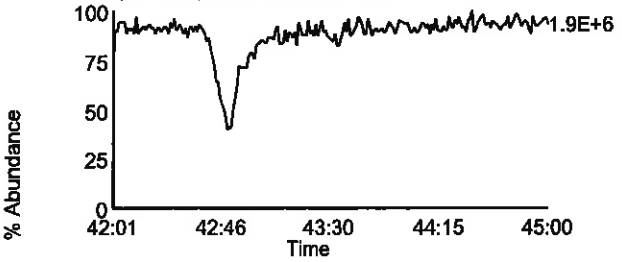
Data File: U130729B_09 G5 C12 - 471.7749
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G5 C13 - 513.6775
CAL CS3/CPM-7604-274 - SMT



Data File: U130729B_09 G5 C2 - 430.9728
CAL CS3/CPM-7604-274 - SMT

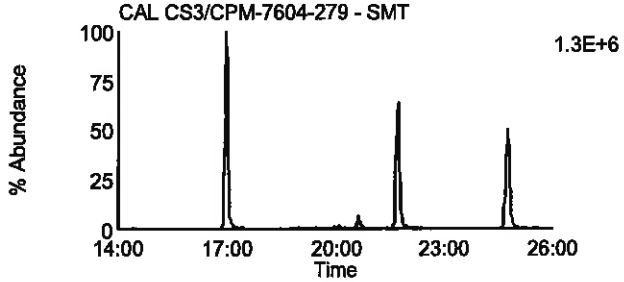


Homologue Group: Tetras

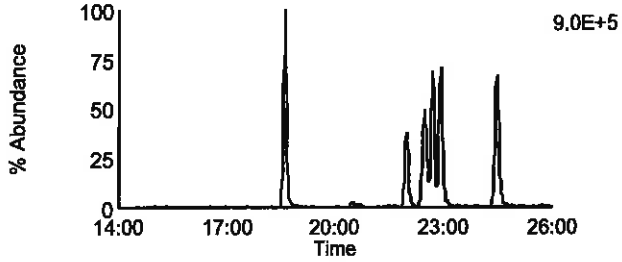
Data File Name: U130917A_22
Date Acquired: 12/30/1899
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

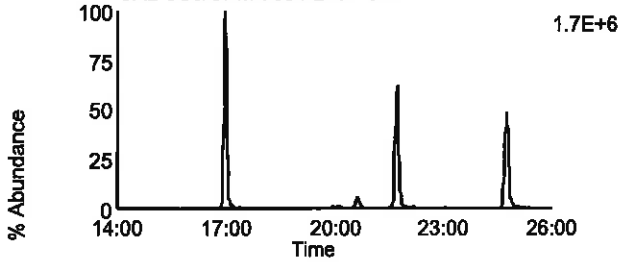
Data File: U130917A_22 G1 C1 - 303.9016
CAL CS3/CPM-7604-279 - SMT



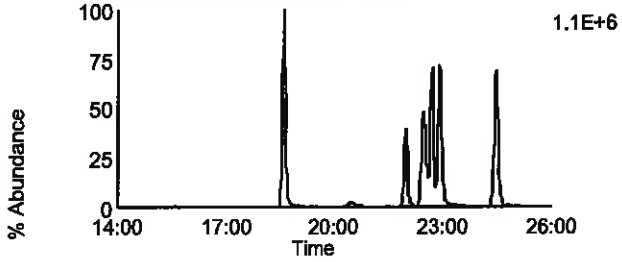
Data File: U130917A_22 G1 C7 - 319.8965
CAL CS3/CPM-7604-279 - SMT



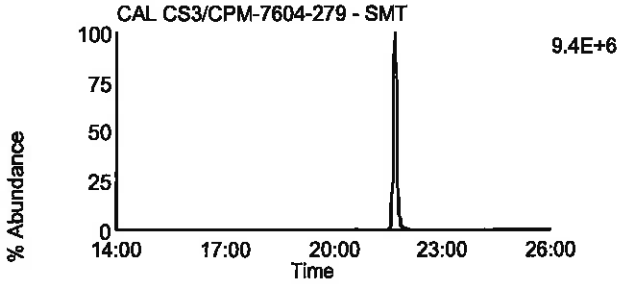
Data File: U130917A_22 G1 C2 - 305.8987
CAL CS3/CPM-7604-279 - SMT



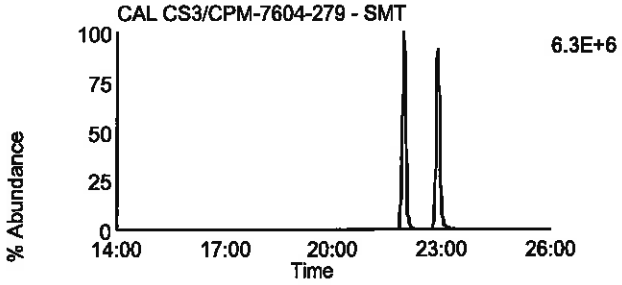
Data File: U130917A_22 G1 C8 - 321.8936
CAL CS3/CPM-7604-279 - SMT



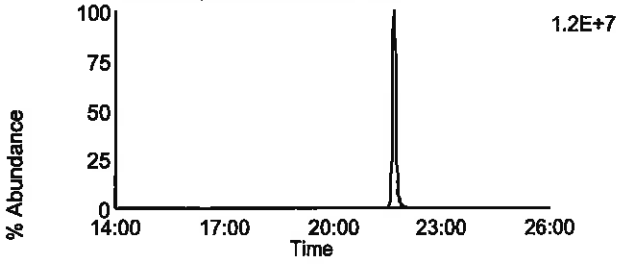
Data File: U130917A_22 G1 C3 - 315.9418
CAL CS3/CPM-7604-279 - SMT



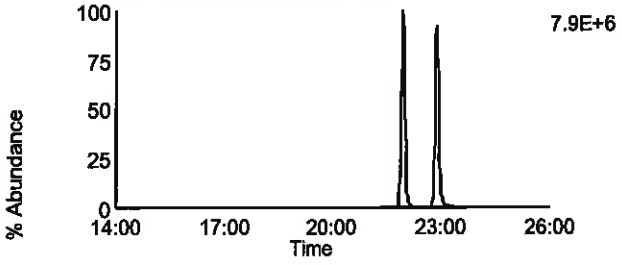
Data File: U130917A_22 G1 C10 - 331.9367
CAL CS3/CPM-7604-279 - SMT



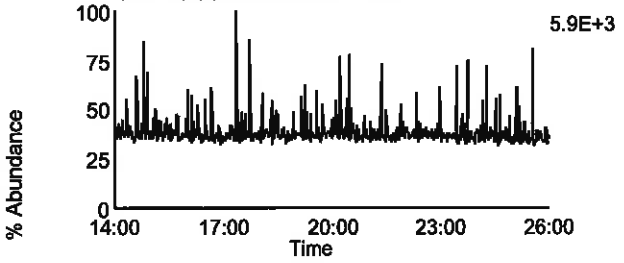
Data File: U130917A_22 G1 C4 - 317.9389
CAL CS3/CPM-7604-279 - SMT



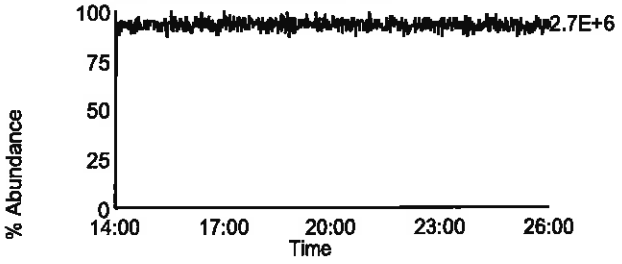
Data File: U130917A_22 G1 C11 - 333.9338
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G1 C14 - 375.8364
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - SMT

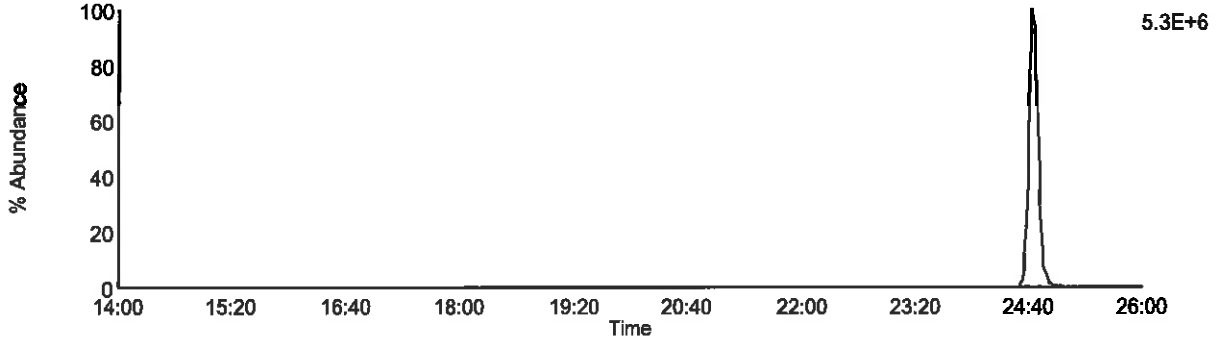


Homologue Group: Penta & Cleanup

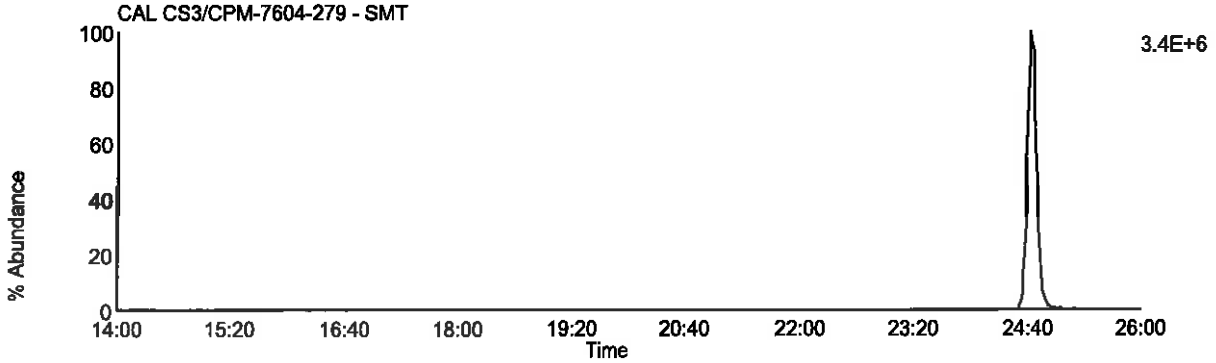
Data File Name: U130917A_22
Date Acquired: 12/30/1899
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

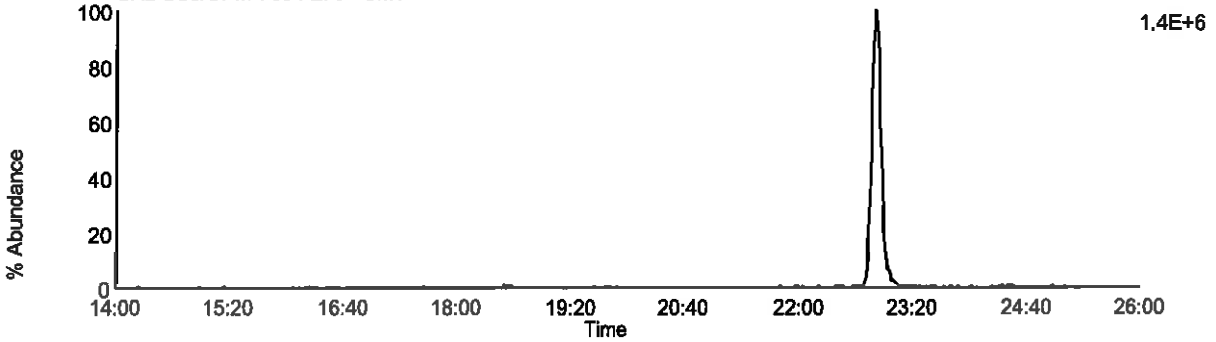
Data File: U130917A_22 G1 C12 - 339.8597
CAL CS3/CPM-7604-279 - SMT



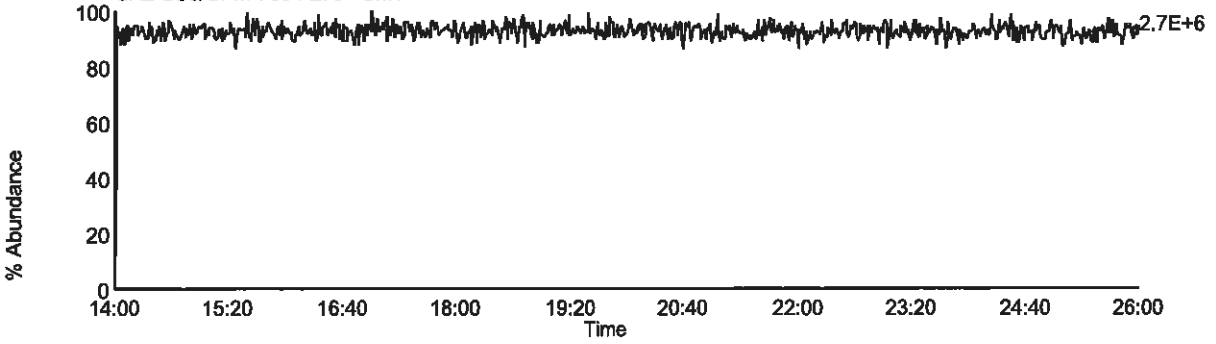
Data File: U130917A_22 G1 C13 - 341.8567
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G1 C9 - 327.8847
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G1 C5 - 318.9792
CAL CS3/CPM-7604-279 - SMT

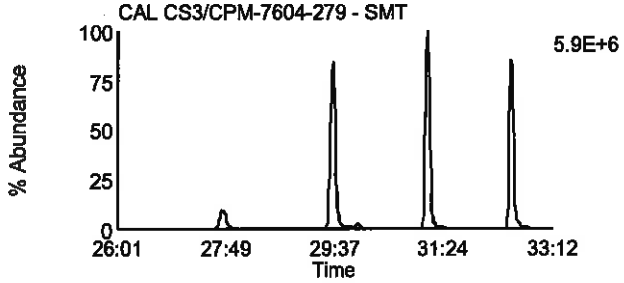


Homologue Group: Pentas

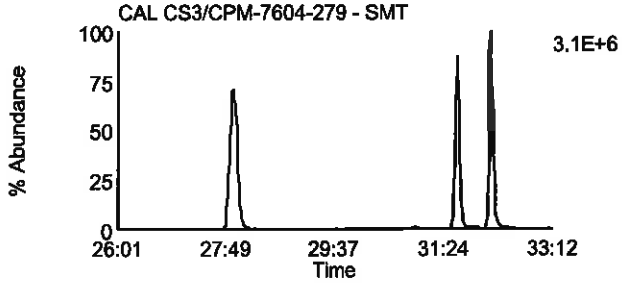
Data File Name: U130917A_22
Date Acquired: 12/30/1899
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

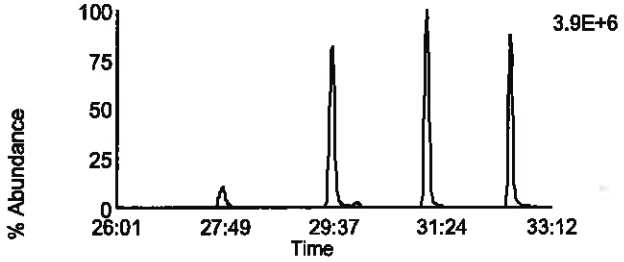
Data File: U130917A_22 G2 C1 - 339.8597
CAL CS3/CPM-7604-279 - SMT



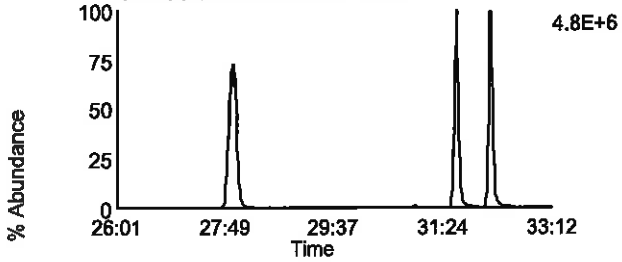
Data File: U130917A_22 G2 C4 - 353.8576
CAL CS3/CPM-7604-279 - SMT



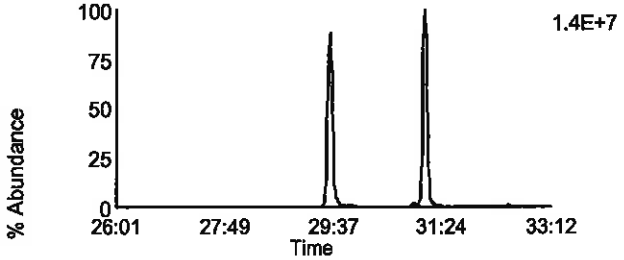
Data File: U130917A_22 G2 C2 - 341.8567
CAL CS3/CPM-7604-279 - SMT



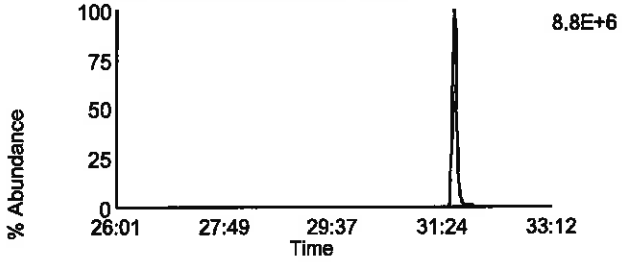
Data File: U130917A_22 G2 C8 - 355.8546
CAL CS3/CPM-7604-279 - SMT



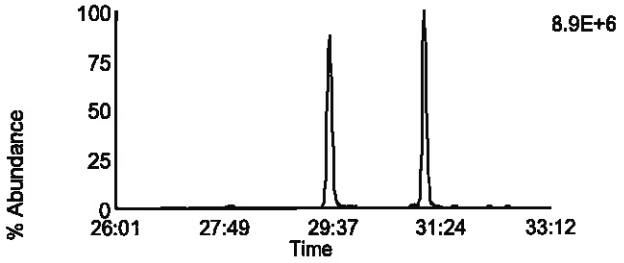
Data File: U130917A_22 G2 C3 - 351.8999
CAL CS3/CPM-7604-279 - SMT



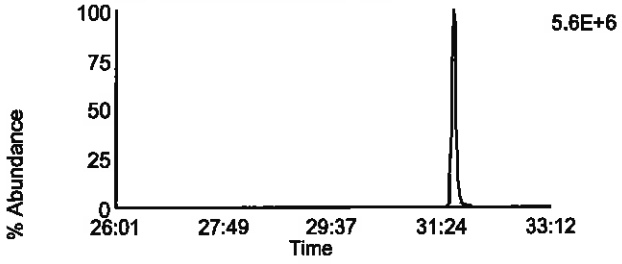
Data File: U130917A_22 G2 C10 - 367.8948
CAL CS3/CPM-7604-279 - SMT



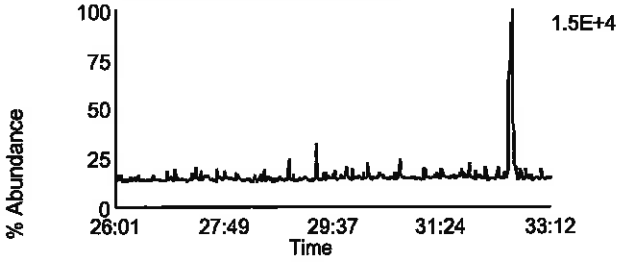
Data File: U130917A_22 G2 C5 - 353.8969
CAL CS3/CPM-7604-279 - SMT



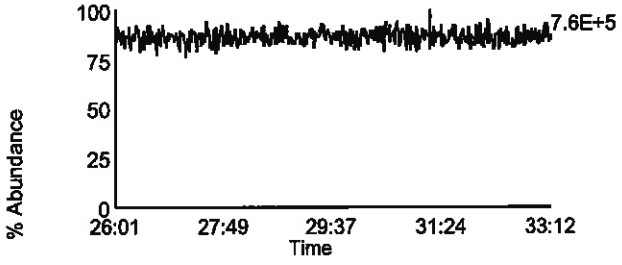
Data File: U130917A_22 G2 C11 - 369.8918
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G2 C12 - 409.7974
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G2 C6 - 354.9792
CAL CS3/CPM-7604-279 - SMT

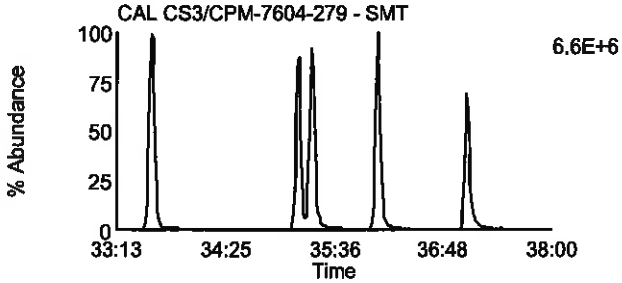


Homologue Group: Hexas

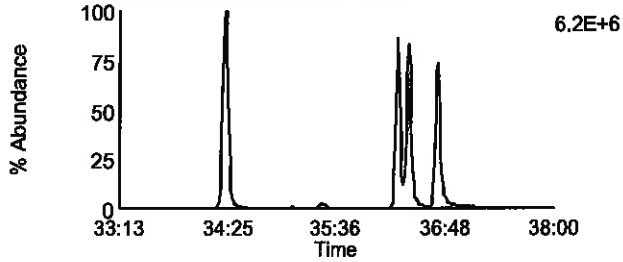
Data File Name: U130917A_22
Date Acquired: 12/30/1899
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

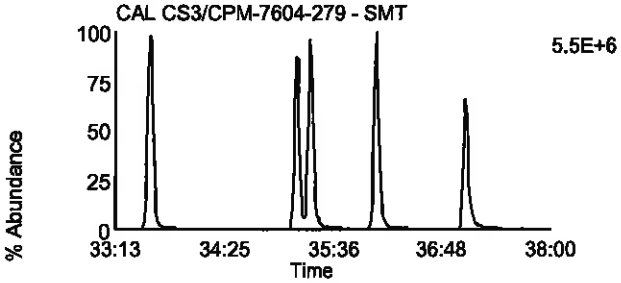
Data File: U130917A_22 G3 C1 - 373.8207
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G3 C7 - 389.8156
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G3 C2 - 375.8178
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G3 C8 - 391.8127
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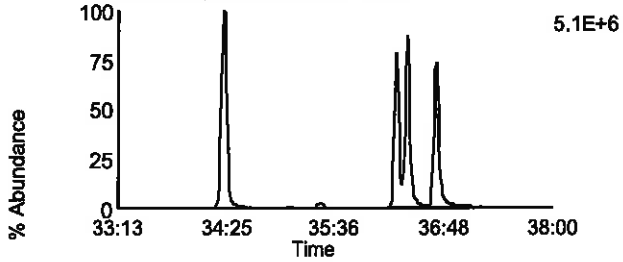
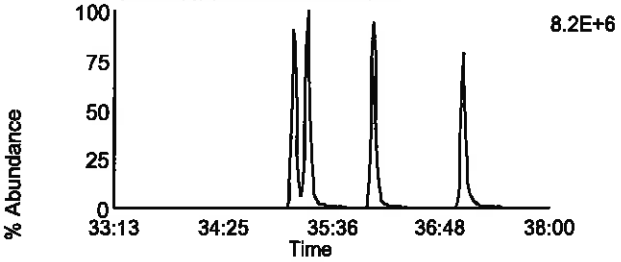
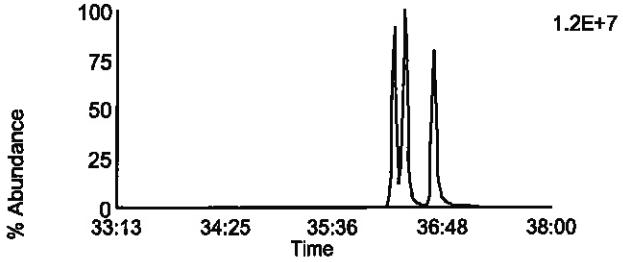


Data File: U130917A_22 G3 C5 - 383.8639
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G3 C9 - 401.8559
CAL CS3/CPM-7604-279 - SMT



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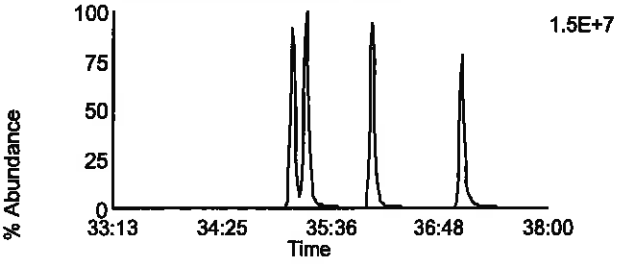
CAL CS3/CPM-7604-279 - SMT



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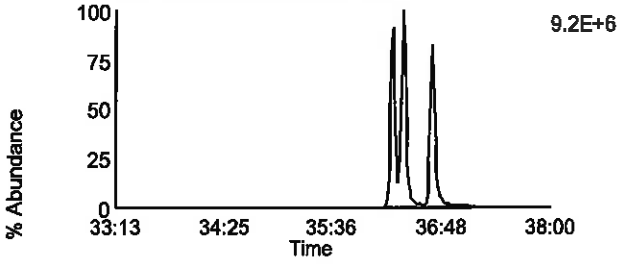

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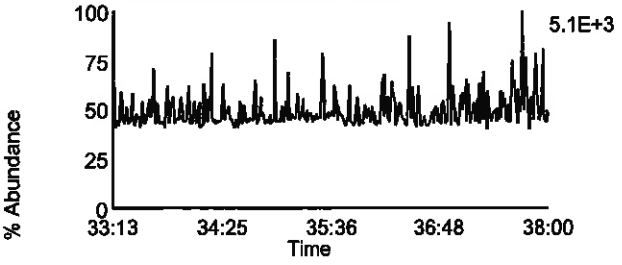
CAL CS3/CPM-7604-279 - SMT



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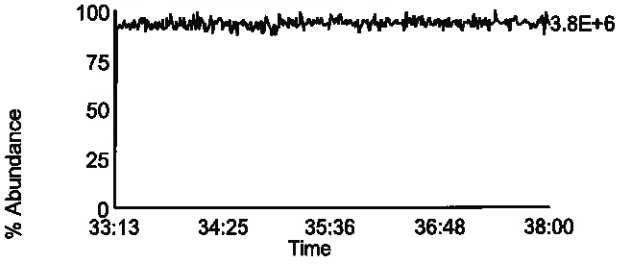
CAL CS3/CPM-7604-279 - SMT

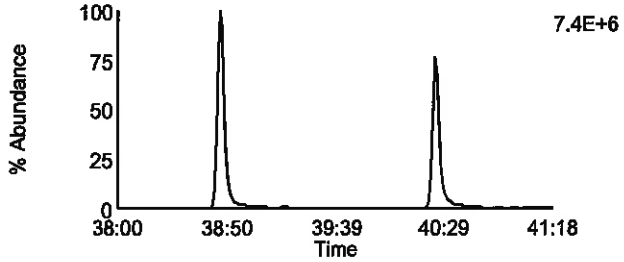


Homologue Group: Heptas

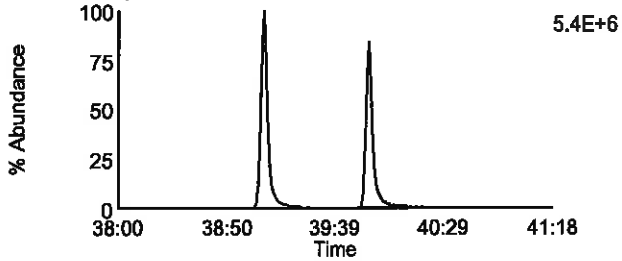
Data File Name: U130917A_22
Date Acquired: 12/30/1899
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

Data File: U130917A_22 G4 C3 - 407.7818
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G4 C8 - 423.7767
CAL CS3/CPM-7604-279 - SMT



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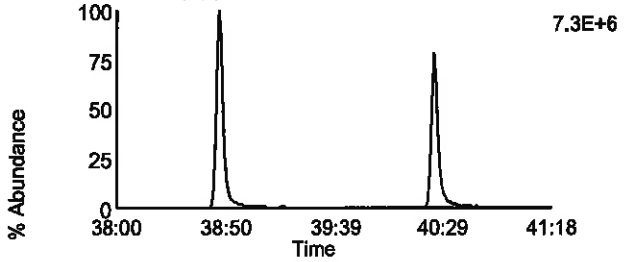
CAL CS3/CPM-7604-279 - SMT



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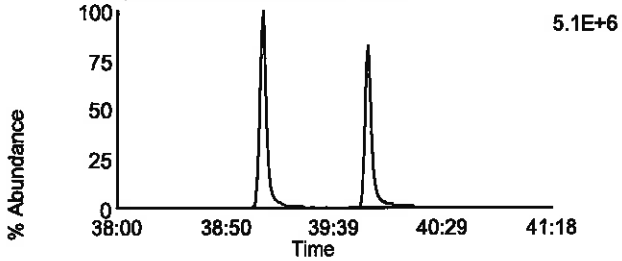
CAL CS3/CPM-7604-279 - SMT



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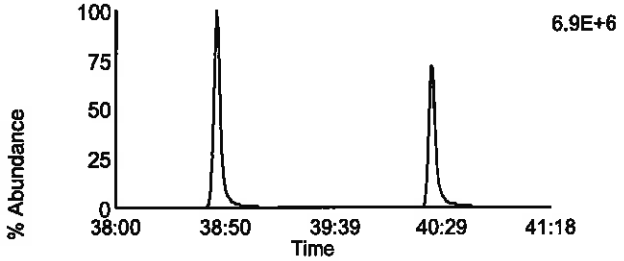
CAL CS3/CPM-7604-279 - SMT



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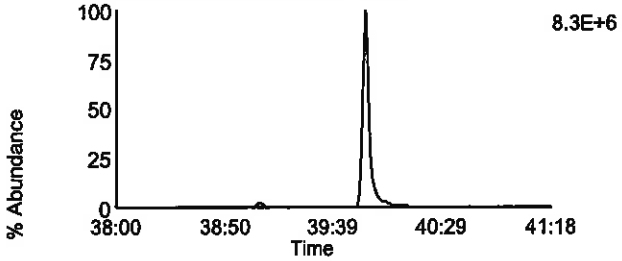
CAL CS3/CPM-7604-279 - SMT



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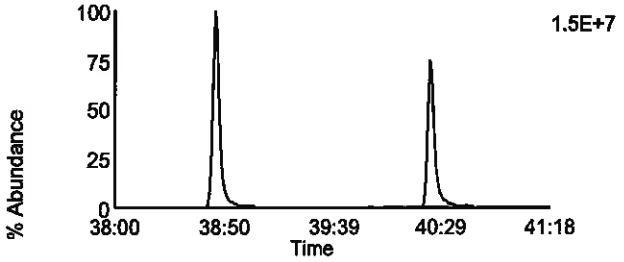

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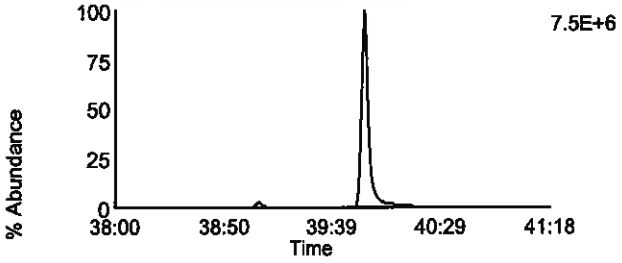

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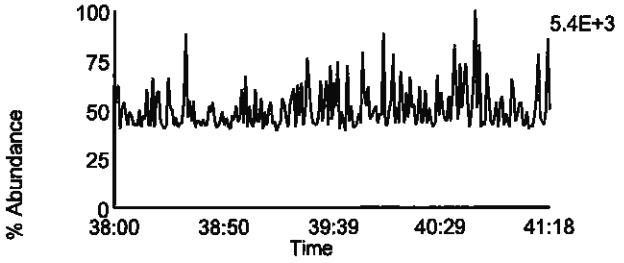
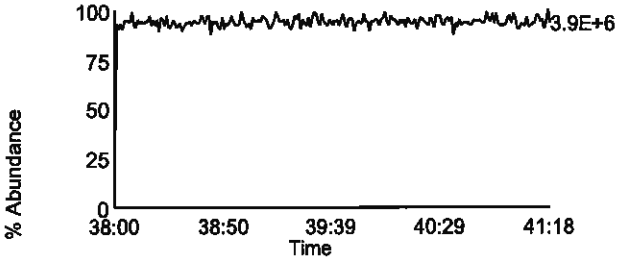
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G4 C1 - 380.976
CAL CS3/CPM-7604-279 - SMT

