MEMORANDUM

Area of Concern Number 4 Gabion Soil Removal Pacific Gas and Electric Topock Compressor Station

Privileged and Confidential

TO: Curt Russell/PG&E
Kristina Bonnett/PG&E
David Diaz/PG&E

COPIES: Christina Hong/ Jacobs

FROM: Eli Ludwig/Groundwater Partners, Inc

DATE: November 16, 2021

This memorandum documents the work that was conducted during soil removal activities at the Pacific Gas and Electric (PG&E) Topock Compressor Station Area of Concern 4 (AOC 4) gabion dam (gabion) and the upper check dam. This maintenance work was conducted pursuant to the Implementation Report for the Time Critical Removal Action (TCRA) at AOC 4 (Implementation Report) (CH2M HILL 2011). Work associated with soil removal and site restoration was conducted between September 13 and September 22, 2021, by PG&E's contractor, Groundwater Partners, Inc (GWP).

Background

The AOC 4 TCRA work that was completed in 2010 included soil and debris removal in the ravine south of the Topock Compressor Station (TCS), or the AOC 4 ravine. As part of the AOC 4 TCRA work completed in 2010, a check dam and a gabion dam were constructed in the upper part of the AOC 4 ravine and at the Bat Cave Wash (BCW) confluence, respectively (Figure 1).

The AOC 4 ravine extends south of the TCS and has experienced surface water run off during rainfall events. The purpose of the gabion was, and still is, to capture sediment that has washed down from the AOC 4 TCRA area during surface water flow events and to keep this sediment from migrating into the BCW.

As stated in the Implementation Report, maintenance of the gabion including periodic removal of soil that accumulates behind the gabion is needed so that the gabion can continue to function as designed and collect sediment during future surface water flow events. Since completion of the AOC 4 NTCRA, PG&E continues to conduct visual inspections of the gabion and completed soil removal around 2013 to remove soil trapped behind the gabion.

The upper check dam was also installed to capture sediment in the upper portion of the AOC 4 wash, but soil removal at the check dam is difficult due to the rugged nature and

steep slopes of the AOC 4 ravine. Therefore, the check dam was removed during this phase of work so that trapped sediment can continue migrating down the ravine to the gabion.

This memorandum refers to the material being transported during surface water flow events as sediment, and sediment that becomes trapped or collected behind a gabion or check dam as soil.

Soil Characterization

A 4-point composite soil sample was collected from the proposed excavation area on the upstream side of the Gabion on June 17, 2021, to characterize the soil for purposes of soil management. A single composite soil sample was collected for lab analysis by digging four potholes by hand to a depth of 2 feet below ground surface, photos included in Appendix A.

Based on the analytical results, the soil is non-hazardous and is below the October 2020 soil management screening levels with acetone as an exception, results included in Appendix B. Acetone was detected above the ecological risk-based concentration of 40 micrograms per kilogram (ug/kg). PG&E reported results to DOI and DTSC and recommended that the soil be resampled to confirm the lab detection. With agencies' concurrence, PG&E collected two additional soil samples on August 5, 2021, for acetone analysis, results included in Appendix C.

Acetone results were reviewed by Jacobs' and DTSC's chemists and was determined that due to acetone's low ecological screening level, adjustments to the lab's procedures were necessary to have reliable acetone analytical detection. The lab adjusted their procedures and conducted a method detection limit study. The AOC 4 soil (stockpiled and staged at the Soil Processing Yard [SPY]) was then resampled for acetone on October 21, 2021. It was concluded that the soil excavated from AOC 4 may be reused onsite based on the resampling results, Appendix D.

Last Look, Biological, Cultural, and Compliance Monitoring

Prior to starting work the morning of September 13, 2021, a Last Look meeting was held at AOC 4 gabion with PG&E, GWP, and PG&E's qualified project biologists, archeologists, and compliance personnel. Stakeholders were notified of the Last Look meeting and the work to be completed as part of the Stakeholder communication protocol that includes providing notification of the work six weeks prior to commencement. Stakeholders present during the Last Look meeting included Fort Mohave Indian Nation Monitors: Cecil Collier, Delbert Holmes, and Melvin Holmes, and Chemehuevi Indian Monitors: Bradley Escobar, Tommie Ochoa, and Jason Beatty.

During the Last Look meeting, GWP described the soil removal scope of work and answered questions related to work methods, access, and the project work area. Conditions and work areas of the environmental release to construct (ERTC), submitted on September 2, 2021, to the project stakeholders and agencies, was also described during the Last Look meeting. PG&E's qualified biologists, archeologists and compliance personnel described the pre- and post-surveys completed within the work area that were consistent with other projects at Topock and described the monitoring they would be performing.

PG&E's qualified archeologist and Monitors were provided opportunities and access to inspect the soil for artifacts and fossils during the project. A safe observation area was provided for the Monitors that allowed work to be observed from an agreeable vantage point.

In addition, PG&E's qualified project biologists and compliance personnel were onsite to observe work related to compliance mitigations, vegetation preservation and to complete dust and noise monitoring activities.

Access Route and Work Areas

The work area was located at the confluence of the AOC 4 ravine and the BCW, southwest of the TCS. The primary access route was from the Park Moabi I-40 freeway overpass, along the PG&E 300A access road and up the active channel of the BCW. The access route followed existing, established dirt roads except for the portion along the bottom of BCW. In the area of BCW, traffic delineators were placed to demarcate the limits of the work area including south of BCW and through the access route up BCW. These were used to focus traffic on one travel path and to reduce impact to vegetation and the natural landscape of the BCW channel. The access route along the bottom of the BCW was temporary and was roped off to keep the public from driving on it during non-working periods. Several cobbles and boulders existed along the BCW access route - boulders and rocks were rearranged to avoid tire damage during work and were returned to a natural landscape during the site restoration work. A second access route was available through the TCS's west access gate and acted as an emergency secondary access route.

The established dirt road along the primary access route was graded and repaired during the beginning and end of the project; however, no grading was conducted along the bottom of BCW. Straw wattles were also placed along the edge of the primary access route between the access route and BCW.

Soil Removal and Excavation Methods

Once the work area was delineated, a mid-sized excavator, a mini-sized excavator, a water truck, and a dump truck were mobilized into the work area. Much of the soil was removed using the mid-size excavator; therefore, prior to starting the excavation, a portion of the gabion was removed so that the mid-sized excavator was able to enter the work area and work safely, see photos in Appendix A.

Once the gabion was removed, the mid-sized excavator was used to remove the bulk of the soil that was behind the gabion. Soil that had accumulated behind the gabion was removed by excavating "loose" material that was above or upstream of the gabion. Soil that was removed with the mid-sized excavator was loaded directly into a dump truck, and the soil transported and stockpiled at the SPY.

The mini-sized excavator was used to remove material along the boundaries of the excavation that the larger excavator could not remove due to the machine's larger size. Some areas were excavated using hand tools where the soil was shoveled directly into the excavator bucket and loaded into the dump truck. The hand tool work was utilized to

complete work to remove additional soil that the excavator could not reach, see photos in Appendix A.

The location where the soil was excavated is displayed in Figure 1 and includes an approximate area of 700 square feet. The depth of the excavation was approximately 6 feet deep at the northern boundary of the excavation and 2 feet deep at the southern boundary of the excavation, where the bedrock was shallower. Approximately 75 cubic yards (125 tons) of soil was excavated and removed from the excavation on the east side of the AOC 4 gabion. Roughly 10 percent of the soil remained in the excavation area, as some material was either unable to be removed with the excavator or shovels due to it being too far into the canyon to reach with the excavator.

In 2010, the upper check dam was originally constructed of sandbags that spanned the bottom of the ravine at a narrow, bedrock exposed area roughly midway from BCW to the AOC 4 removal area, south of the TCS (Figure 1). The sandbags were installed so that sediment would eventually accumulate upstream of the sandbags. These sandbags were removed and the material inside the sandbags (sand and gravel) was added to the AOC 4 soil pile in the SPY. The soil that had accumulated above or upstream of the check dam was left in place and not removed. Soil that had become trapped above the removed check dam should travel down the ravine during surface water flow events and will become trapped behind the AOC 4 gabion.

The soil that had accumulated above the gabion, and that was excavated during this phase of work, was a well graded soil that included silt, sand, gravel, cobbles, and small boulders, and is currently (at the time of this memo) staged at the SPY.

Dust Suppression

Dust suppression was a critical component of this project. Visible dust was mitigated using a water dust suppression method including misting and spraying water from a water truck. The dirt access road from Park Moabi Rd to the work site was also watered to keep truck traffic from producing dust. Water used for dust suppression was sourced from the TCS.

Site Restoration

Once work was completed, water was used to create a surface crust of any remaining soil that was not removed from the excavation area. Rocks removed from the gabion to provide access were returned and placed in new metal gabion baskets to restore the gabion dam. Felt fabric was installed on the upstream side of the gabion to prevent fine grained sediment from migrating into the BCW during surface water flow events, see photos in Appendix A.

Cobbles or boulders moved along the BCW temporary access route were returned and scattered to re-create the pre-construction natural appearance to the extent that was practical. Tire ruts or tracks were raked and removed. All equipment and BMPs were removed once work site restoration were complete, except the the straw wattles along the edge of the MW-88 bench located off the primary access dirt road.

References

CH2M HILL, "Implementation Report for the Time Critical Removal Action at AOC 4", 2011

Figures

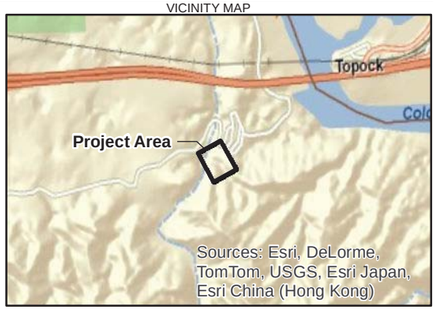
Figure 1: AOC4 Gabion Soil Removal Location

Appendices

Appendix A: AOC 4 Gabion Soil Removal Activities Photos: June 17, September 13-22, 2021
Appendix B: AOC 4 Gabion Soil Analytical Data Pre-Excavation, August 5, 2021
Appendix C: AOC 4 Gabion Soil Stockpile Analytical Data, October 21, 2021
Appendix D: AOC 4 Gabion Soil Analytical Data Pre-Excavation, June 17, 2021

Figures

VICINITY MAP



LEGEND

- Area of Soil Removal
- AOC4 Gabion

N

0 25 50 100 Feet

FIGURE 1
AOC4 GABION SOIL REMOVAL LOCATION

PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Appendix A

AOC 4 Gabion: June 17, 2021

AOC 4 Gabion: Soil Sampling Activities, June 17, 2021

AOC 4 Gabion: Mobilization, September 13, 2021

AOC 4 Gabion: Removal of Gabion with Mid-Sized Excavator, September 14, 2021

AOC 4 Gabion: Removal of Soil with Mini-Sized Excavator, September 15, 2021

AOC 4 Gabion: Installation of Felt Fabric on Upstream Side of Gabion, September 21, 2021

AOC 4 Gabion: Completed Excavation, September 21, 2021

AOC 4 Gabion: Rebuilt Gabion with New Metal Cages, September 22, 2021

AOC 4 Gabion: Restored Work Area, September 22, 2021

Appendix B

July 06, 2021

Eli Ludwig
Groundwater Partners
4410 Hawkins St. NE Unit D
Albuquerque, NM 87107

TEL: (505) 999-7535
FAX:

Workorder No.: N045954

RE: PG&E, PMO-Waste Characteri

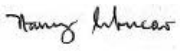
Attention: Eli Ludwig

Enclosed are the results for sample(s) received on June 18, 2021 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,



Nancy Sibucao
Laboratory Director

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Results were J-Flag. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" Flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Subcontracted Analyses:

Reactive Cyanide, Reactive Sulfide and Ignitability were subcontracted to Eurofins CalScience Inc.-Garden Grove, CA.

Asbestos was subcontracted to AmeriSci Los Angeles-Carson,CA.

Dioxins and Furans were subcontracted to Pace Analytical- Minneapolis, MN.

Analytical Comments for EPA 6010B:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery and RPD criteria for some analytes in QC samples N045925-001A-MS and N045925-001A-MSD possibly due to matrix interference. Post Spike (PS) passed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for EPA 8081A:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for some analytes in QC samples N045954-001D-MS and N045954-001D-MSD possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for EPA 8082:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery and RPD criteria in QC samples N045954-001D-MS and N045954-001D-MSD possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for EPA 8270C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery and RPD criteria for some analytes in QC samples N045954-001D-MS and N045954-001D-MSD possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.

ASSET Laboratories

Date: *06-Jul-21*

CLIENT: Groundwater Partners
Project: PG&E, PMO-Waste Characteri
Lab Order: N045954
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N045954-001A	AOC4-Gabion-WC	Soil	6/17/2021 11:30:00 AM	6/18/2021	7/6/2021
N045954-001B	AOC4-Gabion-WC	Soil	6/17/2021 11:30:00 AM	6/18/2021	7/6/2021
N045954-001C	AOC4-Gabion-WC	Soil	6/17/2021 11:30:00 AM	6/18/2021	7/6/2021
N045954-001D	AOC4-Gabion-WC	Soil	6/17/2021 11:30:00 AM	6/18/2021	7/6/2021
N045954-001E	AOC4-Gabion-WC	Soil	6/17/2021 11:30:00 AM	6/18/2021	7/6/2021
N045954-001F	AOC4-Gabion-WC	Soil	6/17/2021 11:30:00 AM	6/18/2021	7/6/2021
N045954-001G	AOC4-Gabion-WC	Soil	6/17/2021 11:30:00 AM	6/18/2021	7/6/2021
N045954-001H	AOC4-Gabion-WC	Soil	6/17/2021 11:30:00 AM	6/18/2021	7/6/2021
N045954-001I	AOC4-Gabion-WC	Soil	6/17/2021 11:30:00 AM	6/18/2021	7/6/2021
N045954-001J	AOC4-Gabion-WC	Soil	6/17/2021 11:30:00 AM	6/18/2021	7/6/2021
N045954-001K	AOC4-Gabion-WC	Soil	6/17/2021 11:30:00 AM	6/18/2021	7/6/2021

CLIENT: Groundwater Partners
Lab Order: N045954
Project: PG&E, PMO-Waste Characteri
Lab ID: N045954-001

Client Sample ID: AOC4-Gabion-WC
Collection Date: 6/17/2021 11:30:00 AM
Matrix: SOIL

TOTAL METALS BY ICP

EPA 3050B **EPA 6010B**

RunID: **NV00922-ICP2_210622D** QC Batch: **88114** PrepDate: **6/22/2021** Analyst: **DJ**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
Antimony	ND	0.33	2.0		mg/Kg-dry	1	6/22/2021 08:16 PM
Barium	130	0.31	1.0		mg/Kg-dry	1	6/22/2021 08:16 PM
Beryllium	ND	0.22	1.0		mg/Kg-dry	1	6/22/2021 08:16 PM
Cadmium	0.55	0.27	1.0	J	mg/Kg-dry	1	6/22/2021 08:16 PM
Chromium	26	0.33	1.0		mg/Kg-dry	1	6/22/2021 08:16 PM
Cobalt	8.0	0.29	1.0		mg/Kg-dry	1	6/22/2021 08:16 PM
Copper	15	0.90	2.0		mg/Kg-dry	1	6/22/2021 08:16 PM
Lead	6.9	0.30	1.0		mg/Kg-dry	1	6/22/2021 08:16 PM
Molybdenum	ND	0.30	1.0		mg/Kg-dry	1	6/22/2021 08:16 PM
Nickel	19	0.34	1.0		mg/Kg-dry	1	6/22/2021 08:16 PM
Selenium	ND	0.60	1.0		mg/Kg-dry	1	6/22/2021 08:16 PM
Silver	ND	0.63	1.0		mg/Kg-dry	1	6/22/2021 08:16 PM
Thallium	0.42	0.36	2.0	J	mg/Kg-dry	1	6/22/2021 08:16 PM
Vanadium	29	0.22	1.0		mg/Kg-dry	1	6/22/2021 08:16 PM
Zinc	36	0.30	1.0		mg/Kg-dry	1	6/22/2021 08:16 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified	DO	Surrogate Diluted Out

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPGE

Sample ID **MB-88114**	SampType: **MBLK**	TestCode: **6010_SPGE**	Units: **mg/Kg**	Prep Date: **6/22/2021**	RunNo: **153742**
Client ID: **PBS**	Batch ID: **88114**	TestNo: **EPA 6010B**	**EPA 3050B**	Analysis Date: **6/22/2021**	SeqNo: **4251897**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	2.0									
Barium	ND	1.0									
Beryllium	ND	1.0									
Cadmium	ND	1.0									
Chromium	ND	1.0									
Cobalt	ND	1.0									
Copper	ND	2.0									
Lead	ND	1.0									
Molybdenum	ND	1.0									
Nickel	ND	1.0									
Selenium	ND	1.0									
Silver	ND	1.0									
Thallium	ND	2.0									
Vanadium	ND	1.0									
Zinc	ND	1.0									

Sample ID **LCS-88114**	SampType: **LCS**	TestCode: **6010_SPGE**	Units: **mg/Kg**	Prep Date: **6/22/2021**	RunNo: **153742**
Client ID: **LCSS**	Batch ID: **88114**	TestNo: **EPA 6010B**	**EPA 3050B**	Analysis Date: **6/22/2021**	SeqNo: **4251898**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	26.038	2.0	25.00	0	104	85	115				
Barium	26.063	1.0	25.00	0	104	85	115				
Beryllium	25.817	1.0	25.00	0	103	85	115				
Cadmium	26.446	1.0	25.00	0	106	85	115				
Chromium	25.907	1.0	25.00	0	104	85	115				
Cobalt	27.344	1.0	25.00	0	109	85	115				
Copper	25.379	2.0	25.00	0	102	85	115				
Lead	26.473	1.0	25.00	0	106	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPGE

Sample ID **LCS-88114**	SampType: **LCS**	TestCode: **6010_SPGE**	Units: **mg/Kg**	Prep Date: **6/22/2021**	RunNo: **153742**
Client ID: **LCSS**	Batch ID: **88114**	TestNo: **EPA 6010B**	**EPA 3050B**	Analysis Date: **6/22/2021**	SeqNo: **4251898**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	25.572	1.0	25.00	0	102	85	115				
Nickel	26.118	1.0	25.00	0	104	85	115				
Selenium	26.579	1.0	25.00	0	106	85	115				
Silver	25.730	1.0	25.00	0	103	85	115				
Thallium	26.157	2.0	25.00	0	105	85	115				
Vanadium	25.796	1.0	25.00	0	103	85	115				
Zinc	27.721	1.0	25.00	0	111	85	115				

Sample ID **N045925-001A-MS**	SampType: **MS**	TestCode: **6010_SPGE**	Units: **mg/Kg**	Prep Date: **6/22/2021**	RunNo: **153742**
Client ID: **ZZZZZZ**	Batch ID: **88114**	TestNo: **EPA 6010B**	**EPA 3050B**	Analysis Date: **6/22/2021**	SeqNo: **4251903**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	16.817	2.0	24.98	0	67.3	75	125				S
Barium	234.574	1.0	24.98	147.7	348	75	125				S
Beryllium	21.712	1.0	24.98	0	86.9	75	125				
Cadmium	21.738	1.0	24.98	0.4224	85.3	75	125				
Chromium	44.432	1.0	24.98	22.97	85.9	75	125				
Cobalt	29.959	1.0	24.98	7.843	88.6	75	125				
Copper	37.894	2.0	24.98	11.06	107	75	125				
Lead	29.991	1.0	24.98	7.287	90.9	75	125				
Molybdenum	21.812	1.0	24.98	0	87.3	75	125				
Nickel	39.665	1.0	24.98	17.33	89.4	75	125				
Selenium	21.434	1.0	24.98	0	85.8	75	125				
Silver	26.534	1.0	24.98	0	106	75	125				
Thallium	20.713	2.0	24.98	0.7881	79.8	75	125				
Vanadium	58.229	1.0	24.98	32.89	101	75	125				
Zinc	64.142	1.0	24.98	43.70	81.9	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPGE

Sample ID **N045925-001A-MSD** SampType: **MSD** TestCode: **6010_SPGE** Units: **mg/Kg** Prep Date: **6/22/2021** RunNo: **153742**
Client ID: **ZZZZZZ** Batch ID: **88114** TestNo: **EPA 6010B** **EPA 3050B** Analysis Date: **6/22/2021** SeqNo: **4251904**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	16.317	2.0	24.96	0	65.4	75	125	16.82	3.01	20	S
Barium	179.695	1.0	24.96	147.7	128	75	125	234.6	26.5	20	SR
Beryllium	21.751	1.0	24.96	0	87.1	75	125	21.71	0.179	20	
Cadmium	22.032	1.0	24.96	0.4224	86.6	75	125	21.74	1.34	20	
Chromium	50.381	1.0	24.96	22.97	110	75	125	44.43	12.5	20	
Cobalt	31.497	1.0	24.96	7.843	94.8	75	125	29.96	5.00	20	
Copper	37.849	2.0	24.96	11.06	107	75	125	37.89	0.119	20	
Lead	31.564	1.0	24.96	7.287	97.3	75	125	29.99	5.11	20	
Molybdenum	21.826	1.0	24.96	0	87.4	75	125	21.81	0.0655	20	
Nickel	39.637	1.0	24.96	17.33	89.4	75	125	39.66	0.0706	20	
Selenium	21.402	1.0	24.96	0	85.7	75	125	21.43	0.145	20	
Silver	26.663	1.0	24.96	0	107	75	125	26.53	0.485	20	
Thallium	20.824	2.0	24.96	0.7881	80.3	75	125	20.71	0.535	20	
Vanadium	59.719	1.0	24.96	32.89	107	75	125	58.23	2.53	20	
Zinc	67.434	1.0	24.96	43.70	95.1	75	125	64.14	5.00	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPGE

Sample ID	**N045925-001A-PS**	SampType: **PS**	TestCode: **6010_SPGE**	Units: **mg/Kg**	Prep Date:	RunNo: **153742**
Client ID:	**ZZZZZZ**	Batch ID: **88114**	TestNo: **EPA 6010B**	**EPA 3050B**	Analysis Date: **6/22/2021**	SeqNo: **4251902**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	22.837	2.0	25.00	0	91.3	80	120				
Barium	172.223	1.0	25.00	147.7	98.3	80	120				
Beryllium	23.103	1.0	25.00	0	92.4	80	120				
Cadmium	22.333	1.0	25.00	0.4224	87.6	80	120				
Chromium	45.990	1.0	25.00	22.97	92.1	80	120				
Cobalt	30.913	1.0	25.00	7.843	92.3	80	120				
Copper	36.212	2.0	25.00	11.06	101	80	120				
Lead	29.834	1.0	25.00	7.287	90.2	80	120				
Molybdenum	23.281	1.0	25.00	0	93.1	80	120				
Nickel	40.416	1.0	25.00	17.33	92.4	80	120				
Selenium	22.433	1.0	25.00	0	89.7	80	120				
Silver	28.401	1.0	25.00	0	114	80	120				
Thallium	21.552	2.0	25.00	0.7881	83.1	80	120				
Vanadium	56.330	1.0	25.00	32.89	93.8	80	120				
Zinc	68.133	1.0	25.00	43.70	97.7	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT:	Groundwater Partners	**Client Sample ID:**	AOC4-Gabion-WC
Lab Order:	N045954	**Collection Date:**	6/17/2021 11:30:00 AM
Project:	PG&E, PMO-Waste Characteri	**Matrix:**	SOIL
Lab ID:	N045954-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL METALS BY ICPMS							
EPA 3050B			**EPA 6020**				
RunID: **NV00922-ICP8_210630B**	QC Batch: **88140**			PrepDate: **6/23/2021**			Analyst: **CEI**
Arsenic	3.2	0.031	0.25		mg/Kg-dry	1	6/30/2021 09:23 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified	DO	Surrogate Diluted Out

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_S_PGE_TPK

Sample ID	MB-88140	SampType:	MBLK	TestCode:	6020_S_PGE	Units:	mg/Kg	Prep Date:	6/23/2021	RunNo:	153969
Client ID:	PBS	Batch ID:	88140	TestNo:	EPA 6020	EPA 3050B		Analysis Date:	6/30/2021	SeqNo:	4261492

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.25									

Sample ID	LCS-88140	SampType:	LCS	TestCode:	6020_S_PGE	Units:	mg/Kg	Prep Date:	6/23/2021	RunNo:	153969
Client ID:	LCSS	Batch ID:	88140	TestNo:	EPA 6020	EPA 3050B		Analysis Date:	6/30/2021	SeqNo:	4261493

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	5.194	0.25	5.000	0	104	85	115				

Sample ID	N045954-001B-MS	SampType:	MS	TestCode:	6020_S_PGE	Units:	mg/Kg-dry	Prep Date:	6/23/2021	RunNo:	153969
Client ID:	ZZZZZZ	Batch ID:	88140	TestNo:	EPA 6020	EPA 3050B		Analysis Date:	6/30/2021	SeqNo:	4261499

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	8.962	0.25	5.041	3.210	114	75	125				

Sample ID	N045954-001B-MSD	SampType:	MSD	TestCode:	6020_S_PGE	Units:	mg/Kg-dry	Prep Date:	6/23/2021	RunNo:	153969
Client ID:	ZZZZZZ	Batch ID:	88140	TestNo:	EPA 6020	EPA 3050B		Analysis Date:	6/30/2021	SeqNo:	4261501

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	8.695	0.25	5.033	3.210	109	75	125	8.962	3.02	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT:	Groundwater Partners	**Client Sample ID:**	AOC4-Gabion-WC
Lab Order:	N045954	**Collection Date:**	6/17/2021 11:30:00 AM
Project:	PG&E, PMO-Waste Characteri	**Matrix:**	SOIL
Lab ID:	N045954-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
EPA 3060A			**EPA 7199**				
RunID: **NV00922-IC6_210622A**	QC Batch: **88107**			PrepDate:	**6/21/2021**		Analyst: **RAB**
Hexavalent Chromium	0.035	0.032	0.20	J	mg/Kg-dry	1	6/22/2021 02:08 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified	DO	Surrogate Diluted Out

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 7199_S_PGE

Sample ID	**MB-88107**	SampType:	**MBLK**	TestCode:	**7199_S_PGE**	Units:	**mg/Kg**	Prep Date:	**6/21/2021**	RunNo:	**153762**
Client ID:	**PBS**	Batch ID:	**88107**	TestNo:	**EPA 7199**	**EPA 3060A**		Analysis Date:	**6/22/2021**	SeqNo:	**4252593**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID	**LCS-88107**	SampType:	**LCS**	TestCode:	**7199_S_PGE**	Units:	**mg/Kg**	Prep Date:	**6/21/2021**	RunNo:	**153762**
Client ID:	**LCSS**	Batch ID:	**88107**	TestNo:	**EPA 7199**	**EPA 3060A**		Analysis Date:	**6/22/2021**	SeqNo:	**4252594**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	3.839	0.20	4.000	0	96.0	80	120				

Sample ID	**N045925-001B-REP**	SampType:	**DUP**	TestCode:	**7199_S_PGE**	Units:	**mg/Kg**	Prep Date:	**6/21/2021**	RunNo:	**153762**
Client ID:	**ZZZZZZ**	Batch ID:	**88107**	TestNo:	**EPA 7199**	**EPA 3060A**		Analysis Date:	**6/22/2021**	SeqNo:	**4252596**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.120	0.20						0.1172	0	20	J

Sample ID	**N045925-001B-DUP**	SampType:	**DUP**	TestCode:	**7199_S_PGE**	Units:	**mg/Kg**	Prep Date:	**6/21/2021**	RunNo:	**153762**
Client ID:	**ZZZZZZ**	Batch ID:	**88107**	TestNo:	**EPA 7199**	**EPA 3060A**		Analysis Date:	**6/22/2021**	SeqNo:	**4252597**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.101	0.20						0.1172	0	20	J

Sample ID	**N045925-001B-MS**	SampType:	**MS**	TestCode:	**7199_S_PGE**	Units:	**mg/Kg**	Prep Date:	**6/21/2021**	RunNo:	**153762**
Client ID:	**ZZZZZZ**	Batch ID:	**88107**	TestNo:	**EPA 7199**	**EPA 3060A**		Analysis Date:	**6/22/2021**	SeqNo:	**4252598**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	3.889	0.20	3.990	0.1172	94.5	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 7199_S_PGE

Sample ID	N045925-001B-MSD	SampType:	MSD	TestCode:	7199_S_PGE	Units:	mg/Kg	Prep Date:	6/21/2021	RunNo:	153762
Client ID:	ZZZZZZ	Batch ID:	88107	TestNo:	EPA 7199	EPA 3060A		Analysis Date:	6/22/2021	SeqNo:	4252599

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.062	0.20	3.998	0.1172	98.7	75	125	3.889	4.35	20	

Sample ID	N045925-001B-MS I	SampType:	MS	TestCode:	7199_S_PGE	Units:	mg/Kg	Prep Date:	6/21/2021	RunNo:	153762
Client ID:	ZZZZZZ	Batch ID:	88107	TestNo:	EPA 7199	EPA 3060A		Analysis Date:	6/22/2021	SeqNo:	4252600

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	568.682	10	674.9	0.1172	84.2	75	125				

Sample ID	N045954-001A-REP	SampType:	DUP	TestCode:	7199_S_PGE	Units:	mg/Kg-dry	Prep Date:	6/21/2021	RunNo:	153762
Client ID:	ZZZZZZ	Batch ID:	88107	TestNo:	EPA 7199	EPA 3060A		Analysis Date:	6/22/2021	SeqNo:	4252602

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.033	0.20						0.03498	0	20	J

Sample ID	N045925-001B-PS	SampType:	MS	TestCode:	7199_S_PGE	Units:	mg/Kg	Prep Date:		RunNo:	153762
Client ID:	ZZZZZZ	Batch ID:	88107	TestNo:	EPA 7199	EPA 3060A		Analysis Date:	6/22/2021	SeqNo:	4252605

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.193	0.20	3.994	0.1172	102	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT:	Groundwater Partners	**Client Sample ID:**	AOC4-Gabion-WC
Lab Order:	N045954	**Collection Date:**	6/17/2021 11:30:00 AM
Project:	PG&E, PMO-Waste Characteri	**Matrix:**	SOIL
Lab ID:	N045954-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY BY COLD VAPOR TECHNIQUE							
EPA 7471A							
RunID: **NV00922-AA2_210623A** QC Batch: **88115** PrepDate: **6/22/2021** Analyst: **DJ**							
Mercury	0.021	0.010	0.10	J	mg/Kg-dry	1	6/23/2021 12:35 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified	DO	Surrogate Diluted Out

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 7471_S_PGE

Sample ID	MB-88115	SampType:	MBLK	TestCode:	7471_S_PGE	Units:	mg/Kg	Prep Date:	6/22/2021	RunNo:	153769
Client ID:	PBS	Batch ID:	88115	TestNo:	EPA 7471A			Analysis Date:	6/23/2021	SeqNo:	4253042

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.10									

Sample ID	LCS-88115	SampType:	LCS	TestCode:	7471_S_PGE	Units:	mg/Kg	Prep Date:	6/22/2021	RunNo:	153769
Client ID:	LCSS	Batch ID:	88115	TestNo:	EPA 7471A			Analysis Date:	6/23/2021	SeqNo:	4253043

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.408	0.10	0.4167	0	98.0	75	125				

Sample ID	N045937-001A-MSD	SampType:	MSD	TestCode:	7471_S_PGE	Units:	mg/Kg	Prep Date:	6/22/2021	RunNo:	153769
Client ID:	ZZZZZZ	Batch ID:	88115	TestNo:	EPA 7471A			Analysis Date:	6/23/2021	SeqNo:	4253048

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.409	0.10	0.4160	0.06578	82.6	75	125	0.4589	11.4	20	

Sample ID	N045937-001A-MS	SampType:	MS	TestCode:	7471_S_PGE	Units:	mg/Kg	Prep Date:	6/22/2021	RunNo:	153769
Client ID:	ZZZZZZ	Batch ID:	88115	TestNo:	EPA 7471A			Analysis Date:	6/23/2021	SeqNo:	4253050

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.459	0.099	0.4112	0.06578	95.6	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT:	Groundwater Partners	**Client Sample ID:**	AOC4-Gabion-WC
Lab Order:	N045954	**Collection Date:**	6/17/2021 11:30:00 AM
Project:	PG&E, PMO-Waste Characteri	**Matrix:**	SOIL
Lab ID:	N045954-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID							
EPA 3550B			**EPA 8015B**				
RunID: **NV00922-GC3_210628A**	QC Batch: **88182**			PrepDate:	**6/28/2021**		Analyst: **LLR**
TPH-Diesel (C9-C25)	27	4.8	10		mg/Kg-dry	1	6/28/2021 03:54 PM
TPH-Oil (C24-C40)	40	4.9	10		mg/Kg-dry	1	6/28/2021 03:54 PM
Surr: Octacosane	81.9	0	25-162		%REC	1	6/28/2021 03:54 PM
Surr: p-Terphenyl	79.3	0	47-142		%REC	1	6/28/2021 03:54 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified	DO	Surrogate Diluted Out

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015DM_SPGE

Sample ID **MB-88182**	SampType: **MBLK**	TestCode: **8015DM_SPG**	Units: **mg/Kg**	Prep Date: **6/28/2021**	RunNo: **153888**
Client ID: **PBS**	Batch ID: **88182**	TestNo: **EPA 8015B**	**EPA 3550B**	Analysis Date: **6/28/2021**	SeqNo: **4258639**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Diesel (C9-C25)	ND	10									
TPH-Oil (C24-C40)	ND	10									
Surr: Octacosane	22.975		26.67		86.1	25	162				
Surr: p-Terphenyl	23.541		26.67		88.3	47	142				

Sample ID **LCS-88182_DRO**	SampType: **LCS**	TestCode: **8015DM_SPG**	Units: **mg/Kg**	Prep Date: **6/28/2021**	RunNo: **153888**
Client ID: **LCSS**	Batch ID: **88182**	TestNo: **EPA 8015B**	**EPA 3550B**	Analysis Date: **6/28/2021**	SeqNo: **4258640**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Diesel (C9-C25)	320.726	10	333.3	0	96.2	51	153				
Surr: Octacosane	23.848		26.67		89.4	25	162				
Surr: p-Terphenyl	23.870		26.67		89.5	47	142				

Sample ID **LCS-88182_ORO**	SampType: **LCS**	TestCode: **8015DM_SPG**	Units: **mg/Kg**	Prep Date: **6/28/2021**	RunNo: **153888**
Client ID: **LCSS**	Batch ID: **88182**	TestNo: **EPA 8015B**	**EPA 3550B**	Analysis Date: **6/28/2021**	SeqNo: **4258641**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Oil (C24-C40)	310.444	10	333.3	0	93.1	60	120				
Surr: Octacosane	23.864		26.67		89.5	25	162				
Surr: p-Terphenyl	23.252		26.67		87.2	47	142				

Sample ID **N045954-001D-MS_**	SampType: **MS**	TestCode: **8015DM_SPG**	Units: **mg/Kg-dry**	Prep Date: **6/28/2021**	RunNo: **153888**
Client ID: **ZZZZZZ**	Batch ID: **88182**	TestNo: **EPA 8015B**	**EPA 3550B**	Analysis Date: **6/28/2021**	SeqNo: **4258643**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Diesel (C9-C25)	310.242	10	335.8	27.07	84.3	51	153				
Surr: Octacosane	22.897		26.87		85.2	25	162				
Surr: p-Terphenyl	22.039		26.87		82.0	47	142				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015DM_SPGE

Sample ID **N045954-001D-MSD** SampType: **MSD** TestCode: **8015DM_SPG** Units: **mg/Kg-dry** Prep Date: **6/28/2021** RunNo: **153888**
Client ID: **ZZZZZZ** Batch ID: **88182** TestNo: **EPA 8015B** **EPA 3550B** Analysis Date: **6/28/2021** SeqNo: **4258644**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Diesel (C9-C25)	264.418	10	335.5	27.07	70.7	51	153	310.2	15.9	50	
Surr: Octacosane	17.916		26.84		66.7	25	162		0		
Surr: p-Terphenyl	17.852		26.84		66.5	47	142		0		

Sample ID **N045954-001D-MS_** SampType: **MS** TestCode: **8015DM_SPG** Units: **mg/Kg-dry** Prep Date: **6/28/2021** RunNo: **153888**
Client ID: **ZZZZZZ** Batch ID: **88182** TestNo: **EPA 8015B** **EPA 3550B** Analysis Date: **6/28/2021** SeqNo: **4258645**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Oil (C24-C40)	307.056	10	335.6	40.43	79.4	60	120				
Surr: Octacosane	20.457		26.85		76.2	25	162				
Surr: p-Terphenyl	18.778		26.85		69.9	47	142				

Sample ID **N045954-001D-MSD** SampType: **MSD** TestCode: **8015DM_SPG** Units: **mg/Kg-dry** Prep Date: **6/28/2021** RunNo: **153888**
Client ID: **ZZZZZZ** Batch ID: **88182** TestNo: **EPA 8015B** **EPA 3550B** Analysis Date: **6/28/2021** SeqNo: **4258646**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Oil (C24-C40)	285.390	10	336.9	40.43	72.7	60	120	307.1	7.31	50	
Surr: Octacosane	21.903		26.96		81.2	25	162		0		
Surr: p-Terphenyl	20.798		26.96		77.1	47	142		0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT:	Groundwater Partners	**Client Sample ID:**	AOC4-Gabion-WC
Lab Order:	N045954	**Collection Date:**	6/17/2021 11:30:00 AM
Project:	PG&E, PMO-Waste Characteri	**Matrix:**	SOIL
Lab ID:	N045954-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS BY GC/FID							
			EPA 8015B				
RunID: **NV00922-GC4_210621A**	QC Batch: **E21VS076**			PrepDate:	**6/21/2021**		Analyst: **BH**
TPH-Gasoline (C6-C12)	ND	410	1700		ug/Kg-dry	1	6/21/2021 02:49 PM
Surr: Chlorobenzene - d5	89.1	0	64-148		%REC	1	6/21/2021 02:49 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
		Results are wet unless otherwise specified	DO	Surrogate Diluted Out

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GAS_5035PPGE

Sample ID **E210621LCS**	SampType: **LCS**	TestCode: **8015GAS_50**	Units: **ug/Kg**	Prep Date:	RunNo: **153712**
Client ID: **LCSS**	Batch ID: **E21VS076**	TestNo: **EPA 8015B**		Analysis Date: **6/21/2021**	SeqNo: **4250759**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C6-C12)	6042.000	1000	5000	0	121	57	146				
Surr: Chlorobenzene - d5	98659.000		100000		98.7	64	148				

Sample ID **E210621LCSD**	SampType: **LCSD**	TestCode: **8015GAS_50**	Units: **ug/Kg**	Prep Date:	RunNo: **153712**
Client ID: **LCSS02**	Batch ID: **E21VS076**	TestNo: **EPA 8015B**		Analysis Date: **6/21/2021**	SeqNo: **4250760**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C6-C12)	5715.000	1000	5000	0	114	57	146	6042	5.56	50	
Surr: Chlorobenzene - d5	100959.000		100000		101	64	148		0	0	

Sample ID **E210621MB**	SampType: **MBLK**	TestCode: **8015GAS_50**	Units: **ug/Kg**	Prep Date:	RunNo: **153712**
Client ID: **PBS**	Batch ID: **E21VS076**	TestNo: **EPA 8015B**		Analysis Date: **6/21/2021**	SeqNo: **4250761**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C6-C12)	ND	1000									
Surr: Chlorobenzene - d5	88874.000		100000		88.9	64	148				

Sample ID **N045958-001BMS**	SampType: **MS**	TestCode: **8015GAS_50**	Units: **ug/Kg-dry**	Prep Date:	RunNo: **153712**
Client ID: **ZZZZZZ**	Batch ID: **E21VS076**	TestNo: **EPA 8015B**		Analysis Date: **6/21/2021**	SeqNo: **4250764**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C6-C12)	5353.376	1000	5015	0	107	57	146				
Surr: Chlorobenzene - d5	109517.013		100300		109	64	148				

Sample ID **N045958-001BMSD**	SampType: **MSD**	TestCode: **8015GAS_50**	Units: **ug/Kg-dry**	Prep Date:	RunNo: **153712**
Client ID: **ZZZZZZ**	Batch ID: **E21VS076**	TestNo: **EPA 8015B**		Analysis Date: **6/21/2021**	SeqNo: **4250765**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out
- Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GAS_5035PPGE

Sample ID **N045958-001BMSD** SampType: **MSD** TestCode: **8015GAS_50** Units: **ug/Kg-dry** Prep Date: RunNo: **153712**
Client ID: **ZZZZZZ** Batch ID: **E21VS076** TestNo: **EPA 8015B** Analysis Date: **6/21/2021** SeqNo: **4250765**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C6-C12)	5060.480	1000	5015	0	101	57	146	5353	5.63	50	
Surr: Chlorobenzene - d5	106707.418		100300		106	64	148		0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Lab Order: N045954
Project: PG&E, PMO-Waste Characteri
Lab ID: N045954-001

Client Sample ID: AOC4-Gabion-WC
Collection Date: 6/17/2021 11:30:00 AM
Matrix: SOIL

ORGANOCHLORINE PESTICIDES BY GC/ECD

EPA 3550B **EPA 8081A**

RunID: **NV00922-GC8_210701A** QC Batch: **88185** PrepDate: **6/28/2021** Analyst: **HG**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
4,4´-DDD	ND	0.59	2.0		ug/Kg-dry	1	7/1/2021 12:24 PM
4,4´-DDE	9.4	0.49	2.0		ug/Kg-dry	1	7/1/2021 12:24 PM
4,4´-DDT	ND	0.39	2.0		ug/Kg-dry	1	7/1/2021 12:24 PM
Aldrin	ND	0.12	1.0		ug/Kg-dry	1	7/1/2021 12:24 PM
alpha-BHC	1.9	0.15	1.0		ug/Kg-dry	1	7/1/2021 12:24 PM
alpha-Chlordane	ND	0.14	1.0		ug/Kg-dry	1	7/1/2021 12:24 PM
beta-BHC	ND	0.27	1.0		ug/Kg-dry	1	7/1/2021 12:24 PM
delta-BHC	ND	0.18	1.0		ug/Kg-dry	1	7/1/2021 12:24 PM
Dieldrin	6.5	0.33	2.0		ug/Kg-dry	1	7/2/2021 02:03 PM
Endosulfan I	ND	0.18	1.0		ug/Kg-dry	1	7/1/2021 12:24 PM
Endosulfan II	ND	0.63	2.0		ug/Kg-dry	1	7/1/2021 12:24 PM
Endosulfan sulfate	ND	0.45	2.0		ug/Kg-dry	1	7/1/2021 12:24 PM
Endrin	ND	0.50	2.0		ug/Kg-dry	1	7/1/2021 12:24 PM
Endrin aldehyde	ND	0.87	2.0		ug/Kg-dry	1	7/1/2021 12:24 PM
Endrin ketone	ND	0.57	2.0		ug/Kg-dry	1	7/1/2021 12:24 PM
gamma-BHC	ND	0.16	1.0		ug/Kg-dry	1	7/1/2021 12:24 PM
gamma-Chlordane	ND	0.15	1.0		ug/Kg-dry	1	7/1/2021 12:24 PM
Heptachlor	ND	0.13	1.0		ug/Kg-dry	1	7/1/2021 12:24 PM
Heptachlor epoxide	ND	0.15	1.0		ug/Kg-dry	1	7/1/2021 12:24 PM
Methoxychlor	ND	2.5	5.1		ug/Kg-dry	1	7/1/2021 12:24 PM
Toxaphene	ND	9.7	51		ug/Kg-dry	1	7/1/2021 12:24 PM
Surr: Tetrachloro-m-xylene	69.9	0	36-124		%REC	1	7/1/2021 12:24 PM
Surr: Decachlorobiphenyl	80.9	0	26-125		%REC	1	7/1/2021 12:24 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified	DO	Surrogate Diluted Out

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8081_S_PGE

Sample ID **LCS-88185_OCP**	SampType: **LCS**	TestCode: **8081_S_PGE**	Units: **ug/Kg**	Prep Date: **6/28/2021**	RunNo: **153976**
Client ID: **LCSS**	Batch ID: **88185**	TestNo: **EPA 8081A**	**EPA 3550B**	Analysis Date: **7/1/2021**	SeqNo: **4262852**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4´-DDD	14.999	2.0	16.67	0	90.0	50	139				
4,4´-DDE	14.140	2.0	16.67	0	84.8	68	126				
4,4´-DDT	15.685	2.0	16.67	0	94.1	46	135				
Aldrin	11.509	1.0	16.67	0	69.0	47	120				
alpha-BHC	12.005	1.0	16.67	0	72.0	62	125				
alpha-Chlordane	12.661	1.0	16.67	0	75.9	63	121				
beta-BHC	12.341	1.0	16.67	0	74.0	62	127				
delta-BHC	13.909	1.0	16.67	0	83.4	57	130				
Dieldrin	14.073	2.0	16.67	0	84.4	67	125				
Endosulfan I	12.652	1.0	16.67	0	75.9	41	147				
Endosulfan II	14.469	2.0	16.67	0	86.8	37	141				
Endosulfan sulfate	17.362	2.0	16.67	0	104	62	135				
Endrin	14.801	2.0	16.67	0	88.8	61	133				
Endrin aldehyde	14.179	2.0	16.67	0	85.1	37	147				
Endrin ketone	15.941	2.0	16.67	0	95.6	73	140				
gamma-BHC	12.404	1.0	16.67	0	74.4	59	123				
gamma-Chlordane	12.732	1.0	16.67	0	76.4	48	124				
Heptachlor	11.796	1.0	16.67	0	70.8	51	140				
Heptachlor epoxide	12.542	1.0	16.67	0	75.2	66	130				
Methoxychlor	18.378	5.0	16.67	0	110	57	143				
Surr: Tetrachloro-m-xylene	10.591		16.67		63.5	36	124				
Surr: Decachlorobiphenyl	13.497		16.67		81.0	26	125				

Sample ID **LCS-88185_TOX**	SampType: **LCS**	TestCode: **8081_S_PGE**	Units: **ug/Kg**	Prep Date: **6/28/2021**	RunNo: **153976**
Client ID: **LCSS**	Batch ID: **88185**	TestNo: **EPA 8081A**	**EPA 3550B**	Analysis Date: **7/1/2021**	SeqNo: **4262853**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	283.486	50	333.3	0	85.0	31	136				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8081_S_PGE

Sample ID **LCS-88185_TOX**	SampType: **LCS**	TestCode: **8081_S_PGE**	Units: **ug/Kg**	Prep Date: **6/28/2021**	RunNo: **153976**
Client ID: **LCSS**	Batch ID: **88185**	TestNo: **EPA 8081A**	**EPA 3550B**	Analysis Date: **7/1/2021**	SeqNo: **4262853**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Tetrachloro-m-xylene	10.172		16.67		61.0	36	124				
Surr: Decachlorobiphenyl	14.443		16.67		86.6	26	125				

Sample ID **MB-88185**	SampType: **MBLK**	TestCode: **8081_S_PGE**	Units: **ug/Kg**	Prep Date: **6/28/2021**	RunNo: **153976**
Client ID: **PBS**	Batch ID: **88185**	TestNo: **EPA 8081A**	**EPA 3550B**	Analysis Date: **7/1/2021**	SeqNo: **4262854**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4´-DDD	ND	2.0									
4,4´-DDE	ND	2.0									
4,4´-DDT	ND	2.0									
Aldrin	ND	1.0									
alpha-BHC	ND	1.0									
alpha-Chlordane	ND	1.0									
beta-BHC	ND	1.0									
delta-BHC	ND	1.0									
Dieldrin	ND	2.0									
Endosulfan I	ND	1.0									
Endosulfan II	ND	2.0									
Endosulfan sulfate	ND	2.0									
Endrin	ND	2.0									
Endrin aldehyde	ND	2.0									
Endrin ketone	ND	2.0									
gamma-BHC	ND	1.0									
gamma-Chlordane	ND	1.0									
Heptachlor	ND	1.0									
Heptachlor epoxide	ND	1.0									
Methoxychlor	ND	5.0									
Toxaphene	ND	50									
Surr: Tetrachloro-m-xylene	8.115		16.67		48.7	36	124				
Surr: Decachlorobiphenyl	14.023		16.67		84.1	26	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8081_S_PGE

Sample ID **N045954-001D-MS_** SampType: **MS** TestCode: **8081_S_PGE** Units: **ug/Kg-dry** Prep Date: **6/28/2021** RunNo: **153976**
Client ID: **ZZZZZZ** Batch ID: **88185** TestNo: **EPA 8081A** **EPA 3550B** Analysis Date: **7/1/2021** SeqNo: **4262856**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4´-DDD	19.291	2.0	16.85	0	114	50	139				
4,4´-DDE	26.348	2.0	16.85	9.358	101	68	126				
4,4´-DDT	34.898	2.0	16.85	0	207	46	135				S
Aldrin	12.459	1.0	16.85	0	73.9	47	120				
alpha-BHC	13.629	1.0	16.85	1.926	69.5	62	125				
alpha-Chlordane	12.599	1.0	16.85	0	74.8	63	121				
beta-BHC	11.091	1.0	16.85	0	65.8	62	127				
delta-BHC	30.780	1.0	16.85	0	183	57	130				S
Endosulfan I	19.525	1.0	16.85	0	116	41	147				
Endosulfan II	19.790	2.0	16.85	0	117	37	141				
Endosulfan sulfate	18.843	2.0	16.85	0	112	62	135				
Endrin	19.763	2.0	16.85	0	117	61	133				
Endrin aldehyde	14.557	2.0	16.85	0	86.4	37	147				
Endrin ketone	13.111	2.0	16.85	0	77.8	73	140				
gamma-BHC	12.719	1.0	16.85	0	75.5	59	123				
gamma-Chlordane	15.500	1.0	16.85	0	92.0	48	124				
Heptachlor	12.435	1.0	16.85	0	73.8	51	140				
Heptachlor epoxide	14.355	1.0	16.85	0	85.2	66	130				
Methoxychlor	19.938	5.1	16.85	0	118	57	143				
Surr: Tetrachloro-m-xylene	10.503		16.85		62.3	36	124				
Surr: Decachlorobiphenyl	12.559		16.85		74.5	26	125				

Sample ID **N045954-001D-MSD** SampType: **MSD** TestCode: **8081_S_PGE** Units: **ug/Kg-dry** Prep Date: **6/28/2021** RunNo: **153976**
Client ID: **ZZZZZZ** Batch ID: **88185** TestNo: **EPA 8081A** **EPA 3550B** Analysis Date: **7/1/2021** SeqNo: **4262857**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4´-DDD	16.367	2.0	16.83	0	97.3	50	139	19.29	16.4	50	
4,4´-DDE	26.988	2.0	16.83	9.358	105	68	126	26.35	2.40	50	
4,4´-DDT	35.547	2.0	16.83	0	211	46	135	34.90	1.84	50	S
Aldrin	13.905	1.0	16.83	0	82.6	47	120	12.46	11.0	50	

Qualifiers:

B Analyte detected in the associated Method Blank
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike/Surrogate outside of limits due to matrix interference
DO Surrogate Diluted Out
Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8081_S_PGE

Sample ID **N045954-001D-MSD** SampType: **MSD** TestCode: **8081_S_PGE** Units: **ug/Kg-dry** Prep Date: **6/28/2021** RunNo: **153976**
Client ID: **ZZZZZZ** Batch ID: **88185** TestNo: **EPA 8081A** **EPA 3550B** Analysis Date: **7/1/2021** SeqNo: **4262857**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
alpha-BHC	14.575	1.0	16.83	1.926	75.2	62	125	13.63	6.71	50	
alpha-Chlordane	12.912	1.0	16.83	0	76.7	63	121	12.60	2.45	50	
beta-BHC	12.269	1.0	16.83	0	72.9	62	127	11.09	10.1	50	
delta-BHC	31.515	1.0	16.83	0	187	57	130	30.78	2.36	50	S
Endosulfan I	20.100	1.0	16.83	0	119	41	147	19.53	2.90	50	
Endosulfan II	20.737	2.0	16.83	0	123	37	141	19.79	4.67	50	
Endosulfan sulfate	30.487	2.0	16.83	0	181	62	135	18.84	47.2	50	S
Endrin	18.208	2.0	16.83	0	108	61	133	19.76	8.19	50	
Endrin aldehyde	12.601	2.0	16.83	0	74.9	37	147	14.56	14.4	50	
Endrin ketone	13.577	2.0	16.83	0	80.7	73	140	13.11	3.49	50	
gamma-BHC	13.328	1.0	16.83	0	79.2	59	123	12.72	4.68	50	
gamma-Chlordane	16.023	1.0	16.83	0	95.2	48	124	15.50	3.32	50	
Heptachlor	13.063	1.0	16.83	0	77.6	51	140	12.43	4.92	50	
Heptachlor epoxide	14.419	1.0	16.83	0	85.7	66	130	14.36	0.442	50	
Methoxychlor	18.887	5.0	16.83	0	112	57	143	19.94	5.41	50	
Surr: Tetrachloro-m-xylene	10.934		16.83		65.0	36	124		0	0	
Surr: Decachlorobiphenyl	12.723		16.83		75.6	26	125		0	0	

Sample ID **N045954-001D-MS_** SampType: **MS** TestCode: **8081_S_PGE** Units: **ug/Kg-dry** Prep Date: **6/28/2021** RunNo: **153976**
Client ID: **ZZZZZZ** Batch ID: **88185** TestNo: **EPA 8081A** **EPA 3550B** Analysis Date: **7/1/2021** SeqNo: **4262858**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	608.644	50	336.5	0	181	31	136				S
Surr: Tetrachloro-m-xylene	10.977		16.83		65.2	36	124				
Surr: Decachlorobiphenyl	11.192		16.83		66.5	26	125				

Sample ID **N045954-001D-MSD** SampType: **MSD** TestCode: **8081_S_PGE** Units: **ug/Kg-dry** Prep Date: **6/28/2021** RunNo: **153976**
Client ID: **ZZZZZZ** Batch ID: **88185** TestNo: **EPA 8081A** **EPA 3550B** Analysis Date: **7/1/2021** SeqNo: **4262859**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out
- Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8081_S_PGE

Sample ID	N045954-001D-MSD	SampType:	MSD	TestCode:	8081_S_PGE	Units:	ug/Kg-dry	Prep Date:	6/28/2021	RunNo:	153976
Client ID:	ZZZZZZ	Batch ID:	88185	TestNo:	EPA 8081A	EPA 3550B		Analysis Date:	7/1/2021	SeqNo:	4262859

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	417.011	50	336.1	0	124	31	136	608.6	37.4	50	
Surr: Tetrachloro-m-xylene	8.278		16.81		49.3	36	124		0	0	
Surr: Decachlorobiphenyl	8.351		16.81		49.7	26	125		0	0	

Sample ID	N045954-001D-MS_	SampType:	MS	TestCode:	8081_S_PGE	Units:	ug/Kg-dry	Prep Date:	6/28/2021	RunNo:	153976
Client ID:	ZZZZZZ	Batch ID:	88185	TestNo:	EPA 8081A	EPA 3550B		Analysis Date:	7/1/2021	SeqNo:	4264418

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dieldrin	18.119	2.0	16.85	6.470	69.1	67	125				

Sample ID	N045954-001D-MSD	SampType:	MSD	TestCode:	8081_S_PGE	Units:	ug/Kg-dry	Prep Date:	6/28/2021	RunNo:	153976
Client ID:	ZZZZZZ	Batch ID:	88185	TestNo:	EPA 8081A	EPA 3550B		Analysis Date:	7/1/2021	SeqNo:	4264419

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dieldrin	19.018	2.0	16.83	6.470	74.6	67	125	18.12	4.84	50	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT:	Groundwater Partners	**Client Sample ID:**	AOC4-Gabion-WC
Lab Order:	N045954	**Collection Date:**	6/17/2021 11:30:00 AM
Project:	PG&E, PMO-Waste Characteri	**Matrix:**	SOIL
Lab ID:	N045954-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
PCBS BY GC/ECD							
	EPA 3550B			**EPA 8082**			
RunID: **NV00922-GC8_210701B**	QC Batch: **88185**			PrepDate: **6/28/2021**		Analyst: **HG**	
Aroclor 1016	ND	8.0	17		ug/Kg-dry	1	7/1/2021 08:30 PM
Aroclor 1221	ND	10	33		ug/Kg-dry	1	7/1/2021 08:30 PM
Aroclor 1232	ND	3.8	17		ug/Kg-dry	1	7/1/2021 08:30 PM
Aroclor 1242	ND	4.5	17		ug/Kg-dry	1	7/1/2021 08:30 PM
Aroclor 1248	ND	6.2	17		ug/Kg-dry	1	7/1/2021 08:30 PM
Aroclor 1254	240	4.9	17		ug/Kg-dry	1	7/1/2021 08:30 PM
Aroclor 1260	110	9.1	17		ug/Kg-dry	1	7/1/2021 08:30 PM
Aroclor 1262	ND	3.2	17		ug/Kg-dry	1	7/1/2021 08:30 PM
Aroclor 1268	ND	7.8	17		ug/Kg-dry	1	7/1/2021 08:30 PM
Surr: Decachlorobiphenyl	92.7	0	26-125		%REC	1	7/1/2021 08:30 PM
Surr: Tetrachloro-m-xylene	85.2	0	48-121		%REC	1	7/1/2021 08:30 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified	DO	Surrogate Diluted Out

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8082_S_PGE

Sample ID **LCS-88185_PCB**	SampType: **LCS**	TestCode: **8082_S_PGE**	Units: **ug/Kg**	Prep Date: **6/28/2021**	RunNo: **154002**
Client ID: **LCSS**	Batch ID: **88185**	TestNo: **EPA 8082**	**EPA 3550B**	Analysis Date: **7/1/2021**	SeqNo: **4262863**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	132.473	16	166.7	0	79.5	41	138				
Aroclor 1260	152.072	16	166.7	0	91.2	61	131				
Surr: Decachlorobiphenyl	15.699		16.67		94.2	26	125				
Surr: Tetrachloro-m-xylene	11.331		16.67		68.0	48	121				

Sample ID **MB-88185**	SampType: **MBLK**	TestCode: **8082_S_PGE**	Units: **ug/Kg**	Prep Date: **6/28/2021**	RunNo: **154002**
Client ID: **PBS**	Batch ID: **88185**	TestNo: **EPA 8082**	**EPA 3550B**	Analysis Date: **7/1/2021**	SeqNo: **4262864**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	16									
Aroclor 1221	ND	33									
Aroclor 1232	ND	16									
Aroclor 1242	ND	16									
Aroclor 1248	ND	16									
Aroclor 1254	ND	16									
Aroclor 1260	ND	16									
Aroclor 1262	ND	16									
Aroclor 1268	ND	16									
Surr: Decachlorobiphenyl	18.771		16.67		113	26	125				
Surr: Tetrachloro-m-xylene	10.325		16.67		61.9	48	121				

Sample ID **N045954-001D-MS_**	SampType: **MS**	TestCode: **8082_S_PGE**	Units: **ug/Kg-dry**	Prep Date: **6/28/2021**	RunNo: **154002**
Client ID: **ZZZZZZ**	Batch ID: **88185**	TestNo: **EPA 8082**	**EPA 3550B**	Analysis Date: **7/1/2021**	SeqNo: **4262866**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	120.402	17	168.0	0	71.7	41	138				
Aroclor 1260	149.953	17	168.0	114.1	21.4	61	131				S
Surr: Decachlorobiphenyl	15.396		16.81		91.6	26	125				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out
- Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8082_S_PGE

Sample ID	N045954-001D-MS_	SampType:	MS	TestCode:	8082_S_PGE	Units:	ug/Kg-dry	Prep Date:	6/28/2021	RunNo:	154002
Client ID:	ZZZZZZ	Batch ID:	88185	TestNo:	EPA 8082	EPA 3550B		Analysis Date:	7/1/2021	SeqNo:	4262866

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Tetrachloro-m-xylene	12.066		16.81		71.8	48	121				

Sample ID	N045954-001D-MSD	SampType:	MSD	TestCode:	8082_S_PGE	Units:	ug/Kg-dry	Prep Date:	6/28/2021	RunNo:	154002
Client ID:	ZZZZZZ	Batch ID:	88185	TestNo:	EPA 8082	EPA 3550B		Analysis Date:	7/1/2021	SeqNo:	4262867

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	174.693	17	168.4	0	104	41	138	120.4	36.8	20	R
Aroclor 1260	260.989	17	168.4	114.1	87.2	61	131	150.0	54.0	20	R
Surr: Decachlorobiphenyl	16.186		16.85		96.1	26	125		0		
Surr: Tetrachloro-m-xylene	13.831		16.85		82.1	48	121		0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Lab Order: N045954
Project: PG&E, PMO-Waste Characteri
Lab ID: N045954-001

Client Sample ID: AOC4-Gabion-WC
Collection Date: 6/17/2021 11:30:00 AM
Matrix: SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **CA01638-MS10_210626A** QC Batch: **CA21VS072** PrepDate: **6/26/2021** Analyst: **AW**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	0.86	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
1,1,1-Trichloroethane	ND	0.67	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
1,1,2,2-Tetrachloroethane	ND	0.38	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
1,1,2-Trichloroethane	ND	0.77	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
1,1-Dichloroethane	ND	0.73	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
1,1-Dichloroethene	ND	0.54	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
1,1-Dichloropropene	ND	0.54	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
1,2,3-Trichlorobenzene	0.54	0.33	8.4	J	ug/Kg-dry	1	6/26/2021 08:38 AM
1,2,3-Trichloropropane	ND	0.78	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
1,2,4-Trichlorobenzene	ND	0.32	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
1,2,4-Trimethylbenzene	0.84	0.20	8.4	J	ug/Kg-dry	1	6/26/2021 08:38 AM
1,2-Dibromo-3-chloropropane	ND	1.1	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
1,2-Dibromoethane	ND	0.62	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
1,2-Dichlorobenzene	ND	0.27	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
1,2-Dichloroethane	ND	0.54	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
1,2-Dichloropropane	ND	0.51	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
1,3,5-Trimethylbenzene	ND	0.92	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
1,3-Dichlorobenzene	ND	0.28	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
1,3-Dichloropropane	ND	0.44	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
1,4-Dichlorobenzene	ND	0.27	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
2,2-Dichloropropane	ND	0.65	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
2-Butanone	ND	16	84		ug/Kg-dry	1	6/26/2021 08:38 AM
2-Chlorotoluene	ND	0.29	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
4-Chlorotoluene	ND	0.23	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
4-Isopropyltoluene	ND	0.26	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
4-Methyl-2-pentanone	ND	2.8	84		ug/Kg-dry	1	6/26/2021 08:38 AM
Acetone	62	21	84	J	ug/Kg-dry	1	6/26/2021 08:38 AM
Acrolein	ND	7.4	170		ug/Kg-dry	1	6/26/2021 08:38 AM
Acrylonitrile	ND	8.8	84		ug/Kg-dry	1	6/26/2021 08:38 AM
Benzene	ND	0.36	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Bromobenzene	ND	0.33	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Bromochloromethane	ND	0.88	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Bromodichloromethane	ND	0.69	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Bromoform	ND	0.77	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Bromomethane	ND	1.5	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Carbon disulfide	ND	0.65	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified	DO	Surrogate Diluted Out

CLIENT: Groundwater Partners
Lab Order: N045954
Project: PG&E, PMO-Waste Characteri
Lab ID: N045954-001