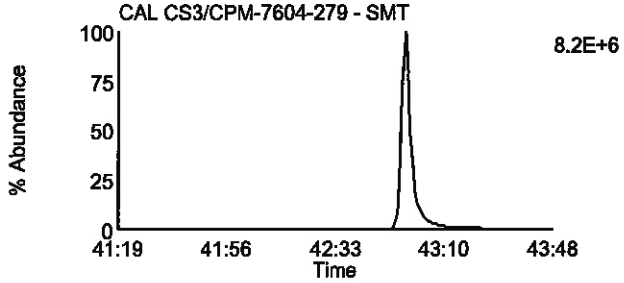


Homologue Group: Octas

Data File Name: U130917A_22
Date Acquired: 12/30/1899
Sample Description: CAL CS3/CPM-7604-279 - SMT

Lab Sample ID: CS3/CPM-7604-279
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

Data File: U130917A_22 G5 C4 - 441.7428
CAL CS3/CPM-7604-279 - SMT



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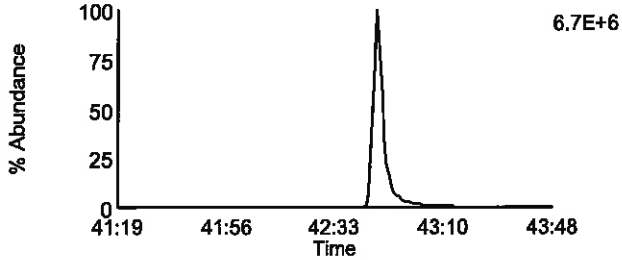
CAL CS3/CPM-7604-279 - SMT



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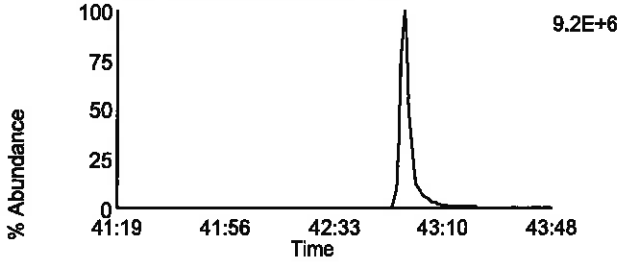
CAL CS3/CPM-7604-279 - SMT



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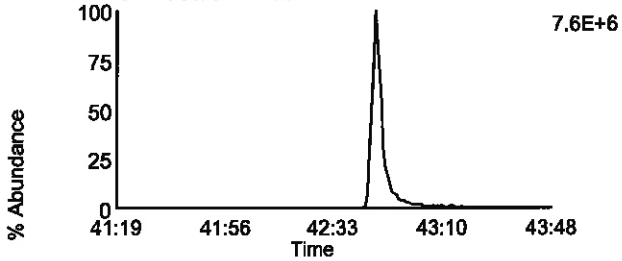
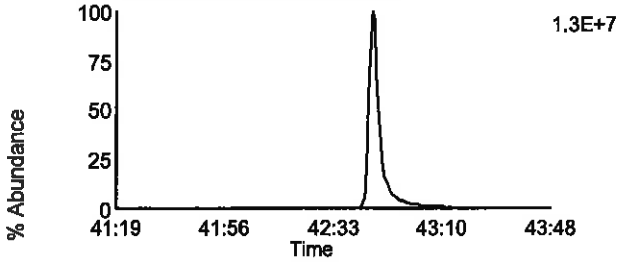
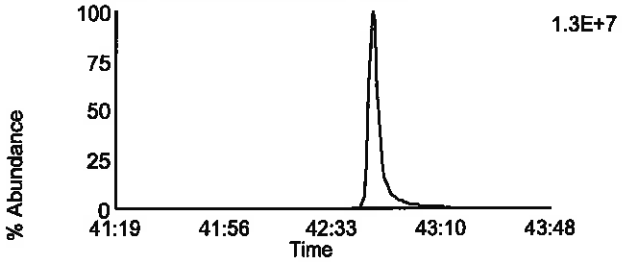


Data File: U130917A_22 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G5 C11 - 469.7779
CAL CS3/CPM-7604-279 - SMT



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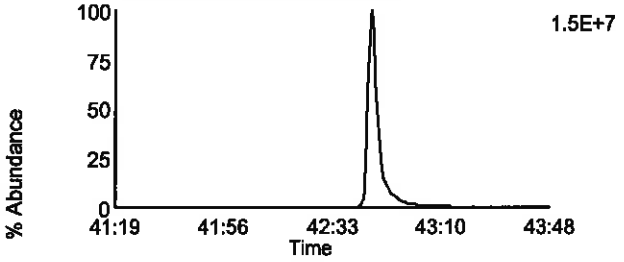
CAL CS3/CPM-7604-279 - SMT



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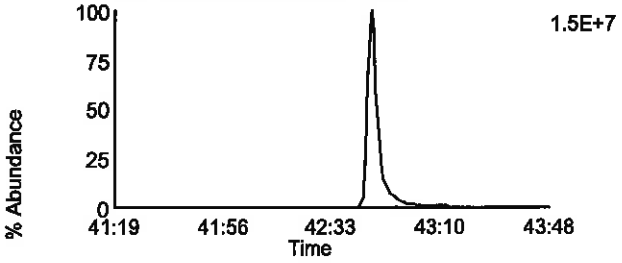
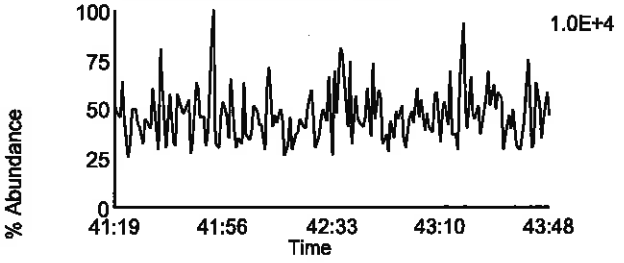
CAL CS3/CPM-7604-279 - SMT



Data File: U130917A_22 G5 C13 - 513.6775
CAL CS3/CPM-7604-279 - SMT



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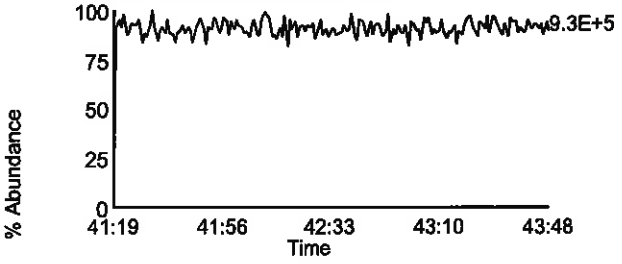
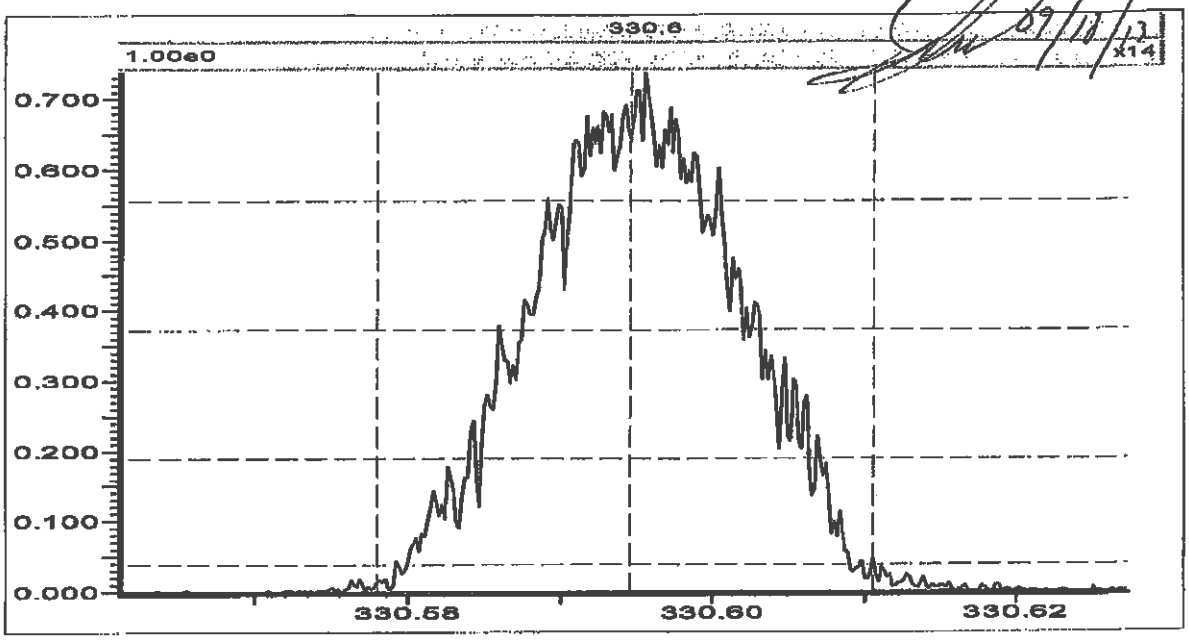
CAL CS3/CPM-7604-279 - SMT



File: C:\MassLynx\Default.pro\Acqudb\M488MW2_10K.ipr

Printed: Wednesday, September 18, 2013 15:55:03 Central Daylight Time



Source (EI+)

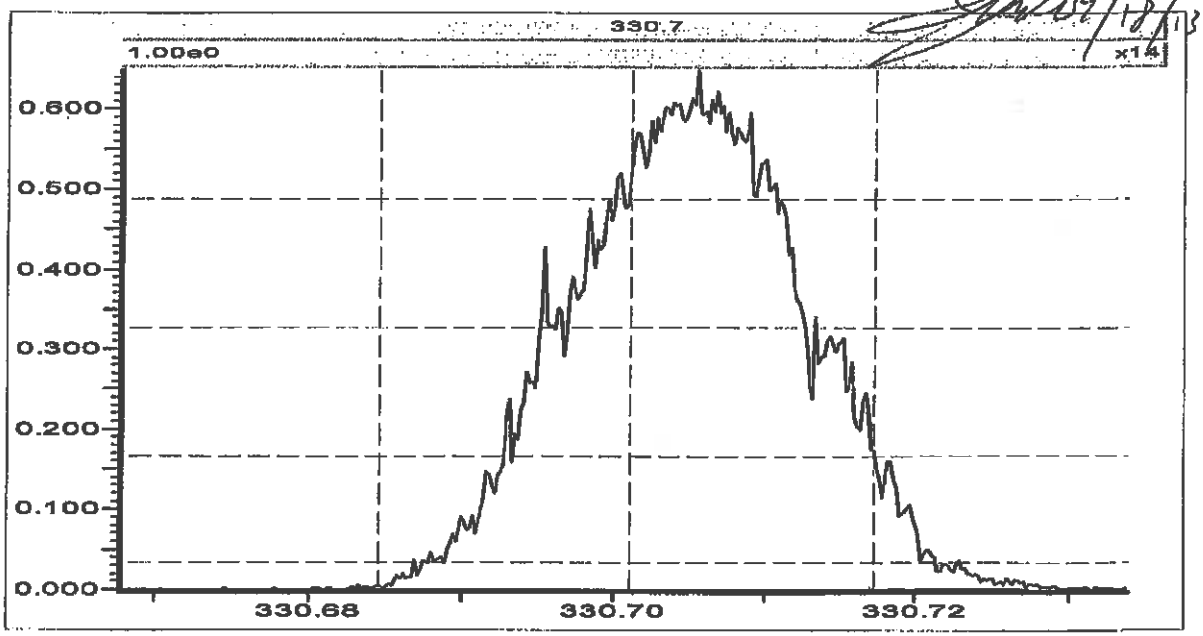
Ion Repeller (V)	-13.66
Focus 1	983
Beam Centre	-25.8
Focus 2	3925
Temperature (C)	280
Elec Energy (eV)	36.0
Trap Current (uA)	500.0
Y Deflect 1	-97.6
Z Deflect 1	87.6
Z Deflect 2	31.3
Z Focus 2	2298
Z Focus 3	0
Z Deflect 3	22.0
Y Focus	3484
Rotate 2	-8.6
Curve 2	13.3
Curve 3	-1.2
Rotate 3	-26.2
Rotate 4	-8.2
V Acc (V)	7989.48
Magnet Mass	330.6
Source Slit	25.66
Collector Slit	15.94
MIKES Slit	100.00
Alpha	60.00
Detector Voltage	350
Ion Energy	-4.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

Engineer
No information

File: C:\MassLynx\Default.pro\Acqudb\M488MW1_10K.ipr

Printed: Thursday, September 19, 2013 11:43:46 Central Daylight Time



Source (EI+)

Ion Repeller (V)	-13.66
Focus 1	983
Beam Centre	-25.8
Focus 2	3925
Temperature (C)	280
Elec Energy (eV)	36.0
Trap Current (uA)	500.0
Y Deflect 1	-97.6
Z Deflect 1	87.6
Z Deflect 2	31.3
Z Focus 2	2298
Z Focus 3	0
Z Deflect 3	22.0
Y Focus	3484
Rotate 2	-8.6
Curve 2	13.3
Curve 3	-1.2
Rotate 3	-26.2
Rotate 4	-8.2
V Acc (V)	7986.92
Magnet Mass	330.7
Source Slit	25.66
Collector Slit	15.94
MIKES Slit	100.00
Alpha	60.00
Detector Voltage	350
Ion Energy	-4.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

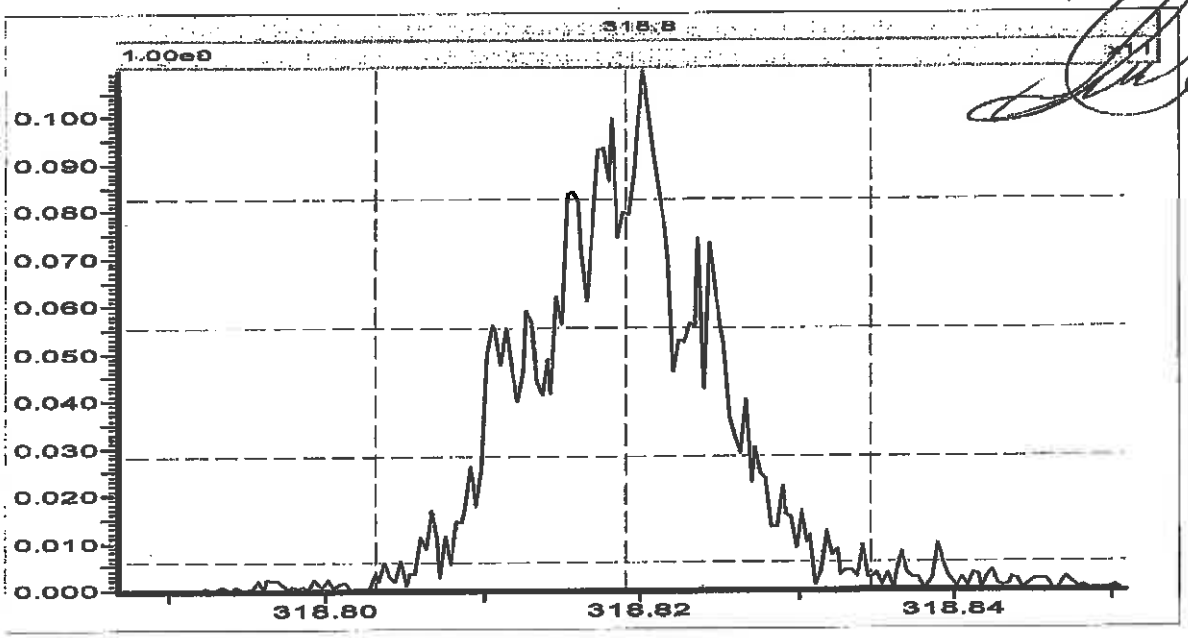
Engineer
No information

File: C:\MassLynx\Default.pro\Acqudb\F10MSHR05.lpr

Printed: Saturday, September 21, 2013 11:50:35 Central Daylight Time

BAC 9/21/13

09/23/13



Source (EI+)

Ion Repeller (V)	-12.29
Focus 1	908
Beam Centre	-22.1
Focus 2	3926
Temperature (C)	280
Elec Energy (eV)	36.0
Trap Current (uA)	500.0
Y Deflect 1	-86.5
Z Deflect 1	81.8
Z Deflect 2	37.4
Z Focus 2	2297
Z Focus 3	0
Z Deflect 3	21.3
Y Focus	3541
Rotate 2	-7.3
Curve 2	14.3
Curve 3	0.0
Rotate 3	-24.2
Rotate 4	-1.2
V Acc (V)	7991.73
Magnet Mass	330.8
Source Slit	26.18
Collector Slit	13.64
MIKES Slit	100.00
Alpha	70.00
Detector Voltage	350
Ion Energy	-4.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

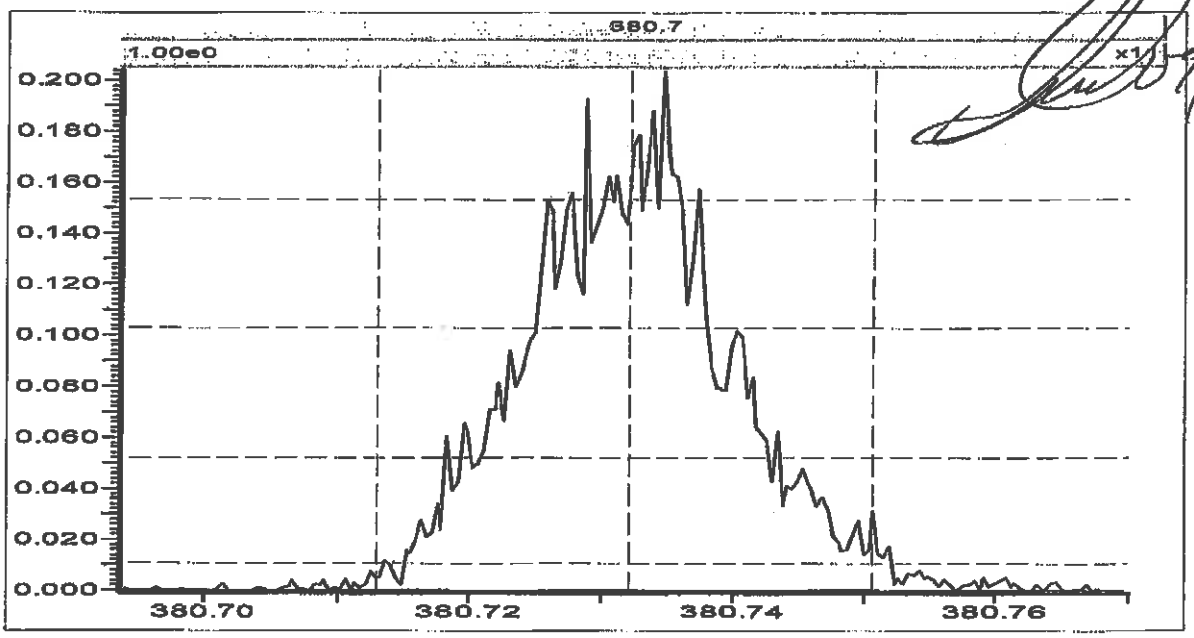
Engineer
No information

File: C:\MassLynx\Default.pro\Acqudb\F10MSHR05.ipr

Printed: Sunday, September 22, 2013 11:44:52 Central Daylight Time

BAL 9/22/13

9/23/13



Source (EI+)

Ion Repeller (V)	-12.29
Focus 1	908
Beam Centre	-22.1
Focus 2	3926
Temperature (C)	280
Elec Energy (eV)	36.0
Trap Current (uA)	500.0
Y Deflect 1	-86.5
Z Deflect 1	81.8
Z Deflect 2	37.4
Z Focus 2	2297
Z Focus 3	0
Z Deflect 3	21.3
Y Focus	3541
Rotate 2	-7.3
Curve 2	14.3
Curve 3	0.0
Rotate 3	-24.2
Rotate 4	-1.2
V Acc (V)	7991.73
Magnet Mass	330.8
Source Slit	26.18
Collector Slit	13.64
MIKES Slit	100.00
Alpha	70.00
Detector Voltage	350
Ion Energy	-4.00
Z4 Restrictor	Off
Vacc Limit	8000

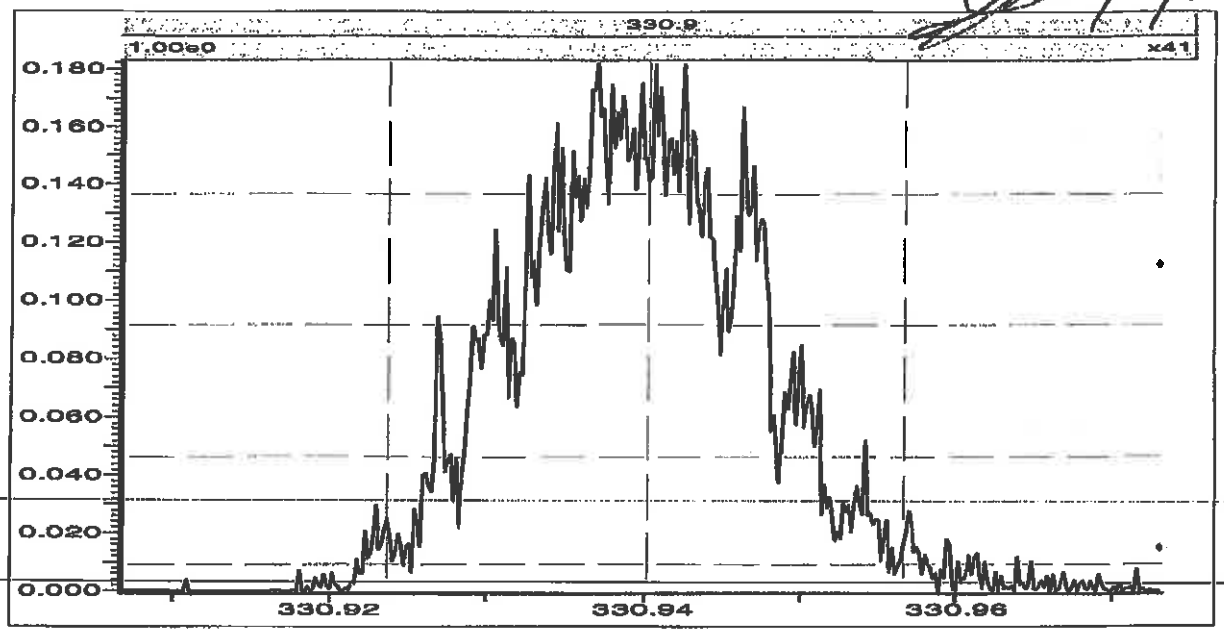
Analyser
No information

Engineer
No information

File: C:\MassLynx\Default.pro\Acqudb\U10MSHR06.IPR

Printed: Monday, July 29, 2013 14:55:25 Central Daylight Time

7/29/13 7/29/13



Source (EI+)

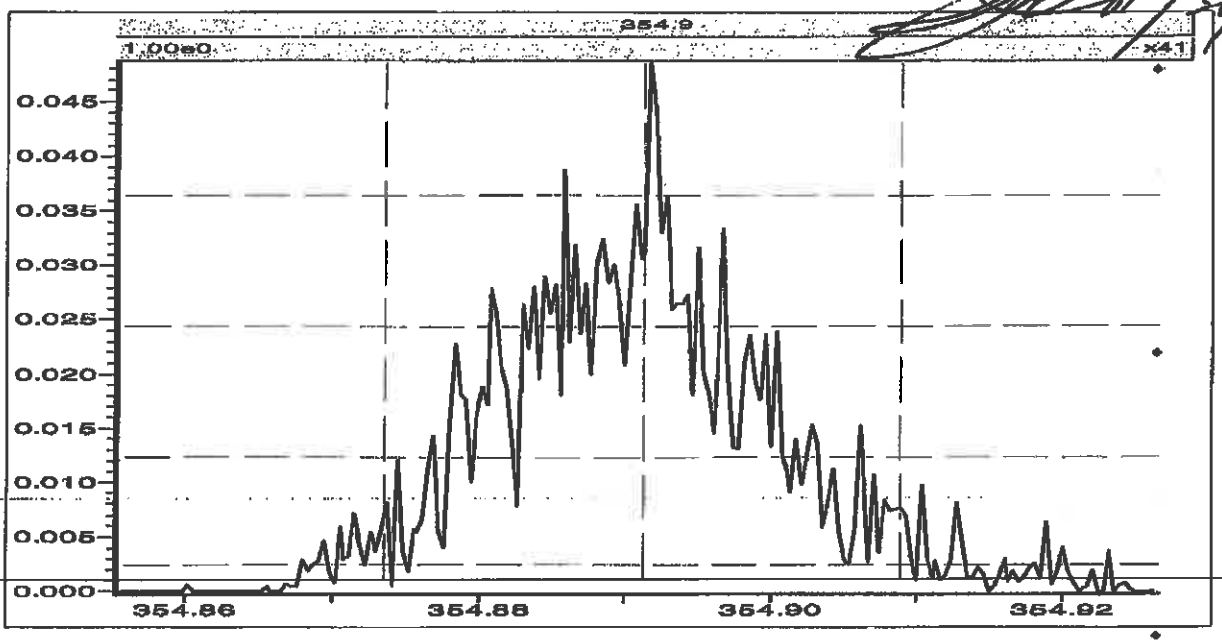
Ion Repeller (V)	-10.87
Focus 1	686
Beam Centre	8.2
Focus 2	3986
Temperature (C)	280
Elec Energy (eV)	34.3
Trap Current (uA)	500.0
Y Deflect 1	46.4
Z Deflect 1	-43.2
Z Deflect 2	-5.0
Z Focus 2	2204
Z Focus 3	0
Z Deflect 3	13.6
Y Focus	4352
Rotate 2	-13.0
Curve 2	14.0
Curve 3	-1.1
Rotate 3	-1.1
Rotate 4	3.5
V Acc (V)	7987.17
Magnet Mass	330.9
Source Slit	23.08
Collector Slit	36.22
MIKES Slit	100.00
Alpha	70.00
Detector Voltage	350
Ion Energy	-7.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

Engineer
No information

File: C:\MassLynx\Default.PRO\ACQUDB\U10MSHR06.IPR

Printed: Tuesday, July 30, 2013 06:47:24 Central Daylight Time



BAL 7/30/13

Source (EI+)

Ion Repeller (V)	-10.87
Focus 1	686
Beam Centre	8.2
Focus 2	3986
Temperature (C)	280
Elec Energy (eV)	34.3
Trap Current (uA)	500.0
Y Deflect 1	46.4
Z Deflect 1	-43.2
Z Deflect 2	-5.0
Z Focus 2	2204
Z Focus 3	0
Z Deflect 3	13.6
Y Focus	4352
Rotate 2	-13.0
Curve 2	14.0
Curve 3	-1.1
Rotate 3	-1.1
Rotate 4	3.5
V Acc (V)	7987.17
Magnet Mass	330.9
Source Slit	23.08
Collector Slit	36.22
MIKES Slit	100.00
Alpha	70.00
Detector Voltage	350
Ion Energy	-7.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

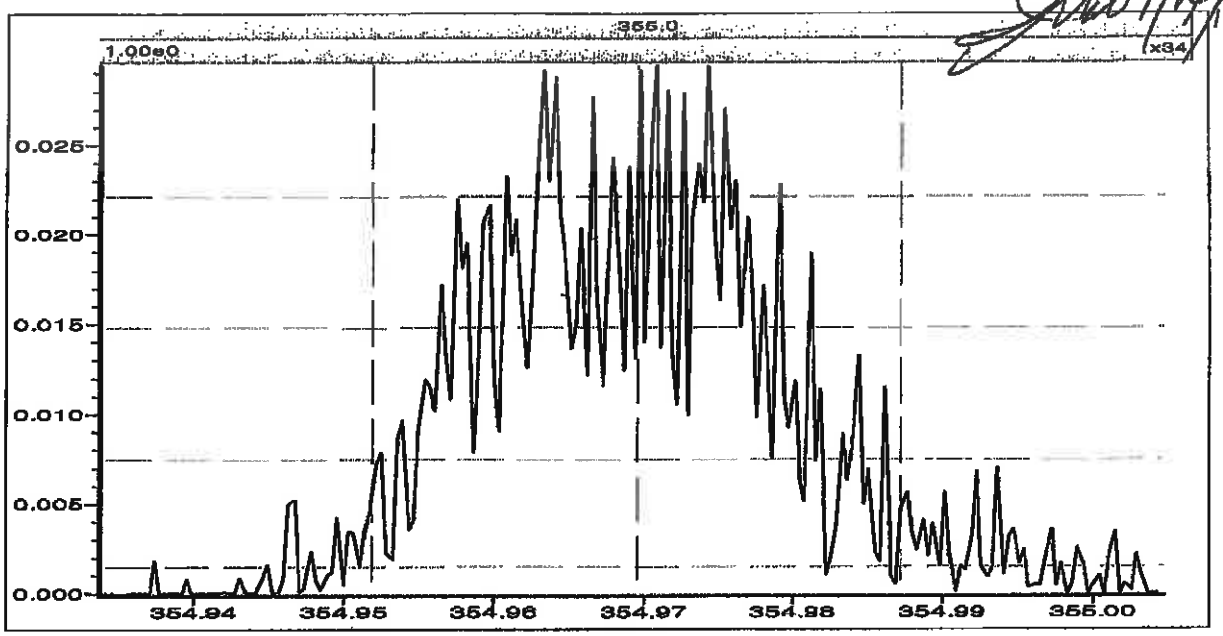
Engineer
No information

File: C:\MassLynx\Default.PRO\ACQUDB\U10MSHR06.IPR

Printed: Tuesday, September 17, 2013 14:32:13 Central Daylight Time

9/17/13

BAL 9/17/13



Source (EI+)

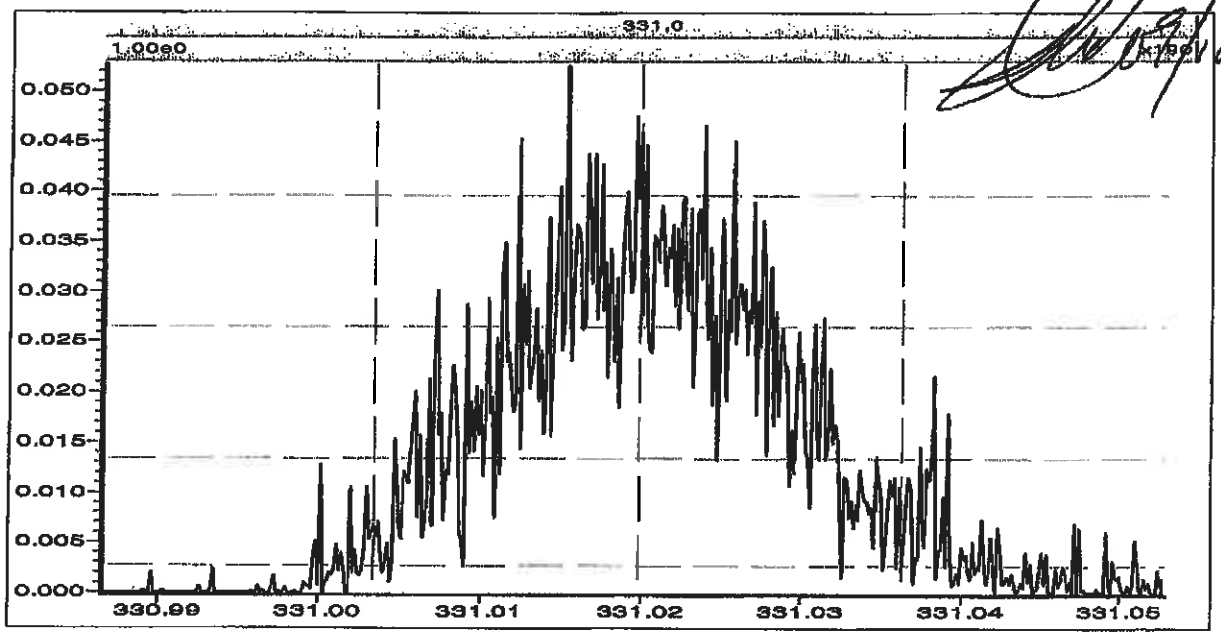
Ion Repeller (V)	-11.12
Focus 1	764
Beam Centre	71.9
Focus 2	3888
Temperature (C)	280
Elec Energy (eV)	35.0
Trap Current (uA)	500.0
Y Deflect 1	-115.1
Z Deflect 1	25.7
Z Deflect 2	-6.1
Z Focus 2	2577
Z Focus 3	0
Z Deflect 3	-27.2
Y Focus	4400
Rotate 2	-12.2
Curve 2	-8.8
Curve 3	1.0
Rotate 3	3.6
Rotate 4	17.0
V Acc (V)	7991.34
Magnet Mass	331.0
Source Slit	19.44
Collector Slit	36.00
MIKES Slit	100.00
Alpha	65.00
Detector Voltage	350
Ion Energy	-5.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