Client Sample ID: AOC4-Gabion-WC
Collection Date: 6/17/2021 11:30:00 AM
Matrix: SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **CA01638-MS10_210626A** QC Batch: **CA21VS072** PrepDate: **6/26/2021** Analyst: **AW**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
Carbon tetrachloride	ND	1.1	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Chlorobenzene	ND	0.36	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Chloroethane	ND	2.8	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Chloroform	ND	1.3	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Chloromethane	ND	0.77	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
cis-1,2-Dichloroethene	ND	0.35	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
cis-1,3-Dichloropropene	ND	0.53	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Dibromochloromethane	ND	0.75	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Dibromomethane	ND	0.45	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Dichlorodifluoromethane	ND	1.3	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Ethylbenzene	ND	0.37	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Freon-113	ND	0.91	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Hexachlorobutadiene	ND	0.99	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Isopropylbenzene	ND	0.31	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
m,p-Xylene	1.3	0.75	8.4	J	ug/Kg-dry	1	6/26/2021 08:38 AM
Methylene chloride	ND	5.1	7.2		ug/Kg-dry	1	6/28/2021 03:25 PM
MTBE	ND	1.4	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
n-Butylbenzene	0.35	0.32	8.4	J	ug/Kg-dry	1	6/26/2021 08:38 AM
n-Propylbenzene	ND	0.33	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Naphthalene	1.9	0.64	8.4	J	ug/Kg-dry	1	6/26/2021 08:38 AM
o-Xylene	0.64	0.29	8.4	J	ug/Kg-dry	1	6/26/2021 08:38 AM
sec-Butylbenzene	ND	0.28	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Styrene	ND	2.0	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
tert-Butylbenzene	ND	0.34	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Tetrachloroethene	ND	0.83	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Toluene	1.2	0.49	8.4	J	ug/Kg-dry	1	6/26/2021 08:38 AM
trans-1,2-Dichloroethene	ND	0.91	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
trans-1,3-Dichloropropene	ND	0.41	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Trichloroethene	ND	0.85	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Trichlorofluoromethane	ND	0.96	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Vinyl chloride	ND	0.63	8.4		ug/Kg-dry	1	6/26/2021 08:38 AM
Xylenes, Total	1.9	0.23	8.4	J	ug/Kg-dry	1	6/26/2021 08:38 AM
Surr: 1,2-Dichloroethane-d4	91.6	0	52-149		%REC	1	6/26/2021 08:38 AM
Surr: 1,2-Dichloroethane-d4	104	0	52-149		%REC	1	6/28/2021 03:25 PM
Surr: 4-Bromofluorobenzene	98.1	0	65-135		%REC	1	6/26/2021 08:38 AM
Surr: 4-Bromofluorobenzene	100	0	65-135		%REC	1	6/28/2021 03:25 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	Groundwater Partners	**Client Sample ID:**	AOC4-Gabion-WC
Lab Order:	N045954	**Collection Date:**	6/17/2021 11:30:00 AM
Project:	PG&E, PMO-Waste Characteri	**Matrix:**	SOIL
Lab ID:	N045954-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **CA01638-MS10_210626A**	QC Batch: **CA21VS072**				PrepDate:	**6/26/2021**	Analyst: **AW**
Surr: Dibromofluoromethane	97.5	0	65-135		%REC	1	6/26/2021 08:38 AM
Surr: Dibromofluoromethane	108	0	65-135		%REC	1	6/28/2021 03:25 PM
Surr: Toluene-d8	102	0	75-125		%REC	1	6/26/2021 08:38 AM
Surr: Toluene-d8	108	0	75-125		%REC	1	6/28/2021 03:25 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified	DO	Surrogate Diluted Out

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035PGE

Sample ID **CA210626-LCS** SampType: **LCS** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **153843**
Client ID: **LCSS** Batch ID: **CA21VS072** TestNo: **EPA 8260B** Analysis Date: **6/26/2021** SeqNo: **4256341**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	39.040	5.0	40.00	0	97.6	74	125				
1,1,1-Trichloroethane	49.410	5.0	40.00	0	124	68	130				
1,1,2,2-Tetrachloroethane	38.310	5.0	40.00	0	95.8	59	140				
1,1,2-Trichloroethane	39.210	5.0	40.00	0	98.0	62	127				
1,1-Dichloroethane	41.670	5.0	40.00	0	104	73	125				
1,1-Dichloroethene	41.470	5.0	40.00	0	104	65	136				
1,1-Dichloropropene	45.030	5.0	40.00	0	113	70	135				
1,2,3-Trichlorobenzene	44.870	5.0	40.00	0	112	62	133				
1,2,3-Trichloropropane	41.810	5.0	40.00	0	105	63	130				
1,2,4-Trichlorobenzene	43.490	5.0	40.00	0	109	65	131				
1,2,4-Trimethylbenzene	44.570	5.0	40.00	0	111	65	135				
1,2-Dibromo-3-chloropropane	43.440	5.0	40.00	0	109	49	135				
1,2-Dibromoethane	38.520	5.0	40.00	0	96.3	70	124				
1,2-Dichlorobenzene	41.840	5.0	40.00	0	105	74	120				
1,2-Dichloroethane	40.860	5.0	40.00	0	102	72	137				
1,2-Dichloropropane	40.500	5.0	40.00	0	101	71	120				
1,3,5-Trimethylbenzene	42.060	5.0	40.00	0	105	65	133				
1,3-Dichlorobenzene	42.250	5.0	40.00	0	106	72	124				
1,3-Dichloropropane	40.180	5.0	40.00	0	100	76	123				
1,4-Dichlorobenzene	40.680	5.0	40.00	0	102	72	125				
2,2-Dichloropropane	46.130	5.0	40.00	0	115	67	134				
2-Butanone	439.580	50	400.0	0	110	40	135				
2-Chlorotoluene	42.030	5.0	40.00	0	105	69	128				
4-Chlorotoluene	40.930	5.0	40.00	0	102	73	126				
4-Isopropyltoluene	42.190	5.0	40.00	0	105	70	130				
4-Methyl-2-pentanone	404.150	50	400.0	0	101	65	135				
Acetone	383.440	50	400.0	0	95.9	40	141				
Acrolein	412.040	100	400.0	0	103	65	135				
Acrylonitrile	379.410	50	400.0	0	94.9	65	135				

Qualifiers:

B Analyte detected in the associated Method Blank
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike/Surrogate outside of limits due to matrix interference
DO Surrogate Diluted Out
Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035PGE

Sample ID **CA210626-LCS** SampType: **LCS** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **153843**
Client ID: **LCSS** Batch ID: **CA21VS072** TestNo: **EPA 8260B** Analysis Date: **6/26/2021** SeqNo: **4256341**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	41.690	5.0	40.00	0	104	73	126				
Bromobenzene	40.040	5.0	40.00	0	100	66	121				
Bromochloromethane	41.390	5.0	40.00	0	103	71	127				
Bromodichloromethane	40.970	5.0	40.00	0	102	72	128				
Bromoform	38.920	5.0	40.00	0	97.3	66	137				
Bromomethane	46.620	5.0	40.00	0	117	45	141				
Carbon disulfide	42.630	5.0	40.00	0	107	66	135				
Carbon tetrachloride	46.600	5.0	40.00	0	116	67	133				
Chlorobenzene	40.180	5.0	40.00	0	100	75	123				
Chloroethane	43.300	5.0	40.00	0	108	41	141				
Chloroform	48.290	5.0	40.00	0	121	72	124				
Chloromethane	44.630	5.0	40.00	0	112	51	129				
cis-1,2-Dichloroethene	43.890	5.0	40.00	0	110	67	125				
cis-1,3-Dichloropropene	39.400	5.0	40.00	0	98.5	72	126				
Dibromochloromethane	39.400	5.0	40.00	0	98.5	66	130				
Dibromomethane	39.230	5.0	40.00	0	98.1	73	128				
Dichlorodifluoromethane	39.210	5.0	40.00	0	98.0	34	136				
Ethylbenzene	40.370	5.0	40.00	0	101	74	127				
Freon-113	42.510	5.0	40.00	0	106	65	135				
Hexachlorobutadiene	42.240	5.0	40.00	0	106	53	142				
Isopropylbenzene	42.890	5.0	40.00	0	107	77	129				
m,p-Xylene	83.430	5.0	80.00	0	104	79	126				
MTBE	40.440	5.0	40.00	0	101	50	135				
n-Butylbenzene	43.690	5.0	40.00	0	109	65	138				
n-Propylbenzene	42.280	5.0	40.00	0	106	63	135				
Naphthalene	45.560	5.0	40.00	0	114	51	135				
o-Xylene	42.510	5.0	40.00	0	106	77	125				
sec-Butylbenzene	42.190	5.0	40.00	0	105	63	132				
Styrene	42.290	5.0	40.00	0	106	74	128				
tert-Butylbenzene	41.700	5.0	40.00	0	104	65	132				

Qualifiers:

B Analyte detected in the associated Method Blank
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike/Surrogate outside of limits due to matrix interference
DO Surrogate Diluted Out
Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035PGE

Sample ID **CA210626-LCS** SampType: **LCS** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **153843**
Client ID: **LCSS** Batch ID: **CA21VS072** TestNo: **EPA 8260B** Analysis Date: **6/26/2021** SeqNo: **4256341**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene	39.740	5.0	40.00	0	99.4	67	139				
Toluene	41.340	5.0	40.00	0	103	71	127				
trans-1,2-Dichloroethene	42.610	5.0	40.00	0	107	66	134				
trans-1,3-Dichloropropene	40.750	5.0	40.00	0	102	65	127				
Trichloroethene	40.420	5.0	40.00	0	101	77	124				
Trichlorofluoromethane	43.310	5.0	40.00	0	108	49	139				
Vinyl chloride	42.820	5.0	40.00	0	107	58	126				
Xylenes, Total	125.940	5.0	120.0	0	105	65	125				
Surr: 1,2-Dichloroethane-d4	57.120		50.00		114	52	149				
Surr: 4-Bromofluorobenzene	50.440		50.00		101	65	135				
Surr: Dibromofluoromethane	57.510		50.00		115	65	135				
Surr: Toluene-d8	51.350		50.00		103	75	125				

Sample ID **CA210626-LCSD** SampType: **LCSD** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **153843**
Client ID: **LCSS02** Batch ID: **CA21VS072** TestNo: **EPA 8260B** Analysis Date: **6/26/2021** SeqNo: **4256342**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	40.620	5.0	40.00	0	102	74	125	39.04	3.97	30	
1,1,1-Trichloroethane	46.240	5.0	40.00	0	116	68	130	49.41	6.63	30	
1,1,2,2-Tetrachloroethane	38.790	5.0	40.00	0	97.0	59	140	38.31	1.25	30	
1,1,2-Trichloroethane	39.060	5.0	40.00	0	97.6	62	127	39.21	0.383	30	
1,1-Dichloroethane	40.350	5.0	40.00	0	101	73	125	41.67	3.22	30	
1,1-Dichloroethene	36.660	5.0	40.00	0	91.7	65	136	41.47	12.3	30	
1,1-Dichloropropene	43.360	5.0	40.00	0	108	70	135	45.03	3.78	30	
1,2,3-Trichlorobenzene	43.020	5.0	40.00	0	108	62	133	44.87	4.21	30	
1,2,3-Trichloropropane	40.850	5.0	40.00	0	102	63	130	41.81	2.32	30	
1,2,4-Trichlorobenzene	41.230	5.0	40.00	0	103	65	131	43.49	5.34	30	
1,2,4-Trimethylbenzene	42.180	5.0	40.00	0	105	65	135	44.57	5.51	30	
1,2-Dibromo-3-chloropropane	42.000	5.0	40.00	0	105	49	135	43.44	3.37	30	
1,2-Dibromoethane	41.090	5.0	40.00	0	103	70	124	38.52	6.46	30	

Qualifiers:

B Analyte detected in the associated Method Blank
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike/Surrogate outside of limits due to matrix interference
DO Surrogate Diluted Out
Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035PGE

Sample ID **CA210626-LCSD** SampType: **LCSD** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **153843**
Client ID: **LCSS02** Batch ID: **CA21VS072** TestNo: **EPA 8260B** Analysis Date: **6/26/2021** SeqNo: **4256342**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichlorobenzene	39.360	5.0	40.00	0	98.4	74	120	41.84	6.11	30	
1,2-Dichloroethane	44.130	5.0	40.00	0	110	72	137	40.86	7.70	30	
1,2-Dichloropropane	39.280	5.0	40.00	0	98.2	71	120	40.50	3.06	30	
1,3,5-Trimethylbenzene	40.880	5.0	40.00	0	102	65	133	42.06	2.85	30	
1,3-Dichlorobenzene	39.040	5.0	40.00	0	97.6	72	124	42.25	7.90	30	
1,3-Dichloropropane	41.600	5.0	40.00	0	104	76	123	40.18	3.47	30	
1,4-Dichlorobenzene	40.220	5.0	40.00	0	101	72	125	40.68	1.14	30	
2,2-Dichloropropane	35.370	5.0	40.00	0	88.4	67	134	46.13	26.4	30	
2-Butanone	459.120	50	400.0	0	115	40	135	439.6	4.35	30	
2-Chlorotoluene	39.650	5.0	40.00	0	99.1	69	128	42.03	5.83	30	
4-Chlorotoluene	39.980	5.0	40.00	0	100	73	126	40.93	2.35	30	
4-Isopropyltoluene	41.430	5.0	40.00	0	104	70	130	42.19	1.82	30	
4-Methyl-2-pentanone	438.030	50	400.0	0	110	65	135	404.2	8.05	30	
Acetone	378.350	50	400.0	0	94.6	40	141	383.4	1.34	30	
Acrolein	357.050	100	400.0	0	89.3	65	135	412.0	14.3	30	
Acrylonitrile	390.390	50	400.0	0	97.6	65	135	379.4	2.85	30	
Benzene	40.830	5.0	40.00	0	102	73	126	41.69	2.08	30	
Bromobenzene	41.260	5.0	40.00	0	103	66	121	40.04	3.00	30	
Bromochloromethane	37.960	5.0	40.00	0	94.9	71	127	41.39	8.65	30	
Bromodichloromethane	38.460	5.0	40.00	0	96.2	72	128	40.97	6.32	30	
Bromoform	41.340	5.0	40.00	0	103	66	137	38.92	6.03	30	
Bromomethane	39.420	5.0	40.00	0	98.6	45	141	46.62	16.7	30	
Carbon disulfide	37.880	5.0	40.00	0	94.7	66	135	42.63	11.8	30	
Carbon tetrachloride	42.530	5.0	40.00	0	106	67	133	46.60	9.13	30	
Chlorobenzene	38.580	5.0	40.00	0	96.5	75	123	40.18	4.06	30	
Chloroethane	40.940	5.0	40.00	0	102	41	141	43.30	5.60	30	
Chloroform	42.140	5.0	40.00	0	105	72	124	48.29	13.6	30	
Chloromethane	40.040	5.0	40.00	0	100	51	129	44.63	10.8	30	
cis-1,2-Dichloroethene	38.380	5.0	40.00	0	96.0	67	125	43.89	13.4	30	
cis-1,3-Dichloropropene	41.350	5.0	40.00	0	103	72	126	39.40	4.83	30	

Qualifiers:

B Analyte detected in the associated Method Blank
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike/Surrogate outside of limits due to matrix interference
DO Surrogate Diluted Out
Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035PGE

Sample ID **CA210626-LCSD** SampType: **LCSD** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **153843**
Client ID: **LCSS02** Batch ID: **CA21VS072** TestNo: **EPA 8260B** Analysis Date: **6/26/2021** SeqNo: **4256342**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibromochloromethane	41.890	5.0	40.00	0	105	66	130	39.40	6.13	30	
Dibromomethane	40.160	5.0	40.00	0	100	73	128	39.23	2.34	30	
Dichlorodifluoromethane	32.850	5.0	40.00	0	82.1	34	136	39.21	17.7	30	
Ethylbenzene	40.330	5.0	40.00	0	101	74	127	40.37	0.0991	30	
Freon-113	37.650	5.0	40.00	0	94.1	65	135	42.51	12.1	30	
Hexachlorobutadiene	39.610	5.0	40.00	0	99.0	53	142	42.24	6.43	30	
Isopropylbenzene	41.520	5.0	40.00	0	104	77	129	42.89	3.25	30	
m,p-Xylene	84.510	5.0	80.00	0	106	79	126	83.43	1.29	30	
MTBE	41.200	5.0	40.00	0	103	50	135	40.44	1.86	30	
n-Butylbenzene	42.550	5.0	40.00	0	106	65	138	43.69	2.64	30	
n-Propylbenzene	40.510	5.0	40.00	0	101	63	135	42.28	4.28	30	
Naphthalene	45.110	5.0	40.00	0	113	51	135	45.56	0.993	30	
o-Xylene	41.850	5.0	40.00	0	105	77	125	42.51	1.56	30	
sec-Butylbenzene	40.120	5.0	40.00	0	100	63	132	42.19	5.03	30	
Styrene	43.960	5.0	40.00	0	110	74	128	42.29	3.87	30	
tert-Butylbenzene	41.950	5.0	40.00	0	105	65	132	41.70	0.598	30	
Tetrachloroethene	40.440	5.0	40.00	0	101	67	139	39.74	1.75	30	
Toluene	39.640	5.0	40.00	0	99.1	71	127	41.34	4.20	30	
trans-1,2-Dichloroethene	38.480	5.0	40.00	0	96.2	66	134	42.61	10.2	30	
trans-1,3-Dichloropropene	40.240	5.0	40.00	0	101	65	127	40.75	1.26	30	
Trichloroethene	39.160	5.0	40.00	0	97.9	77	124	40.42	3.17	30	
Trichlorofluoromethane	42.320	5.0	40.00	0	106	49	139	43.31	2.31	30	
Vinyl chloride	41.010	5.0	40.00	0	103	58	126	42.82	4.32	30	
Xylenes, Total	126.360	5.0	120.0	0	105	65	125	125.9	0.333	30	
Surr: 1,2-Dichloroethane-d4	55.060		50.00		110	52	149		0		
Surr: 4-Bromofluorobenzene	52.360		50.00		105	65	135		0		
Surr: Dibromofluoromethane	56.410		50.00		113	65	135		0		
Surr: Toluene-d8	52.000		50.00		104	75	125		0		

Qualifiers:

B Analyte detected in the associated Method Blank
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike/Surrogate outside of limits due to matrix interference
DO Surrogate Diluted Out
Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035PGE

Sample ID	CA210626-MB3	SampType:	MBLK	TestCode:	8260_S_5035	Units:	ug/Kg	Prep Date:		RunNo:	153843
Client ID:	PBS	Batch ID:	CA21VS072	TestNo:	EPA 8260B			Analysis Date:	6/26/2021	SeqNo:	4256345

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0									
1,1,1-Trichloroethane	ND	5.0									
1,1,2,2-Tetrachloroethane	ND	5.0									
1,1,2-Trichloroethane	ND	5.0									
1,1-Dichloroethane	ND	5.0									
1,1-Dichloroethene	ND	5.0									
1,1-Dichloropropene	ND	5.0									
1,2,3-Trichlorobenzene	0.540	5.0									J
1,2,3-Trichloropropane	ND	5.0									
1,2,4-Trichlorobenzene	0.490	5.0									J
1,2,4-Trimethylbenzene	ND	5.0									
1,2-Dibromo-3-chloropropane	ND	5.0									
1,2-Dibromoethane	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,2-Dichloroethane	ND	5.0									
1,2-Dichloropropane	ND	5.0									
1,3,5-Trimethylbenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,3-Dichloropropane	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,2-Dichloropropane	ND	5.0									
2-Butanone	ND	50									
2-Chlorotoluene	ND	5.0									
4-Chlorotoluene	ND	5.0									
4-Isopropyltoluene	ND	5.0									
4-Methyl-2-pentanone	ND	50									
Acetone	ND	50									
Acrolein	ND	100									
Acrylonitrile	ND	50									
Benzene	ND	5.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035PGE

Sample ID **CA210626-MB3** SampType: **MBLK** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **153843**
Client ID: **PBS** Batch ID: **CA21VS072** TestNo: **EPA 8260B** Analysis Date: **6/26/2021** SeqNo: **4256345**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	ND	5.0									
Bromochloromethane	ND	5.0									
Bromodichloromethane	ND	5.0									
Bromoform	ND	5.0									
Bromomethane	ND	5.0									
Carbon disulfide	ND	5.0									
Carbon tetrachloride	ND	5.0									
Chlorobenzene	ND	5.0									
Chloroethane	ND	5.0									
Chloroform	ND	5.0									
Chloromethane	ND	5.0									
cis-1,2-Dichloroethene	ND	5.0									
cis-1,3-Dichloropropene	ND	5.0									
Dibromochloromethane	ND	5.0									
Dibromomethane	ND	5.0									
Dichlorodifluoromethane	ND	5.0									
Ethylbenzene	ND	5.0									
Freon-113	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Isopropylbenzene	ND	5.0									
m,p-Xylene	ND	5.0									
MTBE	ND	5.0									
n-Butylbenzene	0.260	5.0									J
n-Propylbenzene	ND	5.0									
Naphthalene	1.190	5.0									J
o-Xylene	ND	5.0									
sec-Butylbenzene	ND	5.0									
Styrene	ND	5.0									
tert-Butylbenzene	ND	5.0									
Tetrachloroethene	ND	5.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035PGE

Sample ID **CA210626-MB3**	SampType: **MBLK**	TestCode: **8260_S_5035**	Units: **ug/Kg**	Prep Date:	RunNo: **153843**
Client ID: **PBS**	Batch ID: **CA21VS072**	TestNo: **EPA 8260B**		Analysis Date: **6/26/2021**	SeqNo: **4256345**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	0.320	5.0									J
trans-1,2-Dichloroethene	ND	5.0									
trans-1,3-Dichloropropene	ND	5.0									
Trichloroethene	ND	5.0									
Trichlorofluoromethane	ND	5.0									
Vinyl chloride	ND	5.0									
Xylenes, Total	ND	5.0									
Surr: 1,2-Dichloroethane-d4	45.480		50.00		91.0	52	149				
Surr: 4-Bromofluorobenzene	53.040		50.00		106	65	135				
Surr: Dibromofluoromethane	51.820		50.00		104	65	135				
Surr: Toluene-d8	55.850		50.00		112	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035PGE

Sample ID **CA210628-LCS** SampType: **LCS** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **153879**
Client ID: **LCSS** Batch ID: **CA21VS073** TestNo: **EPA 8260B** Analysis Date: **6/28/2021** SeqNo: **4257893**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	39.720	5.0	40.00	0	99.3	63	137				
Surr: 1,2-Dichloroethane-d4	45.280		50.00		90.6	52	149				
Surr: 4-Bromofluorobenzene	50.650		50.00		101	65	135				
Surr: Dibromofluoromethane	51.890		50.00		104	65	135				
Surr: Toluene-d8	53.780		50.00		108	75	125				

Sample ID **CA210628-LCSD** SampType: **LCSD** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **153879**
Client ID: **LCSS02** Batch ID: **CA21VS073** TestNo: **EPA 8260B** Analysis Date: **6/28/2021** SeqNo: **4257894**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	37.280	5.0	40.00	0	93.2	63	137	39.72	6.34	30	
Surr: 1,2-Dichloroethane-d4	43.400		50.00		86.8	52	149		0		
Surr: 4-Bromofluorobenzene	50.290		50.00		101	65	135		0		
Surr: Dibromofluoromethane	51.320		50.00		103	65	135		0		
Surr: Toluene-d8	52.470		50.00		105	75	125		0		

Sample ID **N046014-001F-MS** SampType: **MS** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **153879**
Client ID: **ZZZZZZ** Batch ID: **CA21VS073** TestNo: **EPA 8260B** Analysis Date: **6/28/2021** SeqNo: **4257895**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	2004.500	250	2000	0	100	63	137				
Surr: 1,2-Dichloroethane-d4	2356.500		2500		94.3	52	149				
Surr: 4-Bromofluorobenzene	2511.000		2500		100	65	135				
Surr: Dibromofluoromethane	2559.000		2500		102	65	135				
Surr: Toluene-d8	2694.000		2500		108	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035PGE

Sample ID **N046014-001F-MSD** SampType: **MSD** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **153879**
Client ID: **ZZZZZZ** Batch ID: **CA21VS073** TestNo: **EPA 8260B** Analysis Date: **6/28/2021** SeqNo: **4257896**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	1966.500	250	2000	0	98.3	63	137	2005	1.91	30	
Surr: 1,2-Dichloroethane-d4	2275.500		2500		91.0	52	149		0		
Surr: 4-Bromofluorobenzene	2669.000		2500		107	65	135		0		
Surr: Dibromofluoromethane	2621.000		2500		105	65	135		0		
Surr: Toluene-d8	2817.000		2500		113	75	125		0		

Sample ID **CA210628-MB3** SampType: **MBLK** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **153879**
Client ID: **PBS** Batch ID: **CA21VS073** TestNo: **EPA 8260B** Analysis Date: **6/28/2021** SeqNo: **4257897**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	ND	5.0									
Surr: 1,2-Dichloroethane-d4	50.130		50.00		100	52	149				
Surr: 4-Bromofluorobenzene	56.120		50.00		112	65	135				
Surr: Dibromofluoromethane	55.020		50.00		110	65	135				
Surr: Toluene-d8	58.030		50.00		116	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Lab Order: N045954
Project: PG&E, PMO-Waste Characteri
Lab ID: N045954-001

Client Sample ID: AOC4-Gabion-WC
Collection Date: 6/17/2021 11:30:00 AM
Matrix: SOIL

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS							
EPA 3550B			**EPA 8270C**				
RunID: **NV00922-MS3_210629A** QC Batch: **88191**				PrepDate: **6/29/2021**			Analyst: **PL**
1,1´-Biphenyl	ND	37	710		ug/Kg-dry	1	6/29/2021 07:49 PM
1,2,4,5-Tetrachlorobenzene	ND	160	710		ug/Kg-dry	1	6/29/2021 07:49 PM
2,3,4,6-Tetrachlorophenol	ND	68	710		ug/Kg-dry	1	6/29/2021 07:49 PM
Acetophenone	ND	64	710		ug/Kg-dry	1	6/29/2021 07:49 PM
Atrazine	ND	100	710		ug/Kg-dry	1	6/29/2021 07:49 PM
Benzaldehyde	ND	160	710		ug/Kg-dry	1	6/29/2021 07:49 PM
Caprolactam	ND	180	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Carbazole	ND	95	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Hexachlorocyclopentadiene	ND	100	670		ug/Kg-dry	1	6/29/2021 07:49 PM
Surr: 1,2-Dichlorobenzene-d4	49.3	0	25-110		%REC	1	6/29/2021 07:49 PM
Surr: 2,4,6-Tribromophenol	71.3	0	36-126		%REC	1	6/29/2021 07:49 PM
Surr: 2-Chlorophenol-d4	58.4	0	30-100		%REC	1	6/29/2021 07:49 PM
Surr: 2-Fluorobiphenyl	57.4	0	43-125		%REC	1	6/29/2021 07:49 PM
Surr: 2-Fluorophenol	57.3	0	37-125		%REC	1	6/29/2021 07:49 PM
Surr: 4-Terphenyl-d14	62.0	0	32-125		%REC	1	6/29/2021 07:49 PM
Surr: Nitrobenzene-d5	47.0	0	37-125		%REC	1	6/29/2021 07:49 PM
Surr: Phenol-d5	58.4	0	40-125		%REC	1	6/29/2021 07:49 PM
1,4-DIOXANE BY GC/MS: ISOTOPE DILUTION TECHNIQUE							
EPA 3550B			**EPA 8270C(M)**				
RunID: **NV00922-MS3_210625A** QC Batch: **88142**				PrepDate: **6/23/2021**			Analyst: **PL**
1,4-Dioxane	ND	83	330		µg/Kg-dry	1	6/25/2021 02:30 PM
Surr: 1,2-Dichlorobenzene-d4	49.9	0	25-110		%REC	1	6/25/2021 02:30 PM
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS							
EPA 3550B			**EPA 8270C**				
RunID: **NV00922-MS3_210629B** QC Batch: **88191**				PrepDate: **6/29/2021**			Analyst: **PL**
1,2,4-Trichlorobenzene	ND	52	330		ug/Kg-dry	1	6/29/2021 07:49 PM
1,2-Dichlorobenzene	ND	53	330		ug/Kg-dry	1	6/29/2021 07:49 PM
1,3-Dichlorobenzene	ND	55	330		ug/Kg-dry	1	6/29/2021 07:49 PM
1,4-Dichlorobenzene	ND	62	330		ug/Kg-dry	1	6/29/2021 07:49 PM
2,4,5-Trichlorophenol	ND	130	330		ug/Kg-dry	1	6/29/2021 07:49 PM
2,4,6-Trichlorophenol	ND	110	330		ug/Kg-dry	1	6/29/2021 07:49 PM
2,4-Dichlorophenol	ND	210	1700		ug/Kg-dry	1	6/29/2021 07:49 PM
2,4-Dimethylphenol	ND	130	330		ug/Kg-dry	1	6/29/2021 07:49 PM
2,4-Dinitrophenol	ND	320	1700		ug/Kg-dry	1	6/29/2021 07:49 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: Groundwater Partners
Lab Order: N045954
Project: PG&E, PMO-Waste Characteri
Lab ID: N045954-001

Client Sample ID: AOC4-Gabion-WC
Collection Date: 6/17/2021 11:30:00 AM
Matrix: SOIL

SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 3550B **EPA 8270C**

RunID: **NV00922-MS3_210629B** QC Batch: **88191** PrepDate: **6/29/2021** Analyst: **PL**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
2,4-Dinitrotoluene	ND	83	330		ug/Kg-dry	1	6/29/2021 07:49 PM
2,6-Dinitrotoluene	ND	73	330		ug/Kg-dry	1	6/29/2021 07:49 PM
2-Chloronaphthalene	ND	49	330		ug/Kg-dry	1	6/29/2021 07:49 PM
2-Chlorophenol	ND	95	330		ug/Kg-dry	1	6/29/2021 07:49 PM
2-Methylnaphthalene	ND	100	330		ug/Kg-dry	1	6/29/2021 07:49 PM
2-Methylphenol	ND	96	330		ug/Kg-dry	1	6/29/2021 07:49 PM
2-Nitroaniline	ND	180	1700		ug/Kg-dry	1	6/29/2021 07:49 PM
2-Nitrophenol	ND	93	330		ug/Kg-dry	1	6/29/2021 07:49 PM
3,3´-Dichlorobenzidine	ND	100	670		ug/Kg-dry	1	6/29/2021 07:49 PM
3-Nitroaniline	ND	65	1700		ug/Kg-dry	1	6/29/2021 07:49 PM
4,6-Dinitro-2-methylphenol	ND	230	1700		ug/Kg-dry	1	6/29/2021 07:49 PM
4-Bromophenyl-phenylether	ND	86	330		ug/Kg-dry	1	6/29/2021 07:49 PM
4-Chloro-3-methylphenol	ND	110	670		ug/Kg-dry	1	6/29/2021 07:49 PM
4-Chloroaniline	ND	100	670		ug/Kg-dry	1	6/29/2021 07:49 PM
4-Chlorophenyl-phenylether	ND	80	330		ug/Kg-dry	1	6/29/2021 07:49 PM
4-Methylphenol	ND	150	330		ug/Kg-dry	1	6/29/2021 07:49 PM
4-Nitroaniline	ND	480	1700		ug/Kg-dry	1	6/29/2021 07:49 PM
4-Nitrophenol	ND	120	1700		ug/Kg-dry	1	6/29/2021 07:49 PM
Acenaphthene	ND	65	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Acenaphthylene	ND	67	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Anthracene	ND	77	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Benzo(a)anthracene	ND	76	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Benzo(a)pyrene	ND	71	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Benzo(b)fluoranthene	ND	67	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Benzo(g,h,i)perylene	ND	79	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Benzo(k)fluoranthene	ND	66	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Benzoic acid	ND	230	1700		ug/Kg-dry	1	6/29/2021 07:49 PM
Benzyl alcohol	ND	160	670		ug/Kg-dry	1	6/29/2021 07:49 PM
Bis(2-chloroethoxy)methane	ND	85	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Bis(2-chloroethyl)ether	ND	100	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Bis(2-chloroisopropyl)ether	ND	110	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Bis(2-ethylhexyl)phthalate	ND	140	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Butylbenzylphthalate	ND	130	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Carbazole	ND	95	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Chrysene	ND	110	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Di-n-butylphthalate	ND	120	330		ug/Kg-dry	1	6/29/2021 07:49 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified
E	Value above quantitation range
J	Analyte detected below quantitation limits
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out

CLIENT: Groundwater Partners
Lab Order: N045954
Project: PG&E, PMO-Waste Characteri
Lab ID: N045954-001

Client Sample ID: AOC4-Gabion-WC
Collection Date: 6/17/2021 11:30:00 AM
Matrix: SOIL

SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 3550B **EPA 8270C**

RunID: **NV00922-MS3_210629B** QC Batch: **88191** PrepDate: **6/29/2021** Analyst: **PL**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
Di-n-octylphthalate	ND	130	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Dibenz(a,h)anthracene	ND	68	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Dibenzofuran	ND	46	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Diethylphthalate	ND	110	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Dimethylphthalate	ND	98	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Fluoranthene	ND	90	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Fluorene	ND	71	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Hexachlorobenzene	ND	53	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Hexachlorobutadiene	ND	110	670		ug/Kg-dry	1	6/29/2021 07:49 PM
Hexachlorocyclopentadiene	ND	100	670		ug/Kg-dry	1	6/29/2021 07:49 PM
Hexachloroethane	ND	54	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Indeno(1,2,3-cd)pyrene	ND	76	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Isophorone	ND	95	330		ug/Kg-dry	1	6/29/2021 07:49 PM
N-Nitrosodi-n-propylamine	ND	70	330		ug/Kg-dry	1	6/29/2021 07:49 PM
N-Nitrosodiphenylamine	ND	110	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Naphthalene	ND	58	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Nitrobenzene	ND	98	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Pentachlorophenol	ND	94	1700		ug/Kg-dry	1	6/29/2021 07:49 PM
Phenanthrene	ND	74	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Phenol	ND	140	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Pyrene	ND	88	330		ug/Kg-dry	1	6/29/2021 07:49 PM
Surr: 1,2-Dichlorobenzene-d4	49.3	0	25-110		%REC	1	6/29/2021 07:49 PM
Surr: 2,4,6-Tribromophenol	71.3	0	36-126		%REC	1	6/29/2021 07:49 PM
Surr: 2-Chlorophenol-d4	58.4	0	30-100		%REC	1	6/29/2021 07:49 PM
Surr: 2-Fluorobiphenyl	57.4	0	43-125		%REC	1	6/29/2021 07:49 PM
Surr: 2-Fluorophenol	57.3	0	37-125		%REC	1	6/29/2021 07:49 PM
Surr: 4-Terphenyl-d14	62.0	0	32-125		%REC	1	6/29/2021 07:49 PM
Surr: Nitrobenzene-d5	47.0	0	37-125		%REC	1	6/29/2021 07:49 PM
Surr: Phenol-d5	58.4	0	40-125		%REC	1	6/29/2021 07:49 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_ADDPGE

Sample ID **LCS-88191**	SampType: **LCS**	TestCode: **8270_S_ADD**	Units: **ug/Kg**	Prep Date: **6/29/2021**	RunNo: **153917**
Client ID: **LCSS**	Batch ID: **88191**	TestNo: **EPA 8270C**	**EPA 3550B**	Analysis Date: **6/29/2021**	SeqNo: **4261047**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1´-Biphenyl	2081.000	700	3330	0	62.5	40	130				
1,2,4,5-Tetrachlorobenzene	2052.000	700	3330	0	61.6	40	130				
2,3,4,6-Tetrachlorophenol	1860.667	700	3330	0	55.9	40	130				
Acetophenone	1933.000	700	3330	0	58.0	40	130				
Atrazine	2493.000	700	3330	0	74.9	40	130				
Benzaldehyde	1615.667	700	3330	0	48.5	40	130				
Caprolactam	2748.000	330	3330	0	82.5	40	130				
Carbazole	2649.333	330	3330	0	79.6	40	130				
Hexachlorocyclopentadiene	1972.667	660	3330	0	59.2	40	130				
Surr: 1,2-Dichlorobenzene-d4	1655.667		3330		49.7	25	110				
Surr: 2,4,6-Tribromophenol	3033.000		3330		91.1	36	126				
Surr: 2-Chlorophenol-d4	1996.000		3330		59.9	30	100				
Surr: 2-Fluorobiphenyl	1932.333		3330		58.0	43	125				
Surr: 2-Fluorophenol	1964.333		3330		59.0	37	125				
Surr: 4-Terphenyl-d14	2373.333		3330		71.3	32	125				
Surr: Nitrobenzene-d5	1662.667		3330		49.9	37	125				
Surr: Phenol-d5	1984.000		3330		59.6	40	125				

Sample ID **MB-88191**	SampType: **MBLK**	TestCode: **8270_S_ADD**	Units: **ug/Kg**	Prep Date: **6/29/2021**	RunNo: **153917**
Client ID: **PBS**	Batch ID: **88191**	TestNo: **EPA 8270C**	**EPA 3550B**	Analysis Date: **6/29/2021**	SeqNo: **4261048**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1´-Biphenyl	ND	700									
1,2,4,5-Tetrachlorobenzene	ND	700									
2,3,4,6-Tetrachlorophenol	ND	700									
Acetophenone	ND	700									
Atrazine	ND	700									
Benzaldehyde	ND	700									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_ADDPGE

Sample ID **MB-88191** SampType: **MBLK** TestCode: **8270_S_ADD** Units: **ug/Kg** Prep Date: **6/29/2021** RunNo: **153917**
Client ID: **PBS** Batch ID: **88191** TestNo: **EPA 8270C** **EPA 3550B** Analysis Date: **6/29/2021** SeqNo: **4261048**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Caprolactam	ND	330									
Carbazole	ND	330									
Hexachlorocyclopentadiene	ND	660									
Surr: 1,2-Dichlorobenzene-d4	2202.667		3330		66.1	25	110				
Surr: 2,4,6-Tribromophenol	2713.333		3330		81.5	36	126				
Surr: 2-Chlorophenol-d4	2416.000		3330		72.6	30	100				
Surr: 2-Fluorobiphenyl	2099.667		3330		63.1	43	125				
Surr: 2-Fluorophenol	2416.333		3330		72.6	37	125				
Surr: 4-Terphenyl-d14	2261.000		3330		67.9	32	125				
Surr: Nitrobenzene-d5	1892.000		3330		56.8	37	125				
Surr: Phenol-d5	2381.333		3330		71.5	40	125				

Sample ID **N045954-001D-MS** SampType: **MS** TestCode: **8270_S_ADD** Units: **ug/Kg-dry** Prep Date: **6/29/2021** RunNo: **153917**
Client ID: **ZZZZZZ** Batch ID: **88191** TestNo: **EPA 8270C** **EPA 3550B** Analysis Date: **6/29/2021** SeqNo: **4261050**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1´-Biphenyl	1673.680	700	3349	0	50.0	40	130				
1,2,4,5-Tetrachlorobenzene	1662.281	700	3349	0	49.6	40	130				
2,3,4,6-Tetrachlorophenol	1349.472	700	3349	0	40.3	40	130				
Acetophenone	1789.349	700	3349	0	53.4	40	130				
Atrazine	1770.574	700	3349	0	52.9	40	130				
Benzaldehyde	1396.075	700	3349	0	41.7	40	130				
Caprolactam	1470.841	330	3349	0	43.9	40	130				
Carbazole	1647.194	330	3349	0	49.2	40	130				
Hexachlorocyclopentadiene	1272.024	660	3349	0	38.0	40	130				S
Surr: 1,2-Dichlorobenzene-d4	1191.223		3349		35.6	25	110				
Surr: 2,4,6-Tribromophenol	1812.819		3349		54.1	36	126				
Surr: 2-Chlorophenol-d4	1537.895		3349		45.9	30	100				
Surr: 2-Fluorobiphenyl	1270.348		3349		37.9	43	125				S
Surr: 2-Fluorophenol	1530.519		3349		45.7	37	125				

Qualifiers:

B Analyte detected in the associated Method Blank
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike/Surrogate outside of limits due to matrix interference
DO Surrogate Diluted Out
Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_ADDPGE

Sample ID **N045954-001D-MS** SampType: **MS** TestCode: **8270_S_ADD** Units: **ug/Kg-dry** Prep Date: **6/29/2021** RunNo: **153917**
Client ID: **ZZZZZZ** Batch ID: **88191** TestNo: **EPA 8270C** **EPA 3550B** Analysis Date: **6/29/2021** SeqNo: **4261050**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	1351.484		3349		40.4	32	125				
Surr: Nitrobenzene-d5	1230.450		3349		36.7	37	125				S
Surr: Phenol-d5	1541.583		3349		46.0	40	125				

Sample ID **N045954-001D-MSD** SampType: **MSD** TestCode: **8270_S_ADD** Units: **ug/Kg-dry** Prep Date: **6/29/2021** RunNo: **153917**
Client ID: **ZZZZZZ** Batch ID: **88191** TestNo: **EPA 8270C** **EPA 3550B** Analysis Date: **6/29/2021** SeqNo: **4261051**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1´-Biphenyl	1792.623	710	3361	0	53.3	40	130	1674	6.86	30	
1,2,4,5-Tetrachlorobenzene	1734.427	710	3361	0	51.6	40	130	1662	4.25	30	
2,3,4,6-Tetrachlorophenol	1663.785	710	3361	0	49.5	40	130	1349	20.9	30	
Acetophenone	1688.678	710	3361	0	50.3	40	130	1789	5.79	30	
Atrazine	2223.539	710	3361	0	66.2	40	130	1771	22.7	30	
Benzaldehyde	1337.487	710	3361	0	39.8	40	130	1396	4.29	30	S
Caprolactam	1612.991	330	3361	0	48.0	40	130	1471	9.22	30	
Carbazole	2102.102	330	3361	0	62.6	40	130	1647	24.3	30	
Hexachlorocyclopentadiene	1395.683	670	3361	0	41.5	40	130	1272	9.27	30	
Surr: 1,2-Dichlorobenzene-d4	958.039		3361		28.5	25	110		0		
Surr: 2,4,6-Tribromophenol	2072.499		3361		61.7	36	126		0		
Surr: 2-Chlorophenol-d4	1361.707		3361		40.5	30	100		0		
Surr: 2-Fluorobiphenyl	1277.946		3361		38.0	43	125		0		S
Surr: 2-Fluorophenol	1318.649		3361		39.2	37	125		0		
Surr: 4-Terphenyl-d14	1523.174		3361		45.3	32	125		0		
Surr: Nitrobenzene-d5	1096.632		3361		32.6	37	125		0		S
Surr: Phenol-d5	1412.838		3361		42.0	40	125		0		

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out
- Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_DIOXANE

Sample ID	LCS-88142	SampType:	LCS	TestCode:	8270_S_DIOX	Units:	µg/Kg	Prep Date:	6/23/2021	RunNo:	153810
Client ID:	LCSS	Batch ID:	88142	TestNo:	EPA 8270C(M	EPA	3550B	Analysis Date:	6/25/2021	SeqNo:	4255580

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dioxane	3680.667	330	3330	0	111	70	130				
Surr: 1,2-Dichlorobenzene-d4	1780.000		3330		53.5	25	110				

Sample ID	MB-88142	SampType:	MBLK	TestCode:	8270_S_DIOX	Units:	µg/Kg	Prep Date:	6/23/2021	RunNo:	153810
Client ID:	PBS	Batch ID:	88142	TestNo:	EPA 8270C(M	EPA	3550B	Analysis Date:	6/25/2021	SeqNo:	4255581

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dioxane	ND	330									
Surr: 1,2-Dichlorobenzene-d4	1649.000		3330		49.5	25	110				

Sample ID	N045917-003A-MS	SampType:	MS	TestCode:	8270_S_DIOX	Units:	µg/Kg	Prep Date:	6/23/2021	RunNo:	153810
Client ID:	ZZZZZZ	Batch ID:	88142	TestNo:	EPA 8270C(M	EPA	3550B	Analysis Date:	6/25/2021	SeqNo:	4255583

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dioxane	3425.058	330	3320	0	103	70	130				
Surr: 1,2-Dichlorobenzene-d4	1506.481		3320		45.4	25	110				

Sample ID	N045917-003A-MSD	SampType:	MSD	TestCode:	8270_S_DIOX	Units:	µg/Kg	Prep Date:	6/23/2021	RunNo:	153810
Client ID:	ZZZZZZ	Batch ID:	88142	TestNo:	EPA 8270C(M	EPA	3550B	Analysis Date:	6/25/2021	SeqNo:	4255584

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dioxane	4219.894	330	3323	0	127	70	130	3425	20.8	30	
Surr: 1,2-Dichlorobenzene-d4	1520.625		3323		45.8	25	110		0	30	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_PGE

Sample ID **LCS-88191**	SampType: **LCS**	TestCode: **8270_S_PGE**	Units: **ug/Kg**	Prep Date: **6/29/2021**	RunNo: **153968**
Client ID: **LCSS**	Batch ID: **88191**	TestNo: **EPA 8270C**	**EPA 3550B**	Analysis Date: **6/29/2021**	SeqNo: **4261432**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	2140.333	330	3330	0	64.3	44	125				
1,2-Dichlorobenzene	1923.000	330	3330	0	57.7	45	125				
1,3-Dichlorobenzene	1878.000	330	3330	0	56.4	39	125				
1,4-Dichlorobenzene	2185.000	330	3330	0	65.6	35	125				
2,4,5-Trichlorophenol	2740.667	330	3330	0	82.3	49	125				
2,4,6-Trichlorophenol	2585.333	330	3330	0	77.6	43	125				
2,4-Dichlorophenol	2295.333	1600	3330	0	68.9	45	125				
2,4-Dimethylphenol	2188.667	330	3330	0	65.7	32	125				
2,4-Dinitrophenol	2752.000	1600	3330	0	82.6	25	132				
2,4-Dinitrotoluene	2558.000	330	3330	0	76.8	48	125				
2,6-Dinitrotoluene	3226.000	330	3330	0	96.9	48	125				
2-Chloronaphthalene	2417.000	330	3330	0	72.6	45	125				
2-Chlorophenol	2031.333	330	3330	0	61.0	44	125				
2-Methylnaphthalene	2238.667	330	3330	0	67.2	47	125				
2-Methylphenol	2175.000	330	3330	0	65.3	40	125				
2-Nitroaniline	2304.000	1600	3330	0	69.2	44	125				
2-Nitrophenol	2220.333	330	3330	0	66.7	42	125				
3,3´-Dichlorobenzidine	3568.000	660	5000	0	71.4	25	128				
3-Nitroaniline	2792.333	1600	3330	0	83.9	27	125				
4,6-Dinitro-2-methylphenol	2784.333	1600	3330	0	83.6	29	137				
4-Bromophenyl-phenylether	3196.667	330	3330	0	96.0	46	125				
4-Chloro-3-methylphenol	2363.667	660	3330	0	71.0	46	125				
4-Chloroaniline	2079.000	660	3330	0	62.4	10	125				
4-Chlorophenyl-phenylether	2789.333	330	3330	0	83.8	47	125				
4-Methylphenol	2227.000	330	3330	0	66.9	41	125				
4-Nitroaniline	2605.000	1600	3330	0	78.2	34	125				
4-Nitrophenol	2144.333	1600	3330	0	64.4	25	138				
Acenaphthene	2246.333	330	3330	0	67.5	46	125				
Acenaphthylene	2221.000	330	3330	0	66.7	44	125				
Anthracene	2478.000	330	3330	0	74.4	53	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_PGE

Sample ID **LCS-88191**	SampType: **LCS**	TestCode: **8270_S_PGE**	Units: **ug/Kg**	Prep Date: **6/29/2021**	RunNo: **153968**
Client ID: **LCSS**	Batch ID: **88191**	TestNo: **EPA 8270C**	**EPA 3550B**	Analysis Date: **6/29/2021**	SeqNo: **4261432**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(a)anthracene	2563.000	330	3330	0	77.0	52	125				
Benzo(a)pyrene	2576.000	330	3330	0	77.4	50	125				
Benzo(b)fluoranthene	2937.667	330	3330	0	88.2	45	125				
Benzo(g,h,i)perylene	2816.000	330	3330	0	84.6	38	126				
Benzo(k)fluoranthene	2752.000	330	3330	0	82.6	45	125				
Benzoic acid	2695.000	1600	3330	0	80.9	25	125				
Benzyl alcohol	2236.667	660	3330	0	67.2	25	125				
Bis(2-chloroethoxy)methane	2635.667	330	3330	0	79.1	43	125				
Bis(2-chloroethyl)ether	2214.333	330	3330	0	66.5	38	125				
Bis(2-chloroisopropyl)ether	2232.333	330	3330	0	67.0	25	125				
Bis(2-ethylhexyl)phthalate	3000.667	330	3330	0	90.1	47	127				
Butylbenzylphthalate	2865.000	330	3330	0	86.0	49	125				
Carbazole	2649.333	330	3330	0	79.6	40	130				
Chrysene	2889.667	330	3330	0	86.8	53	125				
Di-n-butylphthalate	2988.333	330	3330	0	89.7	56	125				
Di-n-octylphthalate	3039.667	330	3330	0	91.3	41	132				
Dibenz(a,h)anthracene	3168.000	330	3330	0	95.1	41	125				
Dibenzofuran	2472.000	330	3330	0	74.2	51	125				
Diethylphthalate	2835.000	330	3330	0	85.1	50	125				
Dimethylphthalate	3032.000	330	3330	0	91.1	49	125				
Fluoranthene	2479.000	330	3330	0	74.4	54	125				
Fluorene	2400.333	330	3330	0	72.1	49	125				
Hexachlorobenzene	3175.000	330	3330	0	95.3	47	125				
Hexachlorobutadiene	2239.000	660	3330	0	67.2	40	125				
Hexachlorocyclopentadiene	1972.667	660	3330	0	59.2	40	130				
Hexachloroethane	1966.667	330	3330	0	59.1	34	125				
Indeno(1,2,3-cd)pyrene	2921.667	330	3330	0	87.7	38	125				
Isophorone	2914.333	330	3330	0	87.5	43	125				
N-Nitrosodi-n-propylamine	2334.000	330	3330	0	70.1	40	125				
N-Nitrosodiphenylamine	2945.000	330	3330	0	88.4	49	125				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out
- Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_PGE

Sample ID **LCS-88191**	SampType: **LCS**	TestCode: **8270_S_PGE**	Units: **ug/Kg**	Prep Date: **6/29/2021**	RunNo: **153968**
Client ID: **LCSS**	Batch ID: **88191**	TestNo: **EPA 8270C**	**EPA 3550B**	Analysis Date: **6/29/2021**	SeqNo: **4261432**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1961.000	330	3330	0	58.9	40	125				
Nitrobenzene	2027.333	330	3330	0	60.9	41	125				
Pentachlorophenol	3140.000	1600	3330	0	94.3	25	125				
Phenanthrene	2466.667	330	3330	0	74.1	50	125				
Phenol	2001.333	330	3330	0	60.1	39	125				
Pyrene	2518.000	330	3330	0	75.6	46	125				
Surr: 1,2-Dichlorobenzene-d4	1655.667		3330		49.7	25	110				
Surr: 2,4,6-Tribromophenol	3033.000		3330		91.1	36	126				
Surr: 2-Chlorophenol-d4	1996.000		3330		59.9	30	100				
Surr: 2-Fluorobiphenyl	1932.333		3330		58.0	43	125				
Surr: 2-Fluorophenol	1964.333		3330		59.0	37	125				
Surr: 4-Terphenyl-d14	2373.333		3330		71.3	32	125				
Surr: Nitrobenzene-d5	1662.667		3330		49.9	37	125				
Surr: Phenol-d5	1984.000		3330		59.6	40	125				

Sample ID **MB-88191**	SampType: **MBLK**	TestCode: **8270_S_PGE**	Units: **ug/Kg**	Prep Date: **6/29/2021**	RunNo: **153968**
Client ID: **PBS**	Batch ID: **88191**	TestNo: **EPA 8270C**	**EPA 3550B**	Analysis Date: **6/29/2021**	SeqNo: **4261433**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	330									
1,2-Dichlorobenzene	ND	330									
1,3-Dichlorobenzene	ND	330									
1,4-Dichlorobenzene	ND	330									
2,4,5-Trichlorophenol	ND	330									
2,4,6-Trichlorophenol	ND	330									
2,4-Dichlorophenol	ND	1600									
2,4-Dimethylphenol	ND	330									
2,4-Dinitrophenol	ND	1600									
2,4-Dinitrotoluene	ND	330									
2,6-Dinitrotoluene	ND	330									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_PGE

Sample ID **MB-88191**	SampType: **MBLK**	TestCode: **8270_S_PGE**	Units: **ug/Kg**	Prep Date: **6/29/2021**	RunNo: **153968**
Client ID: **PBS**	Batch ID: **88191**	TestNo: **EPA 8270C**	**EPA 3550B**	Analysis Date: **6/29/2021**	SeqNo: **4261433**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chloronaphthalene	ND	330									
2-Chlorophenol	ND	330									
2-Methylnaphthalene	ND	330									
2-Methylphenol	ND	330									
2-Nitroaniline	ND	1600									
2-Nitrophenol	ND	330									
3,3´-Dichlorobenzidine	ND	660									
3-Nitroaniline	ND	1600									
4,6-Dinitro-2-methylphenol	ND	1600									
4-Bromophenyl-phenylether	ND	330									
4-Chloro-3-methylphenol	ND	660									
4-Chloroaniline	ND	660									
4-Chlorophenyl-phenylether	ND	330									
4-Methylphenol	ND	330									
4-Nitroaniline	ND	1600									
4-Nitrophenol	ND	1600									
Acenaphthene	ND	330									
Acenaphthylene	ND	330									
Anthracene	ND	330									
Benzo(a)anthracene	ND	330									
Benzo(a)pyrene	ND	330									
Benzo(b)fluoranthene	ND	330									
Benzo(g,h,i)perylene	ND	330									
Benzo(k)fluoranthene	ND	330									
Benzoic acid	ND	1600									
Benzyl alcohol	ND	660									
Bis(2-chloroethoxy)methane	ND	330									
Bis(2-chloroethyl)ether	ND	330									
Bis(2-chloroisopropyl)ether	ND	330									
Bis(2-ethylhexyl)phthalate	ND	330									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_PGE

Sample ID **MB-88191**	SampType: **MBLK**	TestCode: **8270_S_PGE**	Units: **ug/Kg**	Prep Date: **6/29/2021**	RunNo: **153968**
Client ID: **PBS**	Batch ID: **88191**	TestNo: **EPA 8270C**	**EPA 3550B**	Analysis Date: **6/29/2021**	SeqNo: **4261433**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Butylbenzylphthalate	ND	330									
Carbazole	ND	330									
Chrysene	ND	330									
Di-n-butylphthalate	ND	330									
Di-n-octylphthalate	ND	330									
Dibenz(a,h)anthracene	ND	330									
Dibenzofuran	ND	330									
Diethylphthalate	ND	330									
Dimethylphthalate	ND	330									
Fluoranthene	ND	330									
Fluorene	ND	330									
Hexachlorobenzene	ND	330									
Hexachlorobutadiene	ND	660									
Hexachlorocyclopentadiene	ND	660									
Hexachloroethane	ND	330									
Indeno(1,2,3-cd)pyrene	ND	330									
Isophorone	ND	330									
N-Nitrosodi-n-propylamine	ND	330									
N-Nitrosodiphenylamine	ND	330									
Naphthalene	ND	330									
Nitrobenzene	ND	330									
Pentachlorophenol	ND	1600									
Phenanthrene	ND	330									
Phenol	ND	330									
Pyrene	ND	330									
Surr: 1,2-Dichlorobenzene-d4	2202.667		3330		66.1	25	110				
Surr: 2,4,6-Tribromophenol	2713.333		3330		81.5	36	126				
Surr: 2-Chlorophenol-d4	2416.000		3330		72.6	30	100				
Surr: 2-Fluorobiphenyl	2099.667		3330		63.1	43	125				
Surr: 2-Fluorophenol	2416.333		3330		72.6	37	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_PGE

Sample ID **MB-88191**	SampType: **MBLK**	TestCode: **8270_S_PGE**	Units: **ug/Kg**	Prep Date: **6/29/2021**	RunNo: **153968**
Client ID: **PBS**	Batch ID: **88191**	TestNo: **EPA 8270C**	**EPA 3550B**	Analysis Date: **6/29/2021**	SeqNo: **4261433**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	2261.000		3330		67.9	32	125				
Surr: Nitrobenzene-d5	1892.000		3330		56.8	37	125				
Surr: Phenol-d5	2381.333		3330		71.5	40	125				

Sample ID **N045954-001D-MS**	SampType: **MS**	TestCode: **8270_S_PGE**	Units: **ug/Kg-dry**	Prep Date: **6/29/2021**	RunNo: **153968**
Client ID: **ZZZZZZ**	Batch ID: **88191**	TestNo: **EPA 8270C**	**EPA 3550B**	Analysis Date: **6/29/2021**	SeqNo: **4261435**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	1645.182	330	3349	0	49.1	44	125				
1,2-Dichlorobenzene	1514.761	330	3349	0	45.2	45	125				
1,3-Dichlorobenzene	1453.071	330	3349	0	43.4	39	125				
1,4-Dichlorobenzene	1687.091	330	3349	0	50.4	35	125				
2,4,5-Trichlorophenol	1797.061	330	3349	0	53.7	49	125				
2,4,6-Trichlorophenol	1720.619	330	3349	0	51.4	43	125				
2,4-Dichlorophenol	1768.227	1700	3349	0	52.8	45	125				
2,4-Dimethylphenol	1661.611	330	3349	0	49.6	32	125				
2,4-Dinitrophenol	1074.884	1700	3349	0	32.1	25	132				J
2,4-Dinitrotoluene	1696.479	330	3349	0	50.7	48	125				
2,6-Dinitrotoluene	2120.599	330	3349	0	63.3	48	125				
2-Chloronaphthalene	1701.843	330	3349	0	50.8	45	125				
2-Chlorophenol	1682.398	330	3349	0	50.2	44	125				
2-Methylnaphthalene	1724.642	330	3349	0	51.5	47	125				
2-Methylphenol	1794.714	330	3349	0	53.6	40	125				
2-Nitroaniline	1551.641	1700	3349	0	46.3	44	125				J
2-Nitrophenol	1741.405	330	3349	0	52.0	42	125				
3,3´-Dichlorobenzidine	1190.553	660	5029	0	23.7	25	128				S
3-Nitroaniline	1865.792	1700	3349	0	55.7	27	125				
4,6-Dinitro-2-methylphenol	1355.842	1700	3349	0	40.5	29	137				J
4-Bromophenyl-phenylether	2003.253	330	3349	0	59.8	46	125				
4-Chloro-3-methylphenol	1683.403	660	3349	0	50.3	46	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_PGE

Sample ID **N045954-001D-MS**	SampType: **MS**	TestCode: **8270_S_PGE**	Units: **ug/Kg-dry**	Prep Date: **6/29/2021**	RunNo: **153968**
Client ID: **ZZZZZZ**	Batch ID: **88191**	TestNo: **EPA 8270C**	**EPA 3550B**	Analysis Date: **6/29/2021**	SeqNo: **4261435**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chloroaniline	1500.680	660	3349	0	44.8	10	125				
4-Chlorophenyl-phenylether	1850.704	330	3349	0	55.3	47	125				
4-Methylphenol	1810.472	330	3349	0	54.1	41	125				
4-Nitroaniline	1340.420	1700	3349	0	40.0	34	125				J
4-Nitrophenol	1290.464	1700	3349	0	38.5	25	138				J
Acenaphthene	1477.881	330	3349	0	44.1	46	125				S
Acenaphthylene	1559.353	330	3349	0	46.6	44	125				
Anthracene	1603.273	330	3349	0	47.9	53	125				S
Benzo(a)anthracene	1617.019	330	3349	0	48.3	52	125				S
Benzo(a)pyrene	1570.416	330	3349	0	46.9	50	125				S
Benzo(b)fluoranthene	1763.533	330	3349	0	52.7	45	125				
Benzo(g,h,i)perylene	1763.533	330	3349	0	52.7	38	126				
Benzo(k)fluoranthene	1625.066	330	3349	0	48.5	45	125				
Benzoic acid	1070.860	1700	3349	0	32.0	25	125				J
Benzyl alcohol	1854.728	660	3349	0	55.4	25	125				
Bis(2-chloroethoxy)methane	2048.180	330	3349	0	61.2	43	125				
Bis(2-chloroethyl)ether	1892.278	330	3349	0	56.5	38	125				
Bis(2-chloroisopropyl)ether	1801.084	330	3349	0	53.8	25	125				
Bis(2-ethylhexyl)phthalate	1921.112	330	3349	0	57.4	47	127				
Butylbenzylphthalate	1850.034	330	3349	0	55.2	49	125				
Carbazole	1647.194	330	3349	0	49.2	40	130				
Chrysene	1862.439	330	3349	0	55.6	53	125				
Di-n-butylphthalate	1929.158	330	3349	0	57.6	56	125				
Di-n-octylphthalate	1776.609	330	3349	0	53.0	41	132				
Dibenz(a,h)anthracene	1975.761	330	3349	0	59.0	41	125				
Dibenzofuran	1729.000	330	3349	0	51.6	51	125				
Diethylphthalate	1881.885	330	3349	0	56.2	50	125				
Dimethylphthalate	2052.874	330	3349	0	61.3	49	125				
Fluoranthene	1565.723	330	3349	0	46.7	54	125				S
Fluorene	1652.558	330	3349	0	49.3	49	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_PGE

Sample ID **N045954-001D-MS**	SampType: **MS**	TestCode: **8270_S_PGE**	Units: **ug/Kg-dry**	Prep Date: **6/29/2021**	RunNo: **153968**
Client ID: **ZZZZZZ**	Batch ID: **88191**	TestNo: **EPA 8270C**	**EPA 3550B**	Analysis Date: **6/29/2021**	SeqNo: **4261435**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorobenzene	1934.522	330	3349	0	57.8	47	125				
Hexachlorobutadiene	1705.196	660	3349	0	50.9	40	125				
Hexachlorocyclopentadiene	1272.024	660	3349	0	38.0	40	130				S
Hexachloroethane	1571.758	330	3349	0	46.9	34	125				
Indeno(1,2,3-cd)pyrene	1827.235	330	3349	0	54.6	38	125				
Isophorone	2246.326	330	3349	0	67.1	43	125				
N-Nitrosodi-n-propylamine	1873.168	330	3349	0	55.9	40	125				
N-Nitrosodiphenylamine	1887.920	330	3349	0	56.4	49	125				
Naphthalene	1527.837	330	3349	0	45.6	40	125				
Nitrobenzene	1590.198	330	3349	0	47.5	41	125				
Pentachlorophenol	1760.516	1700	3349	0	52.6	25	125				
Phenanthrene	1589.862	330	3349	0	47.5	50	125				S
Phenol	1652.558	330	3349	0	49.3	39	125				
Pyrene	1574.440	330	3349	0	47.0	46	125				
Surr: 1,2-Dichlorobenzene-d4	1191.223		3349		35.6	25	110				
Surr: 2,4,6-Tribromophenol	1812.819		3349		54.1	36	126				
Surr: 2-Chlorophenol-d4	1537.895		3349		45.9	30	100				
Surr: 2-Fluorobiphenyl	1270.348		3349		37.9	43	125				S
Surr: 2-Fluorophenol	1530.519		3349		45.7	37	125				
Surr: 4-Terphenyl-d14	1351.484		3349		40.4	32	125				
Surr: Nitrobenzene-d5	1230.450		3349		36.7	37	125				S
Surr: Phenol-d5	1541.583		3349		46.0	40	125				

Sample ID **N045954-001D-MSD**	SampType: **MSD**	TestCode: **8270_S_PGE**	Units: **ug/Kg-dry**	Prep Date: **6/29/2021**	RunNo: **153968**
Client ID: **ZZZZZZ**	Batch ID: **88191**	TestNo: **EPA 8270C**	**EPA 3550B**	Analysis Date: **6/29/2021**	SeqNo: **4261436**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	1605.590	330	3361	0	47.8	44	125	1645	2.44	30	
1,2-Dichlorobenzene	1358.007	330	3361	0	40.4	45	125	1515	10.9	30	S
1,3-Dichlorobenzene	1234.888	330	3361	0	36.7	39	125	1453	16.2	30	S

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out
- Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_PGE

Sample ID **N045954-001D-MSD** SampType: **MSD** TestCode: **8270_S_PGE** Units: **ug/Kg-dry** Prep Date: **6/29/2021** RunNo: **153968**
Client ID: **ZZZZZZ** Batch ID: **88191** TestNo: **EPA 8270C** **EPA 3550B** Analysis Date: **6/29/2021** SeqNo: **4261436**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	1467.670	330	3361	0	43.7	35	125	1687	13.9	30	
2,4,5-Trichlorophenol	2289.135	330	3361	0	68.1	49	125	1797	24.1	30	
2,4,6-Trichlorophenol	2115.221	330	3361	0	62.9	43	125	1721	20.6	30	
2,4-Dichlorophenol	1981.001	1700	3361	0	58.9	45	125	1768	11.4	30	
2,4-Dimethylphenol	1870.329	330	3361	0	55.7	32	125	1662	11.8	30	
2,4-Dinitrophenol	1630.819	1700	3361	0	48.5	25	132	1075	0	30	J
2,4-Dinitrotoluene	2131.031	330	3361	0	63.4	48	125	1696	22.7	30	
2,6-Dinitrotoluene	2605.678	330	3361	0	77.5	48	125	2121	20.5	30	
2-Chloronaphthalene	1898.586	330	3361	0	56.5	45	125	1702	10.9	30	
2-Chlorophenol	1686.660	330	3361	0	50.2	44	125	1682	0.253	30	
2-Methylnaphthalene	1840.727	330	3361	0	54.8	47	125	1725	6.51	30	
2-Methylphenol	1912.378	330	3361	0	56.9	40	125	1795	6.35	30	
2-Nitroaniline	1881.766	1700	3361	0	56.0	44	125	1552	19.2	30	
2-Nitrophenol	1774.121	330	3361	0	52.8	42	125	1741	1.86	30	
3,3´-Dichlorobenzidine	1421.248	670	5046	0	28.2	25	128	1191	17.7	30	
3-Nitroaniline	2321.764	1700	3361	0	69.1	27	125	1866	21.8	30	
4,6-Dinitro-2-methylphenol	2118.585	1700	3361	0	63.0	29	137	1356	43.9	30	R
4-Bromophenyl-phenylether	2521.580	330	3361	0	75.0	46	125	2003	22.9	30	
4-Chloro-3-methylphenol	2094.701	670	3361	0	62.3	46	125	1683	21.8	30	
4-Chloroaniline	1697.761	670	3361	0	50.5	10	125	1501	12.3	30	
4-Chlorophenyl-phenylether	2241.367	330	3361	0	66.7	47	125	1851	19.1	30	
4-Methylphenol	1954.090	330	3361	0	58.1	41	125	1810	7.63	30	
4-Nitroaniline	1725.345	1700	3361	0	51.3	34	125	1340	25.1	30	
4-Nitrophenol	1727.363	1700	3361	0	51.4	25	138	1290	29.0	30	
Acenaphthene	1744.855	330	3361	0	51.9	46	125	1478	16.6	30	
Acenaphthylene	1788.250	330	3361	0	53.2	44	125	1559	13.7	30	
Anthracene	1987.729	330	3361	0	59.1	53	125	1603	21.4	30	
Benzo(a)anthracene	2063.080	330	3361	0	61.4	52	125	1617	24.2	30	
Benzo(a)pyrene	2062.408	330	3361	0	61.4	50	125	1570	27.1	30	
Benzo(b)fluoranthene	2272.315	330	3361	0	67.6	45	125	1764	25.2	30	