Engineer
No information

File: C:\MassLynx\Default.PRO\ACQUDB\U10MSHR06.IPR

Printed: Wednesday, September 18, 2013 14:39:00 Central Daylight Time



Source (EI+)

Ion Repeller (V)	-11.12
Focus 1	764
Beam Centre	71.9
Focus 2	3888
Temperature (C)	280
Elec Energy (eV)	35.0
Trap Current (uA)	500.0
Y Deflect 1	-115.1
Z Deflect 1	25.7
Z Deflect 2	-6.1
Z Focus 2	2577
Z Focus 3	0
Z Deflect 3	-27.2
Y Focus	4400
Rotate 2	-12.2
Curve 2	-8.8
Curve 3	1.0
Rotate 3	3.6
Rotate 4	17.0
V Acc (V)	7990.45
Magnet Mass	331.0
Source Slit	19.44
Collector Slit	36.00
MIKES Slit	100.00
Alpha	65.00
Detector Voltage	350
Ion Energy	-5.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

Engineer
No information

Appendix F

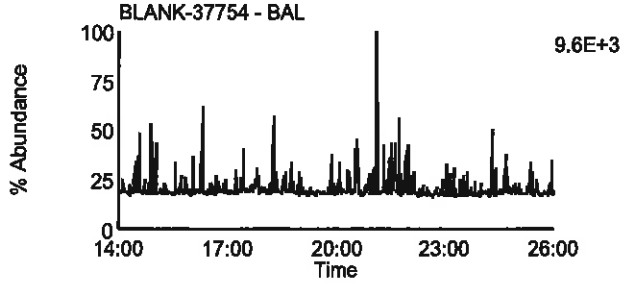
QC Raw Data

Homologue Group: Tetras

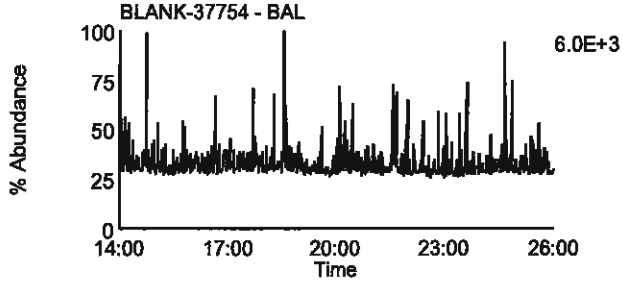
Data File Name: U130917B_05
Date Acquired: 9/18/2013
Sample Description: BLANK-37754 - BAL

Lab Sample ID: BLANK-37754
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130917B_05 G1 C1 - 303.9016
BLANK-37754 - BAL



Data File: U130917B_05 G1 C7 - 319.8965
BLANK-37754 - BAL



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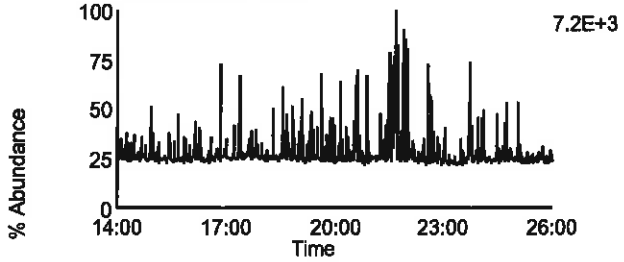
BLANK-37754 - BAL



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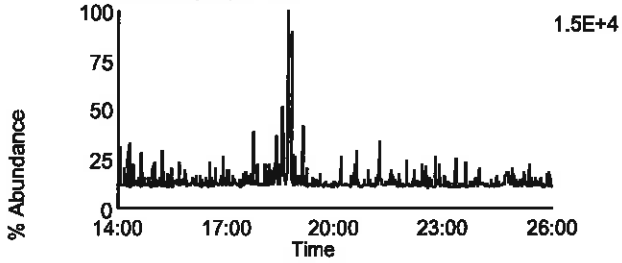
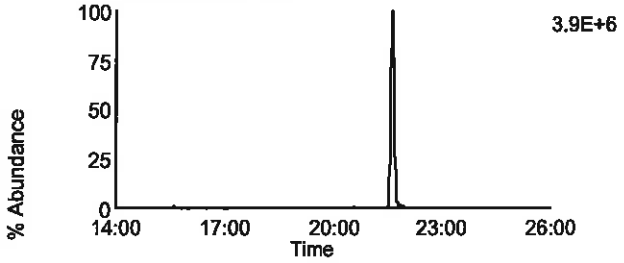
BLANK-37754 - BAL



Data File: U130917B_05 G1 C3 - 315.9418
BLANK-37754 - BAL



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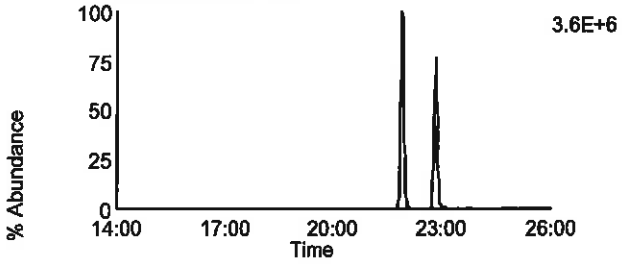
BLANK-37754 - BAL



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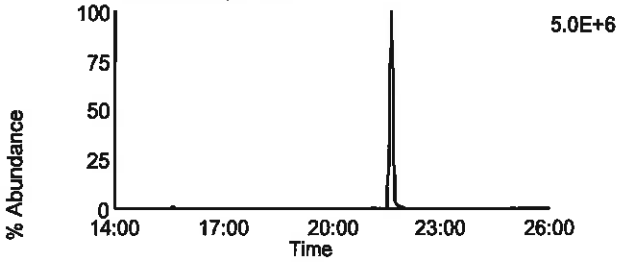
BLANK-37754 - BAL



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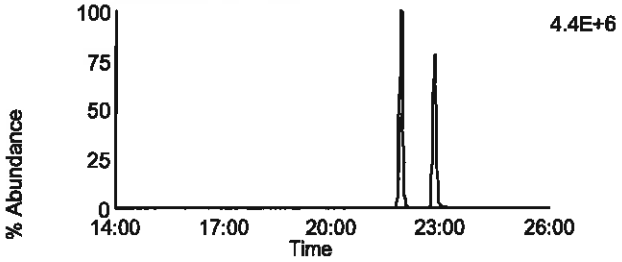
BLANK-37754 - BAL



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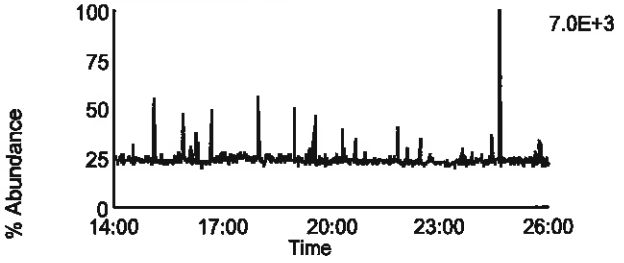
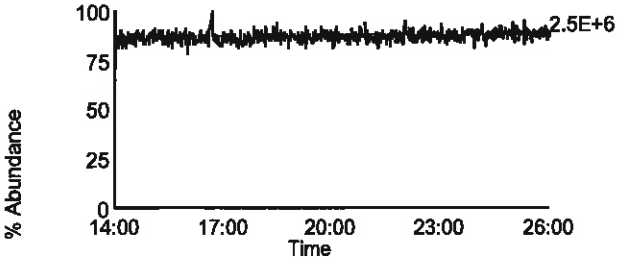
BLANK-37754 - BAL



Data File: U130917B_05 G1 C5 - 318.9792
BLANK-37754 - BAL

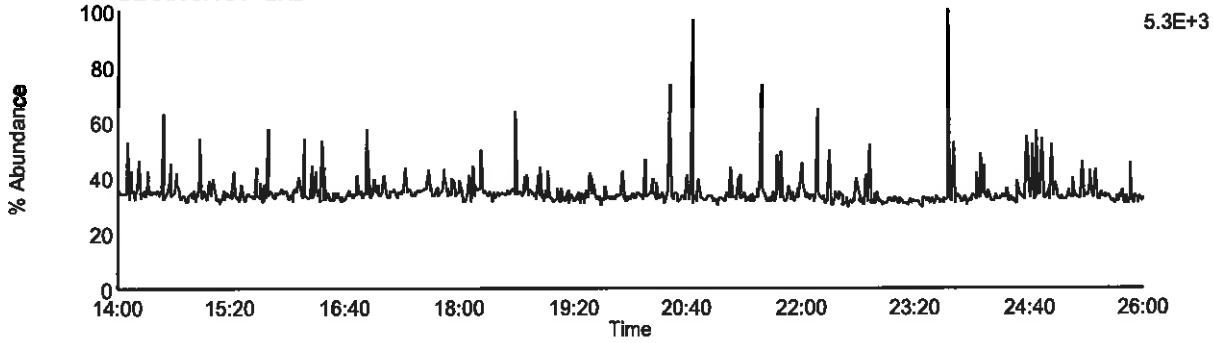


Homologue Group: Penta & Cleanup

Data File Name: U130917B_05
Date Acquired: 9/18/2013
Sample Description: BLANK-37754 - BAL

Lab Sample ID: BLANK-37754
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130917B_05 G1 C12 - 339.8597
BLANK-37754 - BAL



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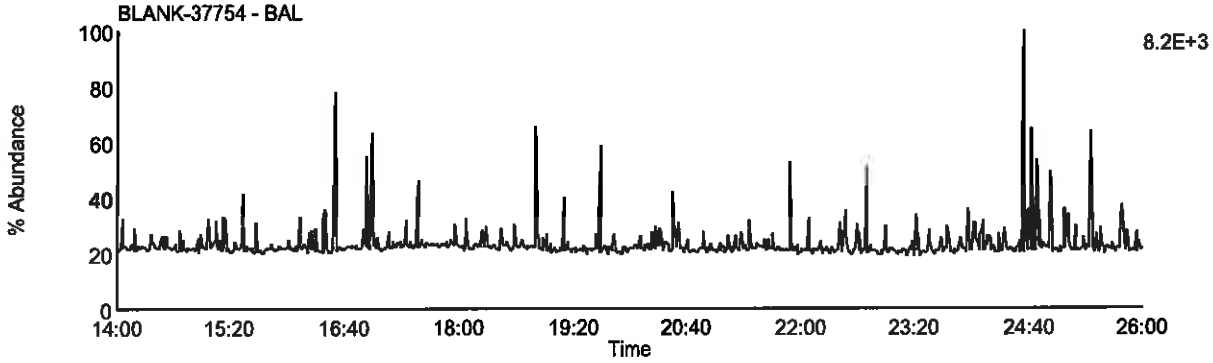
BLANK-37754 - BAL



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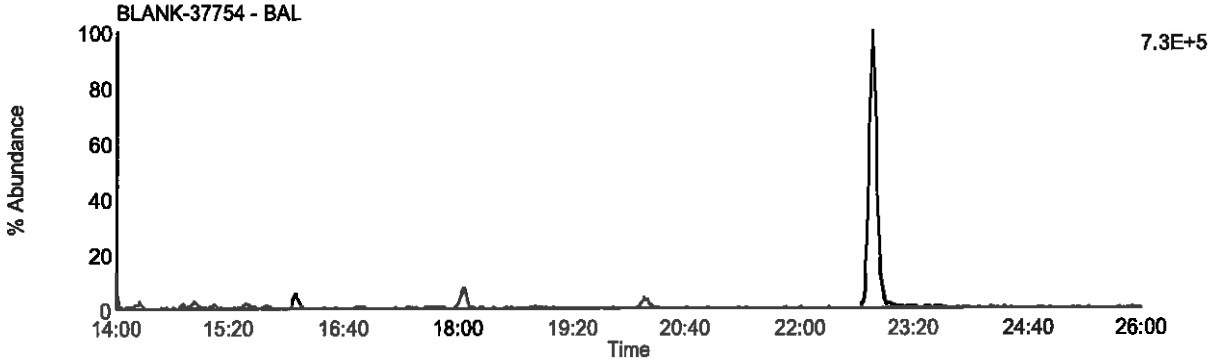
BLANK-37754 - BAL



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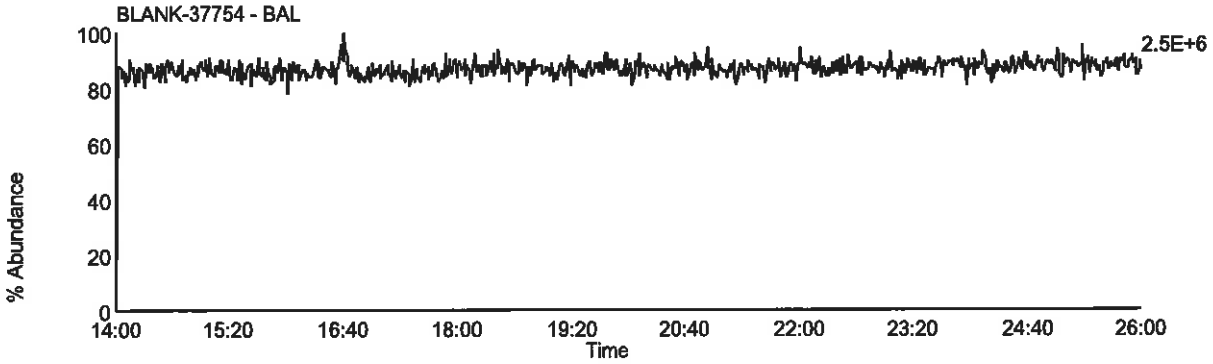
BLANK-37754 - BAL



Homologue Group: Pentas

Data File Name: U130917B_05
Date Acquired: 9/18/2013
Sample Description: BLANK-37754 - BAL

Lab Sample ID: BLANK-37754
Client Sample ID:
Instrument: 10MSHR06 (U)

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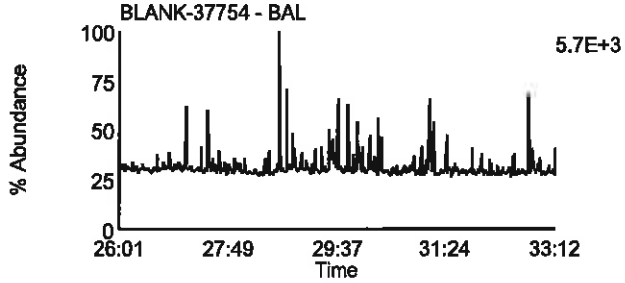
BLANK-37754 - BAL



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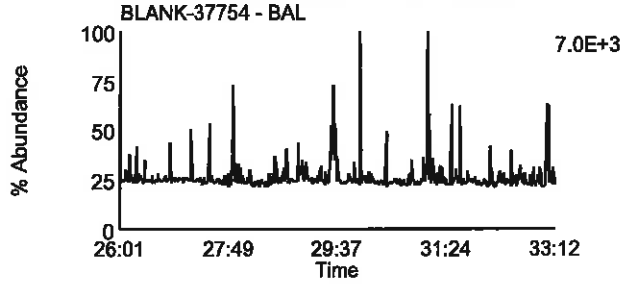
BLANK-37754 - BAL



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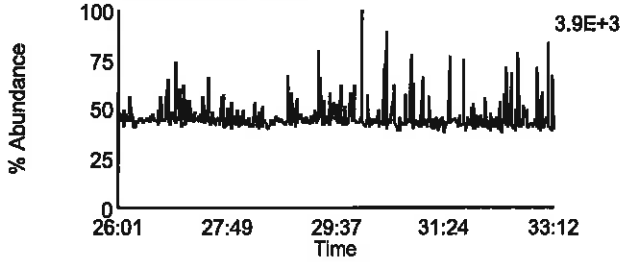
BLANK-37754 - BAL



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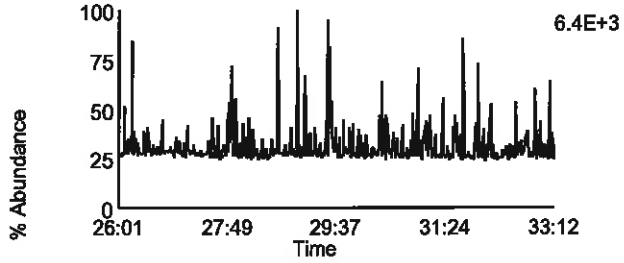

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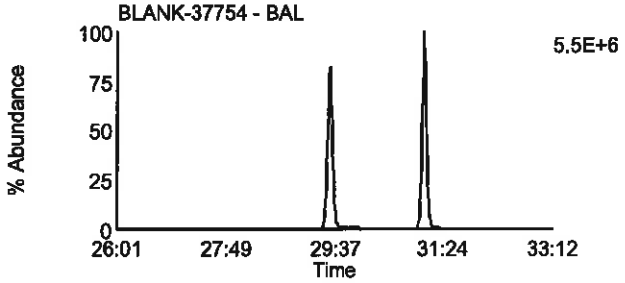

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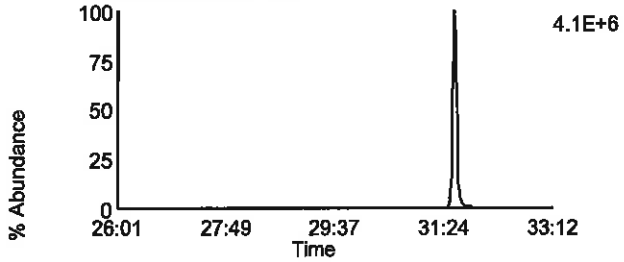

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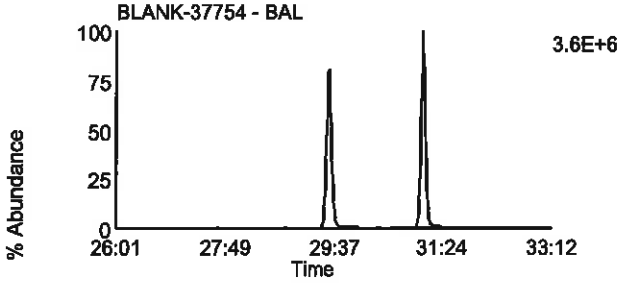

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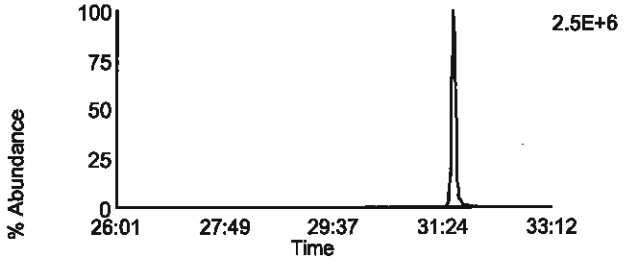

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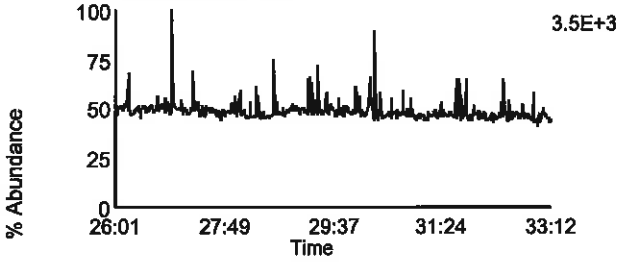
BLANK-37754 - BAL



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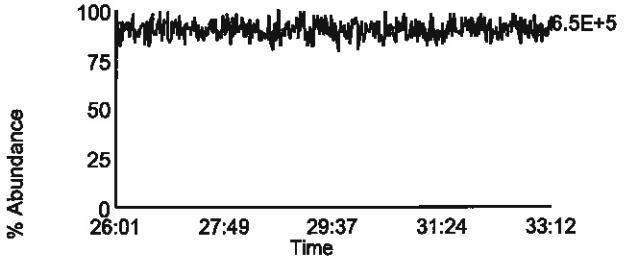

Homologue Group: Hexas

Data File Name: U130917B_05
Date Acquired: 9/18/2013
Sample Description: BLANK-37754 - BAL

Lab Sample ID: BLANK-37754
Client Sample ID:
Instrument: 10MSHR06 (U)

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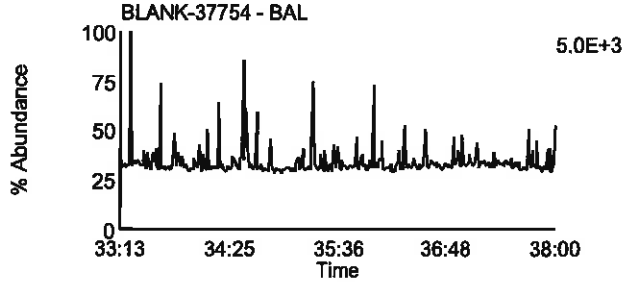
BLANK-37754 - BAL



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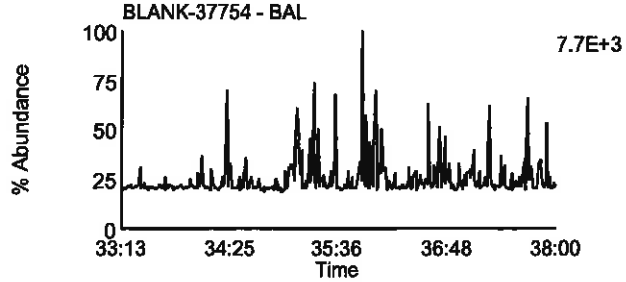

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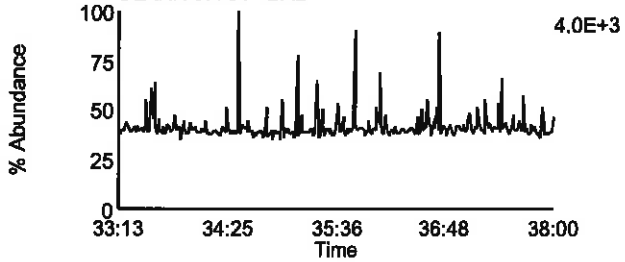

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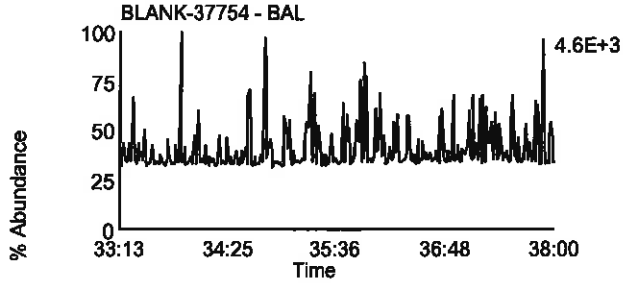

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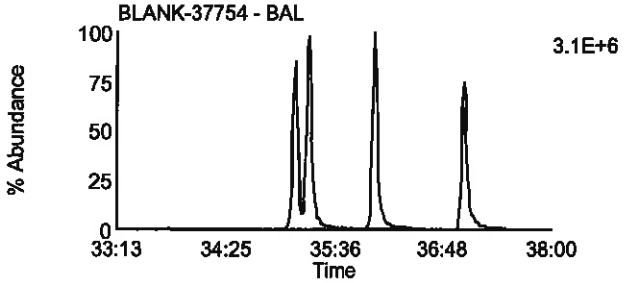

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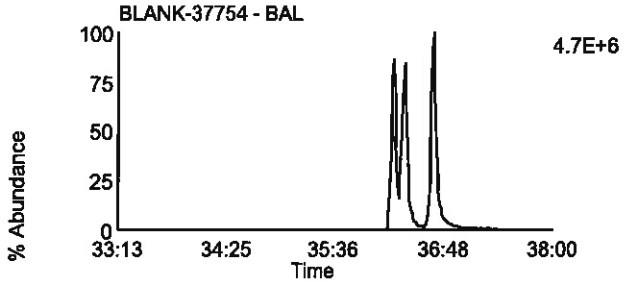

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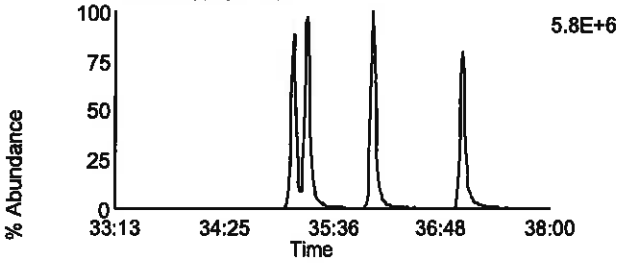

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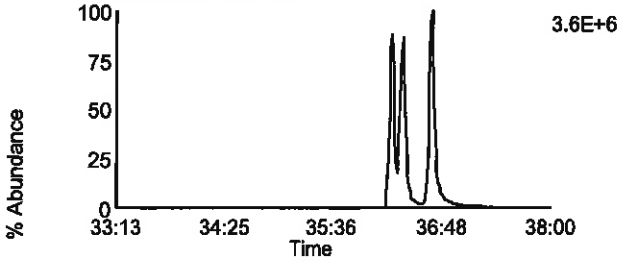

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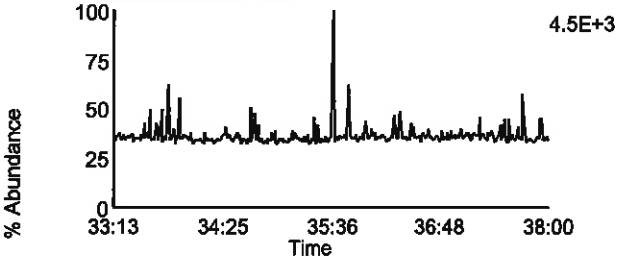

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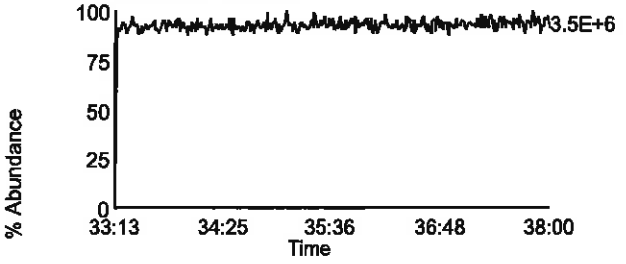
BLANK-37754 - BAL

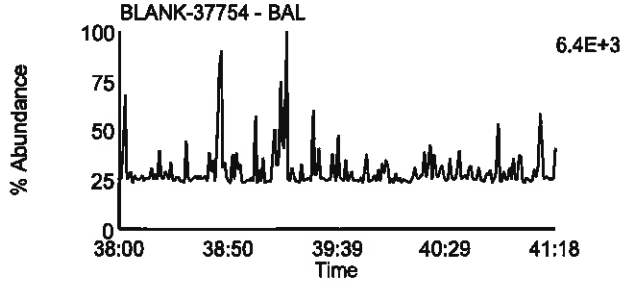


Homologue Group: Heptas

Data File Name: U130917B_05
Date Acquired: 9/18/2013
Sample Description: BLANK-37754 - BAL

Lab Sample ID: BLANK-37754
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U130917B_05 G4 C3 - 407.7818
BLANK-37754 - BAL



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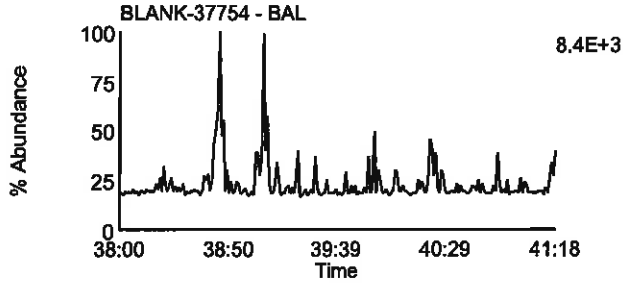
BLANK-37754 - BAL



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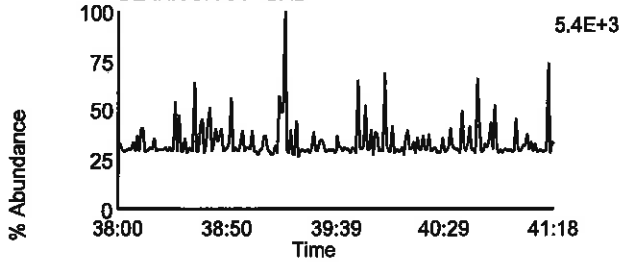

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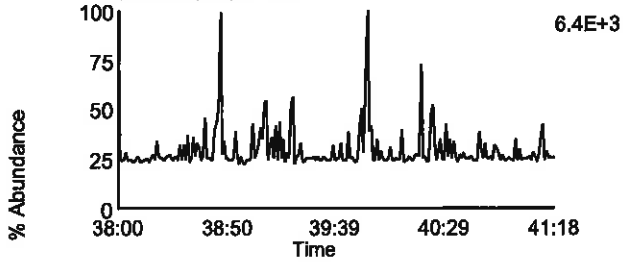

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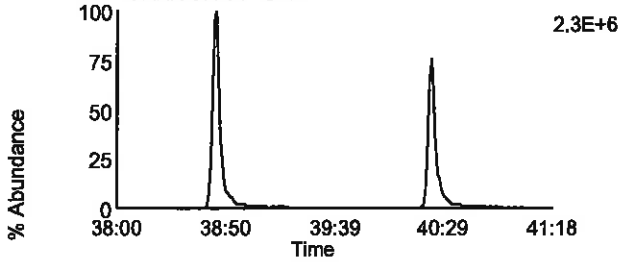

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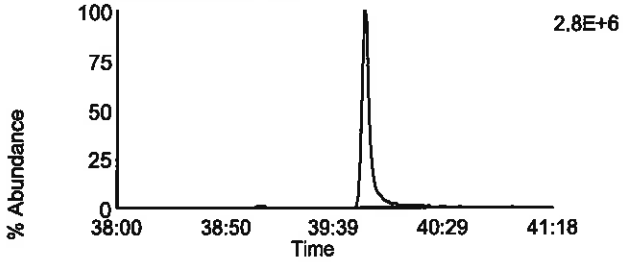

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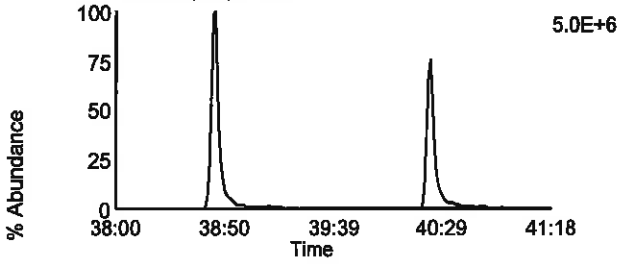
BLANK-37754 - BAL



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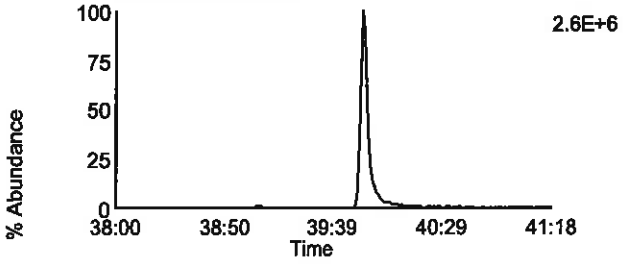

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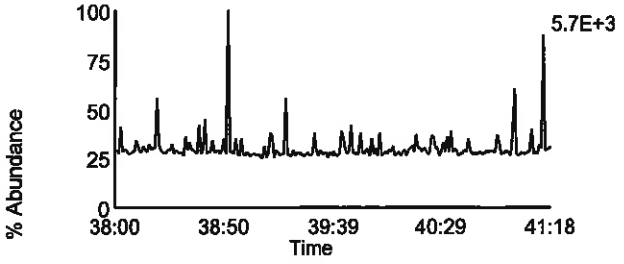
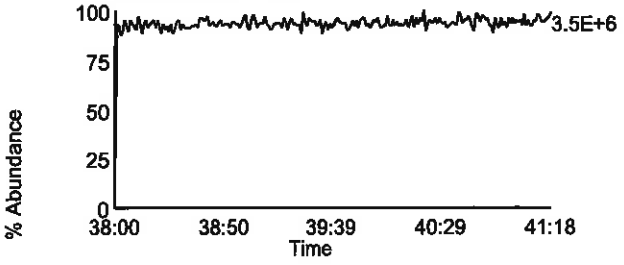