Qualifiers:

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- H Holding times for preparation or analysis exceeded
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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out
- Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_PGE

Sample ID **N045954-001D-MSD** SampType: **MSD** TestCode: **8270_S_PGE** Units: **ug/Kg-dry** Prep Date: **6/29/2021** RunNo: **153968**
Client ID: **ZZZZZZ** Batch ID: **88191** TestNo: **EPA 8270C** **EPA 3550B** Analysis Date: **6/29/2021** SeqNo: **4261436**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(g,h,i)perylene	2243.049	330	3361	0	66.7	38	126	1764	23.9	30	
Benzo(k)fluoranthene	2131.704	330	3361	0	63.4	45	125	1625	27.0	30	
Benzoic acid	1285.683	1700	3361	0	38.3	25	125	1071	0	30	J
Benzyl alcohol	1898.586	670	3361	0	56.5	25	125	1855	2.34	30	
Bis(2-chloroethoxy)methane	2138.095	330	3361	0	63.6	43	125	2048	4.30	30	
Bis(2-chloroethyl)ether	1756.293	330	3361	0	52.3	38	125	1892	7.45	30	
Bis(2-chloroisopropyl)ether	1746.537	330	3361	0	52.0	25	125	1801	3.08	30	
Bis(2-ethylhexyl)phthalate	2423.691	330	3361	0	72.1	47	127	1921	23.1	30	
Butylbenzylphthalate	2303.599	330	3361	0	68.5	49	125	1850	21.8	30	
Carbazole	2102.102	330	3361	0	62.6	40	130	1647	24.3	30	
Chrysene	2394.088	330	3361	0	71.2	53	125	1862	25.0	30	
Di-n-butylphthalate	2493.996	330	3361	0	74.2	56	125	1929	25.5	30	
Di-n-octylphthalate	2233.967	330	3361	0	66.5	41	132	1777	22.8	30	
Dibenz(a,h)anthracene	2546.137	330	3361	0	75.8	41	125	1976	25.2	30	
Dibenzofuran	1978.983	330	3361	0	58.9	51	125	1729	13.5	30	
Diethylphthalate	2351.367	330	3361	0	70.0	50	125	1882	22.2	30	
Dimethylphthalate	2425.373	330	3361	0	72.2	49	125	2053	16.6	30	
Fluoranthene	2075.527	330	3361	0	61.8	54	125	1566	28.0	30	
Fluorene	1957.790	330	3361	0	58.3	49	125	1653	16.9	30	
Hexachlorobenzene	2465.739	330	3361	0	73.4	47	125	1935	24.1	30	
Hexachlorobutadiene	1657.394	670	3361	0	49.3	40	125	1705	2.84	30	
Hexachlorocyclopentadiene	1395.683	670	3361	0	41.5	40	130	1272	9.27	30	
Hexachloroethane	1370.117	330	3361	0	40.8	34	125	1572	13.7	30	
Indeno(1,2,3-cd)pyrene	2346.994	330	3361	0	69.8	38	125	1827	24.9	30	
Isophorone	2382.651	330	3361	0	70.9	43	125	2246	5.89	30	
N-Nitrosodi-n-propylamine	1928.861	330	3361	0	57.4	40	125	1873	2.93	30	
N-Nitrosodiphenylamine	2374.241	330	3361	0	70.7	49	125	1888	22.8	30	
Naphthalene	1556.813	330	3361	0	46.3	40	125	1528	1.88	30	
Nitrobenzene	1581.033	330	3361	0	47.0	41	125	1590	0.578	30	
Pentachlorophenol	2542.100	1700	3361	0	75.6	25	125	1761	36.3	30	R

Qualifiers:

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- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out
- Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_PGE

Sample ID **N045954-001D-MSD** SampType: **MSD** TestCode: **8270_S_PGE** Units: **ug/Kg-dry** Prep Date: **6/29/2021** RunNo: **153968**
Client ID: **ZZZZZZ** Batch ID: **88191** TestNo: **EPA 8270C** **EPA 3550B** Analysis Date: **6/29/2021** SeqNo: **4261436**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenanthrene	2017.331	330	3361	0	60.0	50	125	1590	23.7	30	
Phenol	1743.846	330	3361	0	51.9	39	125	1653	5.38	30	
Pyrene	2070.481	330	3361	0	61.6	46	125	1574	27.2	30	
Surr: 1,2-Dichlorobenzene-d4	958.039		3361		28.5	25	110		0		
Surr: 2,4,6-Tribromophenol	2072.499		3361		61.7	36	126		0		
Surr: 2-Chlorophenol-d4	1361.707		3361		40.5	30	100		0		
Surr: 2-Fluorobiphenyl	1277.946		3361		38.0	43	125		0		S
Surr: 2-Fluorophenol	1318.649		3361		39.2	37	125		0		
Surr: 4-Terphenyl-d14	1523.174		3361		45.3	32	125		0		
Surr: Nitrobenzene-d5	1096.632		3361		32.6	37	125		0		S
Surr: Phenol-d5	1412.838		3361		42.0	40	125		0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Lab Order: N045954
Project: PG&E, PMO-Waste Characteri
Lab ID: N045954-001

Client Sample ID: AOC4-Gabion-WC
Collection Date: 6/17/2021 11:30:00 AM
Matrix: SOIL

SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS-SIM

EPA 3550B **EPA 8270CSIM**

RunID: **NV00922-MS9_210628A** QC Batch: **88155** PrepDate: **6/24/2021** Analyst: **PL**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1-Methylnaphthalene	ND	1.2	5.1		ug/Kg-dry	1	6/28/2021 03:10 PM
2-Methylnaphthalene	ND	0.49	5.1		ug/Kg-dry	1	6/28/2021 03:10 PM
Acenaphthene	ND	0.49	5.1		ug/Kg-dry	1	6/28/2021 03:10 PM
Acenaphthylene	ND	1.3	5.1		ug/Kg-dry	1	6/28/2021 03:10 PM
Anthracene	ND	0.79	5.1		ug/Kg-dry	1	6/28/2021 03:10 PM
Benzo(a)anthracene	6.1	0.54	5.1		ug/Kg-dry	1	6/28/2021 03:10 PM
Benzo(a)pyrene	7.1	0.70	5.1		ug/Kg-dry	1	6/28/2021 03:10 PM
Benzo(b)fluoranthene	13	1.4	5.1		ug/Kg-dry	1	6/28/2021 03:10 PM
Benzo(g,h,i)perylene	2.7	1.6	5.1	J	ug/Kg-dry	1	6/28/2021 03:10 PM
Benzo(k)fluoranthene	4.7	1.1	5.1	J	ug/Kg-dry	1	6/28/2021 03:10 PM
Chrysene	7.4	2.0	5.1		ug/Kg-dry	1	6/28/2021 03:10 PM
Dibenz(a,h)anthracene	ND	1.6	5.1		ug/Kg-dry	1	6/28/2021 03:10 PM
Fluoranthene	14	1.1	5.1		ug/Kg-dry	1	6/28/2021 03:10 PM
Fluorene	ND	0.76	5.1		ug/Kg-dry	1	6/28/2021 03:10 PM
Indeno(1,2,3-cd)pyrene	2.4	1.1	5.1	J	ug/Kg-dry	1	6/28/2021 03:10 PM
Naphthalene	ND	1.4	5.1		ug/Kg-dry	1	6/28/2021 03:10 PM
Phenanthrene	6.7	1.3	5.1		ug/Kg-dry	1	6/28/2021 03:10 PM
Pyrene	11	0.96	5.1		ug/Kg-dry	1	6/28/2021 03:10 PM
Surr: 1,2-Dichlorobenzene-d4	36.0	0	25-110		%REC	1	6/28/2021 03:10 PM
Surr: 2-Fluorobiphenyl	44.0	0	34-135		%REC	1	6/28/2021 03:10 PM
Surr: 4-Terphenyl-d14	69.0	0	14-129		%REC	1	6/28/2021 03:10 PM
Surr: Nitrobenzene-d5	72.0	0	25-135		%REC	1	6/28/2021 03:10 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified
E	Value above quantitation range
J	Analyte detected below quantitation limits
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_SIMPGE

Sample ID **LCS-88155**	SampType: **LCS**	TestCode: **8270_S_SIM**	Units: **ug/Kg**	Prep Date: **6/24/2021**	RunNo: **153881**
Client ID: **LCSS**	Batch ID: **88155**	TestNo: **EPA 8270CSI EPA 3550B**		Analysis Date: **6/28/2021**	SeqNo: **4257970**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	18.000	5.0	33.30	0	54.1	30	111				
2-Methylnaphthalene	21.000	5.0	33.30	0	63.1	30	111				
Acenaphthene	19.000	5.0	33.30	0	57.1	28	110				
Acenaphthylene	19.000	5.0	33.30	0	57.1	23	126				
Anthracene	18.000	5.0	33.30	0	54.1	28	136				
Benzo(a)anthracene	22.000	5.0	33.30	0	66.1	31	146				
Benzo(a)pyrene	24.000	5.0	33.30	0	72.1	28	128				
Benzo(b)fluoranthene	23.667	5.0	33.30	0	71.1	30	139				
Benzo(g,h,i)perylene	23.333	5.0	33.30	0	70.1	21	149				
Benzo(k)fluoranthene	24.333	5.0	33.30	0	73.1	42	129				
Chrysene	20.667	5.0	33.30	0	62.1	39	134				
Dibenz(a,h)anthracene	22.667	5.0	33.30	0	68.1	30	138				
Fluoranthene	19.000	5.0	33.30	0	57.1	30	142				
Fluorene	19.667	5.0	33.30	0	59.1	27	116				
Indeno(1,2,3-cd)pyrene	23.667	5.0	33.30	0	71.1	17	164				
Naphthalene	20.000	5.0	33.30	0	60.1	29	106				
Phenanthrene	17.667	5.0	33.30	0	53.1	32	127				
Pyrene	19.000	5.0	33.30	0	57.1	28	130				
Surr: 1,2-Dichlorobenzene-d4	17.333		33.30		52.1	25	110				
Surr: 2-Fluorobiphenyl	16.333		33.30		49.0	34	135				
Surr: 4-Terphenyl-d14	25.000		33.30		75.1	14	129				
Surr: Nitrobenzene-d5	23.333		33.30		70.1	25	135				

Sample ID **MB-88155**	SampType: **MBLK**	TestCode: **8270_S_SIM**	Units: **ug/Kg**	Prep Date: **6/24/2021**	RunNo: **153881**
Client ID: **PBS**	Batch ID: **88155**	TestNo: **EPA 8270CSI EPA 3550B**		Analysis Date: **6/28/2021**	SeqNo: **4257971**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	ND	5.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_SIMPGE

Sample ID **MB-88155** SampType: **MBLK** TestCode: **8270_S_SIM** Units: **ug/Kg** Prep Date: **6/24/2021** RunNo: **153881**
Client ID: **PBS** Batch ID: **88155** TestNo: **EPA 8270CSI EPA 3550B** Analysis Date: **6/28/2021** SeqNo: **4257971**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	ND	5.0									
Acenaphthene	ND	5.0									
Acenaphthylene	ND	5.0									
Anthracene	ND	5.0									
Benzo(a)anthracene	ND	5.0									
Benzo(a)pyrene	ND	5.0									
Benzo(b)fluoranthene	ND	5.0									
Benzo(g,h,i)perylene	ND	5.0									
Benzo(k)fluoranthene	ND	5.0									
Chrysene	ND	5.0									
Dibenz(a,h)anthracene	ND	5.0									
Fluoranthene	ND	5.0									
Fluorene	ND	5.0									
Indeno(1,2,3-cd)pyrene	ND	5.0									
Naphthalene	ND	5.0									
Phenanthrene	ND	5.0									
Pyrene	ND	5.0									
Surr: 1,2-Dichlorobenzene-d4	16.000		33.30		48.0	25	110				
Surr: 2-Fluorobiphenyl	15.667		33.30		47.0	34	135				
Surr: 4-Terphenyl-d14	23.667		33.30		71.1	14	129				
Surr: Nitrobenzene-d5	22.333		33.30		67.1	25	135				

Sample ID **N045954-001D-MS** SampType: **MS** TestCode: **8270_S_SIM** Units: **ug/Kg-dry** Prep Date: **6/24/2021** RunNo: **153881**
Client ID: **ZZZZZZ** Batch ID: **88155** TestNo: **EPA 8270CSI EPA 3550B** Analysis Date: **6/28/2021** SeqNo: **4257979**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	76.518	5.0	134.2	0	57.0	30	111				
2-Methylnaphthalene	98.333	5.0	134.2	0	73.3	30	111				
Acenaphthene	80.546	5.0	134.2	0	60.0	28	110				
Acenaphthylene	88.600	5.0	134.2	0	66.0	23	126				

Qualifiers:

B Analyte detected in the associated Method Blank
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike/Surrogate outside of limits due to matrix interference
DO Surrogate Diluted Out
Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_SIMPGE

Sample ID **N045954-001D-MS** SampType: **MS** TestCode: **8270_S_SIM** Units: **ug/Kg-dry** Prep Date: **6/24/2021** RunNo: **153881**
Client ID: **ZZZZZZ** Batch ID: **88155** TestNo: **EPA 8270CSI EPA 3550B** Analysis Date: **6/28/2021** SeqNo: **4257979**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Anthracene	74.169	5.0	134.2	0	55.3	28	136				
Benzo(a)anthracene	100.011	5.0	134.2	6.063	70.0	31	146				
Benzo(a)pyrene	112.428	5.0	134.2	7.074	78.5	28	128				
Benzo(b)fluoranthene	144.647	5.0	134.2	13.47	97.7	30	139				
Benzo(g,h,i)perylene	40.273	5.0	134.2	2.695	28.0	21	149				
Benzo(k)fluoranthene	112.093	5.0	134.2	4.716	80.0	42	129				
Chrysene	88.936	5.0	134.2	7.410	60.7	39	134				
Dibenz(a,h)anthracene	46.985	5.0	134.2	0	35.0	30	138				
Fluoranthene	90.614	5.0	134.2	14.15	57.0	30	142				
Fluorene	91.956	5.0	134.2	0	68.5	27	116				
Indeno(1,2,3-cd)pyrene	49.334	5.0	134.2	2.358	35.0	17	164				
Naphthalene	87.258	5.0	134.2	0	65.0	29	106				
Phenanthrene	75.512	5.0	134.2	6.737	51.2	32	127				
Pyrene	89.271	5.0	134.2	11.12	58.2	28	130				
Surr: 1,2-Dichlorobenzene-d4	15.438		33.53		46.0	25	110				
Surr: 2-Fluorobiphenyl	17.787		33.53		53.1	34	135				
Surr: 4-Terphenyl-d14	26.849		33.53		80.1	14	129				
Surr: Nitrobenzene-d5	30.205		33.53		90.1	25	135				

Sample ID **N045954-001D-MSD** SampType: **MSD** TestCode: **8270_S_SIM** Units: **ug/Kg-dry** Prep Date: **6/24/2021** RunNo: **153881**
Client ID: **ZZZZZZ** Batch ID: **88155** TestNo: **EPA 8270CSI EPA 3550B** Analysis Date: **6/28/2021** SeqNo: **4257980**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	80.639	5.1	134.9	0	59.8	30	111	76.52	5.24	30	
2-Methylnaphthalene	109.656	5.1	134.9	0	81.3	30	111	98.33	10.9	30	
Acenaphthene	85.363	5.1	134.9	0	63.3	28	110	80.55	5.81	30	
Acenaphthylene	93.460	5.1	134.9	0	69.3	23	126	88.60	5.34	30	
Anthracene	80.977	5.1	134.9	0	60.0	28	136	74.17	8.78	30	
Benzo(a)anthracene	115.054	5.1	134.9	6.063	80.8	31	146	100.0	14.0	30	
Benzo(a)pyrene	123.152	5.1	134.9	7.074	86.0	28	128	112.4	9.10	30	

Qualifiers:

B Analyte detected in the associated Method Blank
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike/Surrogate outside of limits due to matrix interference
DO Surrogate Diluted Out
Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_SIMPGE

Sample ID **N045954-001D-MSD** SampType: **MSD** TestCode: **8270_S_SIM** Units: **ug/Kg-dry** Prep Date: **6/24/2021** RunNo: **153881**
Client ID: **ZZZZZZ** Batch ID: **88155** TestNo: **EPA 8270CSI EPA 3550B** Analysis Date: **6/28/2021** SeqNo: **4257980**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(b)fluoranthene	165.327	5.1	134.9	13.47	113	30	139	144.6	13.3	30	
Benzo(g,h,i)perylene	45.212	5.1	134.9	2.695	31.5	21	149	40.27	11.6	30	
Benzo(k)fluoranthene	125.851	5.1	134.9	4.716	89.8	42	129	112.1	11.6	30	
Chrysene	100.208	5.1	134.9	7.410	68.8	39	134	88.94	11.9	30	
Dibenz(a,h)anthracene	53.984	5.1	134.9	0	40.0	30	138	46.98	13.9	30	
Fluoranthene	102.908	5.1	134.9	14.15	65.8	30	142	90.61	12.7	30	
Fluorene	97.172	5.1	134.9	0	72.0	27	116	91.96	5.52	30	
Indeno(1,2,3-cd)pyrene	56.346	5.1	134.9	2.358	40.0	17	164	49.33	13.3	30	
Naphthalene	96.160	5.1	134.9	0	71.3	29	106	87.26	9.71	30	
Phenanthrene	87.387	5.1	134.9	6.737	59.8	32	127	75.51	14.6	30	
Pyrene	101.558	5.1	134.9	11.12	67.0	28	130	89.27	12.9	30	
Surr: 1,2-Dichlorobenzene-d4	16.533		33.71		49.0	25	110		0		
Surr: 2-Fluorobiphenyl	18.220		33.71		54.1	34	135		0		
Surr: 4-Terphenyl-d14	29.354		33.71		87.1	14	129		0		
Surr: Nitrobenzene-d5	29.017		33.71		86.1	25	135		0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT:	Groundwater Partners	**Client Sample ID:**	AOC4-Gabion-WC
Lab Order:	N045954	**Collection Date:**	6/17/2021 11:30:00 AM
Project:	PG&E, PMO-Waste Characteri	**Matrix:**	SOIL
Lab ID:	N045954-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
PH							
			EPA 9045C				
RunID: **NV00922-WC_210621B**	QC Batch: **R153697**			PrepDate:			Analyst: **LR**
pH	7.7	0.10	0.10		pH Units	1	6/21/2021 10:40 AM
Temp. at time of pH Analysis	25	0	0		°C	1	6/21/2021 10:40 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified
E	Value above quantitation range
J	Analyte detected below quantitation limits
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: 9045_S

Sample ID **N045954-001BDUP** SampType: **DUP** TestCode: **9045_S** Units: **pH Units** Prep Date: RunNo: **153697**
Client ID: **ZZZZZZ** Batch ID: **R153697** TestNo: **EPA 9045C** Analysis Date: **6/21/2021** SeqNo: **4250438**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.640	0.10						7.680	0.522	20	
Temp. at time of pH Analysis	25.000	0						25.00	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT:	Groundwater Partners	**Client Sample ID:**	AOC4-Gabion-WC
Lab Order:	N045954	**Collection Date:**	6/17/2021 11:30:00 AM
Project:	PG&E, PMO-Waste Characteri	**Matrix:**	SOIL
Lab ID:	N045954-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE							
			D2216				
RunID: **NV00922-WC_210621A**	QC Batch: **R153696**			PrepDate:			Analyst: **LR**
Percent Moisture	0.9087	0.1000	0.1000		wt%	1	6/21/2021 10:30 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
		Results are wet unless otherwise specified	DO	Surrogate Diluted Out

CLIENT: Groundwater Partners
Work Order: N045954
Project: PG&E, PMO-Waste Characteri

ANALYTICAL QC SUMMARY REPORT

TestCode: PMOIST

Sample ID	MB-R153696	SampType:	MBLK	TestCode:	PMOIST	Units:	wt%	Prep Date:		RunNo:	153696
Client ID:	PBS	Batch ID:	R153696	TestNo:	D2216			Analysis Date:	6/21/2021	SeqNo:	4250434

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	ND	0.1000									

Sample ID	N045954-001BDUP	SampType:	DUP	TestCode:	PMOIST	Units:	wt%	Prep Date:		RunNo:	153696
Client ID:	ZZZZZZ	Batch ID:	R153696	TestNo:	D2216			Analysis Date:	6/21/2021	SeqNo:	4250436

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	0.948	0.1000						0.9087	4.25	30	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

GROPA01 C: 7/5/2021 12:00 AM
FOLDER R: 6/21/2021
N045954-002A 1 of 1

CHAIN OF CUSTODY

Project Name: PG&E **Project:** 2021 AOC4 Lower Gabion Soil **Project Manager:** Eli Ludwig

Field Manager: Eli Ludwig 505.999.7535
Location: Topock
Turnaround Time: Standard
Project Number: PMO - Waste Characteri
COC Number: 2021-06-17-01

GROUNDWATER PARTNERS

Container Type								8oz Jar	8oz Jar		8oz Jar	3 x 8oz	8oz Jar				5x40ml	5x40ml	8oz Jar	8oz Jar	R=Run				
Holding Time								30	180	14	14	30	14	14	14	14	14	14	14	14	H=Hold				
								Hexavalent Chromium (7199-RP)	Metals (6010B/7471A) Title 22 Metals	Asbestos (Carb435)	CLP-Pest, CLP-SVOCs	Dioxins/Furan (8290)	Ignitability, Reactivity, Corrosive	SVOCs (8270C)	PAHs (8270Sim)	PCBs (8082)	VOCs (8260)	TPH-Purgable (8015B-P)	TPH-Extractable (8015B-E)	pH (EPA 9045)	No. of 8 oz Jars	No. of 40 oz DIVOAs	No. of 40 oz Methanol VOAs	Total No. of Containers	
No.	AOC	Sample ID	Sample Date	Sample Time	Matrix																			12	Comments
1	NA	AOC4-Gabion-WC	6/17/21	11:30	Soil			X	X	X	X	X	X	X	X	X	X	X	X	X	5	4	1	10	N045954-01

Signatures		Date	Time
Relinquished By		6/18/21	17:22
Received By		6/18/21	1722
Relinquished By			
Received By			

Shipping
Method (drive) ship
On Ice? (yes) no 4.2°C IR#2
Lab Name ASSET Lab
Lab Phone # 702.307.2659

5 4 1 10 Total Containers

Special Instructions

Report Copy To
Eli Ludwig

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. 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 instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	6/18/2021	Workorder:	N045954
Rep sample Temp (Deg C):	4.2	IR Gun ID:	2
Temp Blank:	☐ Yes ☑ No		
Carrier name:	Walk-In		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☐	No ☐	NA ☑
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments: 5035 VOAs were placed in the freezer upon receipt.

For:

Checklist Completed By: MBC GGarcia 6/24/2021

Reviewed By: YR YRJ 6/24/2021

ASSET Laboratories

WORK ORDER Summary

24-Jun-21

WorkOrder: N045954

Client ID: GROPA01

Project: PG&E, PMO-Waste Characteri **QC Level:** Level IV **Date Received:** 6/18/2021

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N045954-001A	AOC4-Gabion-WC	6/17/2021 11:30:00 AM	6/30/2021	Soil	EPA 3060A	Prep for Hexavalend Chromium	☐	☐	☐	WS
			6/30/2021		EPA 7199	Hexavalent Chromium by IC	☐	☐	☐	WS
N045954-001B			6/30/2021		EPA 3050B	SOPREP TOTAL METALS	☐	☐	☐	WS
			6/30/2021		EPA 3050B	SOPREP TOTAL METALS	☐	☐	☐	WS
			6/30/2021		EPA 6010B	TOTAL METALS BY ICP	☐	☐	☐	WS
			6/30/2021		EPA 6020	TOTAL METALS BY ICPMS	☐	☐	☐	WS
			6/30/2021			MERCURY PREP	☐	☐	☐	WS
			6/30/2021		EPA 7471A	TOTAL MERCURY BY COLD VAPOR TECHNIQUE	☐	☐	☐	WS
			6/30/2021		EPA 9045C	pH	☐	☐	☐	WS
			6/30/2021		D2216	PERCENT MOISTURE	☐	☐	☐	WS
N045954-001C			6/30/2021		EPA 1030	IGNITABILITY OF SOLIDS	☐	☐	☑	SUB
			6/30/2021		EPA 9014, Ch 7	CYANIDE, REACTIVE	☐	☐	☑	SUB
			6/30/2021		EPA 9030B, Ch 7	SULFIDE, REACTIVE	☐	☐	☑	SUB
N045954-001D			6/30/2021		EPA 3550B	ULTRASONIC EXTRACTION: PESTICIDES/PCB	☐	☐	☐	WS
			6/30/2021		EPA 3550B	ULTRASONIC EXTRACTION: 8270C	☐	☐	☐	WS
			6/30/2021		EPA 3550B	ULTRASONIC EXTRACTION: EXTRACTABLE FUELS	☐	☐	☐	WS
			6/30/2021		EPA 3550B	ULTRASONIC EXTRACTION: PESTICIDE	☐	☐	☐	WS
			6/30/2021		EPA 3550B	ULTRASONIC EXTRACTION: 8270C - SIM	☐	☐	☐	WS
			6/30/2021		EPA 8015B	DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID	☐	☐	☐	WS
			6/30/2021		EPA 8081A	ORGANOCHLORINE PESTICIDES BY GC/ECD	☐	☐	☐	WS

ASSET Laboratories

WORK ORDER Summary

24-Jun-21

WorkOrder: N045954

Client ID: GROPA01

Project: PG&E, PMO-Waste Characteri **QC Level:** Level IV **Date Received:** 6/18/2021

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N045954-001D	AOC4-Gabion-WC	6/17/2021 11:30:00 AM	6/30/2021	Soil	EPA 8082	PCBs BY GC/ECD	☐	☐	☐	WS
			6/30/2021		EPA 8270C	SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS	☐	☐	☐	WS
			6/30/2021		EPA 8270C(M)	1,4-DIOXANE BY GC/MS: ISOTOPE DILUTION TECHNIQUE	☐	☐	☐	WS
			6/30/2021		EPA 8270C	SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS	☐	☐	☐	WS
			6/30/2021		EPA 8270CSIM	SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS-SIM	☐	☐	☐	WS
N045954-001E			6/30/2021		CARB435	Asbestos CARB435	☐	☐	☑	SUB
N045954-001F			6/30/2021		EPA 8290	Dioxins and Dibenzofurans	☐	☐	☑	SUB
N045954-001G			6/30/2021		EPA 5035	Closed System Purge and Trap	☐	☐	☐	V-CA
			6/30/2021		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	☐	☐	☐	V-CA
N045954-001H			6/30/2021		EPA 5035	Closed System Purge and Trap	☐	☐	☐	FRZ1-LV
			6/30/2021		EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	☐	☐	☐	FRZ1-LV
N045954-001I							☐	☐	☐	FRZ1-LV
N045954-001J							☐	☐	☐	FRZ1-LV
N045954-001K							☐	☐	☐	FRZ1-LV
N045954-002A	FOLDER	7/5/2021	6/30/2021		Folder	Level IV Report	☐	☐	☐	LAB
			6/30/2021		Folder	Folder	☐	☐	☐	LAB
			7/5/2021		Folder	Folder	☐	☐	☐	LAB

ASSET Laboratories
3151-3153 W Post Rd., Las Vegas, NV 89118
www.atl-labs.com
TEL: 7023072659 *FAX: 7023072691*

CHAIN-OF-CUSTODY RECORD

QC Level: Level IV

Subcontractor:
Eurofins Calscience, Inc.
7440 Lincoln Way
Garden Grove, CA 92841
TEL: +1 714 895 5494
FAX:
Acct #:

Field Sampler: Eli Ludwig

21-Jun-21

				Requested Tests		
Sample ID	**Matrix**	**Date Collected**	**Bottle Type**	**EPA ~~1030~~ 1010**	**~~EPA 9014, Ch 7~~ Reactive CN**	**~~EPA 9030B, Ch 7~~ Reactive S2**
N045954-001C / AOC4-Gabion-WC	Soil	6/17/2021 11:30:00 AM	8OZG	1	1	1

Please report in dry weight. ASSET will provide the PMOIST value

YRJ 6/24/2021

General Comments: PLEASE EMAIL SAMPLE RECEIPT ACKNOWLEDGEMENT TO THE PM. ALWAYS CC: sonny.lorenzo@assetlaboratories.com

Please use PO#:N45954A Please email Invoices and Account Receivable Statements to elvira@assetlaboratories.com. For questions, call Marlon at (702)-307-2659. Please e-mail results to reports.lv@assetlaboratories.com by:Standard TAT

Please analyze for Ignitability, Reactive Cyanide and Reactive Sulfide. EDD requirement Labspec7 edata.

GSO #: 553722229

		Date/Time			Date/Time
Relinquished by:	GGarcia	6/21/2021 16:30	**Received by:**		
Relinquished by:			**Received by:**		

ASSET Laboratories
3151-3153 W Post Rd., Las Vegas, NV 89118
www.atl-labs.com
TEL: 7023072659 *FAX: 7023072691*

CHAIN-OF-CUSTODY RECORD

QC Level: Level IV

Subcontractor:

AmeriSci Los Angeles
24416 South Main Street, Suite 308
Carson, CA 90745

TEL: (310) 834-4868
FAX: (310) 834-4772
Acct #:

Field Sampler: Eli Ludwig

21-Jun-21

				Requested Tests		
Sample ID	**Matrix**	**Date Collected**	**Bottle Type**	**CARB435**		
N045954-001E / AOC4-Gabion-WC	Soil	6/17/2021 11:30:00 AM	8OZG	1		

General Comments: PLEASE EMAIL SAMPLE RECEIPT ACKNOWLEDGEMENT TO THE PM. ALWAYS CC: sonny.lorenzo@assetlaboratories.com

Please use PO#:N45954B Please email Invoices and Account Receivable Statements to elvira@assetlaboratories.com. For questions, call Marlon at (702)-307-2659. Please e-mail results to reports.lv@assetlaboratories.com by: Standard TAT

Please analyze for Asbestos by CARB435 at 1000 pt ct. EDD requirement Labspec7 edata. Please report in dry weight. ASSET will provide PMOISTvalue.

GSO #: 553722252

		Date/Time			Date/Time
Relinquished by:	GGarcia	6/21/2021 16:30	**Received by:**		
Relinquished by:			**Received by:**		

ASSET Laboratories
3151-3153 W Post Rd., Las Vegas, NV 89118
www.atl-labs.com
TEL: 7023072659 *FAX: 7023072691*

CHAIN-OF-CUSTODY RECORD

QC Level: Level IV

Subcontractor:

Pace Analytical Services, Inc.
1700 Elm Street, Suite 200
Minneapolis, MN 55414

TEL: (612) 607-1700
FAX: (612) 607-6444
Acct #:

Field Sampler: Eli Ludwig

21-Jun-21

				Requested Tests		
Sample ID	**Matrix**	**Date Collected**	**Bottle Type**	**EPA 8290**		
N045954-001F / AOC4-Gabion-WC	Soil	6/17/2021 11:30:00 AM	8OZG	1		

Sample from Needles, CA.

YRJ 6/22/2021

General Comments: PLEASE EMAIL SAMPLE RECEIPT ACKNOWLEDGEMENT TO THE PM. ALWAYS CC: sonny.lorenzo@assetlaboratories.com

Please use PO#:N45954C Please email Invoices and Account Receivable Statements to elvira@assetlaboratories.com. For questions, call Marlon at (702)-307-2659. Please e-mail results to reports.lv@assetlaboratories.com by: Standard TAT

Please analyze for Dioxins/Furans by 8290. EDD requirement Labspec7 edata. Please report in dry weight. ASSET will provide PMOISTvalue.

Fedex #: 774055967447

		Date/Time			Date/Time
Relinquished by:	GGarcia	6/21/2021 16:30	**Received by:**		
Relinquished by:			**Received by:**		

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Report Prepared for:

Sonny Lorenzo
Asset Laboratories
3151-3153 W Post Road

Las Vegas NV 89118

REPORT OF LABORATORY ANALYSIS FOR PCDD/PCDF

Report Prepared Date:
July 6, 2021

Report Information:

Pace Project #: 10566487
Sample Receipt Date: 06/22/2021
Client Project #: N045954-001F/ AOC4-Gabion-
Client Sub PO #: N45954C
State Cert #: MN00064

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 Krista Carlson, your Pace Project Manager.

This report has been reviewed by:

July 07, 2021
Krista Carlson, Project Manager

(612) 607-1700 (fax)
krista.carlson@pacelabs.com

Report of Laboratory Analysis

The results relate only to the samples included in this report.

Pace Analytical Services, LLC.
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 Asset 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 estimated detection limits (EDLs) were based on signal-to-noise measurements. Estimated maximum possible concentration (EMPC) values were treated as positives in the toxic equivalence calculations.

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 65-101%. All of the labeled internal 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.

Values were flagged "I" where incorrect isotope ratios were obtained or "P" where polychlorinated diphenyl ethers were present. Concentrations below the calibration range were flagged "J" and should be regarded as estimates.

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 contain trace levels of selected congeners. These levels were below the calibration range of the method. The concentrations reported for the affected congeners in the field sample were higher than the corresponding blank levels by two orders of magnitude.

Laboratory and matrix spike samples were also prepared using clean reference matrix or sample matrix that had been fortified with native standard materials. The results show that the spiked native compounds were generally recovered at 88-129% with relative percent differences (RPDs) of 0.4-76.5%. The background-subtracted recovery values obtained for 1,2,3,4,6,7,8-HpCDF, HpCDD, and OCDD in the matrix spike and/or matrix spike duplicate were outside the 70-130% target range and flagged "R" on the results tables. Also, the RPD values obtained for these three congeners in the matrix spike sample analyses were above the 20% target upper limit. These deviations may be due to the levels of these congeners in the sample material and/or sample inhomogeneity.

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
		Missouri	10100
A2LA	2926.01	Montana	CERT0092
Alabama	40770	Nebraska	NE-OS-18-06
Alaska-DW	MN00064	Nevada	MN00064
Alaska-UST	17-009	New Hampshire	2081
Arizona	AZ0014	New Jersey	MN002
Arkansas - WW	88-0680	New York	11647
Arkansas-DW	MN00064	North Carolina-	27700
California	2929	North Carolina-	530
Colorado	MN00064	North Dakota	R-036
Connecticut	PH-0256	Ohio-DW	41244
Florida	E87605	Ohio-VAP (170	CL101
Georgia	959	Ohio-VAP (180	CL110
Hawaii	MN00064	Oklahoma	9507
Idaho	MN00064	Oregon- rimary	MN300001
Illinois	200011	Oregon-Second	MN200001
Indiana	C-MN-01	Pennsylvania	68-00563
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003
Kentucky-DW	90062	Tennessee	TN02818
Kentucky-WW	90062	Texas	T104704192
Louisiana-DEQ	AI-84596	Utah	MN00064
Louisiana-DW	MN00064	Vermont	VT-027053137
Maine	MN00064	Virginia	460163
Maryland	322	Washington	C486
Michigan	9909	West Virginia-D	382
Minnesota	027-053-137	West Virginia-D	9952C
Minnesota-Ag	via MN 027-053	Wisconsin	999407970
Minnesota-Petr	1240	Wyoming-UST	via A2LA 2926.
Mississippi	MN00064		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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 (EDL)

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 = Interferencepresent

J = Estimated value

L = Suppressive interference, analyte may be biased low

Nn = Value obtained from additional analysis

P = PCDEInterference

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

* = SeeDiscussion

REPORT OF LABORATORY ANALYSIS

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

WHO2005 Factors

Compound	TEF
2,3,7,8-TCDD	1.000000
1,2,3,7,8-PeCDD	1.000000
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	0.000300
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	0.030000
2,3,4,7,8-PeCDF	0.300000
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	0.000300
Total TCDF	0.000000
Total PeCDF	0.000000
Total HxCDF	0.000000
Total HpCDF	0.000000

REPORT OF LABORATORY ANALYSIS

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
N045954-001F/	AOC4-Gabion-WC	10566487001	06/22/2021	Soil
N045954-001F/	AOC4-Gabion-WC-MS	10566487001-MS	06/22/2021	Soil
N045954-001F/	AOC4-Gabion-WC-MSD	10566487001-MSD	06/22/2021	Soil

REPORT OF LABORATORY ANALYSIS

ASSET Laboratories
3151-3153 W Post Rd., Las Vegas, NV 89118
www.atl-labs.com
TEL: 7023072659 *FAX: 7023072691*

CHAIN-OF-CUSTODY RECORD

QC Level: Level IV

Subcontractor:
Pace Analytical Services, Inc.
1700 Elm Street, Suite 200
Minneapolis, MN 55414

TEL: (612) 607-1700
FAX: (612) 607-6444
Acct #:

Field Sampler: Eli Ludwig

21-Jun-21

Sample ID	Matrix	Date Collected	Bottle Type	Requested Tests		
				EPA 8290		
N045954-001F / AOC4-Gabion-WC	Soil	6/17/2021 11:30:00 AM	8OZG	1		

001

WO# : 10566487

10566487

General Comments: PLEASE EMAIL SAMPLE RECEIPT ACKNOWLEDGEMENT TO THE PM. ALWAYS CC: sonny.lorenzo@assetlaboratories.com

Please use PO#:N45954C Please email Invoices and Account Receivable Statements to elvira@assetlaboratories.com. For questions, call Marlon at (702)-307-2659. Please e-mail results to reports.lv@assetlaboratories.com by: Standard TAT

Please analyze for Dioxins/Furans by 8290. EDD requirement Labspec7 edata. Please report in dry weight. ASSET will provide PMOISTvalue.

Fedex #: 774055967447

		Date/Time			Date/Time
Relinquished by:	GGarcia	6/21/2021 16:30	**Received by:**	UPS	6/22/21 1035
Relinquished by:			**Received by:**		

Pace Analytical®	Document Name: **Sample Condition Upon Receipt (SCUR) - MN**	Document Revised: 14Apr2021 **Page 1 of 1**
	Document No.: **ENV-FRM-MIN4-0150 Rev.02**	Pace Analytical Services - **Minneapolis**

Sample Condition Upon Receipt

Client Name: Asset Labs

Project #:

WO#: 10566487

PM: KAC Due Date: 07/07/21

CLIENT: Asset Labs

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ SpeeDee ☐ Commercial

Tracking Number: 7740 5596 7447 See Exceptions ☐ ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No **Biological Tissue Frozen?** ☐ Yes ☐ No ☑ N/A

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other:_____ **Temp Blank?** ☐ Yes ☑ No

Thermometer: ☐ T1(0461) ☐ T2(1336) ☐ T3(0459) ☐ OS418-LS ☑ T4(0254) ☐ T5(0489) ☐ 160285052 **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☐ Dry ☐ Melted

Did Samples Originate in West Virginia? ☐ Yes ☑ No **Were All Container Temps Taken?** ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C **Cooler Temp Read w/temp blank:**_____ °C **Average Corrected Temp (no temp blank only):** 4.9 °C ☐ See Exceptions ENV-FRM-MIN4-0142 ☑ 1 Container

Correction Factor: -0.1°C **Cooler Temp Corrected w/temp blank:**_____ °C

USDA Regulated Soil: (☐ N/A, water sample/Other:_____)

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐ Yes ☑ No

Date/Initials of Person Examining Contents: CS 6/22/21

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present and Filled Out?	☑ Yes	☐ No		1.
Chain of Custody Relinquished?	☑ Yes	☐ No		2.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	3.
Samples Arrived within Hold Time?	☑ Yes	☐ No		4.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E coli ☐ BOD/cBOD ☐ Hex Chrome ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other_____
Rush Turn Around Time Requested?	☐ Yes	☑ No		6.
Sufficient Volume?	☑ Yes	☐ No		7.
Correct Containers Used? -Pace Containers Used?	☑ Yes ☑ Yes	☐ No ☐ No		8.
Containers Intact?	☑ Yes	☐ No		9.
Field Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC? Matrix: ☐ Water ☑ Soil ☐ Oil ☐ Other_____	☑ Yes	☐ No		11. **If no, write ID/ Date/Time on Container Below:** **See Exception** ☐ ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☑ N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	☐ Yes	☐ No	☑ N/A	☐ NaOH ☐ HNO_3 ☐ H_2SO_4 ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	☐ Yes	☐ No	☑ N/A	Positive for Res. Chlorine? ☐ Yes ☐ No **pH Paper Lot#** **See Exception** ☐ ENV-FRM-MIN4-0142
				Res. Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Extra labels present on soil VOA or WIDRO containers?	☐ Yes	☐ No	☑ N/A	13. **See Exception** ☐ ENV-FRM-MIN4-0140
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☐ No	☑ N/A	
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	14.
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: _____ **Date:** 06/25/21

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).

Labeled by: CS (2)

Dioxin | Solid | Soxhlet | EB-30764

Extract Solvents:

Extraction On (Date/Time): 06/28/21 12:30

QC Matrix Lot #: SAND 175767 **Toluene Lot #** 206135

Time of Spiking: 06/28/21 10:20 **Hexane Lot #**

Balance: 10BALY **MeCl Lot #**

Extraction Off (Date/Time): 06/29/21 06:40

Standards	Name/ID	Amount	Initial	Witness	Expiration Date	Dispenser
Internal Std.	FL-I-20170-161	100	AH	mt	06/22/22	Q763
Native	FL-N-20170-150	50	AH	MT	04/08/22	Q763
Cl37 Std.	DWCL4-20170-130	50	MT		04/15/22	Q678
Recovery	FL-R-20170-159	10	MF		06/11/22	Q656
Tridecane	A0404617	10	MF			Q763
Others						

#	Sample ID	Internal Standards	Native Standards	Extracted mL or g	Glassware Set	Location	Comments
1	BLANK-91164	x		10.5			
2	LCS-91165	x	x	10.5			
3	10566487001-MS	x	x	10.2		10-C11-119	
4	10566487001-MSD	x	x	10.2		10-C11-119	
5	10566487001	x		10.2		10-C11-119	
6	10567141001	x		10.6		10-C11-128	
7	10567141002	x		10.3		10-C11-128	
8	10567141003	x		10.9		10-C11-132	
9	10567141004	x		10.3		10-C11-132	
10	10567141005	x		10.1		10-C11-128	
11	10567141006	x		11.4		10-C11-132	
12	10567141009	x		10.9		10-C11-132	
13	10567024001	x		10.5		10-C29-195	
14	10567024002	x		10.1		10-C29-197	
15	10567024003	x		10.2		10-C29-197	
16	10567024004	x		11.8		10-C29-197	
17	92546080017	x		10.5		Rcving	

Relinquished By: M Felea Received By: Date:

Batch Notes:

Silica		Alumina		Carbon		Florisil	
Initials	CW1/MF	Initials	CW1/MF	Initials	CW1/MF	Initials	
Date	6/29/2021	Date	6/29/2021	Date	6/29/2021	Date	
Neutral Batch	712	Alumina Lot #	150XX	Hexane Lot #	207414	Florisil Lot #	
Basic Batch	742	Hexane Lot #	207414	Dispenser		Hexane Lot #	
Acid Batch	838	Dispenser		50% Batch		Dispenser	
Hexane Lot #	207414	60% Batch	1998	Dispenser		6% Batch	
Dispenser		Dispenser		75% Batch		Dispenser	
				Dispenser			
				Toluene Lot #	206135		
				Dispenser			
				Methanol Lot #			
				Dispenser			

Acid Base

Sulphuric Acid Lot #	210369
Base Batch	

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	Wet Weight	Dry Weight	% Moisture	% Solids	Amount Extracted	Assayed
10566487001	1.2959	9.7699	9.7423	0.3257	99.6743	10.23	6/29/2021

REPORT OF LABORATORY ANALYSIS

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)

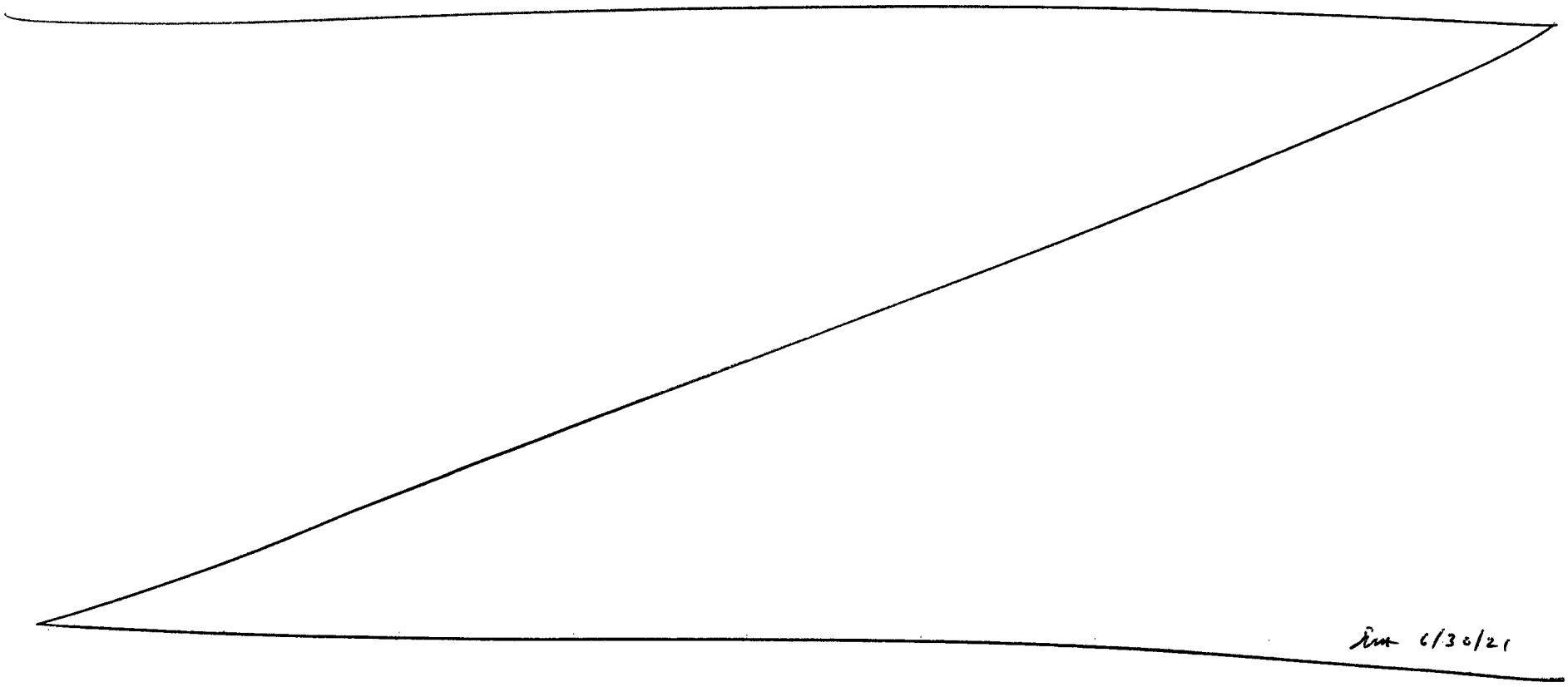
FE = Front End – liner, baseplate and septum

Sample List Report **MassLynx 4.1 SCN 881** 10MSHR01 6/25/21

Sample List: C:\MassLynx\Default.pro\Sampledb\U210629B.SPL
Last Modified: Tuesday, June 29, 2021 15:38:19 Central Daylight Time
Printed: Tuesday, June 29, 2021 15:39:12 Central Daylight Time

Page Position (1, 1)

	File Name	File Text	stnd exp	METHOD	MS File	Inlet File	Vial	Vol	Control
1	U210629B_01	CAL CS3/CPM-20-123-052 - SMT	220608	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000	---
2	U210629B_02	CAL CS3/CPM-20-123-052 - CVS TC US1175211H	220608	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000	---
3	U210629B_03	CAL CS2-20-123-016 - SMT	210924	8290/1613B	dioxfur	dioxfur	Tray1:4	1.000000	---
4	U210629B_04	CAL CS1-20-123-056 - SMT	220629	8290/1613B	dioxfur	dioxfur	Tray1:5	1.000000	---
5	U210629B_05	CAL CS5-20-123-019 - SMT	210924	8290/1613B	dioxfur	dioxfur	Tray1:6	1.000000	---
6	U210629B_06	CAL CS4-20-123-018 - SMT	210924	8290/1613B	dioxfur	dioxfur	Tray1:7	1.000000	---
7	U210629B_07	BLANK NONANE - SMT	---	HOUSE	dioxfur	dioxfur	Tray1:2	1.000000	---
8	U210629B_08	BLANK BLANK-78344-10X - SMT	---	HOUSE	dioxfur	dioxfur	Tray1:3	1.000000	---
9	U210629B_09	CAL ICV-82921 - SMT	210930	8290/1613B	dioxfur	dioxfur	Tray1:8	1.000000	---



6/30/21

Sample List Report **MassLynx 4.1 SCN 881**

Sample List: C:\MassLynx\Default.pro\Sampledb\U210630B.SPL
Last Modified: Thursday, July 01, 2021 08:21:02 Central Daylight Time
Printed: Thursday, July 01, 2021 08:23:03 Central Daylight Time

Page Position (1, 1)

	File Name	File Text	stnd exp	METHOD	MS File	Inlet File	Vial	Vol	Control
1	U210630B_01	CAL CS3/CPM-20-123-052 - SMT	220608	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000	---
2	U210630B_02	LCS LCS-91139 - SMT (rr DoD)	---	8290	dioxfur	dioxfur	Tray1:29	1.000000	---
3	U210630B_03	LCS LCS-91165 - SMT	---	8290	dioxfur	dioxfur	Tray1:30	1.000000	---
4	U210630B_04	SAMP 10566487001-MS - SMT ASSET	---	8290	dioxfur	dioxfur	Tray1:31	1.000000	---
5	U210630B_05	SAMP 10566487001-MSD - SMT ASSET	---	8290	dioxfur	dioxfur	Tray1:32	1.000000	---
6	U210630B_06	BLANK BLANK-78344-10X - SMT	---	HOUSE	dioxfur	dioxfur	Tray1:3	1.000000	---
7	U210630B_07	BLANK BLANK-91138 - SMT (rr DoD)	---	8290	dioxfur	dioxfur	Tray1:33	1.000000	---
8	U210630B_08	BLANK BLANK-91164 - SMT	---	8290	dioxfur	dioxfur	Tray1:34	1.000000	---
9	U210630B_09	SAMP 10562183001-R - SMT [redacted]	---	8290	dioxfur	dioxfur	Tray1:35	1.000000	---
10	U210630B_10	SAMP 10563183025 - SMT [redacted]	---	8290	dioxfur	dioxfur	Tray1:36	1.000000	---
11	U210630B_11	SAMP 10566092001 - SMT [redacted]	---	1613B	dioxfur	dioxfur	Tray1:37	1.000000	---
12	U210630B_12	SAMP 10566112001 - SMT [redacted]	---	1613B	dioxfur	dioxfur	Tray1:38	1.000000	---
13	U210630B_13	SAMP 10566114001 - SMT [redacted]	---	1613B	dioxfur	dioxfur	Tray1:39	1.000000	---
14	U210630B_14	SAMP 10566095001 - SMT [redacted]	---	1613B	dioxfur	dioxfur	Tray1:40	1.000000	---
15	U210630B_15	SAMP 10563639001 - SMT [redacted]	---	8290	dioxfur	dioxfur	Tray1:41	1.000000	---
16	U210630B_16	SAMP 10563639002 - SMT [redacted]	---	8290	dioxfur	dioxfur	Tray1:42	1.000000	---
17	U210630B_17	CAL CS3/CPM-20-123-052 - SMT	220608	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000	---

Sample List Report **MassLynx 4.1 SCN 881** 10MSHR06 7/3/21

Sample List: C:\MassLynx\Default.pro\Sampledb\U210703B.SPL
Last Modified: Saturday, July 03, 2021 12:58:40 Central Daylight Time
Printed: Saturday, July 03, 2021 12:59:54 Central Daylight Time

Page Position (1, 1)

	File Name	File Text	stnd exp	METHOD	MS File	Inlet File	Vial	Vol	Control
1	U210703B_01	CAL CS3/CPM-20-123-052 - JRH FE CC15" TC	220608	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000	--- pass 8290
2	U210703B_02	BLANK BLANK-78344-10X - JRH	---	HOUSE	dioxfur	dioxfur	Tray1:3	1.000000	---
3	U210703B_03	SAMP 10566487001 - JRH ASSET	---	8290	dioxfur	dioxfur	Tray1:4	1.000000	---
4	U210703B_04	SAMP 10567141001 - JRH [redacted]	---	8290	dioxfur	dioxfur	Tray1:5	1.000000	---
5	U210703B_05	SAMP 10567141002 - JRH [redacted]	---	8290	dioxfur	dioxfur	Tray1:6	1.000000	---
6	U210703B_06	SAMP 10567141003 - JRH [redacted]	---	8290	dioxfur	dioxfur	Tray1:7	1.000000	---
7	U210703B_07	SAMP 10567141004 - JRH [redacted]	---	8290	dioxfur	dioxfur	Tray1:8	1.000000	---
8	U210703B_08	SAMP 10567141005 - JRH [redacted]	---	8290	dioxfur	dioxfur	Tray1:9	1.000000	---
9	U210703B_09	SAMP 10567141006 - JRH [redacted]	---	8290	dioxfur	dioxfur	Tray1:10	1.000000	---
10	U210703B_10	SAMP 10567141007 - JRH [redacted]	---	8290	dioxfur	dioxfur	Tray1:11	1.000000	---
11	U210703B_11	SAMP 10567141008 - JRH [redacted]	---	8290	dioxfur	dioxfur	Tray1:12	1.000000	---
12	U210703B_12	SAMP 10567141009 - JRH [redacted]	---	8290	dioxfur	dioxfur	Tray1:13	1.000000	---
13	U210703B_13	SAMP 10566227001 - JRH [redacted]	---	8290	dioxfur	dioxfur	Tray1:14	1.000000	---
14	U210703B_14	SAMP 10566227002 - JRH [redacted]	---	8290	dioxfur	dioxfur	Tray1:15	1.000000	---
15	U210703B_15	SAMP 10566227003 - JRH [redacted]	---	8290	dioxfur	dioxfur	Tray1:16	1.000000	---
16	U210703B_16	SAMP 70178163001 - JRH [redacted]	---	1613-TD	dioxfur	dioxfur	Tray1:17	1.000000	---
17	U210703B_17	CAL CS3/CPM-20-123-052 - JRH	220608	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000	--- pass 911

7/7 7/12 7/13 JCF 7/3/21 JRH

Jm 7/6/21

Appendix B

Sample Analysis Summary

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Sample Analysis Results

Client - Asset Laboratories

Client's Sample ID	N045954-001F/ AOC4-Gabion-WC		
Lab Sample ID	10566487001		
Filename	U210703B_03		
Injected By	JRH		
Total Amount Extracted	10.2 g	Matrix	Soil
% Moisture	0.3	Dilution	NA
Dry Weight Extracted	10.2 g	Collected	06/17/2021 11:30
ICAL ID	U210629	Received	06/22/2021 10:35
CCal Filename(s)	U210703B_01 & U210703B_17	Extracted	06/28/2021 12:30
Method Blank ID	BLANK-91164	Analyzed	07/03/2021 13:31

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	1.0	-----	0.29		2,3,7,8-TCDF-13C	2.00	75
Total TCDF	9.2	-----	0.29		2,3,7,8-TCDD-13C	2.00	75
					1,2,3,7,8-PeCDF-13C	2.00	88
2,3,7,8-TCDD	ND	-----	0.35		2,3,4,7,8-PeCDF-13C	2.00	87
Total TCDD	0.44	-----	0.35	J	1,2,3,7,8-PeCDD-13C	2.00	101
					1,2,3,4,7,8-HxCDF-13C	2.00	69
1,2,3,7,8-PeCDF	0.91	-----	0.21	J	1,2,3,6,7,8-HxCDF-13C	2.00	69
2,3,4,7,8-PeCDF	1.9	-----	0.20	J	2,3,4,6,7,8-HxCDF-13C	2.00	70
Total PeCDF	22	-----	0.20		1,2,3,7,8,9-HxCDF-13C	2.00	77
					1,2,3,4,7,8-HxCDD-13C	2.00	75
1,2,3,7,8-PeCDD	1.4	-----	0.26	J	1,2,3,6,7,8-HxCDD-13C	2.00	65
Total PeCDD	12	-----	0.26		1,2,3,4,6,7,8-HpCDF-13C	2.00	72
					1,2,3,4,7,8,9-HpCDF-13C	2.00	81
1,2,3,4,7,8-HxCDF	4.1	-----	0.22	J	1,2,3,4,6,7,8-HpCDD-13C	2.00	90
1,2,3,6,7,8-HxCDF	-----	2.7	0.15	PJ	OCDD-13C	4.00	89
2,3,4,6,7,8-HxCDF	3.0	-----	0.17	J			
1,2,3,7,8,9-HxCDF	1.5	-----	0.25	J	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	58	-----	0.15		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	3.3	-----	0.22	J	2,3,7,8-TCDD-37Cl4	0.20	78
1,2,3,6,7,8-HxCDD	15	-----	0.20				
1,2,3,7,8,9-HxCDD	6.3	-----	0.20				
Total HxCDD	92	-----	0.20				
1,2,3,4,6,7,8-HpCDF	30	-----	0.12		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	4.2	-----	0.21	J	Equivalence: 12 ng/Kg		
Total HpCDF	120	-----	0.12		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	450	-----	0.15				
Total HpCDD	880	-----	0.15				
OCDF	77	-----	0.24				
OCDD	4400	-----	0.15				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
EDL = Estimated Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
P = PCDE Interference

REPORT OF LABORATORY ANALYSIS

Appendix C

QC and Calibration Results Summary

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Blank Analysis Results

Lab Sample Name	DFBLKSV		
Lab Sample ID	BLANK-91164	Matrix	Solid
Filename	U210630B_08	Dilution	NA
Total Amount Extracted	10.5 g	Extracted	06/28/2021 12:30
ICAL ID	U210629	Analyzed	07/01/2021 03:30
CCal Filename(s)	U210630B_01 & U210630B_17	Injected By	SMT

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.17	2,3,7,8-TCDF-13C	2.00	92
Total TCDF	ND	-----	0.17	2,3,7,8-TCDD-13C	2.00	84
				1,2,3,7,8-PeCDF-13C	2.00	87
2,3,7,8-TCDD	ND	-----	0.30	2,3,4,7,8-PeCDF-13C	2.00	82
Total TCDD	ND	-----	0.30	1,2,3,7,8-PeCDD-13C	2.00	97
				1,2,3,4,7,8-HxCDF-13C	2.00	92
1,2,3,7,8-PeCDF	ND	-----	0.11	1,2,3,6,7,8-HxCDF-13C	2.00	89
2,3,4,7,8-PeCDF	ND	-----	0.094	2,3,4,6,7,8-HxCDF-13C	2.00	91
Total PeCDF	ND	-----	0.094	1,2,3,7,8,9-HxCDF-13C	2.00	92
				1,2,3,4,7,8-HxCDD-13C	2.00	99
1,2,3,7,8-PeCDD	ND	-----	0.13	1,2,3,6,7,8-HxCDD-13C	2.00	83
Total PeCDD	ND	-----	0.13	1,2,3,4,6,7,8-HpCDF-13C	2.00	85
				1,2,3,4,7,8,9-HpCDF-13C	2.00	91
1,2,3,4,7,8-HxCDF	ND	-----	0.13	1,2,3,4,6,7,8-HpCDD-13C	2.00	102
1,2,3,6,7,8-HxCDF	ND	-----	0.10	OCDD-13C	4.00	90
2,3,4,6,7,8-HxCDF	ND	-----	0.10			
1,2,3,7,8,9-HxCDF	ND	-----	0.15	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.10	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.17	2,3,7,8-TCDD-37Cl4	0.20	87
1,2,3,6,7,8-HxCDD	ND	-----	0.13			
1,2,3,7,8,9-HxCDD	ND	-----	0.16			
Total HxCDD	ND	-----	0.13			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.10	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.13	Equivalence: 0.0030 ng/Kg		
Total HpCDF	ND	-----	0.10	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	0.26	-----	0.14 J			
Total HpCDD	0.46	-----	0.14 J			
OCDF	ND	-----	0.27			
OCDD	-----	1.1	0.27 IJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
EDL = Estimated Detection Limit

Results reported on a total weight basis and are valid to no more than 2 significant figures.
J = Estimated value
I = Interference present

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCS-91165		
Filename	U210630B_03	Matrix	Solid
Total Amount Extracted	10.5 g	Dilution	NA
ICAL ID	U210629	Extracted	06/28/2021 12:30
CCal Filename(s)	U210630B_01 & U210630B_17	Analyzed	06/30/2021 23:39
Method Blank ID	BLANK-91164	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	71
Total TCDF				2,3,7,8-TCDD-13C	2.0	66
				1,2,3,7,8-PeCDF-13C	2.0	70
2,3,7,8-TCDD	0.20	0.23	114	2,3,4,7,8-PeCDF-13C	2.0	71
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	79
				1,2,3,4,7,8-HxCDF-13C	2.0	68
1,2,3,7,8-PeCDF	1.0	1.0	101	1,2,3,6,7,8-HxCDF-13C	2.0	67
2,3,4,7,8-PeCDF	1.0	0.99	99	2,3,4,6,7,8-HxCDF-13C	2.0	70
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	69
				1,2,3,4,7,8-HxCDD-13C	2.0	73
1,2,3,7,8-PeCDD	1.0	0.98	98	1,2,3,6,7,8-HxCDD-13C	2.0	62
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	65
				1,2,3,4,7,8,9-HpCDF-13C	2.0	72
1,2,3,4,7,8-HxCDF	1.0	1.1	113	1,2,3,4,6,7,8-HpCDD-13C	2.0	76
1,2,3,6,7,8-HxCDF	1.0	1.0	101	OCDD-13C	4.0	69
2,3,4,6,7,8-HxCDF	1.0	1.0	103			
1,2,3,7,8,9-HxCDF	1.0	1.0	105	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	109	2,3,7,8-TCDD-37Cl4	0.20	71
1,2,3,6,7,8-HxCDD	1.0	1.1	111			
1,2,3,7,8,9-HxCDD	1.0	1.0	104			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.1	106			
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	105			
Total HpCDD						
OCDF	2.0	2.1	106			
OCDD	2.0	2.3	114			