Data File: U130917B_05 G4 C1 - 380.976
BLANK-37754 - BAL

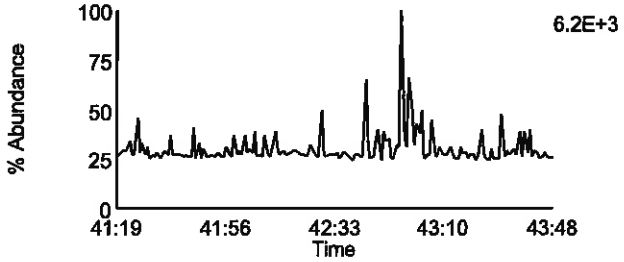


Homologue Group: Octas

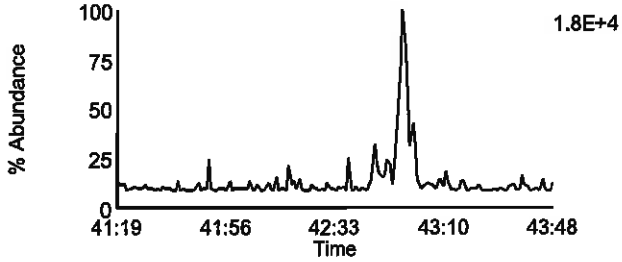
Data File Name: U130917B_05
Date Acquired: 9/18/2013
Sample Description: BLANK-37754 - BAL

Lab Sample ID: BLANK-37754
Client Sample ID:
Instrument: 10MSHR06 (U)

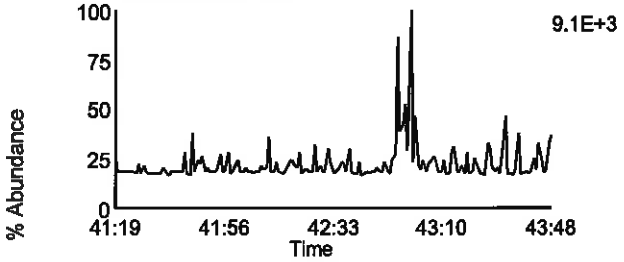
Data File: U130917B_05 G5 C4 - 441.7428
BLANK-37754 - BAL



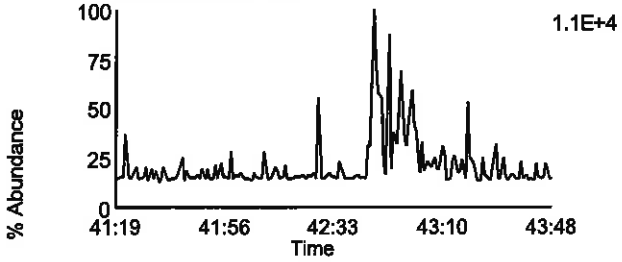
Data File: U130917B_05 G5 C8 - 457.7377
BLANK-37754 - BAL



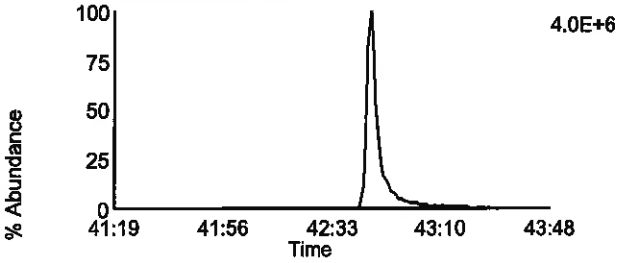
Data File: U130917B_05 G5 C5 - 443.7398
BLANK-37754 - BAL



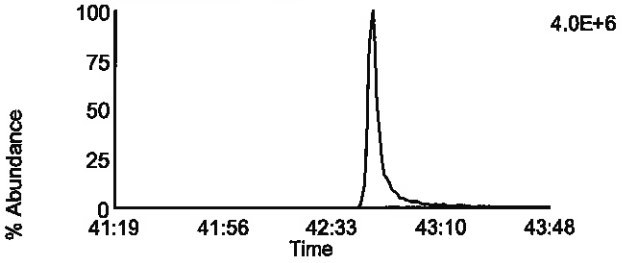
Data File: U130917B_05 G5 C9 - 459.7347
BLANK-37754 - BAL



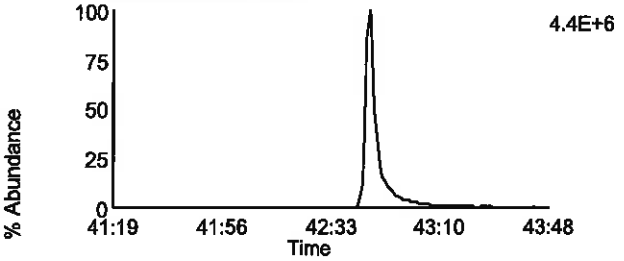
Data File: U130917B_05 G5 C11 - 469.7779
BLANK-37754 - BAL



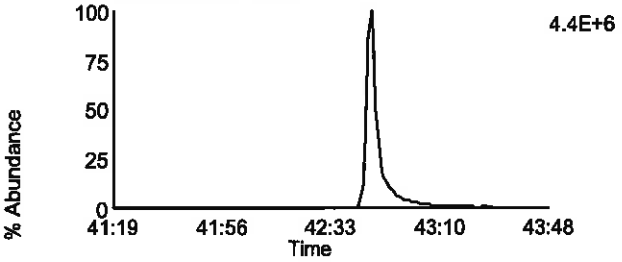
Data File: U130917B_05 G5 C11 - 469.7779
BLANK-37754 - BAL



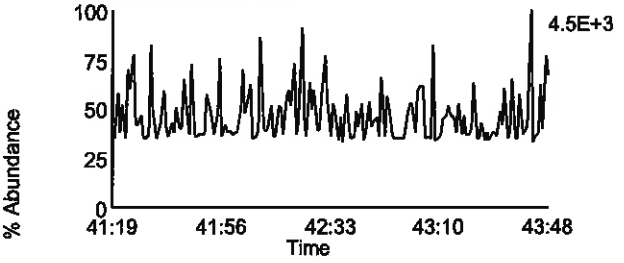
Data File: U130917B_05 G5 C12 - 471.7749
BLANK-37754 - BAL



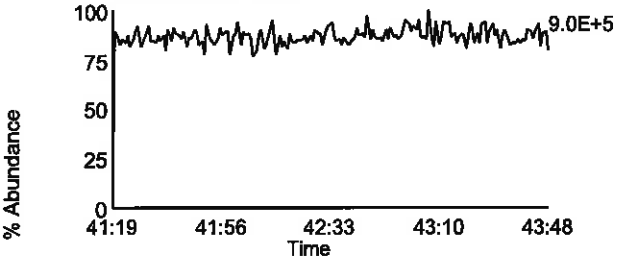
Data File: U130917B_05 G5 C12 - 471.7749
BLANK-37754 - BAL



Data File: U130917B_05 G5 C13 - 513.6775
BLANK-37754 - BAL



Data File: U130917B_05 G5 C2 - 430.9728
BLANK-37754 - BAL

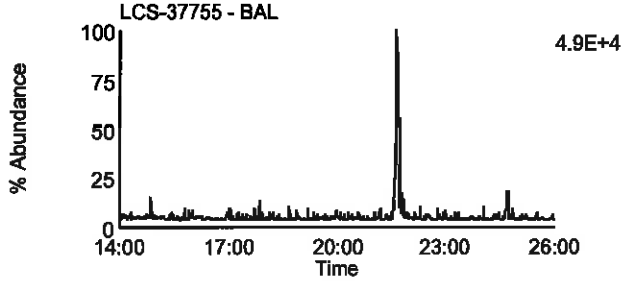


Homologue Group: Tetras

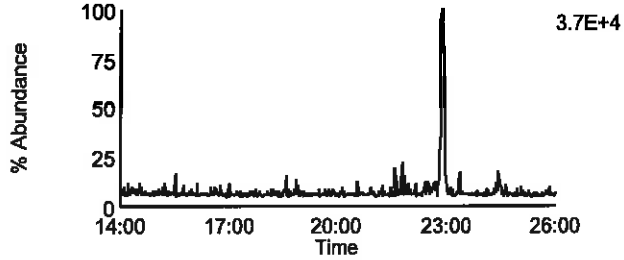
Data File Name: U130917B_01
Date Acquired: 9/18/2013
Sample Description: LCS-37755 - BAL

Lab Sample ID: LCS-37755
Client Sample ID: LCSFS
Instrument: 10MSHR06 (U)

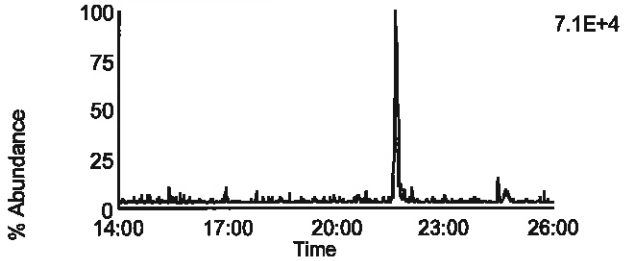
Data File: U130917B_01 G1 C1 - 303.9016
LCS-37755 - BAL



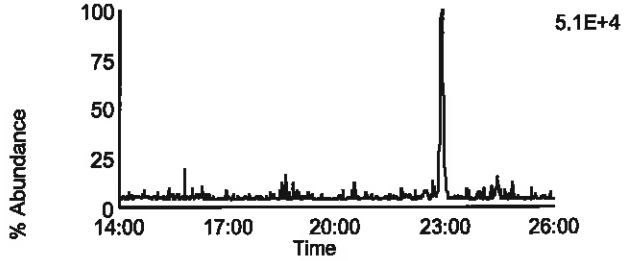
Data File: U130917B_01 G1 C7 - 319.8965
LCS-37755 - BAL



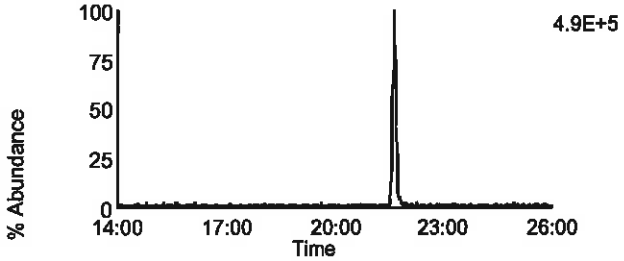
Data File: U130917B_01 G1 C2 - 305.8987
LCS-37755 - BAL



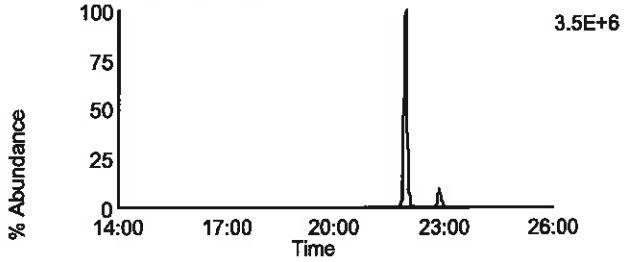
Data File: U130917B_01 G1 C8 - 321.8936
LCS-37755 - BAL



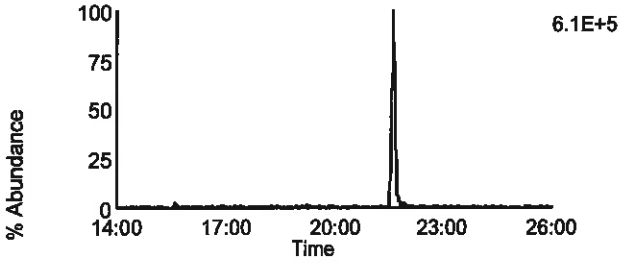
Data File: U130917B_01 G1 C3 - 315.9418
LCS-37755 - BAL



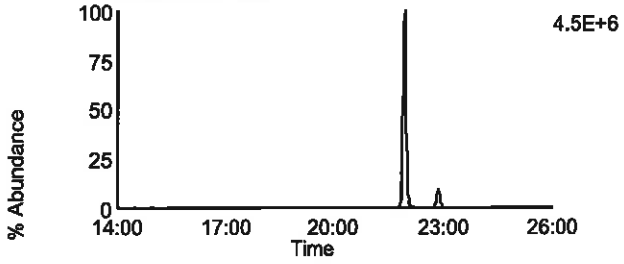
Data File: U130917B_01 G1 C10 - 331.9367
LCS-37755 - BAL



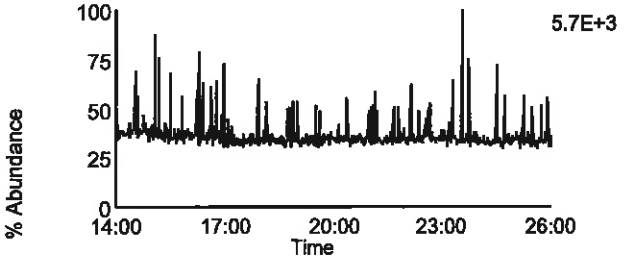
Data File: U130917B_01 G1 C4 - 317.9389
LCS-37755 - BAL



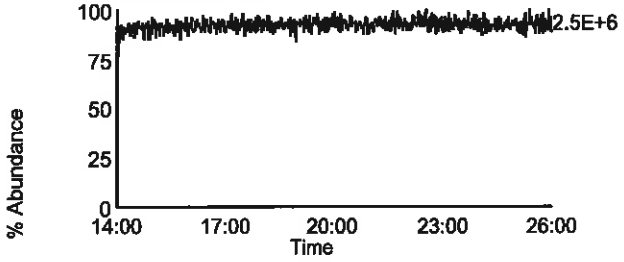
Data File: U130917B_01 G1 C11 - 333.9338
LCS-37755 - BAL



Data File: U130917B_01 G1 C14 - 375.8364
LCS-37755 - BAL

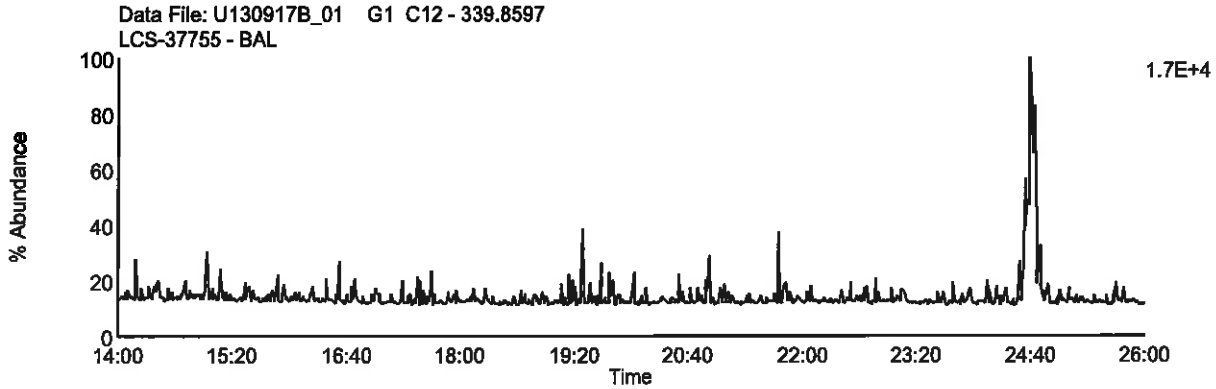


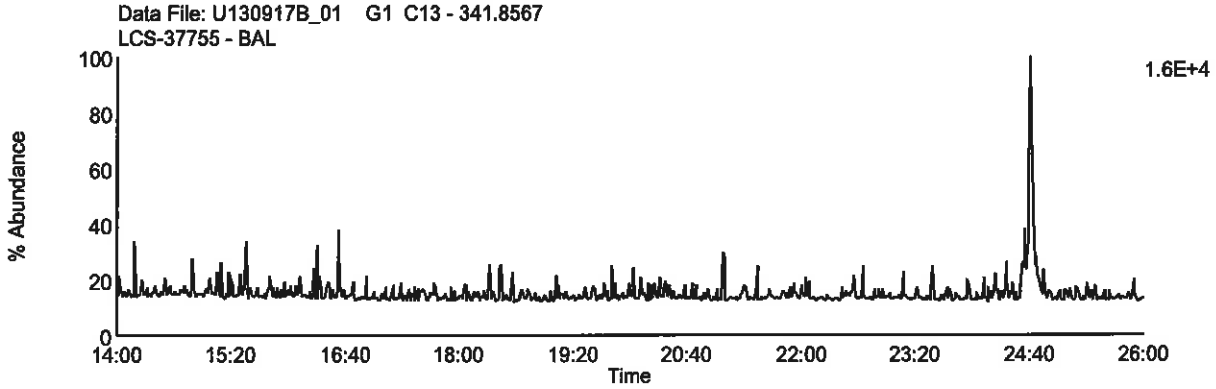
Data File: U130917B_01 G1 C5 - 318.9792
LCS-37755 - BAL

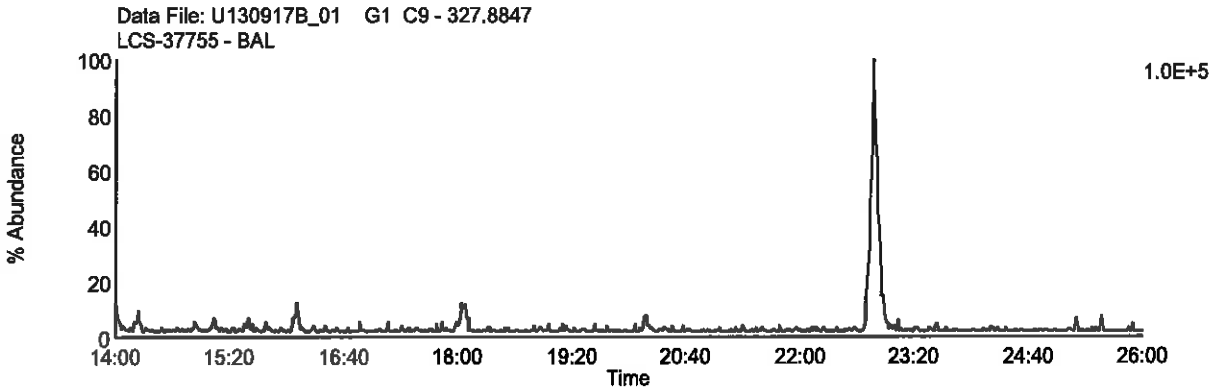


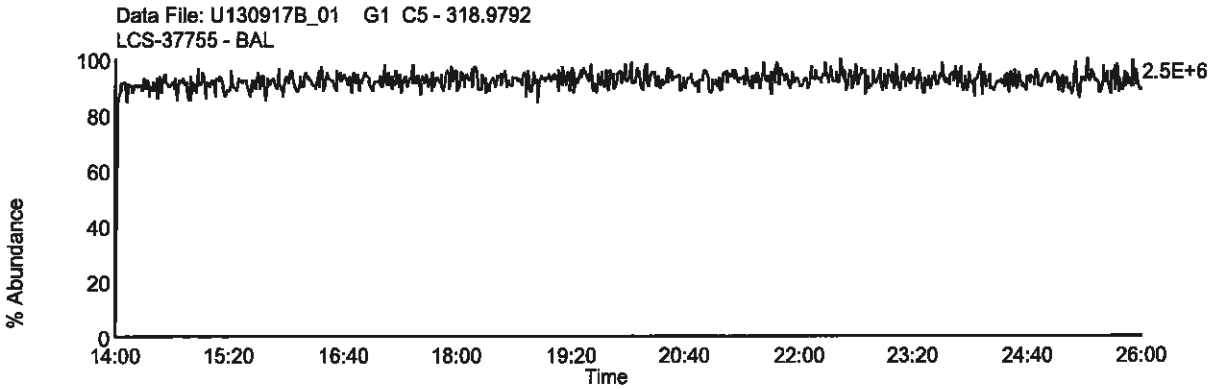
Homologue Group: Penta & Cleanup

Data File Name: U130917B_01	Lab Sample ID: LCS-37755
Date Acquired: 9/18/2013	Client Sample ID: LCSFS
Sample Description: LCS-37755 - BAL	Instrument: 10MSHR06 (U)







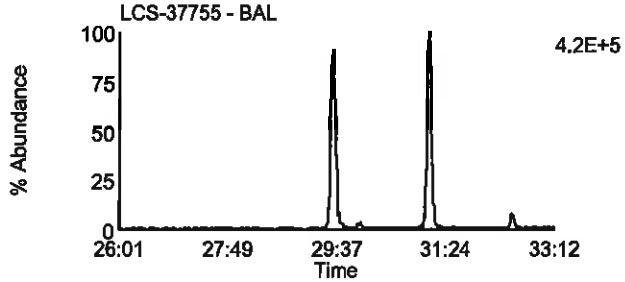


Homologue Group: Pentas

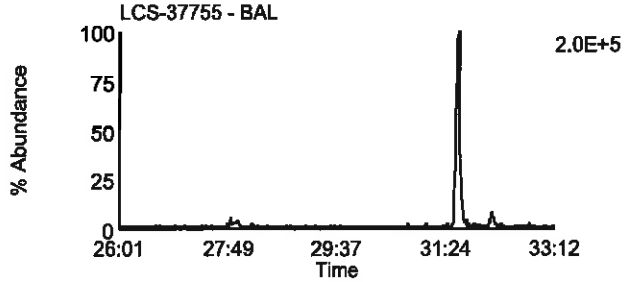
Data File Name: U130917B_01
Date Acquired: 9/18/2013
Sample Description: LCS-37755 - BAL

Lab Sample ID: LCS-37755
Client Sample ID: LCSFS
Instrument: 10MSHR06 (U)

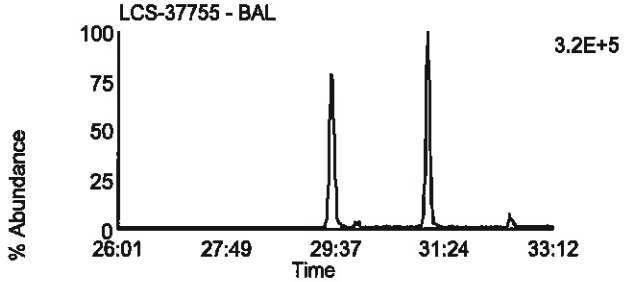
Data File: U130917B_01 G2 C1 - 339.8597
LCS-37755 - BAL



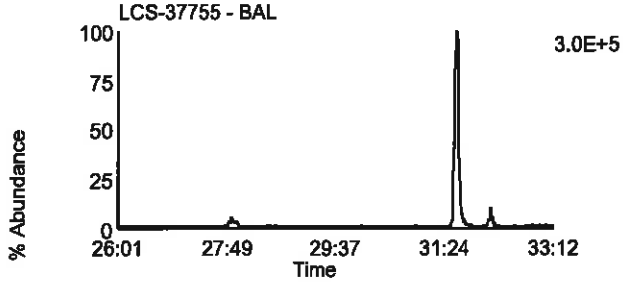
Data File: U130917B_01 G2 C4 - 353.8576
LCS-37755 - BAL



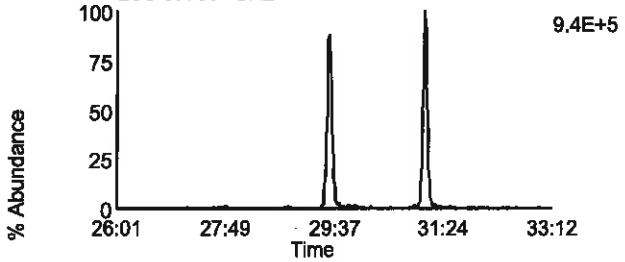
Data File: U130917B_01 G2 C2 - 341.8567
LCS-37755 - BAL



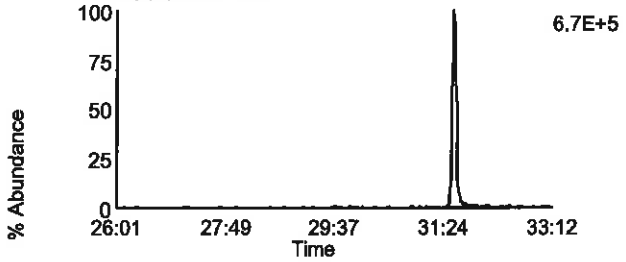
Data File: U130917B_01 G2 C8 - 355.8546
LCS-37755 - BAL



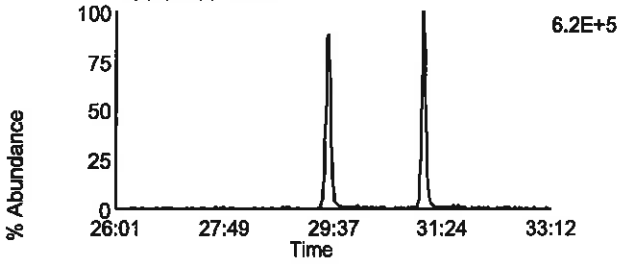
Data File: U130917B_01 G2 C3 - 351.8999
LCS-37755 - BAL



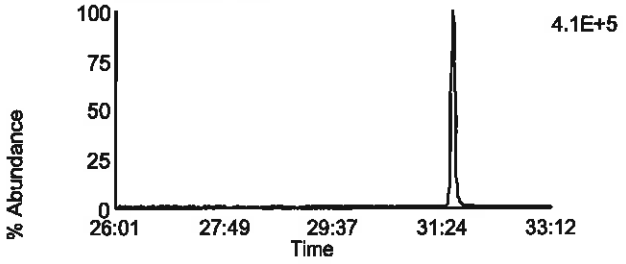
Data File: U130917B_01 G2 C10 - 367.8948
LCS-37755 - BAL



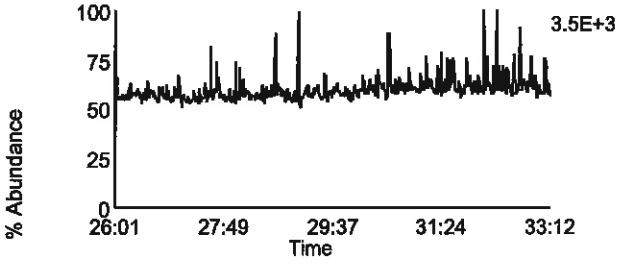
Data File: U130917B_01 G2 C5 - 353.8969
LCS-37755 - BAL



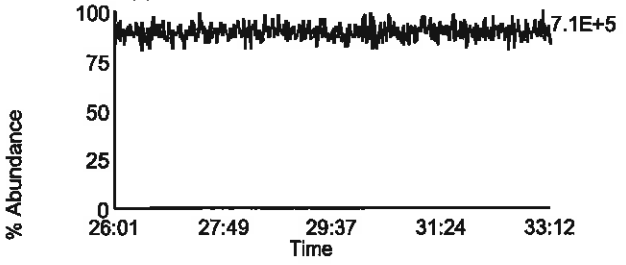
Data File: U130917B_01 G2 C11 - 369.8918
LCS-37755 - BAL



Data File: U130917B_01 G2 C12 - 409.7974
LCS-37755 - BAL



Data File: U130917B_01 G2 C6 - 354.9792
LCS-37755 - BAL

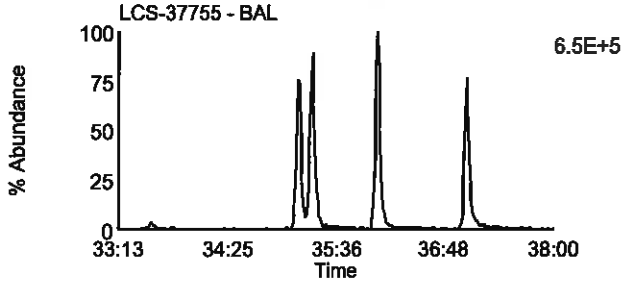


Homologue Group: Hexas

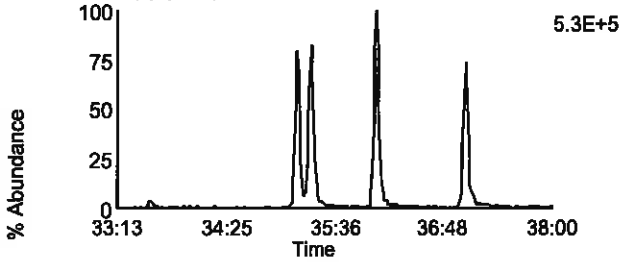
Data File Name: U130917B_01
Date Acquired: 9/18/2013
Sample Description: LCS-37755 - BAL

Lab Sample ID: LCS-37755
Client Sample ID: LCSFS
Instrument: 10MSHR06 (U)

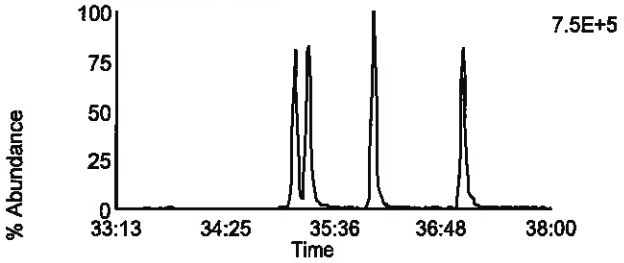
Data File: U130917B_01 G3 C1 - 373.8207
LCS-37755 - BAL



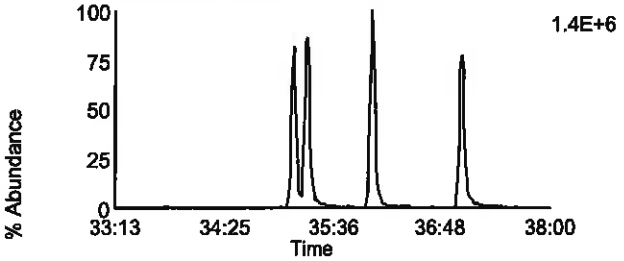
Data File: U130917B_01 G3 C2 - 375.8178
LCS-37755 - BAL



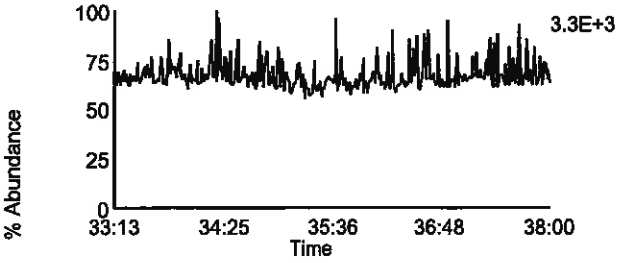
Data File: U130917B_01 G3 C5 - 383.8639
LCS-37755 - BAL



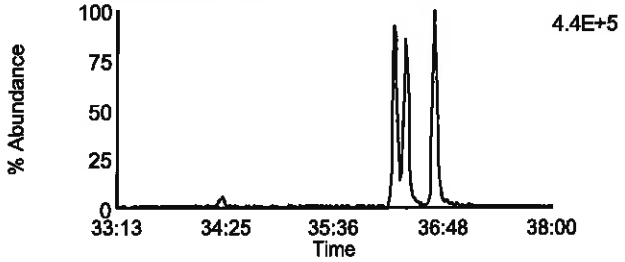
Data File: U130917B_01 G3 C6 - 385.861
LCS-37755 - BAL



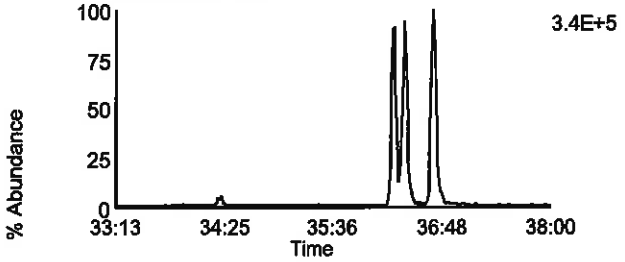
Data File: U130917B_01 G3 C11 - 445.7555
LCS-37755 - BAL



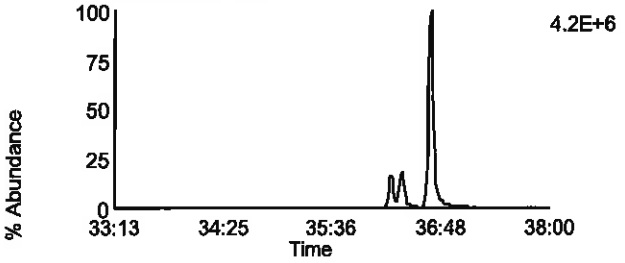
Data File: U130917B_01 G3 C7 - 389.8156
LCS-37755 - BAL



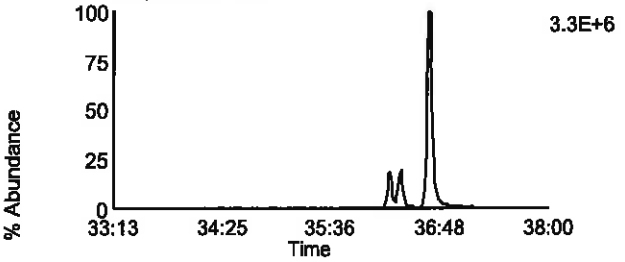
Data File: U130917B_01 G3 C8 - 391.8127
LCS-37755 - BAL



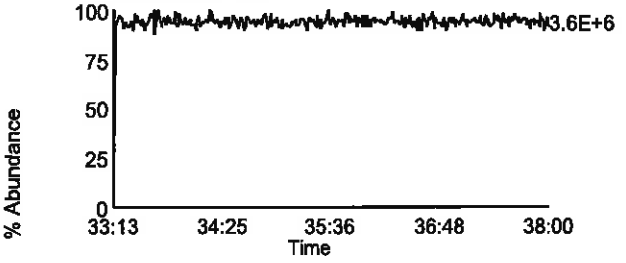
Data File: U130917B_01 G3 C9 - 401.8559
LCS-37755 - BAL



Data File: U130917B_01 G3 C10 - 403.8529
LCS-37755 - BAL



Data File: U130917B_01 G3 C3 - 380.976
LCS-37755 - BAL

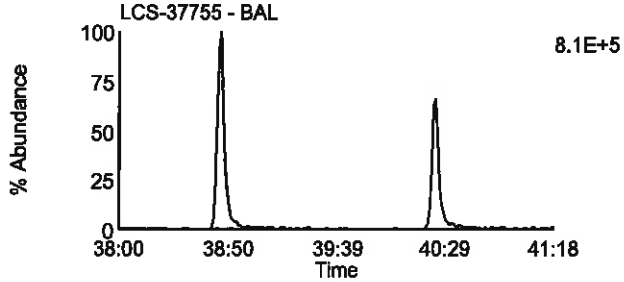


Homologue Group: Heptas

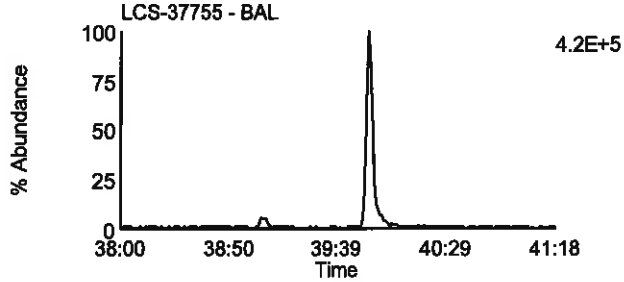
Data File Name: U130917B_01
Date Acquired: 9/18/2013
Sample Description: LCS-37755 - BAL

Lab Sample ID: LCS-37755
Client Sample ID: LCSFS
Instrument: 10MSHR06 (U)

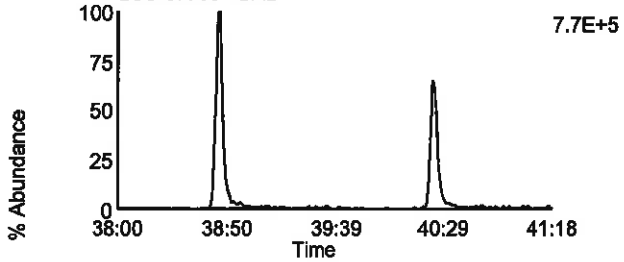
Data File: U130917B_01 G4 C3 - 407.7818
LCS-37755 - BAL



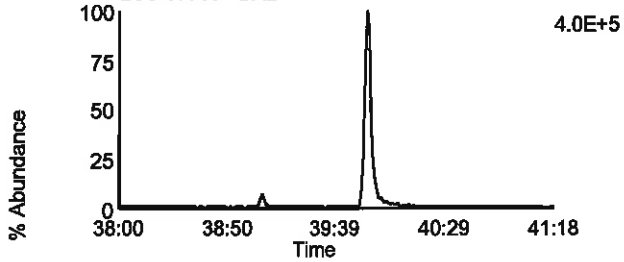
Data File: U130917B_01 G4 C8 - 423.7767
LCS-37755 - BAL



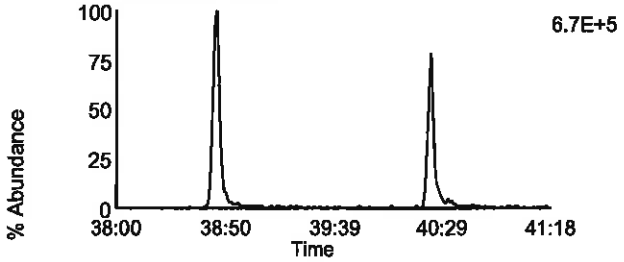
Data File: U130917B_01 G4 C4 - 409.7788
LCS-37755 - BAL



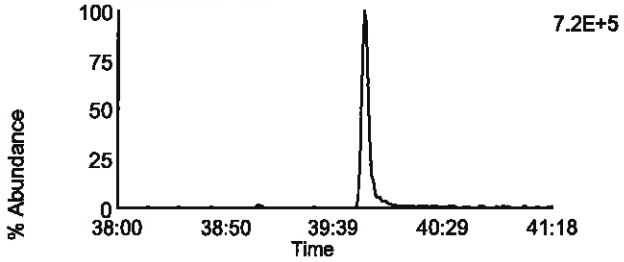
Data File: U130917B_01 G4 C9 - 425.7737
LCS-37755 - BAL



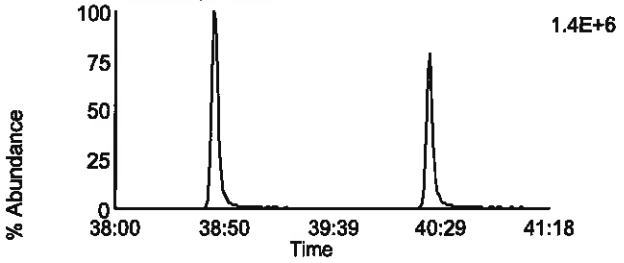
Data File: U130917B_01 G4 C6 - 417.825
LCS-37755 - BAL



Data File: U130917B_01 G4 C11 - 435.8169
LCS-37755 - BAL



Data File: U130917B_01 G4 C7 - 419.822
LCS-37755 - BAL



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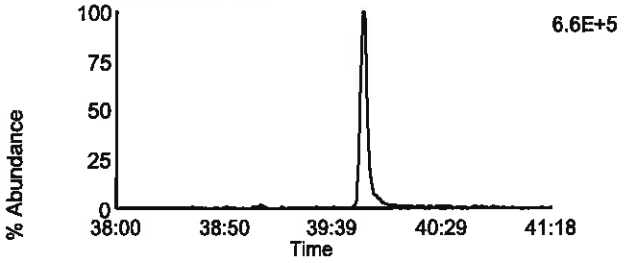
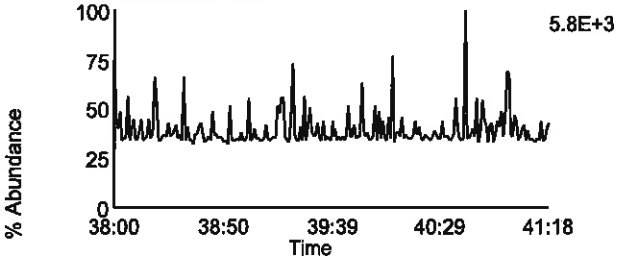
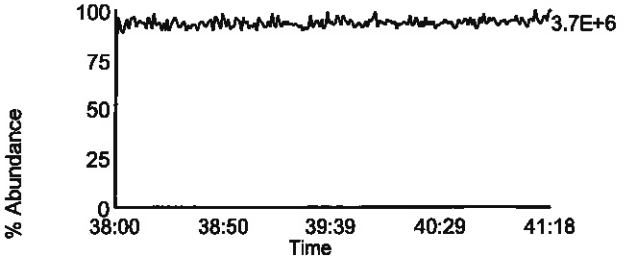
LCS-37755 - BAL



Data File: U130917B_01 G4 C13 - 479.7165
LCS-37755 - BAL



Data File: U130917B_01 G4 C1 - 380.976
LCS-37755 - BAL

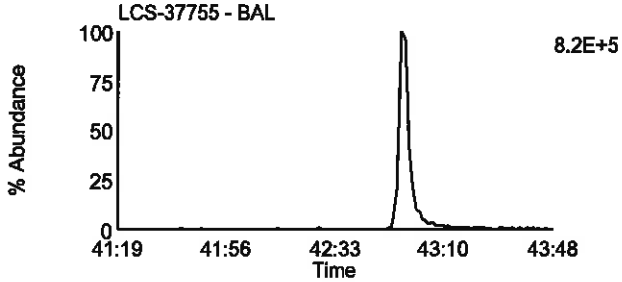


Homologue Group: Octas

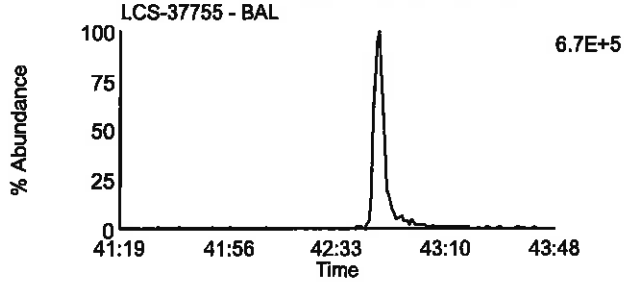
Data File Name: U130917B_01
Date Acquired: 9/18/2013
Sample Description: LCS-37755 - BAL

Lab Sample ID: LCS-37755
Client Sample ID: LCSFS
Instrument: 10MSHR06 (U)

Data File: U130917B_01 G5 C4 - 441.7428
LCS-37755 - BAL



Data File: U130917B_01 G5 C8 - 457.7377
LCS-37755 - BAL



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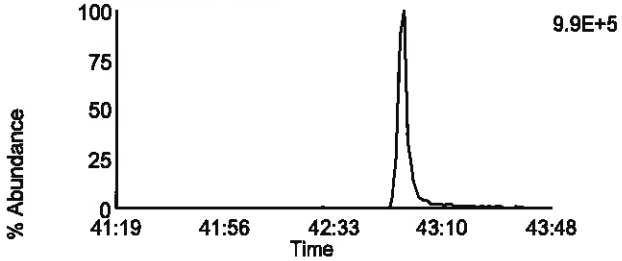
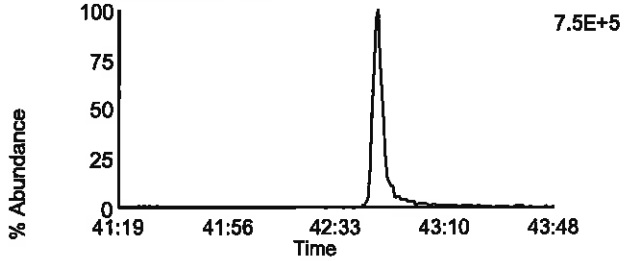
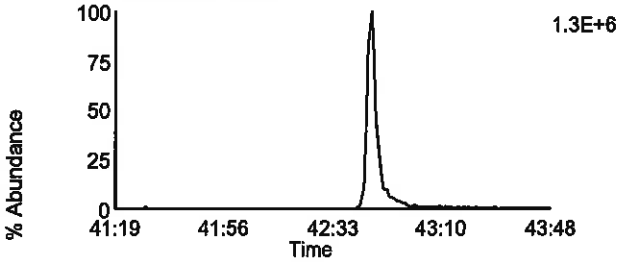
LCS-37755 - BAL



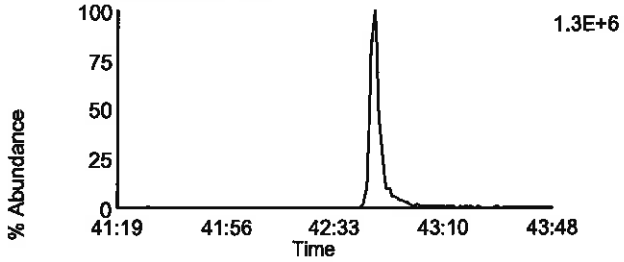
Data File: U130917B_01 G5 C9 - 459.7347
LCS-37755 - BAL



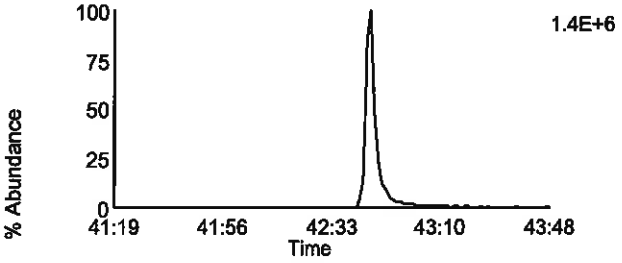
Data File: U130917B_01 G5 C11 - 469.7779
LCS-37755 - BAL



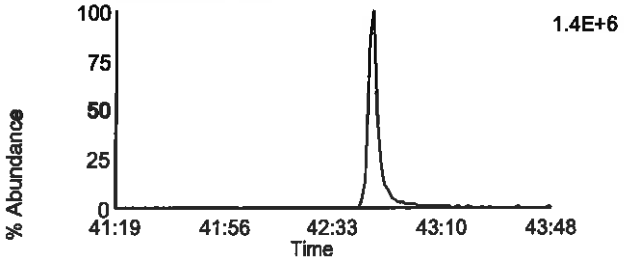
Data File: U130917B_01 G5 C11 - 469.7779
LCS-37755 - BAL



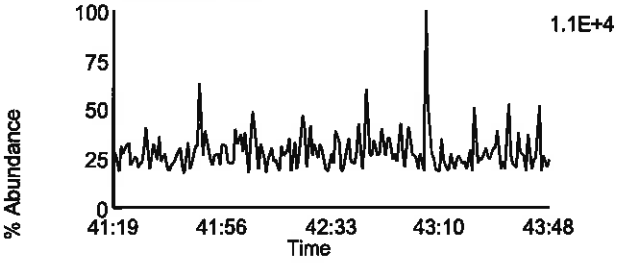
Data File: U130917B_01 G5 C12 - 471.7749
LCS-37755 - BAL



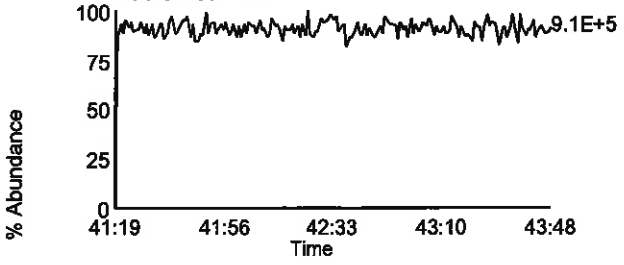
Data File: U130917B_01 G5 C12 - 471.7749
LCS-37755 - BAL



Data File: U130917B_01 G5 C13 - 513.6775
LCS-37755 - BAL



Data File: U130917B_01 G5 C2 - 430.9728
LCS-37755 - BAL

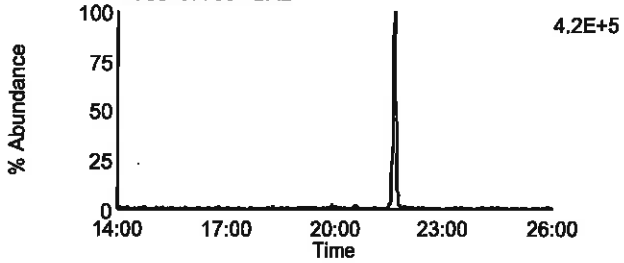


Homologue Group: Tetras

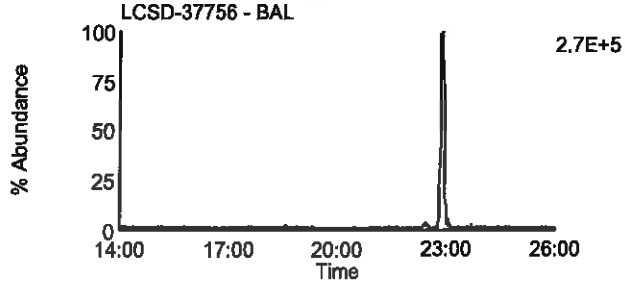
Data File Name: U130917B_02
Date Acquired: 9/18/2013
Sample Description: LCSD-37756 - BAL

Lab Sample ID: LCSD-37756
Client Sample ID: LCSFT
Instrument: 10MSHR06 (U)

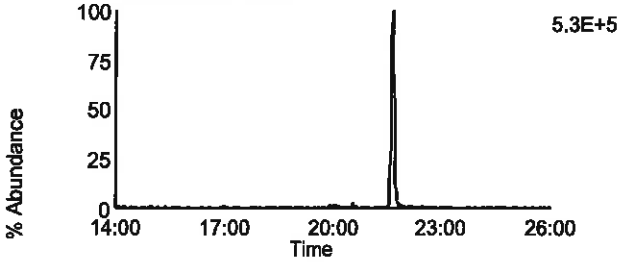
Data File: U130917B_02 G1 C1 - 303.9016
LCSD-37756 - BAL



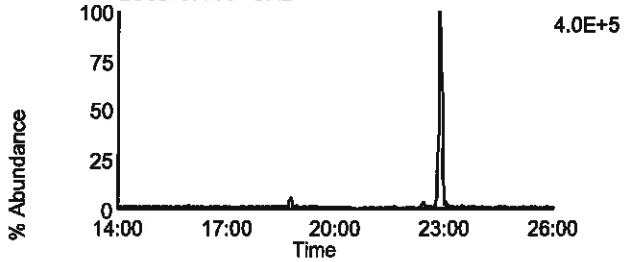
Data File: U130917B_02 G1 C7 - 319.8965
LCSD-37756 - BAL



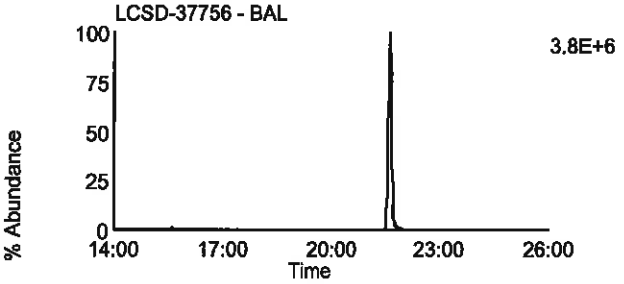
Data File: U130917B_02 G1 C2 - 305.8987
LCSD-37756 - BAL



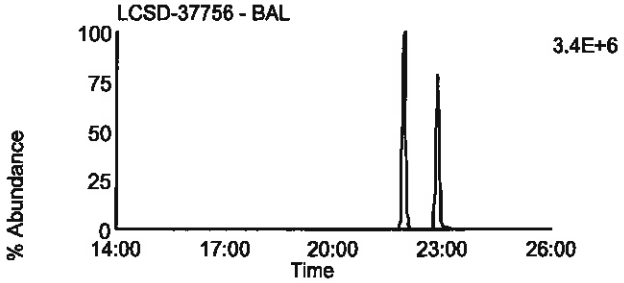
Data File: U130917B_02 G1 C8 - 321.8936
LCSD-37756 - BAL



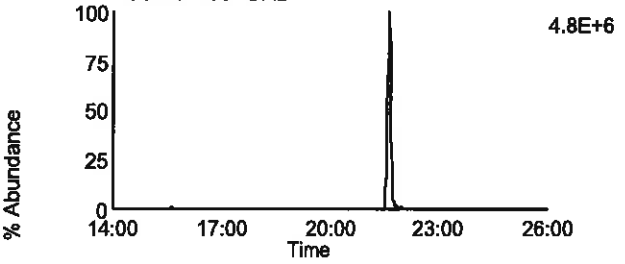
Data File: U130917B_02 G1 C3 - 315.9418
LCSD-37756 - BAL



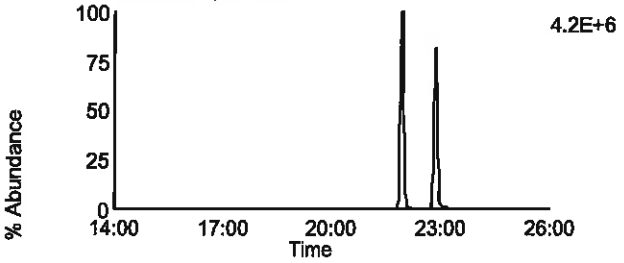
Data File: U130917B_02 G1 C10 - 331.9367
LCSD-37756 - BAL



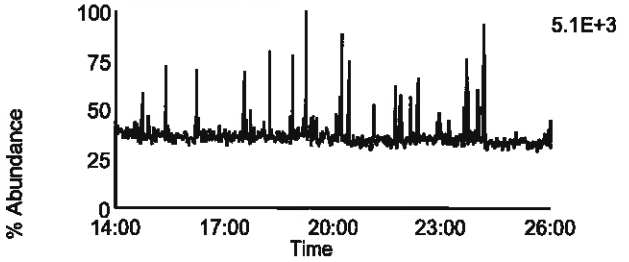
Data File: U130917B_02 G1 C4 - 317.9389
LCSD-37756 - BAL



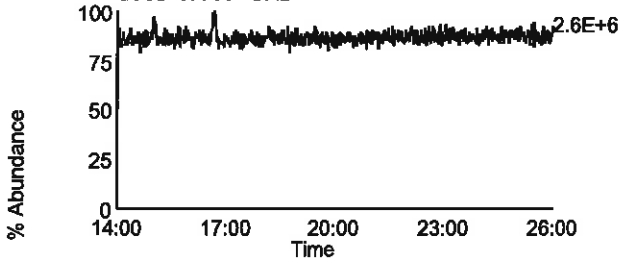
Data File: U130917B_02 G1 C11 - 333.9338
LCSD-37756 - BAL



Data File: U130917B_02 G1 C14 - 375.8364
LCSD-37756 - BAL



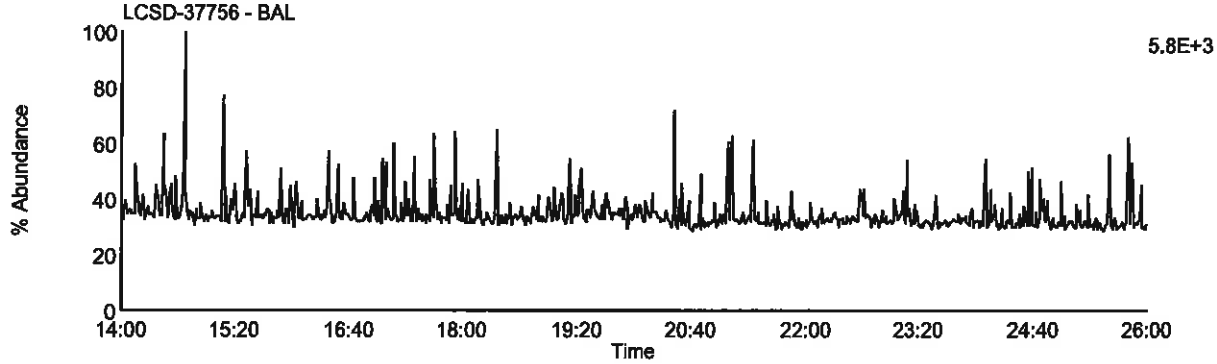
Data File: U130917B_02 G1 C5 - 318.9792
LCSD-37756 - BAL



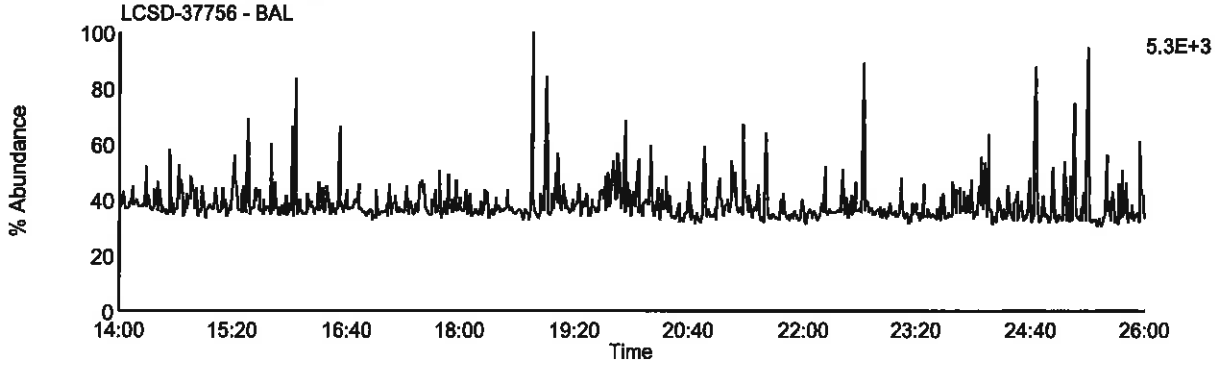
Homologue Group: Penta & Cleanup

Data File Name: U130917B_02	Lab Sample ID: LCSD-37756
Date Acquired: 9/18/2013	Client Sample ID: LCSFT
Sample Description: LCSD-37756 - BAL	Instrument: 10MSHR06 (U)

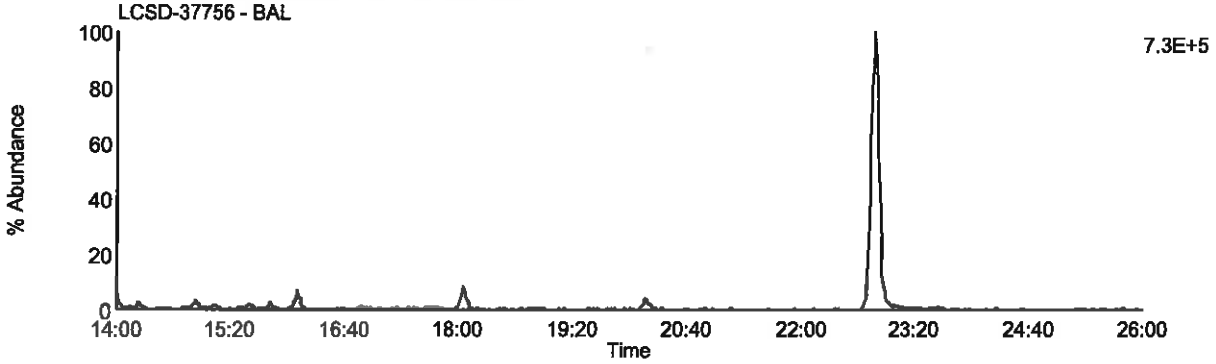
Data File: U130917B_02 G1 C12 - 339.8597
LCSD-37756 - BAL



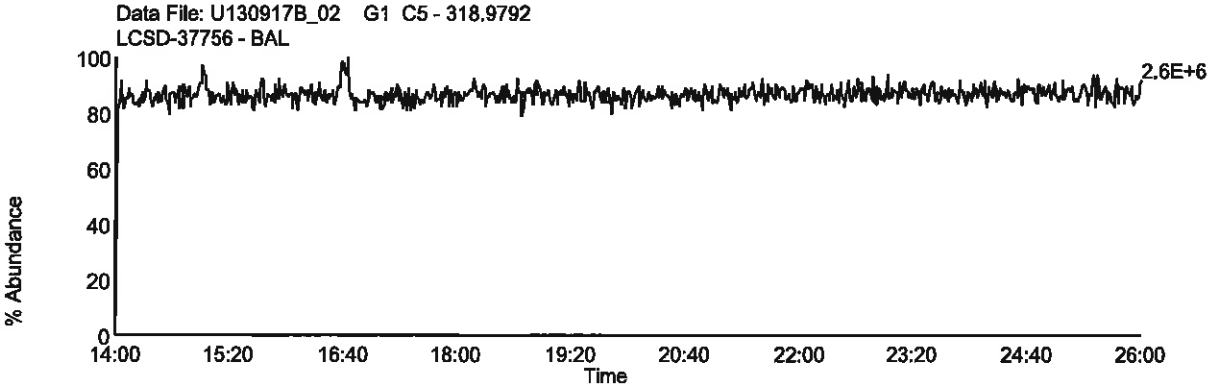
Data File: U130917B_02 G1 C13 - 341.8567
LCSD-37756 - BAL



Data File: U130917B_02 G1 C9 - 327.8847
LCSD-37756 - BAL



Data File: U130917B_02 G1 C5 - 318.9792
LCSD-37756 - BAL

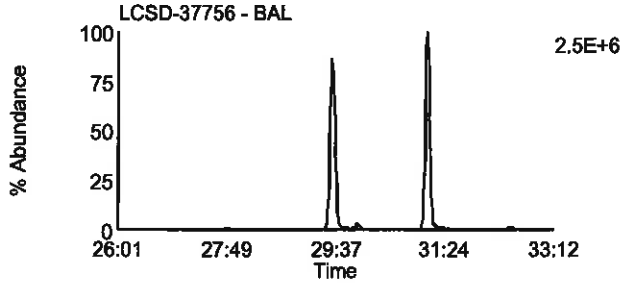


Homologue Group: Pentas

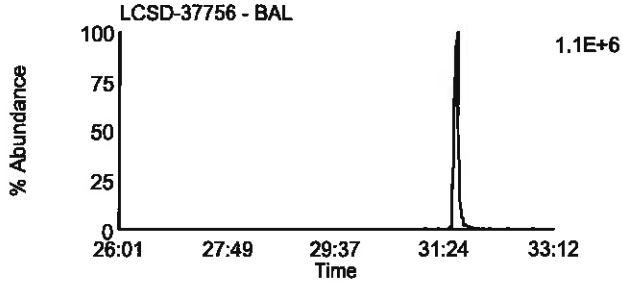
Data File Name: U130917B_02
Date Acquired: 9/18/2013
Sample Description: LCSD-37756 - BAL

Lab Sample ID: LCSD-37756
Client Sample ID: LCSFT
Instrument: 10MSHR06 (U)

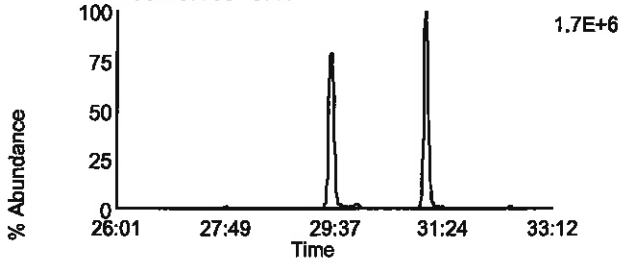
Data File: U130917B_02 G2 C1 - 339.8597
LCSD-37756 - BAL



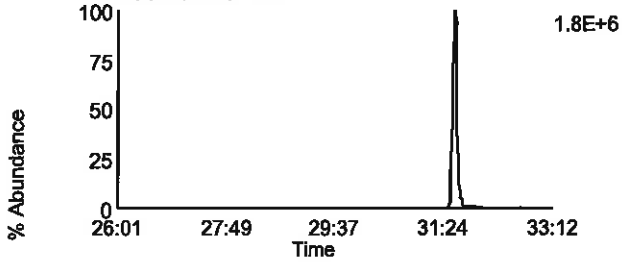
Data File: U130917B_02 G2 C4 - 353.8576
LCSD-37756 - BAL



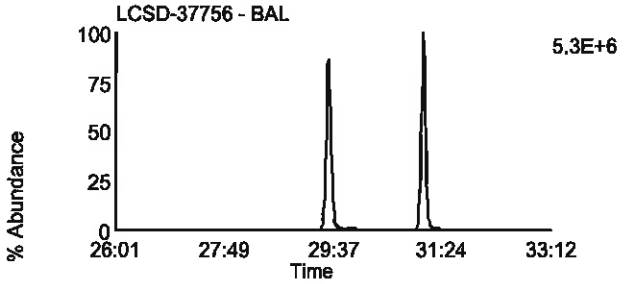
Data File: U130917B_02 G2 C2 - 341.8567
LCSD-37756 - BAL



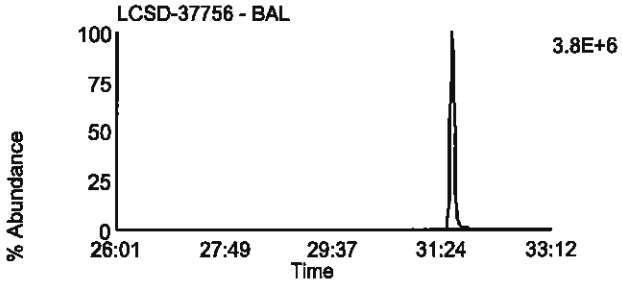
Data File: U130917B_02 G2 C8 - 355.8546
LCSD-37756 - BAL