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

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Spiked Sample Report

Client - Asset Laboratories

Client's Sample ID	N045954-001F/ AOC4-Gabion-WC-MS		
Lab Sample ID	10566487001-MS		
Filename	U210630B_04	Matrix	Soil
Total Amount Extracted	10.2 g	Dilution	NA
ICAL ID	U210629	Extracted	06/28/2021 12:30
CCal Filename(s)	U210630B_01 & U210630B_17	Analyzed	07/01/2021 00:25
Method Blank ID	BLANK-91164	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	2.00	59
					2,3,7,8-TCDD-13C	2.00	54
					1,2,3,7,8-PeCDF-13C	2.00	58
2,3,7,8-TCDD	0.20	0.22	112		2,3,4,7,8-PeCDF-13C	2.00	62
					1,2,3,7,8-PeCDD-13C	2.00	64
					1,2,3,4,7,8-HxCDF-13C	2.00	63
1,2,3,7,8-PeCDF	1.00	0.97	97		1,2,3,6,7,8-HxCDF-13C	2.00	71
2,3,4,7,8-PeCDF	1.00	1.00	100		2,3,4,6,7,8-HxCDF-13C	2.00	69
					1,2,3,7,8,9-HxCDF-13C	2.00	60
					1,2,3,4,7,8-HxCDD-13C	2.00	78
1,2,3,7,8-PeCDD	1.00	0.92	92		1,2,3,6,7,8-HxCDD-13C	2.00	67
					1,2,3,4,6,7,8-HpCDF-13C	2.00	67
					1,2,3,4,7,8,9-HpCDF-13C	2.00	66
1,2,3,4,7,8-HxCDF	1.00	1.22	122		1,2,3,4,6,7,8-HpCDD-13C	2.00	77
1,2,3,6,7,8-HxCDF	1.00	1.05	105		OCDD-13C	4.00	60
2,3,4,6,7,8-HxCDF	1.00	1.06	106				
1,2,3,7,8,9-HxCDF	1.00	1.02	102		1,2,3,4-TCDD-13C	2.00	NA
					1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	1.12	112		2,3,7,8-TCDD-37Cl4	0.20	59
1,2,3,6,7,8-HxCDD	1.00	1.34	134				
1,2,3,7,8,9-HxCDD	1.00	1.00	100				
1,2,3,4,6,7,8-HpCDF	1.00	1.72	172	R			
1,2,3,4,7,8,9-HpCDF	1.00	1.07	107				
1,2,3,4,6,7,8-HpCDD	1.00	13.22	1322	R			
OCDF	2.00	2.89	144				
OCDD	2.00	99.33	4966	ER			

Qs = Quantity Spiked Qm = Quantity Measured Rec. = Recovery (Expressed as Percent)

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
R = Recovery outside target range
E = Exceeds calibration range

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290 Spiked Sample Report

Client - Asset Laboratories

Client's Sample ID	N045954-001F/ AOC4-Gabion-WC-MSD		
Lab Sample ID	10566487001-MSD		
Filename	U210630B_05	Matrix	Soil
Total Amount Extracted	10.2 g	Dilution	NA
ICAL ID	U210629	Extracted	06/28/2021 12:30
CCal Filename(s)	U210630B_01 & U210630B_17	Analyzed	07/01/2021 01:11
Method Blank ID	BLANK-91164	Injected By	SMT

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.22	110	2,3,7,8-TCDF-13C	2.00	61
				2,3,7,8-TCDD-13C	2.00	62
				1,2,3,7,8-PeCDF-13C	2.00	63
2,3,7,8-TCDD	0.20	0.22	111	2,3,4,7,8-PeCDF-13C	2.00	68
				1,2,3,7,8-PeCDD-13C	2.00	70
				1,2,3,4,7,8-HxCDF-13C	2.00	62
1,2,3,7,8-PeCDF	1.00	1.01	101	1,2,3,6,7,8-HxCDF-13C	2.00	67
2,3,4,7,8-PeCDF	1.00	1.05	105	2,3,4,6,7,8-HxCDF-13C	2.00	69
				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	1.00	0.96	96	1,2,3,6,7,8-HxCDD-13C	2.00	64
				1,2,3,4,6,7,8-HpCDF-13C	2.00	66
				1,2,3,4,7,8,9-HpCDF-13C	2.00	69
1,2,3,4,7,8-HxCDF	1.00	1.23	123	1,2,3,4,6,7,8-HpCDD-13C	2.00	78
1,2,3,6,7,8-HxCDF	1.00	1.05	105	OCDD-13C	4.00	63
2,3,4,6,7,8-HxCDF	1.00	1.06	106			
1,2,3,7,8,9-HxCDF	1.00	1.03	103	1,2,3,4-TCDD-13C	2.00	NA
				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	1.10	110	2,3,7,8-TCDD-37Cl4	0.20	68
1,2,3,6,7,8-HxCDD	1.00	1.22	122			
1,2,3,7,8,9-HxCDD	1.00	0.94	94			
1,2,3,4,6,7,8-HpCDF	1.00	1.35	135			
1,2,3,4,7,8,9-HpCDF	1.00	1.11	111			
1,2,3,4,6,7,8-HpCDD	1.00	5.91	591			
OCDF	2.00	2.77	139			
OCDD	2.00	45.51	2276 R			

Qs = Quantity Spiked Qm = Quantity Measured Rec. = Recovery (Expressed as Percent)

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
R = Recovery outside target range

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Method 8290 Spike Sample Results

Client - Asset Laboratories

Client Sample ID	N045954-001F/ AOC4-Gabion-WC			Dry Weights	
Lab Sample ID	10566487001	Sample Filename	U210703B_03	Sample Amount	10.2 g
MS ID	10566487001-MS	MS Filename	U210630B_04	MS Amount	10.2 g
MSD ID	10566487001-MSD	MSD Filename	U210630B_05	MSD Amount	10.2 g

Analyte	Sample Qm (ng)	MS/MSD Qs (ng)	MS Qm (ng)	MSD Qm (ng)	RPD	Background Subtracted MS % Rec.	MSD % Rec.	RPD
2,3,7,8-TCDF	0.01	0.20	0.21	0.22	5.3	99	105	5.6
2,3,7,8-TCDD	0.00	0.20	0.22	0.22	0.6	112	111	0.6
1,2,3,7,8-PeCDF	0.01	1.00	0.97	1.01	3.7	97	100	3.7
2,3,4,7,8-PeCDF	0.02	1.00	1.00	1.05	5.0	98	103	5.1
1,2,3,7,8-PeCDD	0.01	1.00	0.92	0.96	3.9	90	94	4.0
1,2,3,4,7,8-HxCDF	0.04	1.00	1.22	1.23	0.8	118	119	0.8
1,2,3,6,7,8-HxCDF	0.03	1.00	1.05	1.05	0.5	103	102	0.5
2,3,4,6,7,8-HxCDF	0.03	1.00	1.06	1.06	0.4	103	103	0.4
1,2,3,7,8,9-HxCDF	0.02	1.00	1.02	1.03	0.9	100	101	0.9
1,2,3,4,7,8-HxCDD	0.03	1.00	1.12	1.10	1.9	109	107	2.0
1,2,3,6,7,8-HxCDD	0.15	1.00	1.34	1.22	9.3	119	107	10.5
1,2,3,7,8,9-HxCDD	0.06	1.00	1.00	0.94	5.3	93	88	5.7
1,2,3,4,6,7,8-HpCDF	0.30	1.00	1.72	1.35	24.1	142	105	30.0
1,2,3,4,7,8,9-HpCDF	0.04	1.00	1.07	1.11	3.7	102	106	3.8
1,2,3,4,6,7,8-HpCDD	4.61	1.00	13.22	5.91	76.5	860	129	147.7
OCDF	0.79	2.00	2.89	2.77	4.1	105	99	5.6
OCDD	44.42	2.00	99.33	45.51	74.3	2745	55	192.2

Definitions

MS = Matrix Spike
MSD = Matrix Spike Duplicate
Qm = Quantity Measured
Qs = Quantity Spiked
% Rec. = Percent Recovery
RPD = Relative Percent Difference
NA = Not Applicable
NC = Not Calculated

CDD = Chlorinated dibenzo-p-dioxin
CDF = Chlorinated dibenzo-p-furan
T = Tetra
Pe = Penta
Hx = Hexa
Hp = Hepta
O = Octa

Method 8290
Initial Calibration (ICAL) - Response Factor Summary

ICAL ID	**U210629**	Data Files:		Time	Injected
Calibration Date	06/29/2021	CS-1	U210629B_04	13:15	SMT
Instrument	10MSHR06 (U)	CS-2	U210629B_03	12:28	SMT
Column Phase	DB-5MS 0.25mm	CS-3	U210629B_02	11:44	CVS
Column ID No.	US1175211H	CS-4	U210629B_06	15:12	SMT
		CS-5	U210629B_05	14:28	SMT

Isomer	CS-1	CS-2	CS-3	CS-4	CS-5	Ave RF	%RSD
2,3,7,8-TCDF	1.1769	0.9799	0.9418	0.9517	0.9387	0.9978	10.17
2,3,7,8-TCDD	1.0391	1.0266	1.0132	1.0491	1.0284	1.0313	1.32
1,2,3,7,8-PeCDF	0.9438	0.9027	0.9095	0.9219	0.9280	0.9212	1.75
2,3,4,7,8-PeCDF	1.0021	0.9740	0.9915	0.9802	1.0062	0.9908	1.39
1,2,3,7,8-PeCDD	0.9351	0.9423	0.9465	0.9464	0.9372	0.9415	0.56
1,2,3,4,7,8-HxCDF	1.0488	1.1138	1.0762	1.0788	1.0896	1.0815	2.18
1,2,3,6,7,8-HxCDF	1.0855	1.0921	1.0321	1.0916	1.0489	1.0700	2.59
2,3,4,6,7,8-HxCDF	1.1266	1.1052	1.0844	1.1051	1.1076	1.1058	1.35
1,2,3,7,8,9-HxCDF	1.0244	1.0043	1.0412	1.0190	1.0560	1.0290	1.95
1,2,3,4,7,8-HxCDD	1.0020	0.9964	0.9974	0.9704	1.0099	0.9952	1.49
1,2,3,6,7,8-HxCDD	1.0260	0.9730	0.9831	0.9670	0.9909	0.9880	2.34
1,2,3,7,8,9-HxCDD	1.0072	0.9846	0.9891	0.9510	0.9881	0.9840	2.08
1,2,3,4,6,7,8-HpCDF	1.3103	1.3150	1.2387	1.2709	1.2706	1.2811	2.47
1,2,3,4,7,8,9-HpCDF	1.1968	1.2348	1.2202	1.2230	1.2135	1.2177	1.15
1,2,3,4,6,7,8-HpCDD	1.0354	1.0344	0.9792	1.0156	0.9868	1.0103	2.60
OCDF	1.0511	1.0805	1.0459	1.1304	1.1879	1.0992	5.45
OCDD	0.9891	0.9997	0.9494	0.9954	0.9912	0.9850	2.06
Total PeCDF	0.9729	0.9384	0.9505	0.9510	0.9671	0.9560	1.46
Total HxCDF	1.0713	1.0789	1.0585	1.0736	1.0755	1.0716	0.73
Total HxCDD	1.0117	0.9847	0.9899	0.9628	0.9963	0.9891	1.81
Total HpCDF	1.2536	1.2749	1.2294	1.2470	1.2421	1.2494	1.34
2,3,7,8-TCDF-13C	1.3319	1.3424	1.3385	1.3806	1.3867	1.3560	1.89
2,3,7,8-TCDD-13C	1.0967	1.0225	1.1015	1.0376	1.0839	1.0684	3.37
2,3,7,8-TCDD-37Cl4	1.0648	1.0258	1.0443	1.0138	1.0766	1.0450	2.50
1,2,3,7,8-PeCDF-13C	1.0457	1.0836	1.0763	1.1137	1.2034	1.1045	5.46
2,3,4,7,8-PeCDF-13C	0.9996	1.0259	1.0357	1.0929	1.1749	1.0658	6.55
1,2,3,7,8-PeCDD-13C	0.7214	0.7348	0.7422	0.7779	0.8692	0.7691	7.77
1,2,3,4,7,8-HxCDF-13C	1.0304	1.0300	1.0581	1.0437	1.0369	1.0398	1.12
1,2,3,6,7,8-HxCDF-13C	1.2302	1.2496	1.2851	1.2538	1.2280	1.2494	1.84
2,3,4,6,7,8-HxCDF-13C	1.0970	1.0779	1.1167	1.1112	1.0769	1.0959	1.68
1,2,3,7,8,9-HxCDF-13C	0.8919	0.9018	0.9116	0.9259	0.9012	0.9065	1.42
1,2,3,4,7,8-HxCDD-13C	0.8528	0.8121	0.8206	0.8829	0.8680	0.8473	3.58
1,2,3,6,7,8-HxCDD-13C	1.0081	1.0323	1.0751	1.0670	1.0454	1.0456	2.58
1,2,3,4,6,7,8-HpCDF-13C	0.9939	0.9970	1.0238	1.0425	1.0477	1.0210	2.44
1,2,3,4,7,8,9-HpCDF-13C	0.7470	0.7609	0.7512	0.8136	0.8182	0.7782	4.48
1,2,3,4,6,7,8-HpCDD-13C	0.8262	0.8429	0.8359	0.8774	0.8936	0.8552	3.37
OCDD-13C	0.6357	0.6286	0.6328	0.6815	0.7152	0.6588	5.79

REPORT OF LABORATORY ANALYSIS

Method 8290
Initial Calibration (ICAL) - Isotope Ratio Summary

ICAL ID	**U210629**	Data Files:		Time	Injected
Calibration Date	06/29/2021	CS-1	U210629B_04	13:15	SMT
Instrument	10MSHR06 (U)	CS-2	U210629B_03	12:28	SMT
Column Phase	DB-5MS 0.25mm	CS-3	U210629B_02	11:44	CVS
Column ID No.	US1175211H	CS-4	U210629B_06	15:12	SMT
		CS-5	U210629B_05	14:28	SMT

Isomer	CS-1	CS-2	CS-3	CS-4	CS-5	Limits
2,3,7,8-TCDF	0.78	0.80	0.75	0.78	0.78	0.65 - 0.89
2,3,7,8-TCDD	0.85	0.75	0.82	0.79	0.78	0.65 - 0.89
1,2,3,7,8-PeCDF	1.53	1.55	1.53	1.55	1.52	1.32 - 1.78
2,3,4,7,8-PeCDF	1.60	1.52	1.54	1.52	1.51	1.32 - 1.78
1,2,3,7,8-PeCDD	0.60	0.60	0.61	0.64	0.63	0.52 - 0.70
1,2,3,4,7,8-HxCDF	1.13	1.14	1.24	1.22	1.23	1.05 - 1.43
1,2,3,6,7,8-HxCDF	1.12	1.30	1.25	1.23	1.24	1.05 - 1.43
2,3,4,6,7,8-HxCDF	1.12	1.26	1.23	1.25	1.24	1.05 - 1.43
1,2,3,7,8,9-HxCDF	1.31	1.23	1.20	1.16	1.25	1.05 - 1.43
1,2,3,4,7,8-HxCDD	1.23	1.31	1.23	1.35	1.24	1.05 - 1.43
1,2,3,6,7,8-HxCDD	1.24	1.29	1.25	1.15	1.24	1.05 - 1.43
1,2,3,7,8,9-HxCDD	1.20	1.33	1.24	1.23	1.25	1.05 - 1.43
1,2,3,4,6,7,8-HpCDF	0.98	1.08	1.00	1.00	1.05	0.88 - 1.20
1,2,3,4,7,8,9-HpCDF	1.09	1.07	1.04	1.08	1.03	0.88 - 1.20
1,2,3,4,6,7,8-HpCDD	1.01	1.01	1.02	1.03	1.06	0.88 - 1.20
OCDF	0.93	0.89	0.91	0.86	0.91	0.76 - 1.02
OCDD	0.83	0.86	0.89	0.89	0.89	0.76 - 1.02
1,2,3,4-TCDD-13C	0.78	0.80	0.80	0.80	0.79	0.65 - 0.89
1,2,3,7,8,9-HxCDD-13C	1.26	1.30	1.26	1.27	1.36	1.05 - 1.43
2,3,7,8-TCDF-13C	0.77	0.78	0.77	0.76	0.79	0.65 - 0.89
2,3,7,8-TCDD-13C	0.79	0.80	0.79	0.80	0.77	0.65 - 0.89
1,2,3,7,8-PeCDF-13C	1.52	1.57	1.56	1.53	1.52	1.32 - 1.78
2,3,4,7,8-PeCDF-13C	1.56	1.55	1.53	1.58	1.56	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	0.51	0.51	0.52	0.50	0.52	0.43 - 0.59
1,2,3,6,7,8-HxCDF-13C	0.53	0.52	0.53	0.52	0.53	0.43 - 0.59
2,3,4,6,7,8-HxCDF-13C	0.53	0.52	0.52	0.53	0.51	0.43 - 0.59
1,2,3,7,8,9-HxCDF-13C	0.53	0.51	0.51	0.52	0.52	0.43 - 0.59
1,2,3,4,7,8-HxCDD-13C	1.25	1.27	1.27	1.28	1.26	1.05 - 1.43
1,2,3,6,7,8-HxCDD-13C	1.25	1.26	1.27	1.25	1.25	1.05 - 1.43
1,2,3,4,6,7,8-HpCDF-13C	0.45	0.45	0.44	0.46	0.45	0.37 - 0.51
1,2,3,4,7,8,9-HpCDF-13C	0.44	0.45	0.45	0.43	0.45	0.37 - 0.51
1,2,3,4,6,7,8-HpCDD-13C	1.02	1.03	1.07	1.05	1.03	0.88 - 1.20
OCDD-13C	0.87	0.91	0.88	0.89	0.91	0.76 - 1.02

REPORT OF LABORATORY ANALYSIS

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Method 8290
PCDD/PCDF Calibration Verification

Run Name:	U210630B_01	Instrument ID	10MSHR06 (U)
Standard	CS3/CPM-20-123-052	GC Column ID	US1175211H
Analyzed	06/30/2021 22:06	ICAL ID	U210629

Compound	Known Conc.	Conc Found	Ion Abund. Ratio	Average RF	Daily RF	Deviation (%)
2,3,7,8-TCDF	10	9.7	0.78	0.9978	0.9665	-3.1
2,3,7,8-TCDD	10	9.7	0.80	1.0313	1.0034	-2.7
1,2,3,7,8-PeCDF	50	49.4	1.58	0.9212	0.9099	-1.2
2,3,4,7,8-PeCDF	50	49.8	1.52	0.9908	0.9870	-0.4
1,2,3,7,8-PeCDD	50	49.3	0.63	0.9415	0.9283	-1.4
1,2,3,4,7,8-HxCDF	50	50.1	1.21	1.0815	1.0835	0.2
1,2,3,6,7,8-HxCDF	50	49.4	1.22	1.0700	1.0563	-1.3
2,3,4,6,7,8-HxCDF	50	49.5	1.25	1.1058	1.0956	-0.9
1,2,3,7,8,9-HxCDF	50	49.4	1.28	1.0290	1.0164	-1.2
1,2,3,4,7,8-HxCDD	50	47.8	1.25	0.9952	0.9505	-4.5
1,2,3,6,7,8-HxCDD	50	46.5	1.27	0.9880	0.9197	-6.9
1,2,3,7,8,9-HxCDD	50	47.4	1.24	0.9840	0.9337	-5.1
1,2,3,4,6,7,8-HpCDF	50	47.4	1.05	1.2811	1.2135	-5.3
1,2,3,4,7,8,9-HpCDF	50	49.6	1.05	1.2177	1.2067	-0.9
1,2,3,4,6,7,8-HpCDD	50	51.8	1.07	1.0103	1.0457	3.5
OCDF	100	95.5	0.89	1.0992	1.0493	-4.5
OCDD	100	108.5	0.85	0.9850	1.0683	8.5
Total PeCDF	100	99.2	NA	0.9560	0.9484	-0.8
Total HxCDF	200	198.4	NA	1.0716	1.0630	-0.8
Total HxCDD	150	141.7	NA	0.9891	0.9346	-5.5
Total HpCDF	100	96.9	NA	1.2494	1.2101	-3.1
2,3,7,8-TCDF-13C	100	100.4	0.79	1.3560	1.3614	0.4
2,3,7,8-TCDD-13C	100	106.6	0.77	1.0684	1.1394	6.6
2,3,7,8-TCDD-37Cl4	10	9.9	NA	1.0450	1.0348	-1.0
1,2,3,7,8-PeCDF-13C	100	98.1	1.49	1.1045	1.0840	-1.9
2,3,4,7,8-PeCDF-13C	100	100.7	1.56	1.0658	1.0732	0.7
1,2,3,7,8-PeCDD-13C	100	102.9	1.57	0.7691	0.7916	2.9
1,2,3,4,7,8-HxCDF-13C	100	100.6	0.51	1.0398	1.0461	0.6
1,2,3,6,7,8-HxCDF-13C	100	91.6	0.53	1.2494	1.1448	-8.4
2,3,4,6,7,8-HxCDF-13C	100	94.6	0.51	1.0959	1.0367	-5.4
1,2,3,7,8,9-HxCDF-13C	100	101.3	0.51	0.9065	0.9186	1.3
1,2,3,4,7,8-HxCDD-13C	100	103.6	1.30	0.8473	0.8776	3.6
1,2,3,6,7,8-HxCDD-13C	100	97.2	1.28	1.0456	1.0159	-2.8
1,2,3,4,6,7,8-HpCDF-13C	100	101.0	0.45	1.0210	1.0316	1.0
1,2,3,4,7,8,9-HpCDF-13C	100	104.1	0.48	0.7782	0.8099	4.1
1,2,3,4,6,7,8-HpCDD-13C	100	104.5	1.09	0.8552	0.8937	4.5
OCDD-13C	200	217.7	0.92	0.6588	0.7171	8.9
1,2,3,4-TCDD-13C	100	NA	0.80	NA	NA	NA
1,2,3,7,8,9-HxCDD-13C	100	NA	1.27	NA	NA	NA

Concentrations expressed as pg/ul NA = Not Applicable * = Outside target range

REPORT OF LABORATORY ANALYSIS

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Method 8290
PCDD/PCDF Calibration Verification

Run Name:	U210630B_17	Instrument ID	10MSHR06 (U)
Standard	CS3/CPM-20-123-052	GC Column ID	US1175211H
Analyzed	07/01/2021 11:01	ICAL ID	U210629

Compound	Known Conc.	Conc Found	Ion Abund. Ratio	Average RF	Daily RF	Deviation (%)
2,3,7,8-TCDF	10	9.4	0.78	0.9978	0.9342	-6.4
2,3,7,8-TCDD	10	9.9	0.79	1.0313	1.0198	-1.1
1,2,3,7,8-PeCDF	50	49.5	1.53	0.9212	0.9111	-1.1
2,3,4,7,8-PeCDF	50	50.9	1.52	0.9908	1.0079	1.7
1,2,3,7,8-PeCDD	50	49.2	0.61	0.9415	0.9262	-1.6
1,2,3,4,7,8-HxCDF	50	48.3	1.21	1.0815	1.0444	-3.4
1,2,3,6,7,8-HxCDF	50	48.4	1.23	1.0700	1.0349	-3.3
2,3,4,6,7,8-HxCDF	50	49.6	1.24	1.1058	1.0975	-0.7
1,2,3,7,8,9-HxCDF	50	50.3	1.28	1.0290	1.0347	0.6
1,2,3,4,7,8-HxCDD	50	49.7	1.23	0.9952	0.9900	-0.5
1,2,3,6,7,8-HxCDD	50	48.9	1.26	0.9880	0.9666	-2.2
1,2,3,7,8,9-HxCDD	50	49.0	1.23	0.9840	0.9638	-2.1
1,2,3,4,6,7,8-HpCDF	50	48.0	1.04	1.2811	1.2288	-4.1
1,2,3,4,7,8,9-HpCDF	50	49.9	1.05	1.2177	1.2145	-0.3
1,2,3,4,6,7,8-HpCDD	50	51.0	1.00	1.0103	1.0311	2.1
OCDF	100	91.7	0.92	1.0992	1.0080	-8.3
OCDD	100	95.5	0.92	0.9850	0.9406	-4.5
Total PeCDF	100	100.3	NA	0.9560	0.9595	0.4
Total HxCDF	200	196.5	NA	1.0716	1.0529	-1.7
Total HxCDD	150	147.6	NA	0.9891	0.9735	-1.6
Total HpCDF	100	97.8	NA	1.2494	1.2217	-2.2
2,3,7,8-TCDF-13C	100	105.7	0.79	1.3560	1.4327	5.7
2,3,7,8-TCDD-13C	100	107.7	0.80	1.0684	1.1505	7.7
2,3,7,8-TCDD-37Cl4	10	10.4	NA	1.0450	1.0818	3.5
1,2,3,7,8-PeCDF-13C	100	96.8	1.59	1.1045	1.0696	-3.2
2,3,4,7,8-PeCDF-13C	100	98.6	1.56	1.0658	1.0507	-1.4
1,2,3,7,8-PeCDD-13C	100	97.6	1.58	0.7691	0.7504	-2.4
1,2,3,4,7,8-HxCDF-13C	100	111.1	0.50	1.0398	1.1554	11.1
1,2,3,6,7,8-HxCDF-13C	100	97.1	0.53	1.2494	1.2130	-2.9
2,3,4,6,7,8-HxCDF-13C	100	99.3	0.52	1.0959	1.0880	-0.7
1,2,3,7,8,9-HxCDF-13C	100	96.9	0.53	0.9065	0.8785	-3.1
1,2,3,4,7,8-HxCDD-13C	100	107.5	1.28	0.8473	0.9106	7.5
1,2,3,6,7,8-HxCDD-13C	100	95.2	1.29	1.0456	0.9956	-4.8
1,2,3,4,6,7,8-HpCDF-13C	100	87.1	0.46	1.0210	0.8896	-12.9
1,2,3,4,7,8,9-HpCDF-13C	100	84.1	0.44	0.7782	0.6543	-15.9
1,2,3,4,6,7,8-HpCDD-13C	100	85.3	1.02	0.8552	0.7293	-14.7
OCDD-13C	200	153.8	0.90	0.6588	0.5064	-23.1
1,2,3,4-TCDD-13C	100	NA	0.80	NA	NA	NA
1,2,3,7,8,9-HxCDD-13C	100	NA	1.23	NA	NA	NA

Concentrations expressed as pg/ul NA = Not Applicable * = Outside target range

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290
PCDD/PCDF Calibration Verification

Run Name:	U210703B_01	Instrument ID	10MSHR06 (U)
Standard	CS3/CPM-20-123-052	GC Column ID	US1175211H
Analyzed	07/03/2021 11:49	ICAL ID	U210629

Compound	Known Conc.	Conc Found	Ion Abund. Ratio	Average RF	Daily RF	Deviation (%)
2,3,7,8-TCDF	10	9.4	0.77	0.9978	0.9411	-5.7
2,3,7,8-TCDD	10	9.4	0.79	1.0313	0.9648	-6.4
1,2,3,7,8-PeCDF	50	48.3	1.53	0.9212	0.8896	-3.4
2,3,4,7,8-PeCDF	50	49.8	1.52	0.9908	0.9866	-0.4
1,2,3,7,8-PeCDD	50	47.6	0.62	0.9415	0.8969	-4.7
1,2,3,4,7,8-HxCDF	50	48.6	1.25	1.0815	1.0504	-2.9
1,2,3,6,7,8-HxCDF	50	49.4	1.25	1.0700	1.0582	-1.1
2,3,4,6,7,8-HxCDF	50	50.8	1.25	1.1058	1.1228	1.5
1,2,3,7,8,9-HxCDF	50	47.3	1.29	1.0290	0.9744	-5.3
1,2,3,4,7,8-HxCDD	50	48.4	1.23	0.9952	0.9631	-3.2
1,2,3,6,7,8-HxCDD	50	48.5	1.20	0.9880	0.9589	-3.0
1,2,3,7,8,9-HxCDD	50	44.8	1.20	0.9840	0.8822	-10.3
1,2,3,4,6,7,8-HpCDF	50	48.3	1.04	1.2811	1.2387	-3.3
1,2,3,4,7,8,9-HpCDF	50	50.3	1.03	1.2177	1.2254	0.6
1,2,3,4,6,7,8-HpCDD	50	48.7	1.01	1.0103	0.9846	-2.5
OCDF	100	96.5	0.87	1.0992	1.0609	-3.5
OCDD	100	96.1	0.89	0.9850	0.9466	-3.9
Total PeCDF	100	98.1	NA	0.9560	0.9381	-1.9
Total HxCDF	200	196.1	NA	1.0716	1.0514	-1.9
Total HxCDD	150	141.7	NA	0.9891	0.9347	-5.5
Total HpCDF	100	98.7	NA	1.2494	1.2321	-1.4
2,3,7,8-TCDF-13C	100	79.4	0.78	1.3560	1.0764	-20.6
2,3,7,8-TCDD-13C	100	89.0	0.77	1.0684	0.9505	-11.0
2,3,7,8-TCDD-37Cl4	10	8.4	NA	1.0450	0.8769	-16.1
1,2,3,7,8-PeCDF-13C	100	75.6	1.60	1.1045	0.8348	-24.4
2,3,4,7,8-PeCDF-13C	100	77.8	1.54	1.0658	0.8292	-22.2
1,2,3,7,8-PeCDD-13C	100	83.6	1.62	0.7691	0.6427	-16.4
1,2,3,4,7,8-HxCDF-13C	100	105.0	0.51	1.0398	1.0920	5.0
1,2,3,6,7,8-HxCDF-13C	100	90.5	0.52	1.2494	1.1305	-9.5
2,3,4,6,7,8-HxCDF-13C	100	93.8	0.55	1.0959	1.0278	-6.2
1,2,3,7,8,9-HxCDF-13C	100	112.4	0.50	0.9065	1.0191	12.4
1,2,3,4,7,8-HxCDD-13C	100	104.9	1.24	0.8473	0.8890	4.9
1,2,3,6,7,8-HxCDD-13C	100	97.8	1.21	1.0456	1.0221	-2.2
1,2,3,4,6,7,8-HpCDF-13C	100	102.4	0.45	1.0210	1.0458	2.4
1,2,3,4,7,8,9-HpCDF-13C	100	106.7	0.45	0.7782	0.8306	6.7
1,2,3,4,6,7,8-HpCDD-13C	100	107.6	1.09	0.8552	0.9203	7.6
OCDD-13C	200	196.4	0.87	0.6588	0.6469	-1.8
1,2,3,4-TCDD-13C	100	NA	0.78	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

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 8290
PCDD/PCDF Calibration Verification

Run Name:	U210703B_17	Instrument ID	10MSHR06 (U)
Standard	CS3/CPM-20-123-052	GC Column ID	US1175211H
Analyzed	07/04/2021 00:18	ICAL ID	U210629

Compound	Known Conc.	Conc Found	Ion Abund. Ratio	Average RF	Daily RF	Deviation (%)
2,3,7,8-TCDF	10	9.5	0.77	0.9978	0.9450	-5.3
2,3,7,8-TCDD	10	9.6	0.78	1.0313	0.9889	-4.1
1,2,3,7,8-PeCDF	50	49.0	1.53	0.9212	0.9021	-2.1
2,3,4,7,8-PeCDF	50	49.5	1.50	0.9908	0.9812	-1.0
1,2,3,7,8-PeCDD	50	48.0	0.62	0.9415	0.9033	-4.1
1,2,3,4,7,8-HxCDF	50	48.8	1.27	1.0815	1.0549	-2.5
1,2,3,6,7,8-HxCDF	50	48.7	1.20	1.0700	1.0415	-2.7
2,3,4,6,7,8-HxCDF	50	47.6	1.23	1.1058	1.0522	-4.8
1,2,3,7,8,9-HxCDF	50	48.4	1.21	1.0290	0.9951	-3.3
1,2,3,4,7,8-HxCDD	50	50.0	1.22	0.9952	0.9960	0.1
1,2,3,6,7,8-HxCDD	50	47.7	1.23	0.9880	0.9431	-4.5
1,2,3,7,8,9-HxCDD	50	48.4	1.22	0.9840	0.9528	-3.2
1,2,3,4,6,7,8-HpCDF	50	48.4	1.04	1.2811	1.2412	-3.1
1,2,3,4,7,8,9-HpCDF	50	49.4	1.06	1.2177	1.2019	-1.3
1,2,3,4,6,7,8-HpCDD	50	49.3	1.03	1.0103	0.9971	-1.3
OCDF	100	81.7	0.89	1.0992	0.8975	-18.3
OCDD	100	94.1	0.91	0.9850	0.9266	-5.9
Total PeCDF	100	98.5	NA	0.9560	0.9416	-1.5
Total HxCDF	200	193.4	NA	1.0716	1.0359	-3.3
Total HxCDD	150	146.2	NA	0.9891	0.9640	-2.5
Total HpCDF	100	97.8	NA	1.2494	1.2216	-2.2
2,3,7,8-TCDF-13C	100	96.1	0.80	1.3560	1.3032	-3.9
2,3,7,8-TCDD-13C	100	111.0	0.78	1.0684	1.1861	11.0
2,3,7,8-TCDD-37Cl4	10	10.7	NA	1.0450	1.1226	7.4
1,2,3,7,8-PeCDF-13C	100	105.4	1.56	1.1045	1.1647	5.4
2,3,4,7,8-PeCDF-13C	100	110.0	1.58	1.0658	1.1721	10.0
1,2,3,7,8-PeCDD-13C	100	116.1	1.55	0.7691	0.8931	16.1
1,2,3,4,7,8-HxCDF-13C	100	100.3	0.50	1.0398	1.0430	0.3
1,2,3,6,7,8-HxCDF-13C	100	91.6	0.52	1.2494	1.1450	-8.4
2,3,4,6,7,8-HxCDF-13C	100	95.2	0.52	1.0959	1.0435	-4.8
1,2,3,7,8,9-HxCDF-13C	100	98.8	0.52	0.9065	0.8959	-1.2
1,2,3,4,7,8-HxCDD-13C	100	103.7	1.28	0.8473	0.8782	3.7
1,2,3,6,7,8-HxCDD-13C	100	94.1	1.29	1.0456	0.9842	-5.9
1,2,3,4,6,7,8-HpCDF-13C	100	101.2	0.44	1.0210	1.0337	1.2
1,2,3,4,7,8,9-HpCDF-13C	100	105.8	0.46	0.7782	0.8235	5.8
1,2,3,4,6,7,8-HpCDD-13C	100	107.3	0.99	0.8552	0.9174	7.3
OCDD-13C	200	254.5	0.88	0.6588	0.8383	27.2
1,2,3,4-TCDD-13C	100	NA	0.79	NA	NA	NA
1,2,3,7,8,9-HxCDD-13C	100	NA	1.28	NA	NA	NA