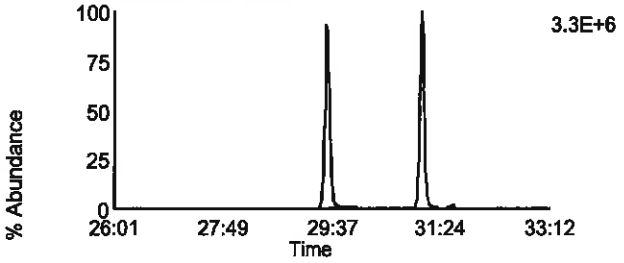
Data File: U130917B_02 G2 C3 - 351.8999
LCSD-37756 - BAL



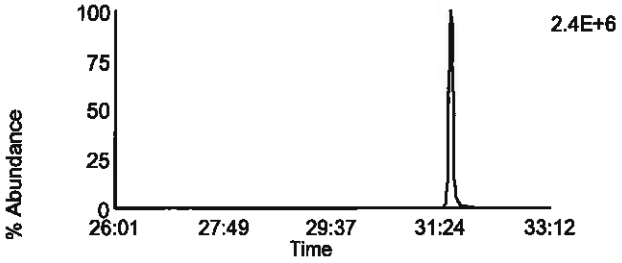
Data File: U130917B_02 G2 C10 - 367.8948
LCSD-37756 - BAL



Data File: U130917B_02 G2 C5 - 353.8969
LCSD-37756 - BAL



Data File: U130917B_02 G2 C11 - 369.8918
LCSD-37756 - BAL



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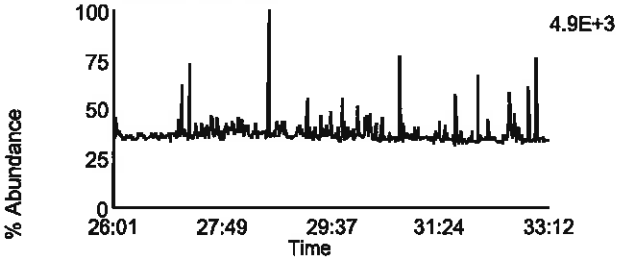
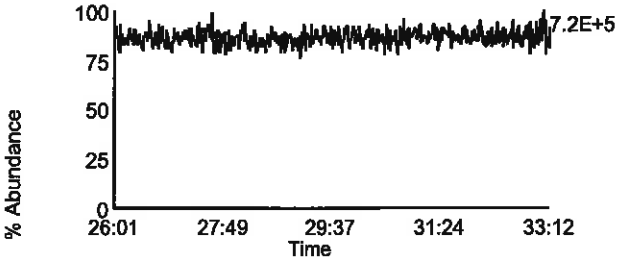
LCSD-37756 - BAL



Data File: U130917B_02 G2 C6 - 354.9792
LCSD-37756 - BAL

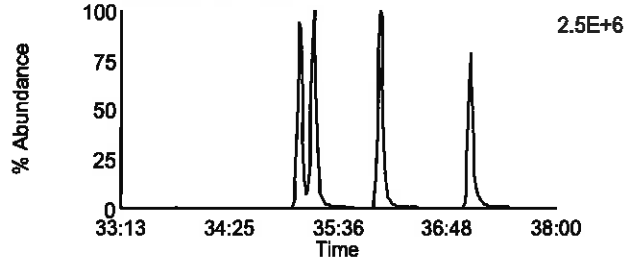


Homologue Group: Hexas

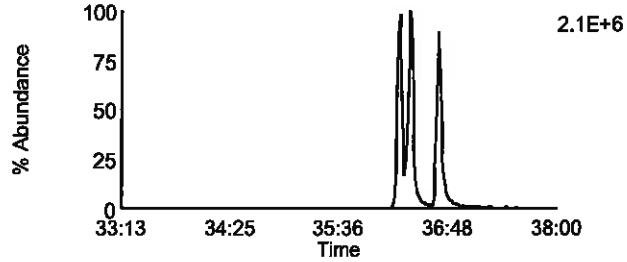
Data File Name: U130917B_02
Date Acquired: 9/18/2013
Sample Description: LCSD-37756 - BAL

Lab Sample ID: LCSD-37756
Client Sample ID: LCSFT
Instrument: 10MSHR06 (U)

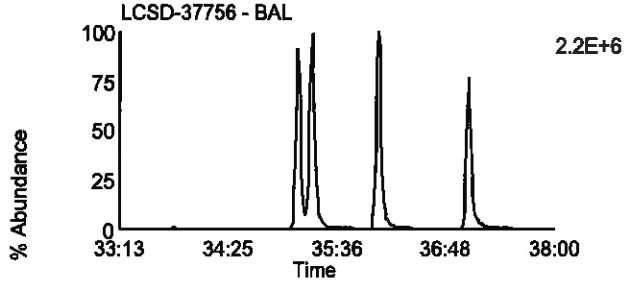
Data File: U130917B_02 G3 C1 - 373.8207
LCSD-37756 - BAL



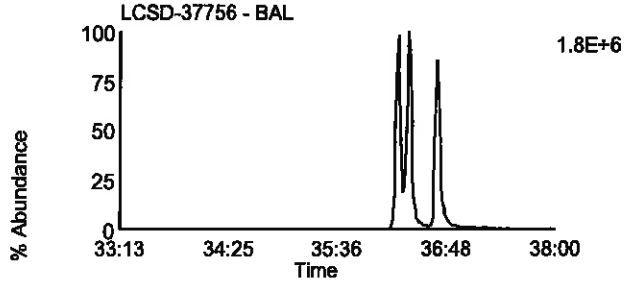
Data File: U130917B_02 G3 C7 - 389.8156
LCSD-37756 - BAL



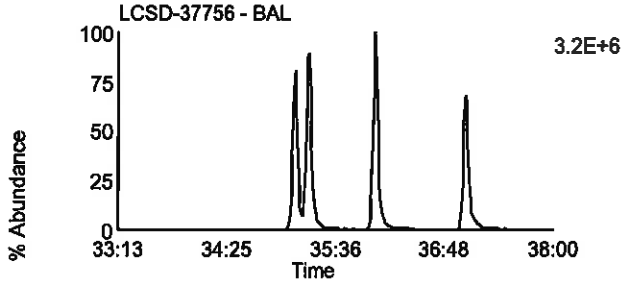
Data File: U130917B_02 G3 C2 - 375.8178
LCSD-37756 - BAL



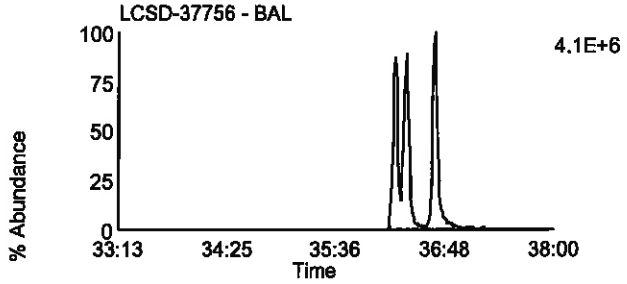
Data File: U130917B_02 G3 C8 - 391.8127
LCSD-37756 - BAL



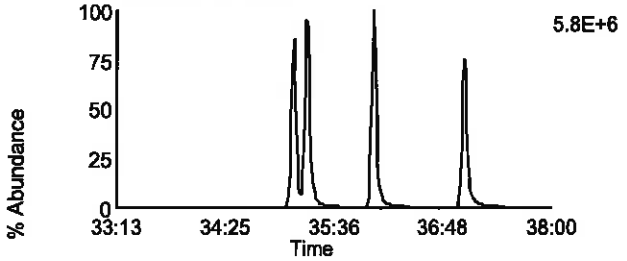
Data File: U130917B_02 G3 C5 - 383.8639
LCSD-37756 - BAL



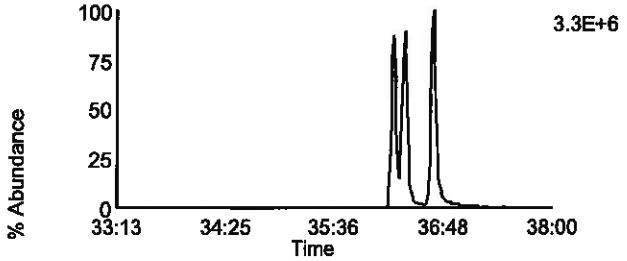
Data File: U130917B_02 G3 C9 - 401.8559
LCSD-37756 - BAL



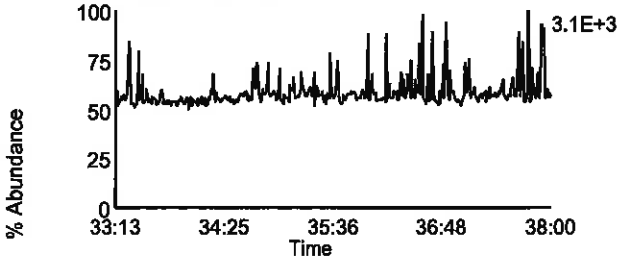
Data File: U130917B_02 G3 C6 - 385.861
LCSD-37756 - BAL



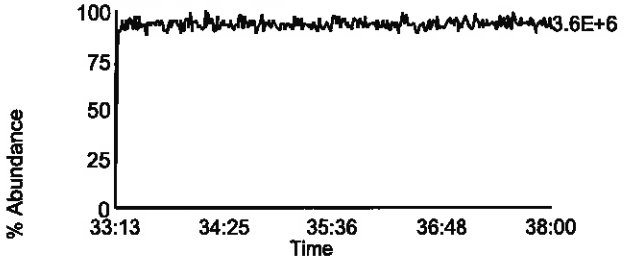
Data File: U130917B_02 G3 C10 - 403.8529
LCSD-37756 - BAL



Data File: U130917B_02 G3 C11 - 445.7555
LCSD-37756 - BAL



Data File: U130917B_02 G3 C3 - 380.976
LCSD-37756 - BAL

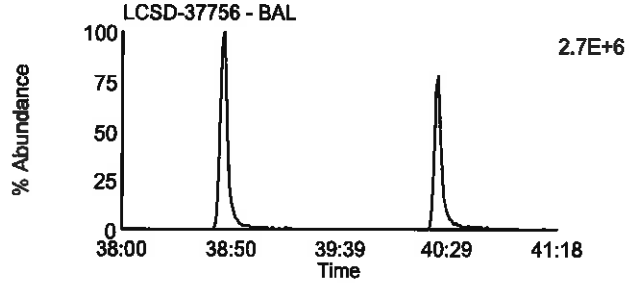


Homologue Group: Heptas

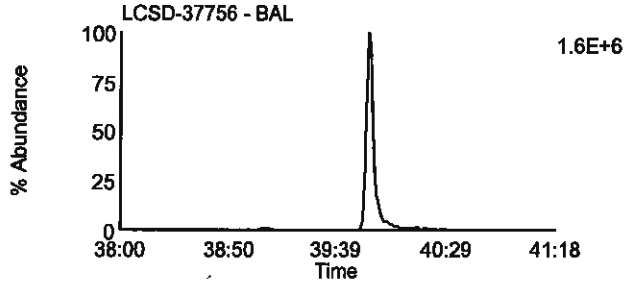
Data File Name: U130917B_02
Date Acquired: 9/18/2013
Sample Description: LCSD-37756 - BAL

Lab Sample ID: LCSD-37756
Client Sample ID: LCSFT
Instrument: 10MSHR06 (U)

Data File: U130917B_02 G4 C3 - 407.7818
LCSD-37756 - BAL



Data File: U130917B_02 G4 C8 - 423.7767
LCSD-37756 - BAL



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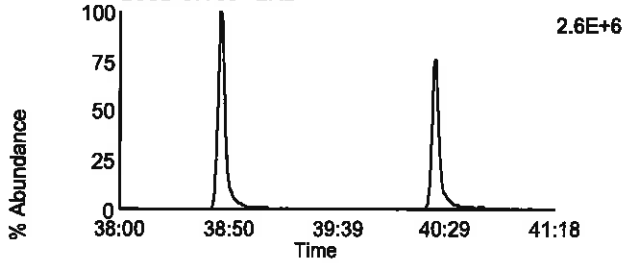
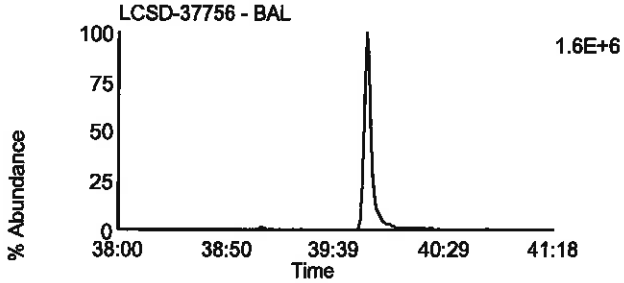
LCSD-37756 - BAL



Data File: U130917B_02 G4 C9 - 425.7737
LCSD-37756 - BAL



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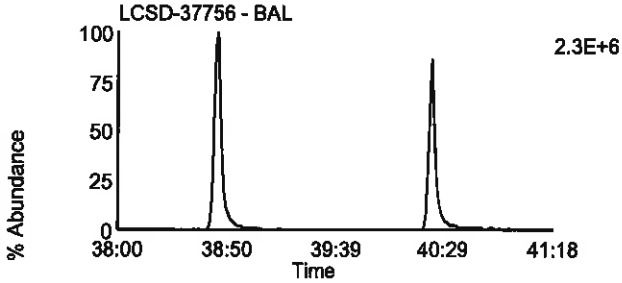
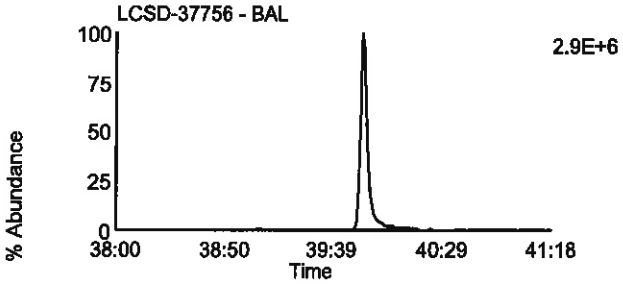
LCSD-37756 - BAL



Data File: U130917B_02 G4 C11 - 435.8169
LCSD-37756 - BAL



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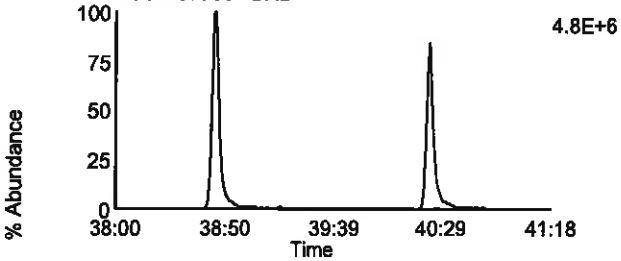
LCSD-37756 - BAL



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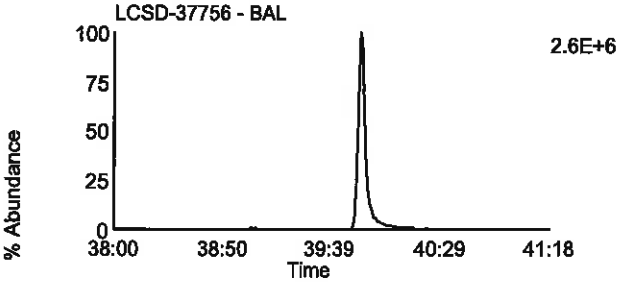
LCSD-37756 - BAL



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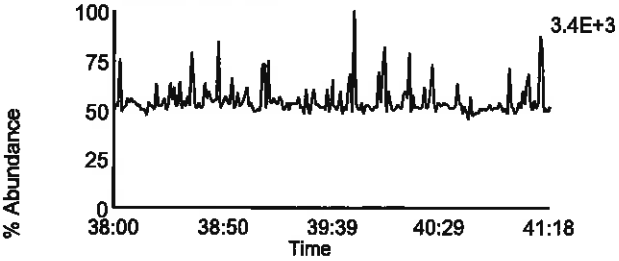
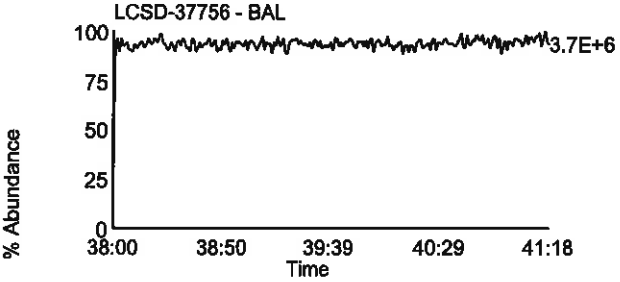
LCSD-37756 - BAL



Data File: U130917B_02 G4 C1 - 380.976
LCSD-37756 - BAL

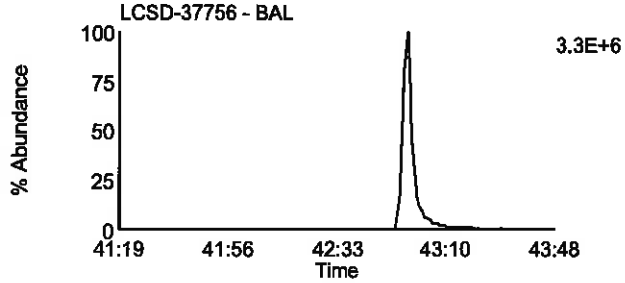


Homologue Group: Octas

Data File Name: U130917B_02
Date Acquired: 9/18/2013
Sample Description: LCSD-37756 - BAL

Lab Sample ID: LCSD-37756
Client Sample ID: LCSFT
Instrument: 10MSHR06 (U)

Data File: U130917B_02 G5 C4 - 441.7428
LCSD-37756 - BAL



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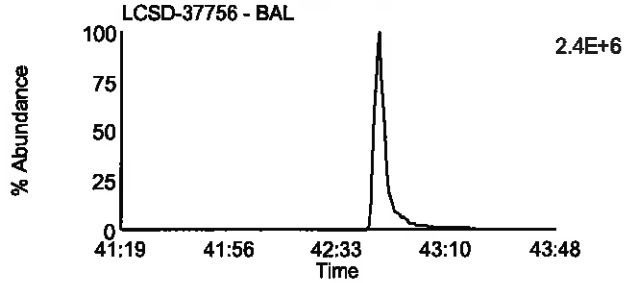
LCSD-37756 - BAL



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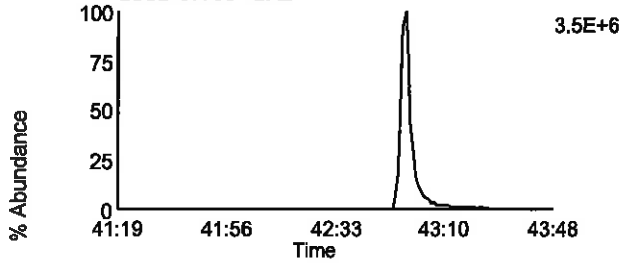
LCSD-37756 - BAL



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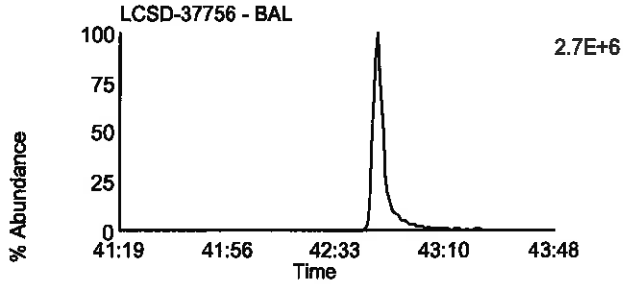
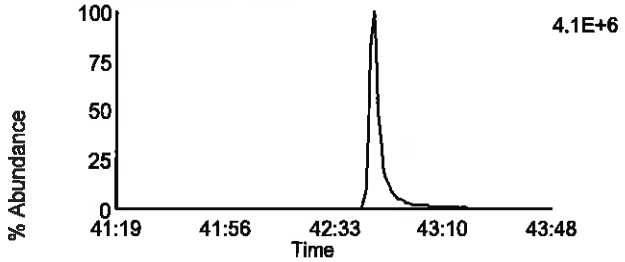
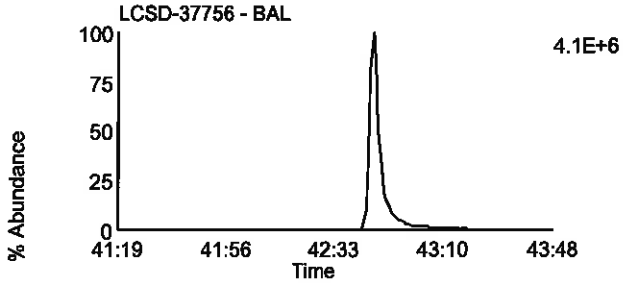
LCSD-37756 - BAL



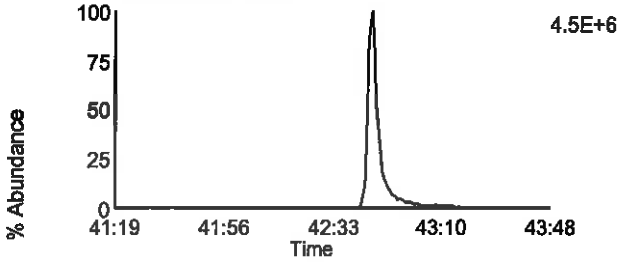
Data File: U130917B_02 G5 C11 - 469.7779
LCSD-37756 - BAL



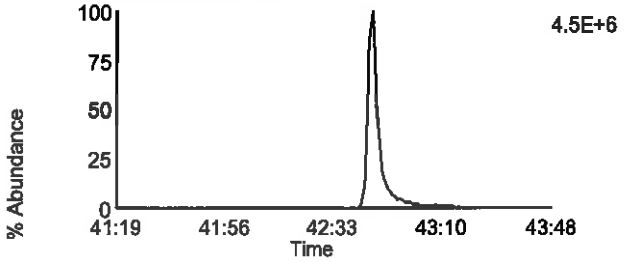
Data File: U130917B_02 G5 C11 - 469.7779
LCSD-37756 - BAL



Data File: U130917B_02 G5 C12 - 471.7749
LCSD-37756 - BAL



Data File: U130917B_02 G5 C12 - 471.7749
LCSD-37756 - BAL



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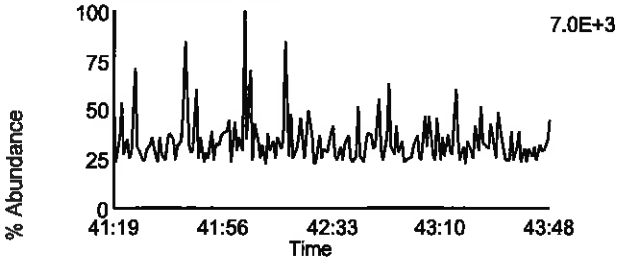
LCSD-37756 - BAL



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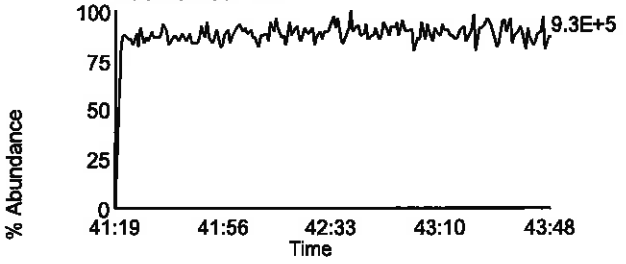
LCSD-37756 - BAL



Pace Analytical Services, Inc.
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Fax: 612- 607-6444

PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client ID		Injected By	BAL
Lab ID	BLANK-37754	Instrument ID	10MSHR06 (U)
Filename	U130917B_05	GC Column ID	USD227224H
Analyzed	09/18/2013 05:55	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:38	2.55e7	3.23e7	3.89e6	5.01e6	6.174e3	2.841e3	0.79	
2,3,7,8-TCDF	21:38	8.12e3	2.26e4	2.20e3	5.38e3	6.751e2	6.466e2	0.36	I
Other TCDF 1	21:57	8.44e3	1.20e4					0.70	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:54	2.26e7	2.81e7	3.59e6	4.41e6	3.891e3	1.071e3	0.80	
2,3,7,8-TCDD-13C	22:50	1.83e7	2.31e7	2.75e6	3.45e6	4.672e3	2.239e3	0.79	
2,3,7,8-TCDD-37Cl4	22:52	4.78e6		7.28e5		1.069e3	----		
2,3,7,8-TCDD	22:53	ND	ND	ND	ND	5.594e2	8.325e2		

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:32	2.66e7	1.71e7	4.52e6	2.88e6	1.870e4	2.953e3	1.55	
2,3,4,7,8-PeCDF-13C	31:06	2.76e7	1.79e7	5.48e6	3.58e6	5.220e3	1.517e3	1.54	
1,2,3,7,8-PeCDF	29:34	ND	ND	ND	ND	4.308e2	2.833e2		
2,3,4,7,8-PeCDF	31:06	ND	ND	ND	ND	4.194e2	3.504e2		

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:34	1.89e7	1.20e7	4.08e6	2.54e6	7.835e1	1.193e3	1.58	
1,2,3,7,8-PeCDD	31:36	ND	ND	ND	ND	4.589e2	4.346e2		

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:10	1.06e7	2.03e7	2.67e6	5.17e6	2.958e2	6.587e2	0.52	
1,2,3,6,7,8-HxCDF-13C	35:20	1.38e7	2.67e7	3.05e6	5.69e6	4.090e2	3.384e2	0.52	
2,3,4,6,7,8-HxCDF-13C	36:03	1.29e7	2.56e7	3.11e6	5.84e6	4.903e1	4.593e2	0.50	
1,2,3,7,8,9-HxCDF-13C	37:02	1.04e7	2.09e7	2.31e6	4.63e6	1.363e4	5.993e3	0.50	
1,2,3,4,7,8-HxCDF	35:12	ND	ND	ND	ND	3.948e2	3.575e2		
1,2,3,6,7,8-HxCDF	35:21	ND	ND	ND	ND	3.894e2	3.939e2		
2,3,4,6,7,8-HxCDF	36:04	ND	ND	ND	ND	3.894e2	2.704e2		
1,2,3,7,8,9-HxCDF	37:03	ND	ND	ND	ND	3.501e2	3.264e2		

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Client ID		Injected By	BAL
Lab ID	BLANK-37754	Instrument ID	10MSHR06 (U)
Filename	U130917B_05	GC Column ID	USD227224H
Analyzed	09/18/2013 05:55	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:15	1.50e7	1.18e7	4.05e6	3.16e6	4.898e3	4.614e3	1.27	
1,2,3,6,7,8-HxCDD-13C	36:22	1.75e7	1.39e7	3.96e6	3.10e6	2.729e3	6.384e2	1.26	
1,2,3,7,8,9-HxCDD-13C	36:41	2.14e7	1.67e7	4.69e6	3.58e6	4.624e3	3.064e2	1.28	
1,2,3,4,7,8-HxCDD	36:16	ND	ND	ND	ND	8.120e2	5.872e2		
1,2,3,6,7,8-HxCDD	36:23	ND	ND	ND	ND	9.553e2	5.867e2		
1,2,3,7,8,9-HxCDD	36:42	ND	ND	ND	ND	7.089e2	5.439e2		
Other HxCDD 1	35:04	4.01e3	3.59e3					1.12	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:46	9.36e6	2.03e7	2.28e6	4.98e6	7.476e2	8.725e2	0.46	
1,2,3,4,7,8,9-HpCDF-13C	40:24	7.13e6	1.57e7	1.73e6	3.78e6	2.741e3	1.555e3	0.45	
1,2,3,4,6,7,8-HpCDF	38:47	ND	ND	ND	ND	5.901e2	6.309e2		
1,2,3,4,7,8,9-HpCDF	40:25	ND	ND	ND	ND	7.959e2	5.860e2		

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:54	1.16e7	1.07e7	2.75e6	2.61e6	2.791e4	8.735e2	1.09	
1,2,3,4,6,7,8-HpCDD	39:55	4.68e3	1.13e4	2.31e3	4.75e3	8.924e2	5.941e2	0.41	I

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:57	1.22e4	2.39e4	4.53e3	7.38e3	6.013e2	1.036e3	0.51	I

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:47	1.83e7	2.05e7	3.97e6	4.44e6	2.468e2	1.716e2	0.89	
OCDD	42:47	1.69e4	3.52e4	3.58e3	9.29e3	1.347e3	9.039e2	0.48	I

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client ID	LCSFS	Injected By	BAL
Lab ID	LCS-37755	Instrument ID	10MSHR06 (U)
Filename	U130917B_01	GC Column ID	USD227224H
Analyzed	09/18/2013 02:48	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:38	3.25e6	3.88e6	4.87e5	6.10e5	----	----	0.84	
2,3,7,8-TCDF	21:39	2.57e5	3.77e5	4.72e4	6.85e4	----	----	0.68	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:55	2.19e7	2.71e7	3.53e6	4.45e6	----	----	0.81	
2,3,7,8-TCDD-13C	22:50	2.27e6	2.87e6	3.39e5	4.31e5	----	----	0.79	
2,3,7,8-TCDD-37Cl4	22:52	5.81e5		9.89e4		----	----		
2,3,7,8-TCDD	22:53	2.50e5	3.11e5	3.53e4	4.85e4	----	----	0.80	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:32	4.75e6	3.17e6	8.26e5	5.46e5	----	----	1.50	
2,3,4,7,8-PeCDF-13C	31:06	4.64e6	2.96e6	9.35e5	6.18e5	----	----	1.57	
1,2,3,7,8-PeCDF	29:34	2.13e6	1.38e6	3.78e5	2.51e5	----	----	1.54	
2,3,4,7,8-PeCDF	31:07	2.09e6	1.45e6	4.15e5	3.18e5	----	----	1.44	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:34	3.11e6	1.98e6	6.69e5	4.12e5	----	----	1.56	
1,2,3,7,8-PeCDD	31:37	9.33e5	1.51e6	2.01e5	2.99e5	----	----	0.62	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:10	2.20e6	4.31e6	6.01e5	1.13e6	----	----	0.51	
1,2,3,6,7,8-HxCDF-13C	35:20	2.67e6	5.35e6	6.19e5	1.20e6	----	----	0.50	
2,3,4,6,7,8-HxCDF-13C	36:03	2.84e6	5.42e6	7.50e5	1.38e6	----	----	0.52	
1,2,3,7,8,9-HxCDF-13C	37:02	2.43e6	4.57e6	6.10e5	1.07e6	----	----	0.53	
1,2,3,4,7,8-HxCDF	35:11	1.99e6	1.55e6	4.93e5	4.26e5	----	----	1.29	
1,2,3,6,7,8-HxCDF	35:21	2.20e6	1.87e6	5.82e5	4.39e5	----	----	1.18	
2,3,4,6,7,8-HxCDF	36:04	2.39e6	2.00e6	6.52e5	5.32e5	----	----	1.19	
1,2,3,7,8,9-HxCDF	37:03	1.94e6	1.58e6	5.01e5	3.93e5	----	----	1.23	

REPORT OF LABORATORY ANALYSIS

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Client ID	LCSFS	Injected By	BAL
Lab ID	LCS-37755	Instrument ID	10MSHR06 (U)
Filename	U130917B_01	GC Column ID	USD227224H
Analyzed	09/18/2013 02:48	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:15	2.66e6	2.14e6	6.85e5	6.00e5	-----	-----	1.25	
1,2,3,6,7,8-HxCDD-13C	36:22	3.16e6	2.48e6	7.63e5	6.32e5	-----	-----	1.28	
1,2,3,7,8,9-HxCDD-13C	36:41	1.77e7	1.42e7	4.18e6	3.29e6	-----	-----	1.25	
1,2,3,4,7,8-HxCDD	36:15	1.44e6	1.15e6	4.04e5	3.12e5	-----	-----	1.25	
1,2,3,6,7,8-HxCDD	36:23	1.58e6	1.26e6	3.75e5	3.21e5	-----	-----	1.26	
1,2,3,7,8,9-HxCDD	36:41	1.76e6	1.52e6	4.37e5	3.40e5	-----	-----	1.16	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:46	2.55e6	5.31e6	6.73e5	1.40e6	-----	-----	0.48	
1,2,3,4,7,8,9-HpCDF-13C	40:24	1.70e6	3.96e6	5.31e5	1.10e6	-----	-----	0.43	
1,2,3,4,6,7,8-HpCDF	38:47	2.99e6	2.94e6	8.11e5	7.69e5	-----	-----	1.02	
1,2,3,4,7,8,9-HpCDF	40:25	1.97e6	1.92e6	5.34e5	5.00e5	-----	-----	1.03	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:54	2.90e6	2.61e6	7.20e5	6.57e5	-----	-----	1.11	
1,2,3,4,6,7,8-HpCDD	39:55	1.45e6	1.45e6	4.20e5	3.98e5	-----	-----	1.00	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:57	3.44e6	3.85e6	8.19e5	9.91e5	-----	-----	0.89	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:47	5.05e6	5.45e6	1.27e6	1.37e6	-----	-----	0.93	
OCDD	42:48	2.75e6	3.08e6	6.70e5	7.49e5	-----	-----	0.89	

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client ID	LCSFT	Injected By	BAL
Lab ID	LCSD-37756	Instrument ID	10MSHR06 (U)
Filename	U130917B_02	GC Column ID	USD227224H
Analyzed	09/18/2013 03:34	ICAL ID	U130729

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	21:39	2.54e7	3.18e7	3.84e6	4.77e6	-----	-----	0.80	
2,3,7,8-TCDF	21:40	2.32e6	3.27e6	4.15e5	5.29e5	-----	-----	0.71	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	21:55	2.13e7	2.68e7	3.37e6	4.16e6	-----	-----	0.79	
2,3,7,8-TCDD-13C	22:51	1.83e7	2.29e7	2.65e6	3.40e6	-----	-----	0.80	
2,3,7,8-TCDD-37Cl4	22:53	4.89e6		7.26e5		-----	-----		
2,3,7,8-TCDD	22:54	1.99e6	2.52e6	2.70e5	3.94e5	-----	-----	0.79	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:32	2.58e7	1.69e7	4.57e6	3.09e6	-----	-----	1.53	
2,3,4,7,8-PeCDF-13C	31:06	2.63e7	1.70e7	5.27e6	3.30e6	-----	-----	1.55	
1,2,3,7,8-PeCDF	29:33	1.22e7	7.96e6	2.12e6	1.30e6	-----	-----	1.54	
2,3,4,7,8-PeCDF	31:08	1.27e7	8.45e6	2.46e6	1.65e6	-----	-----	1.50	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	31:34	1.82e7	1.17e7	3.83e6	2.41e6	-----	-----	1.56	
1,2,3,7,8-PeCDD	31:37	5.68e6	9.23e6	1.12e6	1.83e6	-----	-----	0.62	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:10	9.85e6	1.88e7	2.57e6	4.91e6	-----	-----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:20	1.24e7	2.37e7	2.84e6	5.50e6	-----	-----	0.52	
2,3,4,6,7,8-HxCDF-13C	36:03	1.19e7	2.24e7	3.19e6	5.77e6	-----	-----	0.53	
1,2,3,7,8,9-HxCDF-13C	37:02	9.51e6	1.87e7	2.18e6	4.40e6	-----	-----	0.51	
1,2,3,4,7,8-HxCDF	35:11	9.36e6	7.67e6	2.39e6	1.96e6	-----	-----	1.22	
1,2,3,6,7,8-HxCDF	35:21	1.06e7	8.93e6	2.52e6	2.13e6	-----	-----	1.19	
2,3,4,6,7,8-HxCDF	36:04	1.06e7	8.61e6	2.52e6	2.15e6	-----	-----	1.23	
1,2,3,7,8,9-HxCDF	37:03	8.32e6	6.66e6	1.97e6	1.64e6	-----	-----	1.25	

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Client ID	LCSFT	Injected By	BAL
Lab ID	LCSD-37756	Instrument ID	10MSHR06 (U)
Filename	U130917B_02	GC Column ID	USD227224H
Analyzed	09/18/2013 03:34	ICAL ID	U130729

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:15	1.35e7	1.06e7	3.59e6	2.84e6	----	----	1.28	
1,2,3,6,7,8-HxCDD-13C	36:22	1.56e7	1.25e7	3.67e6	2.91e6	----	----	1.25	
1,2,3,7,8,9-HxCDD-13C	36:41	1.81e7	1.42e7	4.10e6	3.27e6	----	----	1.28	
1,2,3,4,7,8-HxCDD	36:16	7.44e6	6.19e6	2.01e6	1.72e6	----	----	1.20	
1,2,3,6,7,8-HxCDD	36:23	8.83e6	7.02e6	2.05e6	1.75e6	----	----	1.26	
1,2,3,7,8,9-HxCDD	36:42	8.09e6	6.64e6	1.84e6	1.50e6	----	----	1.22	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:46	8.87e6	1.90e7	2.25e6	4.79e6	----	----	0.47	
1,2,3,4,7,8,9-HpCDF-13C	40:24	6.78e6	1.50e7	1.95e6	4.05e6	----	----	0.45	
1,2,3,4,6,7,8-HpCDF	38:47	1.08e7	1.05e7	2.68e6	2.64e6	----	----	1.03	
1,2,3,4,7,8,9-HpCDF	40:25	8.01e6	7.79e6	2.07e6	2.00e6	----	----	1.03	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	39:54	1.10e7	9.99e6	2.89e6	2.55e6	----	----	1.10	
1,2,3,4,6,7,8-HpCDD	39:55	6.25e6	6.08e6	1.59e6	1.60e6	----	----	1.03	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	42:57	1.32e7	1.49e7	3.28e6	3.46e6	----	----	0.89	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	42:47	1.77e7	1.94e7	4.11e6	4.51e6	----	----	0.91	
OCDD	42:48	1.08e7	1.19e7	2.44e6	2.74e6	----	----	0.91	

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APPENDIX H

LABORATORY DATA VALIDATION

LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123
ATTN: Ms. Lisa Bestard

February 19, 2014

SUBJECT: Clairemont HS, Data Validation

Dear Ms. Bestard,

Enclosed is the final validation report for the fractions listed below. This SDG was received on January 29, 2014. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 31236:

SDG #	Fraction
1302545/1302547/ 1302581	Semivolatiles, Chlorinated Pesticides, Metals, Total Petroleum Hydrocarbons as Extractables

The data validation was performed under EPA Level III guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA, Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008
- USEPA, Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, January 2010
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; Update IV, February 2007

Please feel free to contact us if you have any questions.

Sincerely,

Andrew Kong
Operations Manager/ Chemist

L:\Ninyo\School Sites\26469COV.wpd

Attachment 1

Level III

LDC #31236 (Ninyo & Moore-San Diego / Clairmont HS)

Project#105338088

LDC	SDG#	DATE REC'D	(3) DATE DUE	SVOA (8270C-SIM)		Pest (8081A)		Metals (6010B)		Lead (6010B)		STLC Lead (6010B)		Hg (7471A)		TPHE (8015B)																					
Matrix:	Water/Soil			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	1302545/1302547/ 1302581	01/29/14	02/20/14	0	11	0	11	0	17	0	21	0	4	0	17	0	11																				
Total	A/AK			0	11	0	11	0	17	0	21	0	4	0	17	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	92

Shaded cells indicate Level IV validation (all other cells are Level III validation). These sample counts do not include MS/MSD, and DUPs

31236ST.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Clairmont HS
Collection Date:	August 20 through August 22, 2013
LDC Report Date:	February 14, 2014
Matrix:	Soil
Parameters:	Semivolatiles
Validation Level:	EPA Level III
Laboratory:	Advanced Technology Laboratories
Sample Delivery Group (SDG):	1302545/1302547/1302581

Sample Identification

T-12-S
T-12-9.5
T-13-4
T-14-21
T-15-14
T-16-9
T-16-12
T-22-1
T-23-3
Dup-2
Dup-1
T-16-12MS
T-16-12MSD
T-23-3MS
T-23-3MSD

Introduction

This data review covers 15 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C using Selected Ion Monitoring (SIM) for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the validation criteria of less than or equal to 20.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
8/27/13	Naphthalene 2-Methylnaphthalene Benzo(a)anthracene	27.0 25.2 20.4	T-22-1 T-23-3 Dup-2 Dup-1 T-23-3MS T-23-3MSD B3H0509	J (all detects) UJ (all non-detects)	A

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples T-22-1 and Dup-1 and samples T-23-3 and Dup-2 were identified as field duplicates. No semivolatiles were detected in any of the samples.

Clairmont HS
Semivolatiles - Data Qualification Summary - SDG 1302545/1302547/1302581

SDG	Sample	Compound	Flag	A or P	Reason
1302545/ 1302547/ 1302581	T-22-1 T-23-3 Dup-2 Dup-1	Naphthalene 2-Methylnaphthalene Benzo(a)anthracene	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)

Clairmont HS
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 1302545/1302547/1302581

No Sample Data Qualified in this SDG

Clairmont HS
Semivolatiles - Field Blank Data Qualification Summary - SDG 1302545/1302547/1302581

No Sample Data Qualified in this SDG

LDC #: 31236A2b **VALIDATION COMPLETENESS WORKSHEET** Date: 2/12/14
SDG #: 1302545/1302547/1302581 Level III Page: 1 of 1
Laboratory: Advanced Technology Laboratories Reviewer: FJ
2nd Reviewer: A

METHOD: GC/MS Semivolatiles(EPA SW 846 Method 8270C-SIM)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 8/20 – 8/22/13
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD ≤ 15/30
IV.	Continuing calibration/ICV	SW	ICV/CCV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	ND	D = 8 + 11 9 + 10
XVII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

SOIL

1	T-12-S	11	Dup-1	21	B3I0021	31	
2	~~T-13-S~~ T-12-9.5	12	T-16-12MS	22	B3H0509	32	
3	T-13-4	13	T-16-12MSD	23		33	
4	T-14-21	14	T-23-3MS	24		34	
5	T-15-14	15	T-23-3MSD	25		35	
6	T-16-9	16		26		36	
7	T-16-12	17		27		37	
8	T-22-1	18		28		38	
9	T-23-3	19		29		39	
10	Dup-2	20		30		40	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS SVOA

A. Phenol	T. 4-Chloroaniline	MM. 4-Chlorophenyl-phenyl ether	FFF. Di-n-octylphthalate	YYY. 2,3,5-Trimethylnaphthalene
B. Bis (2-chloroethyl) ether	U. Hexachlorobutadiene	NN. Fluorene	GGG. Benzo(b)fluoranthene	ZZZ. Perylene
C. 2-Chlorophenol	V. 4-Chloro-3-methylphenol	OO. 4-Nitroaniline	HHH. Benzo(k)fluoranthene	AAAA. Dibenzothiophene
D. 1,3-Dichlorobenzene	W. 2-Methylnaphthalene	PP. 4,6-Dinitro-2-methylphenol	III. Benzo(a)pyrene	BBBB. Benzo(a)fluoranthene
E. 1,4-Dichlorobenzene	X. Hexachlorocyclopentadiene	QQ. N-Nitrosodiphenylamine	JJJ. Indeno(1,2,3-cd)pyrene	CCCC. Benzo(b)fluorene
F. 1,2-Dichlorobenzene	Y. 2,4,6-Trichlorophenol	RR. 4-Bromophenyl-phenylether	KKK. Dibenz(a,h)anthracene	DDDD. cis/trans-Decalin
G. 2-Methylphenol	Z. 2,4,5-Trichlorophenol	SS. Hexachlorobenzene	LLL. Benzo(g,h,i)perylene	EEEE. Biphenyl
H. 2,2'-Oxybis(1-chloropropane)	AA. 2-Chloronaphthalene	TT. Pentachlorophenol	MMM. Bis(2-Chloroisopropyl)ether	FFFF. Retene
I. 4-Methylphenol	BB. 2-Nitroaniline	UU. Phenanthrene	NNN. Aniline	GGGG. C30-Hopane
J. N-Nitroso-di-n-propylamine	CC. Dimethylphthalate	VV. Anthracene	OOO. N-Nitrosodimethylamine	HHHH. 1-Methylphenanthrene
K. Hexachloroethane	DD. Acenaphthylene	WW. Carbazole	PPP. Benzoic Acid	IIII. 1,4-Dioxane
L. Nitrobenzene	EE. 2,6-Dinitrotoluene	XX. Di-n-butylphthalate	QQQ. Benzyl alcohol	JJJJ. Acetophenone
M. Isophorone	FF. 3-Nitroaniline	YY. Fluoranthene	RRR. Pyridine	KKKK. Atrazine
N. 2-Nitrophenol	GG. Acenaphthene	ZZ. Pyrene	SSS. Benzidine	LLLL. Benzaldehyde
O. 2,4-Dimethylphenol	HH. 2,4-Dinitrophenol	AAA. Butylbenzylphthalate	TTT. 1-Methylnaphthalene	MMMM. Caprolactam
P. Bis(2-chloroethoxy)methane	II. 4-Nitrophenol	BBB. 3,3'-Dichlorobenzidine	UUU.Benzo(b)thiophene	NNNN.
Q. 2,4-Dichlorophenol	JJ. Dibenzofuran	CCC. Benzo(a)anthracene	VVV.Benzonaphthothiophene	OOOO.
R. 1,2,4-Trichlorobenzene	KK. 2,4-Dinitrotoluene	DDD. Chrysene	WWW.Benzo(e)pyrene	PPPP.
S. Naphthalene	LL. Diethylphthalate	EEE. Bis(2-ethylhexyl)phthalate	XXX. 2,6-Dimethylnaphthalene	QQQQ.

LDC #: 31236A2b

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours of sample analysis for each instrument?
Y N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?
Y N N/A Were all %D and RRFs within the validation criteria of ≤20 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: ≤20.0%)	Finding RRF (Limit: ≥0.05)	Associated Samples	Qualifications
	8/27/13	CCV-MS13	S	27.0		8→11, 14, 15	J / UJ / A
			W	25.2		B3H0509	↓
			CCC	20.4		↓	↓

CONCAL.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Clairemont HS
Collection Date:	August 20 through August 22, 2013
LDC Report Date:	February 18, 2014
Matrix:	Soil
Parameters:	Chlorinated Pesticides
Validation Level:	EPA Level III
Laboratory:	Advanced Technology Laboratories
Sample Delivery Group (SDG):	1302545/1302547/1302581

Sample Identification

T-12-S
T-12-9.5
T-13-4
T-14-21
T-15-14
T-16-9
T-16-12
T-22-1
T-23-3
Dup-2
Dup-1
T-16-12MS
T-16-12MSD
T-23-3MS
T-23-3MSD

Introduction

This data review covers 15 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration was performed as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 20.0% for all compounds with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Flag	A or P
9/4/13	CCV	STX-CLP1	4,4'-DDT	23.5	T-12-S T-12-9.5 T-13-4 T-14-21 T-15-14 T-16-9 T-16-12 T-16-12MS T-16-12MSD B3I0018	J (all detects) UJ (all non-detects)	A

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Flag	A or P
7/30/13	ICV	STX-CLP1	Endrin	27.8	All samples in SDG 1302545/1302547/ 1302581	J (all detects) UJ (all non-detects)	A

Date	Standard	Column	Compound	%D	Associated Samples	Flag	A or P
7/30/13	ICV	STX-CLP1	Endrin	27.8	All samples in SDG 1302545/1302547/ 1302581	J (all detects) UJ (all non-detects)	A
7/30/13	ICV	STX-CLP2	Endrin	23.2	All samples in SDG 1302545/1302547/ 1302581	J (all detects) UJ (all non-detects)	A

The individual 4,4'-DDT and Endrin breakdowns (%BD) were less than or equal to 15.0%.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VIa. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VIb. Internal Standards

All internal standard areas were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XII. Target Compound Identification

Raw data were not reviewed for this SDG.

XIII. Compound Quantitation

Raw data were not reviewed for this SDG.

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

Samples T-22-1 and Dup-1 and samples T-23-3 and Dup-2 were identified as field duplicates. No chlorinated pesticides were detected in any of the samples.

Clairemont HS
Chlorinated Pesticides - Data Qualification Summary - SDG 1302545/1302547/1302581

SDG	Sample	Compound	Flag	A or P	Reason
1302545/ 1302547/ 1302581	T-12-S T-12-9.5 T-13-4 T-14-21 T-15-14 T-16-9 T-16-12	4,4'-DDT	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)
1302545/ 1302547/ 1302581	T-12-S T-12-9.5 T-13-4 T-14-21 T-15-14 T-16-9 T-16-12 T-22-1 T-23-3 Dup-2 Dup-1	Endrin	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D)

Clairemont HS
Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG 1302545/1302547/1302581

No Sample Data Qualified in this SDG

Clairemont HS
Chlorinated Pesticides - Field Blank Data Qualification Summary - SDG 1302545/1302547/1302581

No Sample Data Qualified in this SDG

LDC #: 31236A3a

VALIDATION COMPLETENESS WORKSHEET

Date: 2/12/14

SDG #: 1302545/1302547/1302581

Level III

Page: 1 of 1

Laboratory: Advanced Technology Laboratories

Reviewer: F7

2nd Reviewer: A

METHOD: GC Chlorinated Pesticides (EPA SW 846 Method 8081A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 8/20 – 8/22/13
II.	GC/ECD Instrument Performance Check	A	
III.	Initial calibration	A	% RSD ≤ 20
IV.	Continuing calibration/ICV	SW	% ICV/CCV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS
IX.	Regional quality assurance and quality control	N	
Xa.	Florisil cartridge check	N	
Xb.	GPC Calibration	N	
XI.	Target compound identification	N	
XII.	Compound quantitation and reported CRQLs	N	
XIII.	Overall assessment of data	A	Acceptable IS
XIV.	Field duplicates	ND	D = 8, 11 9, 10
XV.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

SOIL

1 1	T-12-S	11 2	Dup-1	21 1	B3I0018	31	
2 1	~~T-13-S~~ T-12-9.5	12 1	T-16-12MS	22 2	B3H0528	32	
3 1	T-13-4	13 1	T-16-12MSD	23		33	
4 1	T-14-21	14 2	T-23-3MS	24		34	
5 1	T-15-14	15 2	T-23-3MSD	25		35	
6 1	T-16-9	16		26		36	
7 1	T-16-12	17		27		37	
8 2	T-22-1	18		28		38	
9 2	T-23-3	19		29		39	
10 2	Dup-2	20		30		40	

VALIDATION FINDINGS WORKSHEET

METHOD: Pesticide/PCBs (EPA SW 846 Method 8081/8082)

A. alpha-BHC	I. Dieldrin	Q. Endrin ketone	Y. Aroclor-1242	GG. Chlordane
B. beta-BHC	J. 4,4'-DDE	R. Endrin aldehyde	Z. Aroclor-1248	HH. Chlordane (Technical)
C. delta-BHC	K. Endrin	S. alpha-Chlordane	AA. Aroclor-1254	II. Aroclor 1262
D. gamma-BHC	L. Endosulfan II	T. gamma-Chlordane	BB. Aroclor-1260	JJ. Aroclor 1268
E. Heptachlor	M. 4,4'-DDD	U. Toxaphene	CC. 2,4'-DDD	KK. Oxychlordane
F. Aldrin	N. Endosulfan sulfate	V. Aroclor-1016	DD. 2,4'-DDE	LL. trans-Nonachlor
G. Heptachlor epoxide	O. 4,4'-DDT	W. Aroclor-1221	EE. 2,4'-DDT	MM. cis-Nonachlor
H. Endosulfan I	P. Methoxychlor	X. Aroclor-1232	FF. Hexachlorobenzene	NN.

Notes:_____

LDC #: 31236A3a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
What type of continuing calibration calculation was performed? ___%D or ___%R

Y N N/A Were continuing calibration standards analyzed at the required frequencies?
Y N N/A Did the continuing calibration standards meet the %D / %R validation criteria of ≤20.0% / 80-120%?
Level IV Only
Y N N/A Were the retention times for all calibrated compounds within their respective acceptance windows?

#	Date	Standard ID	Detector/ Column	Compound	%D (Limit ≤ 20.0)	RT (limit)	Associated Samples	Qualifications
	7/30/13	ICV	STX-CLP1	K	27.8	( )	All	J/UJ/Δ
			STX-CLP2	K	23.2	( )	↓	↓
						( )		
						( )		
						( )		
						( )		
	9/4/13	CCV	STX-CLP1	θ	23.5	( )	1→7, 12, 13	J/UJ/Δ
						( )	B3I0018	
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Clairemont HS

Collection Date: August 20 through August 22, 2013

LDC Report Date: February 3, 2014

Matrix: Soil

Parameters: Metals

Validation Level: EPA Level III

Laboratory: Advanced Technology Laboratories

Sample Delivery Group (SDG): 1302545/1302547/1302581

Sample Identification

T-12-S	T-18-3	T-15-14(DI STLC)
T-12-2	T-18-5.5	T-16-9(DI STLC)
T-12-9.5	T-19-1	T-12-SMS
T-13-S	T-19-3.5	T-12-SMSD
T-13-2	T-19-7	T-16-9(DI STLC)MS
T-13-4	T-20-1	T-16-9(DI STLC)MSD
T-14-0.5	T-20-3.5	T-16-9(DI STLC)DUP
T-14-5.5	T-20-6.5	T-17-1.5MS
T-14-21	T-21-1	T-17-1.5MSD
T-15-4	T-21-2	T-23-3MS
T-15-14	T-22-1	T-23-3MSD
T-15-2	T-22-4.5	
T-16-S	T-22-7	
T-16-2	T-23-1	
T-16-9	T-23-3	
T-16-12	T-23-8	
T-17-0.5	Dup-2	
T-17-1.5	Dup-1	
T-17-5	T-12-9.5(DI STLC)	
T-18-0.5	T-14-21(DI STLC)	

Samples appended with DI STLC underwent DI water STLC extraction

Introduction

This data review covers 51 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B and 7471A for Metals. The metals analyzed were Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

The initial and continuing calibrations were performed at the required frequency.

The calibration standards criteria were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No metal contaminants were found in the initial, continuing and preparation blanks.

No field blanks were identified in this SDG.

IV. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
T-12-SMS/MSD (T-12-S T-12-2 T-12-9.5 T-13-S T-13-2 T-13-4 T-14-0.5 T-14-5.5 T-14-21 T-15-4 T-15-14 T-15-2 T-16-S T-16-2 T-16-9 T-16-12)	Lead	138 (51-106)	23.7 (51-106)	48.5 (≤20)	J (all detects) R (all non-detects)	A

Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
T-12-SMS/MSD (T-12-S T-13-2 T-14-0.5 T-14-21 T-15-14 T-15-2 T-16-9 T-16-12)	Antimony Zinc	268 (21-109) 670 (24-130)	- -	107 (≤20) 104 (≤20)	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A
T-12-SMS/MSD (T-12-S T-13-2 T-14-0.5 T-14-21 T-15-14 T-15-2 T-16-9 T-16-12)	Barium	-8.37 (40-130)	-2.22 (40-130)	-	J (all detects) R (all non-detects)	A
T-12-SMS/MSD (T-12-S T-13-2 T-14-0.5 T-14-21 T-15-14 T-15-2 T-16-9 T-16-12)	Copper	125 (51-122)	-	-	J (all detects)	A

VI. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

IX. Sample Result Verification

Raw data were not reviewed for this SDG.

X. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XI. Field Duplicates

Samples T-22-1 and Dup-1 and samples T-23-3 and Dup-2 were identified as field duplicates. No metals were detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/Kg)		RPD
	T-22-1	Dup-1	
Arsenic	2.0	1.9	5
Barium	26	54	70
Chromium	12	11	9
Cobalt	2.2	2.2	0
Copper	7.7	7.3	5
Lead	7.0	6.0	15
Nickel	3.2	3.0	6
Vanadium	23	21	9
Zinc	26	25	4

Analyte	Concentration (mg/Kg)		RPD
	T-23-3	Dup-2	
Arsenic	1.4	1.6	13
Barium	17	14	19
Chromium	9.6	8.7	10
Cobalt	1.4	1.4	0
Copper	5.0	4.1	20
Lead	4.3	1.6	92
Nickel	2.5	2.5	0
Vanadium	22	22	0

Analyte	Concentration (mg/Kg)		RPD
	T-23-3	Dup-2	
Zinc	15	14	7

Clairemont HS
Metals - Data Qualification Summary - SDG 1302545/1302547/1302581

SDG	Sample	Analyte	Flag	A or P	Reason
1302545/ 1302547/ 1302581	T-12-S T-12-2 T-12-9.5 T-13-S T-13-2 T-13-4 T-14-0.5 T-14-5.5 T-14-21 T-15-4 T-15-14 T-15-2 T-16-S T-16-2 T-16-9 T-16-12	Lead	J (all detects) R (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD)
1302545/ 1302547/ 1302581	T-12-S T-13-2 T-14-0.5 T-14-21 T-15-14 T-15-2 T-16-9 T-16-12	Antimony Zinc	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD)
1302545/ 1302547/ 1302581	T-12-S T-13-2 T-14-0.5 T-14-21 T-15-14 T-15-2 T-16-9 T-16-12	Barium	J (all detects) R (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)
1302545/ 1302547/ 1302581	T-12-S T-13-2 T-14-0.5 T-14-21 T-15-14 T-15-2 T-16-9 T-16-12	Copper	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R)

Clairemont HS
Metals - Laboratory Blank Data Qualification Summary - SDG 1302545/1302547/1302581

No Sample Data Qualified in this SDG

Clairemont HS
Metals - Field Blank Data Qualification Summary - SDG 1302545/1302547/1302581

No Sample Data Qualified in this SDG

LDC #: 31236A4 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/30/14

SDG #: 1302545/1302547/1302581 Level III Page: 1 of 2

Laboratory: Advanced Technology Laboratories Reviewer:

2nd Reviewer:

METHOD: Metals (EPA SW 846 Method 6010B/7471A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 8/20/13 – 8/22/13
II.	Calibration	A	
III.	Blanks	A SW	
IV.	ICP Interference Check Sample (ICS) Analysis	A	
V.	Matrix Spike Analysis	~~SW~~ SW	
VI.	Duplicate Sample Analysis	A	
VII.	Laboratory Control Samples (LCS)	A	LCS
VIII.	ICP Serial Dilution	N	Not performed
IX.	Sample Result Verification	N	
X.	Overall Assessment of Data	A	
XI.	Field Duplicates	SW	(31, 38) (35, 37)
XII.	Field Blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	T-12-S	11	T-15-14	21	T-18-3	31	T-22-1
2	T-12-2	12	T-15-2	22	T-18-5.5	32	T-22-4.5
3	T-12-9.5	13	T-16-S	23	T-19-1	33	T-22-7
4	T-13-S	14	T-16-2	24	T-19-3.5	34	T-23-1
5	T-13-2	15	T-16-9	25	T-19-7	35	T-23-3
6	T-13-4	16	T-16-12	26	T-20-1	36	T-23-8
7	T-14-0.5	17	T-17-0.5	27	T-20-3.5	37	Dup-2
8	T-14-5.5	18	T-17-1.5	28	T-20-6.5	38	Dup-1
9	T-14-21	19	T-17-5	29	T-21-1	39	T-12-9.5(DI STLC)
10	T-15-4	20	T-18-0.5	30	T-21-2	40	T-14-21(DI STLC)

Notes: DI STLC underwent DI water STLC extraction

MP Letter B3H050, a non-client sample for MS/MSD.

HG B3H0447

LDC #: 31236A4 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/30/09

SDG #: 1302545/1302547/1302581 Level III Page: 2 of

Laboratory: Advanced Technology Laboratories Reviewer:

2nd Reviewer:

METHOD: Metals (EPA SW 846 Method 6010B/7471A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times		Sampling dates:
II.	Calibration		
III.	Blanks		
IV.	ICP Interference Check Sample (ICS) Analysis		
V.	Matrix Spike Analysis		
VI.	Duplicate Sample Analysis		See page 1
VII.	Laboratory Control Samples (LCS)		
VIII.	ICP Serial Dilution		
IX.	Sample Result Verification	N	
X.	Overall Assessment of Data		
XI.	Field Duplicates		
XII.	Field Blanks		

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

41	T-15-14(DI STLC)	51	T-23-3MSD	61	MB	71	
42	T-16-9(DI STLC)	52		62		72	
43	T-12-SMS	53		63		73	
44	T-12-SMSD	54		64		74	
45	T-16-9(DI STLC)MS	55		65		75	
46	T-16-9(DI STLC)MSD	56		66		76	
47	T-16-9(DI STLC)DUP	57		67		77	
48	T-17-1.5MS	58		68		78	
49	T-17-1.5MSD	59		69		79	
50	T-23-3MS	60		70		80	

Notes: DI STLC underwent DI water STLC extraction

LDC #: 31336A4

VALIDATION FINDINGS WORKSHEET
Sample Specific Element Reference

Page: 1 of 1
Reviewer: [illegible]
2nd reviewer: [illegible]

All circled elements are applicable to each sample.

Sample ID	Matrix	Target Analyte List (TAL)
1,5,7,9,11,12,15,16,18,20,23,29,31,35,37,38	Soil	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
2,3,4,6,8,10,13,14,17,19,21,22,24,25,28,30,32-34,36,39-42	Soil	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
50,5		
2 43,44	Soil	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
45-47	Soil	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
48,49		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
Analysis Method		
ICP		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
ICP-MS		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___
GFAA		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___

Comments: Mercury by CVAA if performed

LDC #: 31236A4

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: Trace metals (EPA SW 846 Method 6010B/7471A)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a matrix spike analyzed for each matrix in this SDG?

Y N N/A Were matrix spike percent recoveries (%R) within the lab control limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.

Y N N/A Were all duplicate sample relative percent differences (RPD) within the control limits of 20?

LEVEL IV ONLY:

Y N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	MS/MSD ID	Matrix	Analyte	MS %Recovery	MSD %Recovery	RPD (<20)	Associated Samples	Qualifications
1	43/44	Soil	Pb	138 (51-106)	23.7 (51-106)	48.5	1-16	J/R/A
			Sb	268 (21-109)		107	1,5,7,9,11,12,15,16	J/UJ/A
			Ba	-8.37 (40-130)	-2.22 (40-130)			J/R/A
			Cu	125 (51-122)				J det/A
			Zn	670 (24-130)		104		J/UJ/A

Comments: ~~52-55: Pb >4X, No qual for %R, text~~

LDC#: 31236A4

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Metals (EPA Method 6010B/7471A)

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (mg/Kg)		RPD	
	31	38		
Arsenic	2.0	1.9	5	
Barium	26	54	70	
Chromium	12	11	9	
Cobalt	2.2	2.2	0	
Copper	7.7	7.3	5	
Lead	7.0	6.0	15	
Nickel	3.2	3.0	6	
Vanadium	23	21	9	
Zinc	26	25	4	

Analyte	Concentration (mg/Kg)		RPD	
	35	37		
Arsenic	1.4	1.6	13	
Barium	17	14	19	
Chromium	9.6	8.7	10	
Cobalt	1.4	1.4	0	
Copper	5.0	4.1	20	
Lead	4.3	1.6	92	
Nickel	2.5	2.5	0	
Vanadium	22	22	0	

LDC#: 31236A4

VALIDATION FINDINGS WORKSHEET

Field Duplicates

Reviewer:
2nd Reviewer: A

METHOD: Metals (EPA Method 6010B/7471A)

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (mg/Kg)		RPD	
	35	37		
Zinc	15	14	7	

V:\FIELD DUPLICATES\FD_inorganic\31236A4.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Clairmont HS
Collection Date:	August 20 through August 22, 2013
LDC Report Date:	February 13, 2014
Matrix:	Soil
Parameters:	Total Petroleum Hydrocarbons as Extractables
Validation Level:	EPA Level III
Laboratory:	Advanced Technology Laboratories
Sample Delivery Group (SDG):	1302545/1302547/1302581

Sample Identification

T-12-S
T-12-9.5
T-13-4
T-14-21
T-15-14
T-16-9
T-16-12
T-22-1
T-23-3
Dup-2
Dup-1
T-16-12MS
T-16-12MSD
Dup-1MS
Dup-1MSD

Introduction

This data review covers 15 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration was performed as required by the method.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990.

III. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 20.0% for all compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

Raw data were not reviewed for this SDG.

IX. Compound Quantitation

Raw data were not reviewed for this SDG.

X. System Performance

Raw data were not reviewed for this SDG.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

Samples T-22-1 and Dup-1 and samples T-23-3 and Dup-2 were identified as field duplicates. No total petroleum hydrocarbons as extractables were detected in any of the samples.

Clairmont HS
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG 1302545/1302547/1302581

No Sample Data Qualified in this SDG

Clairmont HS
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG 1302545/1302547/1302581

No Sample Data Qualified in this SDG

Clairmont HS
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification Summary - SDG 1302545/1302547/1302581

No Sample Data Qualified in this SDG

LDC #: 31236A8 **VALIDATION COMPLETENESS WORKSHEET** Date: 2/12/14

SDG #: 1302545/1302547/1302581 Level III Page: 1 of 1

Laboratory: Advanced Technology Laboratories Reviewer: FQ

2nd Reviewer: [illegible]

METHOD: GC TPH as Extractables (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 8/20 - 8/22/13
IIa.	Initial calibration	A	r^2
IIb.	Calibration verification/ICV	A	ICV/CCV ≤ 20
III.	Blanks	A	
IVa.	Surrogate recovery	A	
IVb.	Matrix spike/Matrix spike duplicates	A	
IVc.	Laboratory control samples	A	LCS
V.	Target compound identification	N	
VI.	Compound Quantitation and CRQLs	N	
VII.	System Performance	N	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	ND	D - 8, 11 9, 10
X.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

SOIL

1 1	T-12-S	11 2	Dup-1	21 1	B3I0015	31	
2 1	T-12-9.5	12 1	T-16-12MS	22 2	B3H0499	32	
3 1	T-13-4	13 1	T-16-12MSD	23		33	
4 1	T-14-21	14	Dup-1MS	24		34	
5 1	T-15-14	15	Dup-1MSD	25		35	
6 1	T-16-9	16		26		36	
7 1	T-16-12	17		27		37	
8 2	T-22-1	18		28		38	
9 2	T-23-3	19		29		39	
10 2	Dup-2	20		30		40	

Notes:

APPENDIX I

HUMAN HEALTH SCREENING EVALUATION

Table I-1 - Metals, Organochlorine Pesticides, Polynuclear Aromatic Hydrocarbons, and Dioxins Evaluation - Top 10 Feet

Sample ID	Date Sampled	Depth (feet bgs)	Covered Hardscape/ 2 Feet Clean Fill	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Molybde (mg/kg)	Nickel (mg/kg)	Silver (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)	4,4'-DDD (ug/kg)	4,4'-DDE (ug/kg)	4,4'-DDT (ug/kg)	Phenanthrene** (ug/kg)	Acenapthylene** (ug/kg)	Dioxin (ng/kg)
Background Concentration/Screening Level				<2.0	12*	139	4*	12.4	4.5	23	80*	<0.10	<1.0	6.6	<1.0	27.7	144.7	ND	ND	ND	ND	ND	ND
OT-6	9/1/2011	6.0	YES	19 J	44.0	780	11 J	43.0	10	370 J	3,700 J	1.0	2.8	41	<1.0	21	2,500	<2.0	<2.0	<2.0	ND UJ	ND UJ	ND
OT-7.5	9/1/2011	7.5	YES	--	--	--	--	--	--	--	1,100 J	--	--	--	--	--	--	--	--	--	--	--	--
OT-9	9/1/2011	9.0	YES	15 J	28.0	800	16 J	47.0	9.3	650 J	1,800 J	0.74	6.5	65	<1.0	21	2,400	<2.0	<2.0	<2.0	ND UJ	ND UJ	--
OT-9.5	9/1/2011	9.5	YES	--	--	--	--	--	--	--	1,400	--	--	--	--	--	--	--	--	--	ND	ND	--
T-1-2	9/1/2011	2.0	YES	<2.0	2.3	56 J	<1.0	9.7	3.6	23	27	<0.10	<1.0	5.1	<1.0	28	63	--	--	--	ND	ND	--
T-2-1	9/1/2011	1.0	YES	16	44.0	1,500 J	15.0	71	12	8,500	1,300	0.62	4.6	44	<1.0	18	4,600	11	740	940	0.128J	ND UJ	--
T-2-4	9/1/2011	4.0	YES	--	--	--	--	--	--	--	1,700	--	--	--	--	--	--	<2.0	<2.0	<2.0	ND	15	--
T-2-7	9/1/2011	7.0	YES	23	27.0	1,100 J	9.0	56	39	690	2,600	15	5.2	86	<1.0	17	4,100	<2.0	<2.0	<2.0	ND UJ	ND UJ	--
T-2-8.5	9/1/2011	8.5	YES	--	--	--	--	--	--	--	17	--	--	--	--	--	--	--	--	--	--	--	--
T-2-9.5	9/1/2011	9.5	YES	--	--	--	--	--	--	--	11	--	--	--	--	--	--	--	--	--	--	--	--
T-3-1	9/1/2011	1.0	YES	6.0	8.3	120 J	3.3	13	2.3	190	700	<0.10	<1.0	20	<1.0	7.2	320	<2.0	<2.0	<2.0	ND UJ	ND UJ	--
T-3-5	9/1/2011	5.0	YES	--	--	--	--	--	--	--	1,500	--	--	--	--	--	--	<2.0	<2.0	<2.0	ND	ND	--
T-3-7.5	9/1/2011	7.5	YES	--	--	--	--	--	--	--	53	--	--	--	--	--	--	--	--	--	--	--	--
T-4-0.5	9/1/2011	0.5	YES	--	--	--	--	--	--	--	410	--	--	--	--	--	--	--	--	--	--	--	--
T-4-1	9/1/2011	1.0	YES	<2.0	1.6	67 J	<1.0	9.3	2.2	5.5	17	<0.10	<1.0	3.1	<1.0	19	25	<2.0	<2.0	<2.0	ND UJ	ND UJ	--
T-4-2.75	9/1/2011	2.75	YES	<2.0	1.4	83 J	<1.0	8.7	3.6	5.6	8.8	<0.10	<1.0	3.0	<1.0	19	28	--	--	--	--	--	--
T-5-1.5	9/1/2011	1.5	YES	<2.0	1.2	29 J	<1.0	7.1	3.3	15	17	<0.10	<1.0	2.8	<1.0	19	43	<2.0	<2.0	<2.0	ND UJ	ND UJ	--
T-5-3.0	9/1/2011	3.0	YES	--	--	--	--	--	--	--	4.9	--	--	--	--	--	--	--	--	--	--	--	--
T-6-0.75	9/1/2011	0.8	YES	<2.0	4.7	91 J	<1.0	12	3.9	38	88	<0.10	<1.0	6.7	<1.0	29	190	<2.0	<2.0	<2.0	ND	ND	--
T-6-2.0	9/1/2011	2.0	YES	--	--	--	--	--	--	--	7.3	--	--	--	--	--	--	--	--	--	--	--	--
T-7-1.0	9/1/2011	1.0	YES	--	--	--	--	--	--	--	2.3	--	--	--	--	--	--	--	--	--	--	--	--
T-7-3	9/1/2011	3.0	YES	<2.0	1.2	21 J	<1.0	9.8	1.6	4.3	2.4	<0.10	<1.0	2.2	<1.0	21	13	--	--	--	--	--	--
T-7-5.5	9/1/2011	5.5	YES	--	--	--	--	--	--	--	4.8	--	--	--	--	--	--	--	--	--	ND	ND	--
T-8-0.5	9/1/2011	0.5	YES	<2.0 UJ	1.8	77	<1.0 UJ	9.6	2.5	32 J	59 J	<0.10	<1.0	5.7	<1.0	19	130	--	--	--	ND	ND	--
T-8-1.0	9/1/2011	1.0	YES	--	--	--	--	--	--	--	5.0	--	--	--	--	--	--	--	--	--	--	--	--
T-9-0.75	9/1/2011	0.8	YES	--	--	--	--	--	--	--	5.0 J	--	--	--	--	--	--	--	--	--	--	--	--
T-9-4	9/1/2011	4.0	YES	<2.0 UJ	5.7	36	<1.0 UJ	8.7	3.0	8.5 J	17 J	<0.10	<1.0	4.0	<1.0	38	26	--	--	--	--	--	--
T-9-5	9/1/2011	5.0	YES	--	--	--	--	--	--	--	20 J	--	--	--	--	--	--	<2.0	<2.0	<2.0	ND	ND	--
T-10-1	9/1/2011	1.0	YES	<2.0 UJ	1.7	38	<1.0 UJ	12	3.3	14 J	4.4 J	<0.10	<1.0 UJ	4.5	<1.0 UJ	17	27	--	--	--	--	--	--
T-10-3	9/1/2011	3.0	YES	--	--	--	--	--	--	--	6.0 J	--	--	--	--	--	--	--	--	--	ND	ND	--
T-11-3	9/1/2011	3.0	YES	--	--	--	--	--	--	--	13 J	--	--	--	--	--	--	--	--	--	--	--	--
T-11-7	9/1/2011	7.0	YES	14 J	24.0	1100	19 J	64	9.0	1,000 J	10,000 J	0.43	6.2	54	<1.0	26	3,500	<2.0	9.4	6.2	ND UJ	ND UJ	ND
T-11-7.5	9/1/2011	7.5	YES	--	--	--	--	--	--	--	2,500 J	--	--	--	--	--	--	--	--	--	--	--	--
T-12-S	8/20/2013	0.0	NO	3.9 J	6.0	220 J	2.1	12	3.6	81 J	190 J	<0.10	2.7	11	<1.0	20	330 J	<2.0	<2.0	<2.0 UJ	ND	ND	--
T-12-2	8/20/2013	2.0	NO	--	--	--	--	--	--	--	14 J	--	--	--	--	--	--	--	--	--	--	--	--
T-12-9.5	8/20/2013	9.5	NO	--	--	--	--	--	--	--	3,500 J	--	--	--	--	--	--	<2.0	<2.0	<2.0 UJ	ND	ND	14
T-13-S	8/20/2013	0.0	YES	--	--	--	--	--	--	--	9.1 J	--	--	--	--	--	--	--	--	--	--	--	--
T-13-2	8/20/2013	2.0	YES	<2.0 UJ	7.0	28 J	<1.0	7.0	2.0	8.8 J	8.9 J	<0.10	<1.0	4.2	<1.0	21	28 J	--	--	--	--	--	--
T-13-4	8/20/2013	4.0	YES	--	--	--	--	--	--	--	1,100 J	--	--	--	--	--	--	<2.0	8.1	<2.0 UJ	--	--	--
T-14-0.5	8/20/2013	0.5	YES	<2.0 UJ	3.2	36 J	<1.0	9.6	2.3	5.9 J	6.3 J	<0.10	<1.0	3.0	<1.0	26	17 J	--	--	--	--	--	--
T-14-5.5	8/20/2013	5.5	YES	--	--	--	--	--	--	--	5.5 J	--	--	--	--	--	--	--	--	--	--	--	--
T-15-2	8/21/2013	2.0	YES	<2.0 UJ	1.8	42 J	<1.0	6.9	2.4	9.9 J	12 J	<0.10	<1.0	3.0	<1.0	16	42 J	--	--	--	--	--	--
T-15-4	8/21/2013	4.0	YES	--	--	--	--	--	--	--	19 J	--	--	--	--	--	--	--	--	--	--	--	--
T-16-S	8/21/2013	0.0	YES	--	--	--	--	--	--	--	11 J	--	--	--	--	--	--	--	--	--	--	--	--
T-16-2	8/21/2013	2.0	YES	--	--	--	--	--	--	--	7.7 J	--	--	--	--	--	--	--	--	--	--	--	--
T-16-9	8/21/2013	9.0	YES	9.3 J	41.0	350 J	2.4	32	6.1	600 J	1,300 J	<0.10	6.0	39	2.6	6.2	940 J	<2.0	<2.0	<2.0 UJ	ND	ND	--
T-19-1	8/22/2013	1.0	YES	<2.0	1.2	2	<1.0	11.0	2.5	5	2.4	<0.10	<1.0	3.2	<1.0	16	19	--	--	--	--	--	--
T-19-3.5	8/22/2013	3.5	YES	--	--	--	--	--	--	--	3.2	--	--	--	--	--	--	--	--	--	--	--	--
T-19-7	8/22/2013	7.0	YES	--	--	--	--	--	--	--	2.3	--	--	--	--	--	--	--	--	--	--	--	--
T-20-1	8/22/2013	1.0	YES	--	--	--	--	--	--	--	2.3	--	--	--	--	--	--	--	--	--	--	--	--
T-20-3.5	8/22/2013	3.5	YES	<2.0	1.3	28	<1.0	8.1	1.7	5.6	2.2	<0.10	<1.0	2.8	<1.0	16	14	--	--	--	--	--	--
T-20-6.5	8/22/2013	6.5	YES	--	--	--	--	--	--	--	5.3	--	--	--	--	--	--	--	--	--	--	--	--
T-21-1	8/22/2013	1.0	YES	<2.0	2.7	45	<1.0	8.0	2.4	7.0	8.1	<0.10	<1.0	3.1	<1.0	22	20	--	--	--	--	--	--
T-21-2	8/22/2013	2.0	YES	--	--	--	--	--	--	--	5.4	--	--	--	--	--	--	--	--	--	--	--	--
T-22-1	8/22/2013	1.0	YES	<2.0	2.0	26.0	<1.0	12	2	7.7	7.0	<0.10	<1.0	3.2	<1.0	23	26	<2.0	<2.0	<2.0 UJ	ND UJ†	ND UJ†	--
T-22-4.5	8/22/2013	4.5	YES	--	--	--	--	--	--	--	1.4	--	--	--	--	--	--	--	--	--	--	--	--
T-22-7	8/22/2013	7.0	YES	--	--	--	--	--	--	--	6.2	--	--	--	--	--	--	--	--	--	--	--	--
T-23-1	8/22/2013	1.0	YES	--	--	--	--	--	--	--	32	--	--	--	--	--	--	--	--	--	--	--	--
T-23-3	8/22/2013	3.0	YES	<2.0	1.4	17.0	<1.0	9.6	1.4	5.0	4.3	<0.10	<1.0	2.5	<1.0	22	15	<2.0	<2.0	<2.0	ND UJ†	ND UJ†	--
T-23-8	8/22/2013	8.0	YES	--	--	--	--	--	--	--	18	--	--	--	--	--	--	--	--	--	--	--	--
T1	7/21/2011	<10	YES	2.7	5.7	460	6.3	13	3.4	130	310	<0.10	<1.0	9.2	<1.0	9.3	900	--	--	--	--	--	--
T2	7/21/2011	<10	YES	12.0	11.0	130	3.5	17	4.7	150	1,000	<0.10	3.4	24	<1.0	13	230	--	--	--	--	--	--
95% UCL or Maximum				7.88	22.19	615.1	5.672	33.45	11.43	2,422	1,773	1.833	2.739	35.93	2.6	21.80	2,404	11	740	940	0.128	15	14
Exceeds Background/Screening Level				Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*DTSC Screening Level

Shaded boxes indicate 95% UCL or maximum concentration exceeded the background/screening level/RSL

Arsenic
DTSC Ambient Level
12 mg/kg
95% UCL
22.2 mg/kg
Exceeds DTSC Ambient Level

Lead
DTSC Screening Level
80 mg/kg
Maximum Detected Concentration
1773 mg/kg
Exceeds DTSC Screening Level

Cadmium
DTSC Screening Level
4 mg/kg
Maximum Detected Concentration
5.7 mg/kg
Exceeds DTSC Screening Level

Carcinogenic Compounds

COC	95% UCL or Max. Conc	RSL res. Soil	Risk (Max/RSL)*10-6	Action Leve	Result
Cobalt	11.4	4.20E+02	2.72E-08	1.00E-06	Below Action Level
Nickel	9.2	1.50E+04	6.13E-10	1.00E-06	Below Action Level
DDD	11	2.20E+03	5.00E-09	1.00E-06	Below Action Level
DDE	740	1.60E+03	4.63E-07	1.00E-06	Below Action Level
DDT	940	1.90E+03	4.95E-07	1.00E-06	Below Action Level
Dioxin	14	4.90E+00	2.86E-06	1.00E-06	**Exceeds Action Level**
		Total	3.85E-06	1.00E-06	**Exceeds Action Level**

Non-Carcinogenic Compounds

COC	95% UCL or Max. Conc	RSL res. Soi	Risk (Max/RSL)	Action Level	Result
Antimony	7.88	3.1	**2.5**	1.0	**Exceeds Action Level**
Barium	615.1	1500	0.41	1.0	Below Action Level
Chromium	33.45	12000	0.0028	1.0	Below Action Level
Cobalt	11	2.3	**4.9696**	1.0	**Exceeds Action Level**
Copper	2422	310	**7.8129**	1.0	**Exceeds Action Level**
Mercury	2	1	**1.9500**	1.0	**Exceeds Action Level**
Molybdenum	2.739	39	0.0702	1.0	Below Action Level
Nickel	35.93	150	0.2395	1.0	Below Action Level
Silver	3	39	0.0667	1.0	Below Action Level
Zinc	2404	2300	**1.05**	1.0	**Exceeds Action Level**
DDT	940	3600	0.26	1.0	Below Action Level
Dioxin	14	5	**2.75**	1.0	**Exceeds Action Level**
		Total	**22.1**	1.0	**Exceeds Action Level**

Notes:

mg/kg – milligrams per kilogram
ng/kg - nanograms per kilogram
-- – not analyzed
bgs – below ground surface
DDD – dichlorodiphenyldichloroethane
DDE – dichlorodiphenyldichloroethylene
DDT – dichlorodiphenyltrichloroethane

J – Estimated Value (assigned by Laboratory Data Consultants)
N/A – not applicable
ND – analyte not detected. See lab report for detection limits
RSL – US Environmental Protection Agency Regional Screening Level (November 2013)
UCL - upper confidence limit
UJ – the sample detection limit is an estimated value (assigned by LDC)
< - analyte not detected at a concentration above the listed practical quantitation limit

† The UJ qualifier applies only to naphthalene, 2-methylnapthalene, and bezno(a)anthracene.
*RSL are not applicable per the Human and Ecological Risk Office.
** RSL not established for detected analytes

Table I-2 - Total Petroleum Hydrocarbon Evaluation - Top 10 Feet

Sample ID	Date Sampled	Depth (feet bgs)	C8-C10 (mg/kg)	C10-C18 (mg/kg)	C18-28 (mg/kg)	C28-C36 (mg/kg)	C36-C40 (mg/kg)	
OT-6	9/1/2011	6	14	14	29	25	12	
T-12-S	8/20/2013	0	<10	<10	33	140	54	
T-13-4	8/20/2013	4.0	<10	<10	<10	18	<10	
Maximum			**14**	**14**	**33**	**140**	**54**	**Total**
Maximum		C5-C8/C6-C8	--	--	--	--	--	--
		C9-C16	**14**	**14**	--	--	--	**28**
		C9-C18	**14**	**14**	**33**	--	--	**61**
		C17-C32	--	**14**	**33**	**140**	--	**187**
		C19-32	--	--	**33**	**140**	--	**173**

Non-Carcinogenic - Soil Pathway $HI_{soil}=[(C_s/RfD_o)*1.28*10^{-5}]+[(C_s/RfD_o)*3.70*10^{-5}*ABS]$

Aliphatic Carbon Chain	C_s (mg/kg)	RfD_o (mg/kg/day)	ABS	Hazard Index	Action Level	Result
C5-C8	--	0.04	1	--	1.0	Below Action Level
C9-C18	61	0.1	1	0.0304	1.0	Below Action Level
C19-C32	173	2.0	1	0.0043	1.0	Below Action Level

Aromatic Carbon Chain	Cs (mg/kg)	RfDo (mg/kg/day)	ABS	Hazard Index	Action Level	Result
C6-C8	--	*	1	--	1.0	Below Action Level
C9-C16	28	0.03	1	0.0465	1.0	Below Action Level
C17-C32	187	0.04	1	0.2328	1.0	Below Action Level
Total Soil Pathway Hazard Index - TPH				**0.3140**	1.0	Below Action Level

*VOCs are not COCs at the site due to the nature of burned waste

Table I-3 - Metals Evaluation - Top 2 Feet (Unpaved)

Sample ID	Date Sampled	Depth (feet bgs)	Covered Hardscape/ 2 Feet Clean Fill	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromiu (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Molybde (mg/kg)	Nickel (mg/kg)	Silver (mg/kg)	Vanadiu (mg/kg)	Zinc (mg/kg)
Background Concentration/Screening Level				<2.0	12*	139	4*	12.4	4.5	23	80*	<0.10	<1.0	6.6	<1.0	27.7	144.7
T-12-S	8/20/2013	0	No	3.9 J	6.0	220 J	2.1	12	3.6	81 J	190 J	<0.10	2.7	11	<1.0	20	330 J
T-12-2	8/20/2013	2	No	--	--	--	--	--	--	--	14 J	--	--	--	--	--	--
T-13-S	8/20/2013	0	Yes	--	--	--	--	--	--	--	9.1 J	--	--	--	--	--	--
T-13-2	8/20/2013	2	Yes	<2.0 UJ	7.0	28 J	<1.0	7.0	2.0	8.8 J	8.9 J	<0.10	<1.0	4.2	<1.0	21	28 J
T-14-0.5	8/20/2013	0.5	Yes	<2.0 UJ	3.2	36 J	<1.0	9.6	2.3	5.9 J	6.3 J	<0.10	<1.0	3.0	<1.0	26	17 J
T-15-2	8/21/2013	2	Yes	<2.0 UJ	1.8	42 J	<1.0	6.9	2.4	9.9 J	12 J	<0.10	<1.0	3.0	<1.0	16	42 J
T-16-S	8/21/2013	0	Yes	--	--	--	--	--	--	--	11 J	--	--	--	--	--	--
T-16-2	8/21/2013	2	Yes	--	--	--	--	--	--	--	7.7 J	--	--	--	--	--	--
95% UCL or Maximum				3.9	7.0	190.4	2.1	11.7	3.4	69	190	--	2.7	9.8	--	25.6	281.7
Exceeds Background/Screening Level				Yes	No	Yes	No	No	No	Yes	Yes	No	Yes	Yes	No	No	Yes

*DTSC Screening Level

Shaded boxes indicate 95% UCL or maximum concentration exceeded the background/screening level/RSL

Arsenic
DTSC Ambient Level
12 mg/kg
95% UCL
7.0 mg/kg
Below DTSC Ambient Level

Lead
DTSC Screening Level
80 mg/kg
Maximum Detected Concentration
190 mg/kg
Exceeds DTSC Screening Level

Cadmium
DTSC Screening Level
4 mg/kg
Maximum Detected Concentration
2.1 mg/kg
Below DTSC Screening Level

Carcinogenic Compounds

COC	95% UCL or Max. Conc	RSL res. Soil	Risk (Max/RSL)*10-6	Action Level	Result
Nickel	9.8	1.50E+04	6.53E-10	1.00E-06	Below Action Level
		Total	6.53E-10	1.00E-06	Below Action Level

Non-Carcinogenic Compounds

COC	95% UCL or Max. Conc	RSL res. Soil	Risk (Max/RSL)	Action Leve	Result
Antimony	3.9	3.1	**1.3**	1.0	**Exceeds Action Level**
Barium	190	1500	0.13	1.0	Below Action Level
Copper	69	310	0.2235	1.0	Below Action Level
Molybdenum	3	39	0.07	1.0	Below Action Level
Nickel	9.8	150	0.1	1.0	Below Action Level
Zinc	282	2300	0.122	1.0	Below Action Level
		Total	**1.9**	1.0	**Exceeds Action Level**

Notes:

mg/kg – milligrams per kilogram
-- – not analyzed
bgs – below ground surface
J – Estimated Value (assigned by Laboratory Data Consultants)

RSL – US Environmental Protection Agency Regional Screening Level (November 2013)
UCL - upper confidence limit
< - analyte not detected at a concentration above the listed practical quantitation limit
*RSL are not applicable per the Human and Ecological Risk Office.

Table I-4 - Total Petroleum Hydrocarbon Evaluation - Top 2 Feet (Unpaved)

Sample ID	Date Sampled	Depth (feet bgs)	C8-C10 (mg/kg)	C10-C18 (mg/kg)	C18-28 (mg/kg)	C28-C36 (mg/kg)	C36-C40 (mg/kg)	
T-12-S	8/20/2013	0	<10	<10	33	140	54	
Maximum			**0**	**0**	**33**	**140**	**54**	**Total**
Maximum		C5-C8/C6-C8	--	--	--	--	--	--
		C9-C16	--	--	--	--	--	**0**
		C9-C18	--	--	**33**	--	--	**33**
		C17-C32	--	--	**33**	**140**	--	**173**
		C19-32	--	--	**33**	**140**	--	**173**

Non-Carcinogenic - Soil Pathway $HI_{soil}=[(C_s/RfD_o)*1.28*10^{-5}]+[(C_s/RfD_o)*3.70*10^{-5}*ABS]$

Aliphatic Carbon Chain	C_s (mg/kg)	RfD_o (mg/kg/day)	ABS	Hazard Index	Action Level	Result
C9-C18	33	0.1	1	0.0164	1.0	Below Action Level
C19-C32	173	2.0	1	0.0043	1.0	Below Action Level

Aromatic Carbon Chain	Cs (mg/kg)	RfDo (mg/kg/day)	ABS	Hazard Index	Action Level	Result
C17-C32	173	0.04	1	0.2154	1.0	Below Action Level
Total Soil Pathway Hazard Index - TPH				**0.2361**	1.0	Below Action Level

*VOCs are not COCs at the site due to the nature of burned waste

Table I-5 - Metals Evaluation - Top 2 Feet Excluding Planter (Unpaved)

Sample ID	Date Sampled	Depth (feet bgs)	Covered Hardscape/ 2 Feet Clean Fill	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromi (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Molybde (mg/kg)	Nickel (mg/kg)	Silver (mg/kg)	Vanadiu (mg/kg)	Zinc (mg/kg)
Background Concentration/Screening Level				<2.0	12*	139	4*	12.4	4.5	23	80*	<0.10	<1.0	6.6	<1.0	27.7	144.7
T-13-S	8/20/2013	0	Yes	--	--	--	--	--	--	--	9.1 J	--	--	--	--	--	--
T-13-2	8/20/2013	2	Yes	<2.0 UJ	7.0	28 J	<1.0	7.0	2.0	8.8 J	8.9 J	<0.10	<1.0	4.2	<1.0	21	28 J
T-14-0.5	8/20/2013	0.5	Yes	<2.0 UJ	3.2	36 J	<1.0	9.6	2.3	5.9 J	6.3 J	<0.10	<1.0	3.0	<1.0	26	17 J
T-15-2	8/21/2013	2	Yes	<2.0 UJ	1.8	42 J	<1.0	6.9	2.4	9.9 J	12 J	<0.10	<1.0	3.0	<1.0	16	42 J
T-16-S	8/21/2013	0	Yes	--	--	--	--	--	--	--	11 J	--	--	--	--	--	--
T-16-2	8/21/2013	2	Yes	--	--	--	--	--	--	--	7.7 J	--	--	--	--	--	--
95% UCL or Maximum				--	7.0	42	--	9.6	2.4	10	10.89	--	--	4.2	--	26.0	42
Exceeds Background/Screening Level				No	No	No	No	No	No	No	No	No	No	No	No	No	No

*DTSC Screening Level

Shaded boxes indicate 95% UCL or maximum concentration exceeded the background/screening level/RSL

Arsenic
DTSC Ambient Level
12 mg/kg
95% UCL
7.0 mg/kg
Below DTSC Ambient Level

Lead
DTSC Screening Level
80 mg/kg
Maximum Detected Concentration
10.89 mg/kg
Below DTSC Screening Level

Cadmium
DTSC Screening Level
4 mg/kg
Maximum Detected Concentration
-- mg/kg
Below DTSC Screening Level

Carcinogenic Compounds

COC	95% UCL or Max. Conc	RSL res. Soil	Risk (Max/RSL)*10-6	Action Level	Result
N/A			#DIV/0!	1.00E-06	
		Total	#DIV/0!	1.00E-06	

Non-Carcinogenic Compounds

COC	95% UCL or Max. Conc	RSL res. Soil	Risk (Max/RSL)	Action Leve	Result
N/A			#DIV/0!	1.0	
		Total	#DIV/0!	1.0	Exceeds Action Level

Notes:

mg/kg – milligrams per kilogram
-- – not analyzed
bgs – below ground surface
J – Estimated Value (assigned by Laboratory Data Consultants)

RSL – US Environmental Protection Agency Regional Screening Level (November 2013)
UCL - upper confidence limit
< - analyte not detected at a concentration above the listed practical quantitation limit
*RSL are not applicable per the Human and Ecological Risk Office.

LEAD RISK ASSESSMENT SPREADSHEET 8
CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL

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INPUT	
MEDIUM	LEVEL
Lead in Soil/Dust (ug/g)	190.0
Respirable Dust (ug/m^3)	1.5

OUTPUT						
Percentile Estimate of Blood Pb (ug/dl)						PRG-90
	50th	90th	95th	98th	99th	(ug/g)
BLOOD Pb, CHILD	1.3	2.5	2.9	3.5	4.0	77
BLOOD Pb, PICA CHILD	2.7	4.9	5.8	7.1	8.0	39

EXPOSURE PARAMETERS		
	units	children
Days per week	days/wk	7
Geometric Standard Deviation		1.6
Blood lead level of concern (ug/dl)		1
Skin area, residential	cm^2	2900
Soil adherence	ug/cm^2	200
Dermal uptake constant	(ug/dl)/(ug/day)	0.0001
Soil ingestion	mg/day	100
Soil ingestion, pica	mg/day	200
Ingestion constant	(ug/dl)/(ug/day)	0.16
Bioavailability	unitless	0.44
Breathing rate	m^3/day	6.8
Inhalation constant	(ug/dl)/(ug/day)	0.192

PATHWAYS						
CHILDREN	typical			with pica		
	Pathway contribution			Pathway contribution		
Pathway	PEF	ug/dl	percent	PEF	ug/dl	percent
Soil Contact	5.8E-5	0.01	1%		0.01	0%
Soil Ingestion	7.0E-3	1.34	99%	1.4E-2	2.68	100%
Inhalation	2.0E-6	0.00	0%		0.00	0%

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LEAD RISK ASSESSMENT SPREADSHEET 8

CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL

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INPUT	
MEDIUM	LEVEL
Lead in Soil/Dust (ug/g)	10.9
Respirable Dust (ug/m^3)	1.5

OUTPUT						
Percentile Estimate of Blood Pb (ug/dl)						PRG-90
	50th	90th	95th	98th	99th	(ug/g)
BLOOD Pb, CHILD	0.1	0.1	0.2	0.2	0.2	77
BLOOD Pb, PICA CHILD	0.2	0.3	0.3	0.4	0.5	39

EXPOSURE PARAMETERS		
	units	children
Days per week	days/wk	7
Geometric Standard Deviation		1.6
Blood lead level of concern (ug/dl)		1
Skin area, residential	cm^2	2900
Soil adherence	ug/cm^2	200
Dermal uptake constant	(ug/dl)/(ug/day)	0.0001
Soil ingestion	mg/day	100
Soil ingestion, pica	mg/day	200
Ingestion constant	(ug/dl)/(ug/day)	0.16
Bioavailability	unitless	0.44
Breathing rate	m^3/day	6.8
Inhalation constant	(ug/dl)/(ug/day)	0.192

PATHWAYS						
CHILDREN	typical			with pica		
	Pathway contribution			Pathway contribution		
Pathway	PEF	ug/dl	percent	PEF	ug/dl	percent
Soil Contact	5.8E-5	0.00	1%		0.00	0%
Soil Ingestion	7.0E-3	0.08	99%	1.4E-2	0.15	100%
Inhalation	2.0E-6	0.00	0%		0.00	0%

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LEAD RISK ASSESSMENT SPREADSHEET 8
CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL

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INPUT	
MEDIUM	LEVEL
Lead in Soil/Dust (ug/g)	1773.0
Respirable Dust (ug/m^3)	1.5

OUTPUT						
Percentile Estimate of Blood Pb (ug/dl)						PRG-90
	50th	90th	95th	98th	99th	(ug/g)
BLOOD Pb, CHILD	12.6	23.0	27.2	33.1	37.6	77
BLOOD Pb, PICA CHILD	25.1	45.8	54.2	65.9	74.9	39

EXPOSURE PARAMETERS		
	units	children
Days per week	days/wk	7
Geometric Standard Deviation		1.6
Blood lead level of concern (ug/dl)		1
Skin area, residential	cm^2	2900
Soil adherence	ug/cm^2	200
Dermal uptake constant	(ug/dl)/(ug/day)	0.0001
Soil ingestion	mg/day	100
Soil ingestion, pica	mg/day	200
Ingestion constant	(ug/dl)/(ug/day)	0.16
Bioavailability	unitless	0.44
Breathing rate	m^3/day	6.8
Inhalation constant	(ug/dl)/(ug/day)	0.192

PATHWAYS						
CHILDREN	typical			with pica		
	Pathway contribution			Pathway contribution		
Pathway	PEF	ug/dl	percent	PEF	ug/dl	percent
Soil Contact	5.8E-5	0.10	1%		0.10	0%
Soil Ingestion	7.0E-3	12.48	99%	1.4E-2	24.96	100%
Inhalation	2.0E-6	0.00	0%		0.00	0%

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