Concentrations expressed as pg/ul NA = Not Applicable * = Outside target range

REPORT OF LABORATORY ANALYSIS

Appendix D

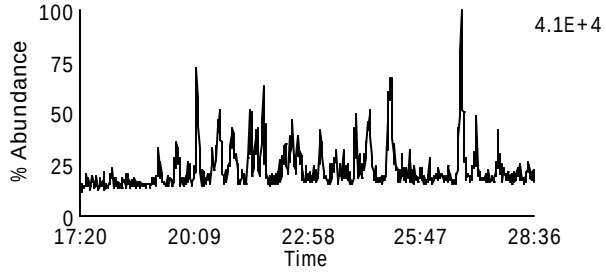
Sample Raw Data

Homologue Group: Tetras

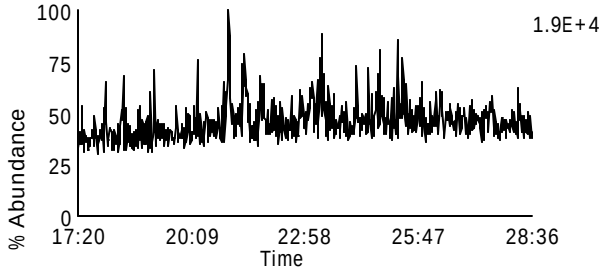
Data File Name: U210703B_03
Date Acquired: 7/3/2021
Sample Description: SAMP 10566487001 - JRH ASSET

Lab Sample ID: 10566487001
Client Sample ID: N045954-001F/ AOC4-Gabion-WC
Instrument: 10MSHR06 (U)

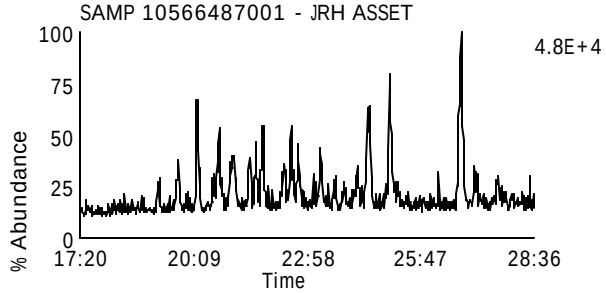
Data File: U210703B_03 G1 C1 - 303.9016
SAMP 10566487001 - JRH ASSET



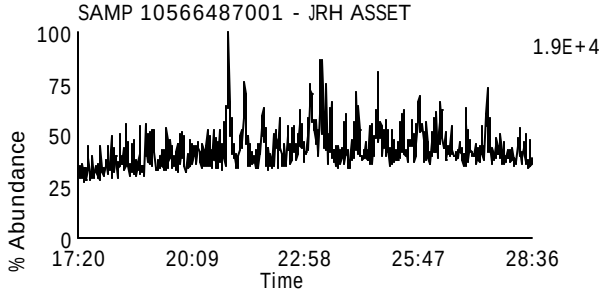
Data File: U210703B_03 G1 C7 - 319.8965
SAMP 10566487001 - JRH ASSET



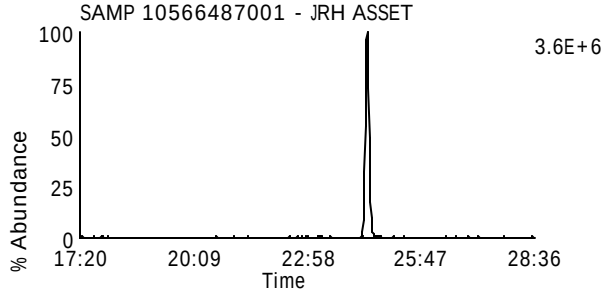
Data File: U210703B_03 G1 C2 - 305.8987
SAMP 10566487001 - JRH ASSET



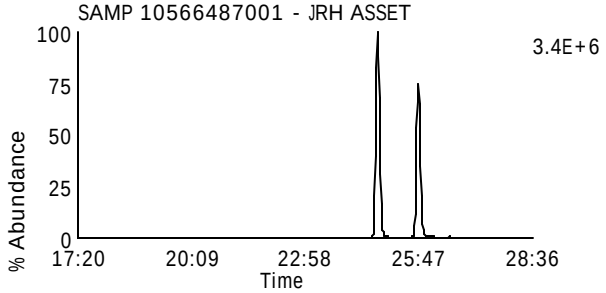
Data File: U210703B_03 G1 C8 - 321.8936
SAMP 10566487001 - JRH ASSET



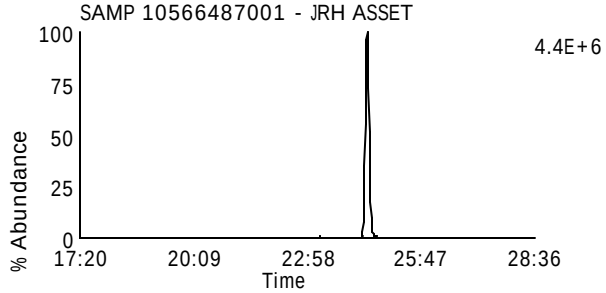
Data File: U210703B_03 G1 C3 - 315.9418
SAMP 10566487001 - JRH ASSET



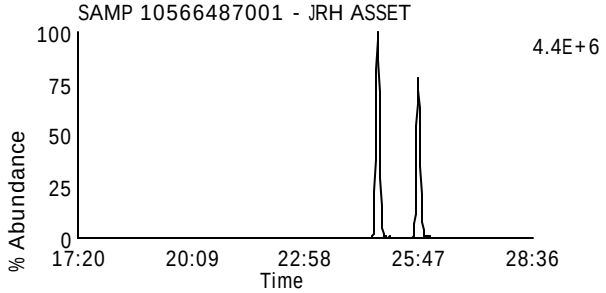
Data File: U210703B_03 G1 C10 - 331.9367
SAMP 10566487001 - JRH ASSET



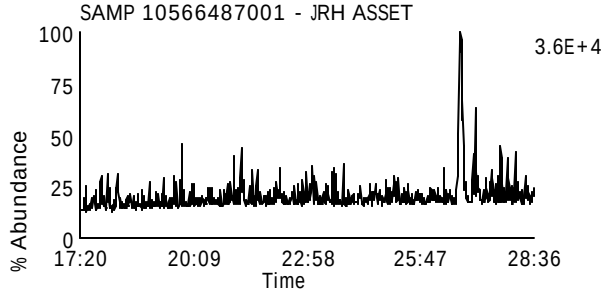
Data File: U210703B_03 G1 C4 - 317.9389
SAMP 10566487001 - JRH ASSET



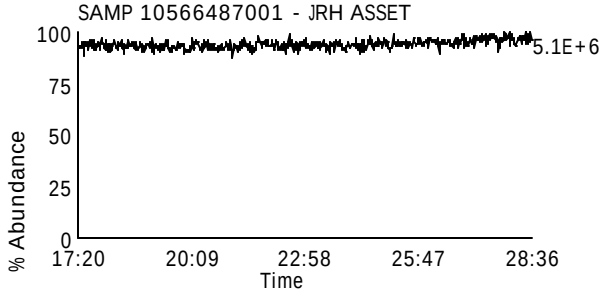
Data File: U210703B_03 G1 C11 - 333.9338
SAMP 10566487001 - JRH ASSET



Data File: U210703B_03 G1 C14 - 375.8364
SAMP 10566487001 - JRH ASSET



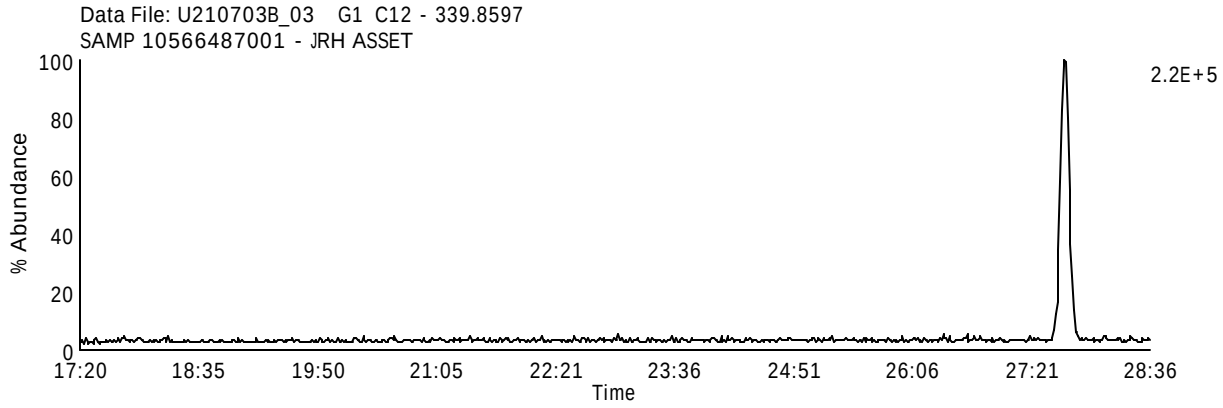
Data File: U210703B_03 G1 C5 - 318.9792
SAMP 10566487001 - JRH ASSET

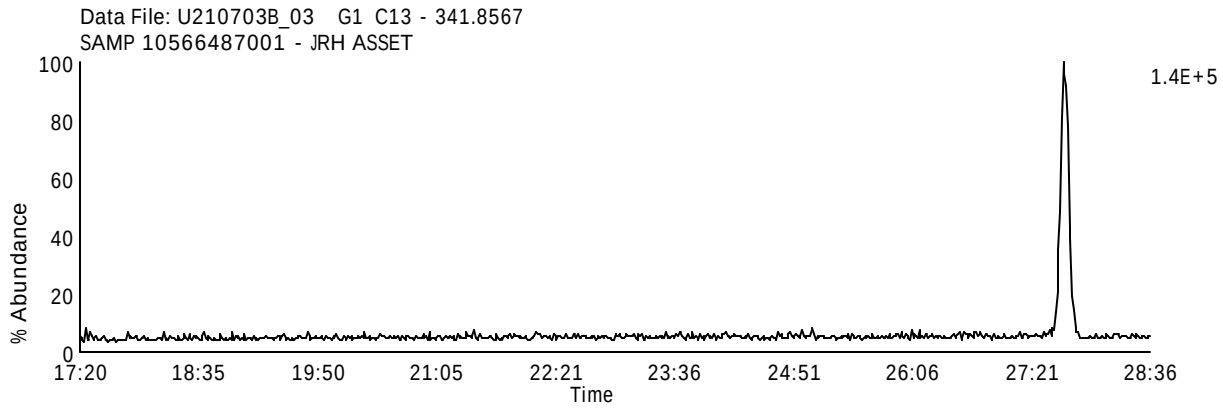


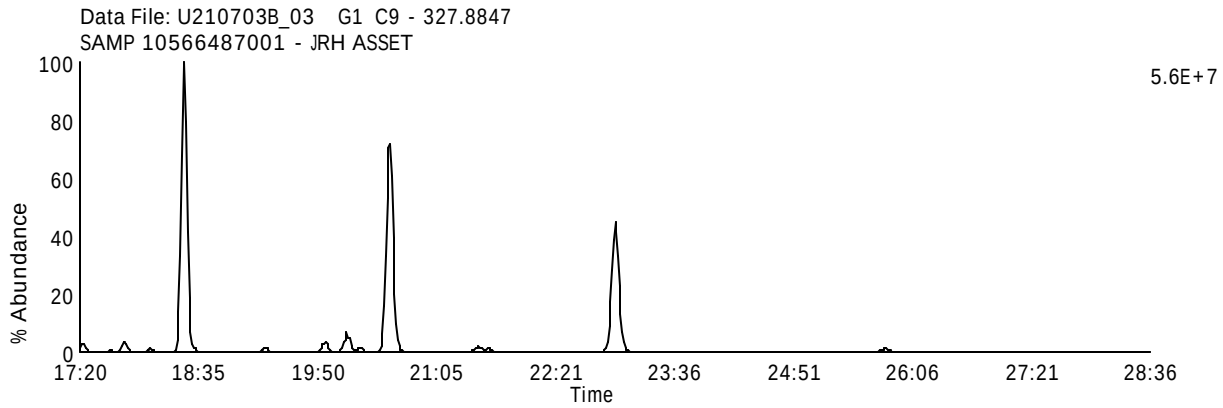
Homologue Group: Penta & Cleanup

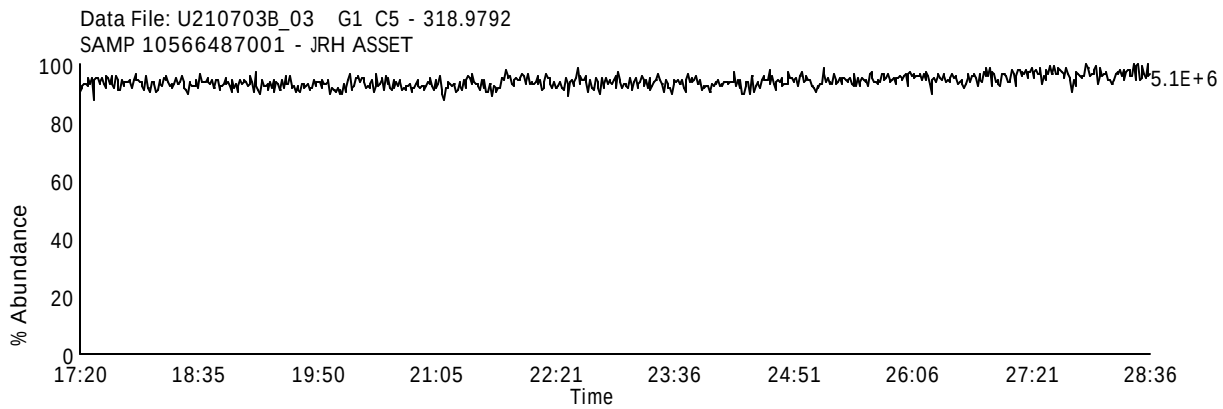
Data File Name: U210703B_03
Date Acquired: 7/3/2021
Sample Description: SAMP 10566487001 - JRH ASSET

Lab Sample ID: 10566487001
Client Sample ID: N045954-001F/ AOC4-Gabion-WC
Instrument: 10MSHR06 (U)







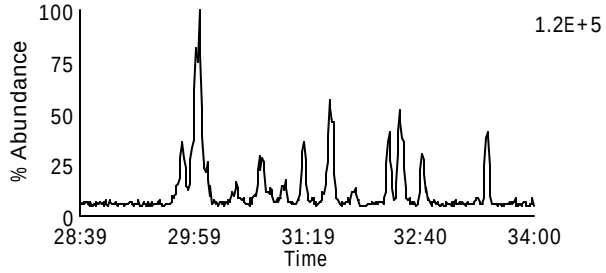


Homologue Group: Pentas

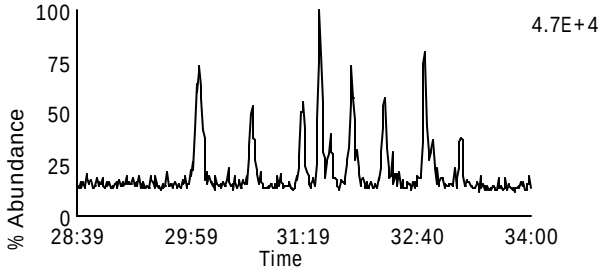
Data File Name: U210703B_03
Date Acquired: 7/3/2021
Sample Description: SAMP 10566487001 - JRH ASSET

Lab Sample ID: 10566487001
Client Sample ID: N045954-001F/ AOC4-Gabion-WC
Instrument: 10MSHR06 (U)

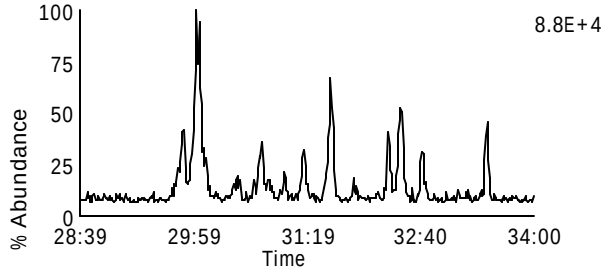
Data File: U210703B_03 G2 C1 - 339.8597
SAMP 10566487001 - JRH ASSET



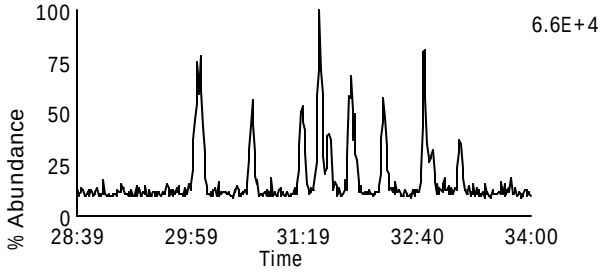
Data File: U210703B_03 G2 C4 - 353.8576
SAMP 10566487001 - JRH ASSET



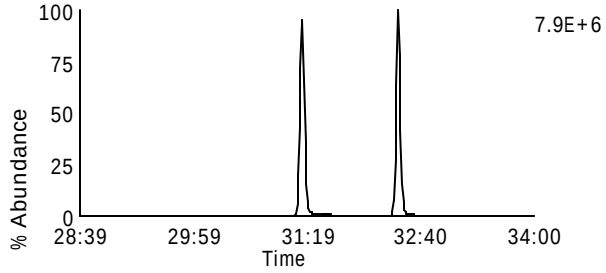
Data File: U210703B_03 G2 C2 - 341.8567
SAMP 10566487001 - JRH ASSET



Data File: U210703B_03 G2 C8 - 355.8546
SAMP 10566487001 - JRH ASSET



Data File: U210703B_03 G2 C3 - 351.8999
SAMP 10566487001 - JRH ASSET



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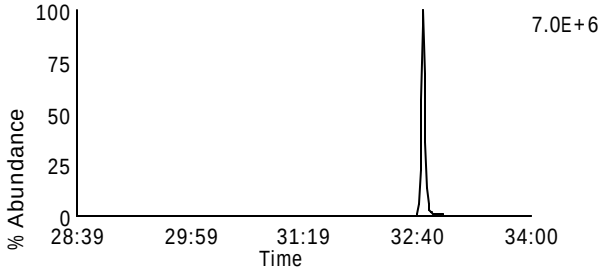
SAMP 10566487001 - JRH ASSET



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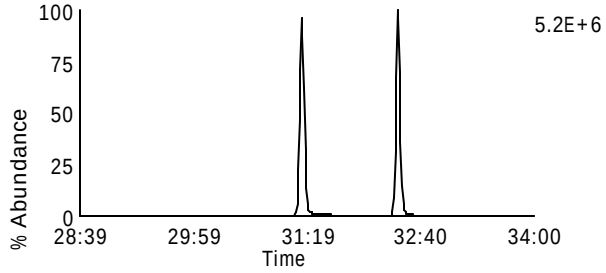
SAMP 10566487001 - JRH ASSET



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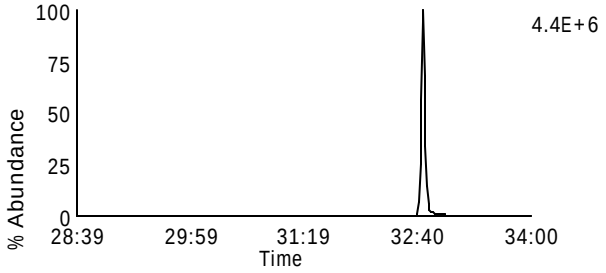
SAMP 10566487001 - JRH ASSET



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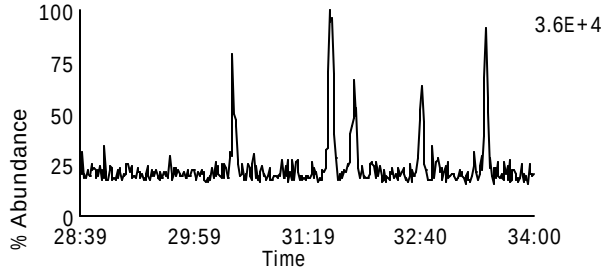
SAMP 10566487001 - JRH ASSET



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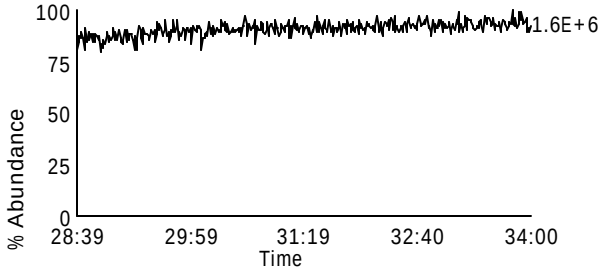
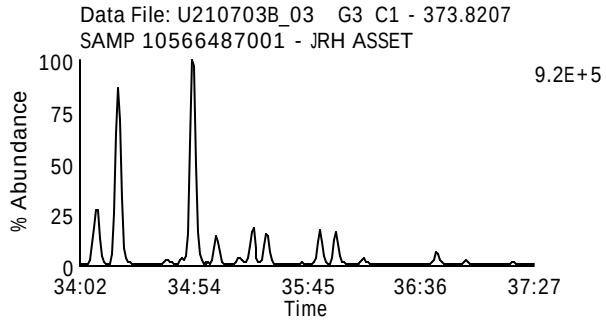
SAMP 10566487001 - JRH ASSET

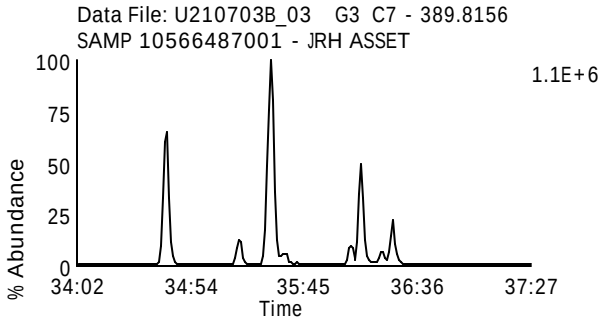


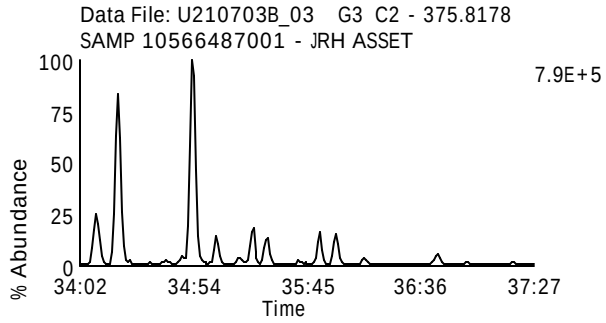
Homologue Group: Hexas

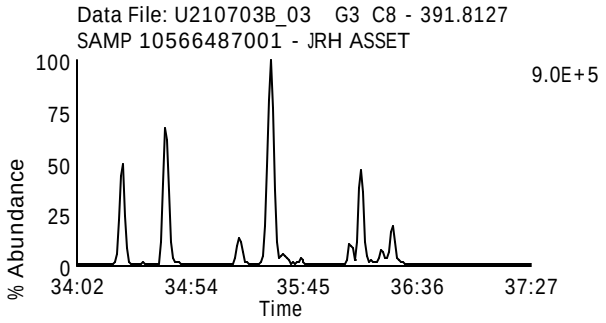
Data File Name: U210703B_03
Date Acquired: 7/3/2021
Sample Description: SAMP 10566487001 - JRH ASSET

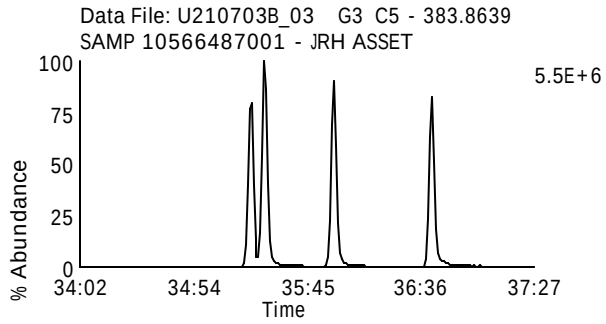
Lab Sample ID: 10566487001
Client Sample ID: N045954-001F/ AOC4-Gabion-WC
Instrument: 10MSHR06 (U)

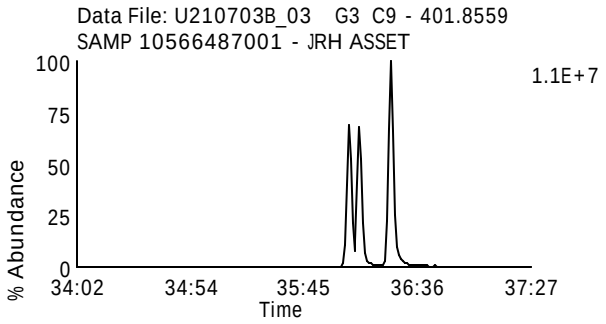


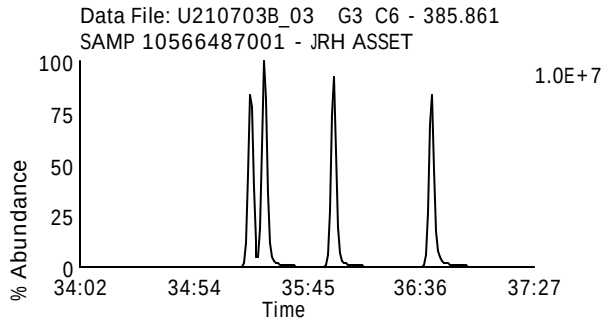


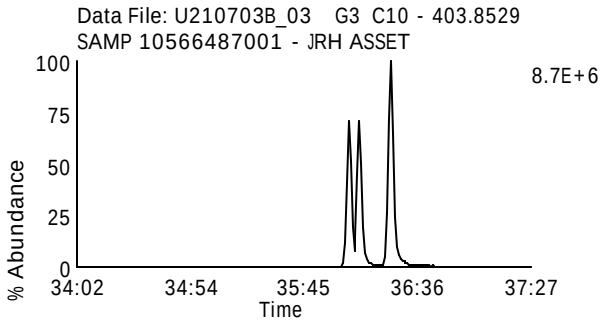


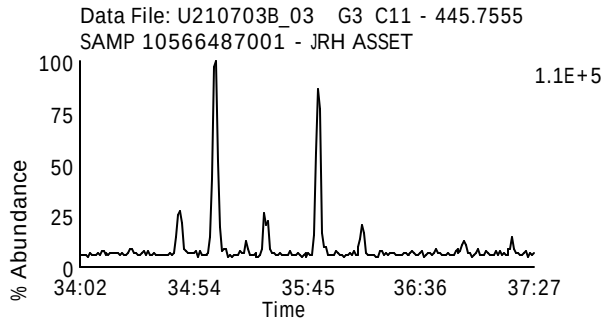


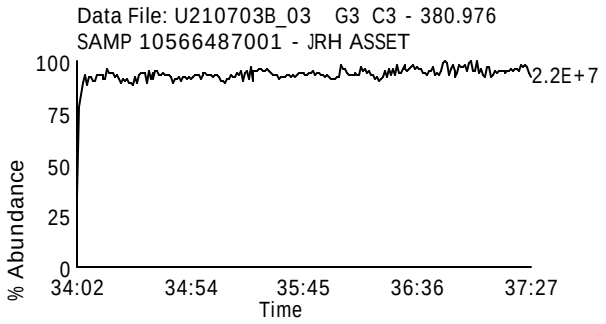










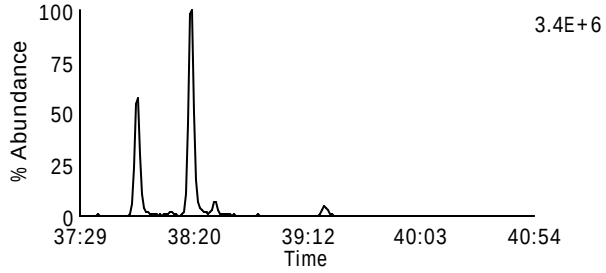


Homologue Group: Heptas

Data File Name: U210703B_03
Date Acquired: 7/3/2021
Sample Description: SAMP 10566487001 - JRH ASSET

Lab Sample ID: 10566487001
Client Sample ID: N045954-001F/ AOC4-Gabion-WC
Instrument: 10MSHR06 (U)

Data File: U210703B_03 G4 C3 - 407.7818
SAMP 10566487001 - JRH ASSET



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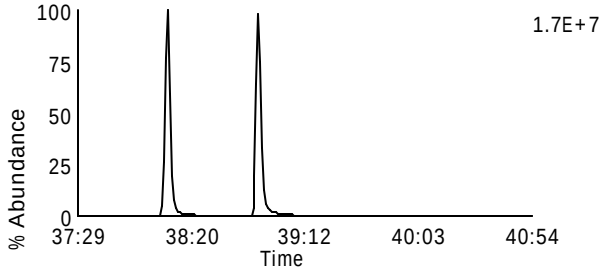
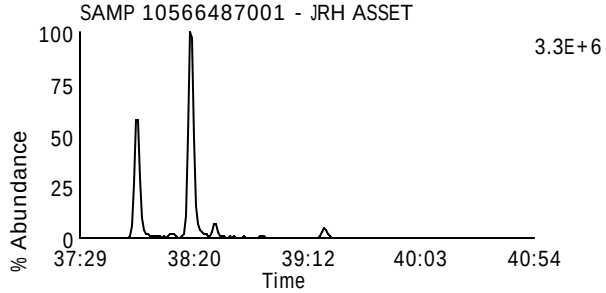
SAMP 10566487001 - JRH ASSET



Data File: U210703B_03 G4 C4 - 409.7788
SAMP 10566487001 - JRH ASSET



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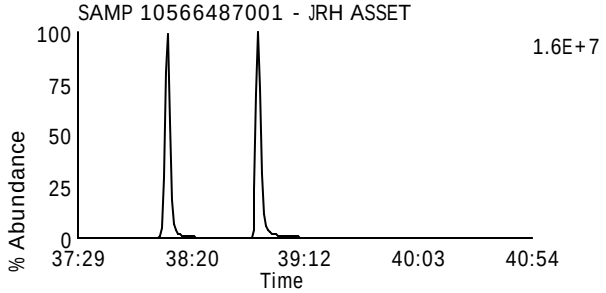
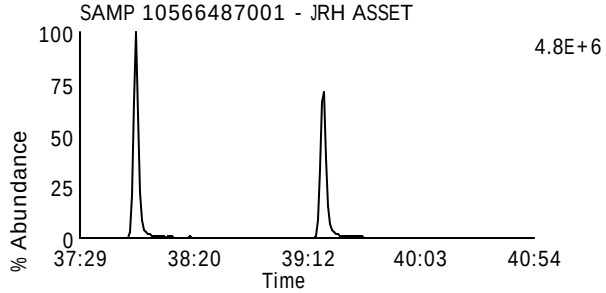
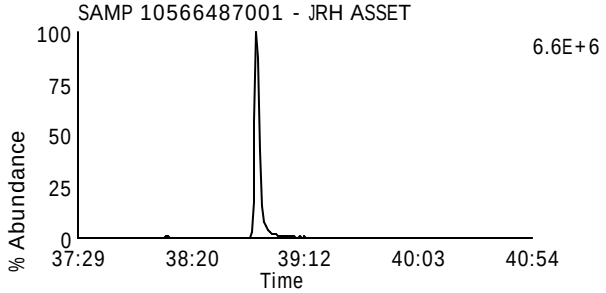
SAMP 10566487001 - JRH ASSET



Data File: U210703B_03 G4 C6 - 417.825
SAMP 10566487001 - JRH ASSET



Data File: U210703B_03 G4 C11 - 435.8169
SAMP 10566487001 - JRH ASSET



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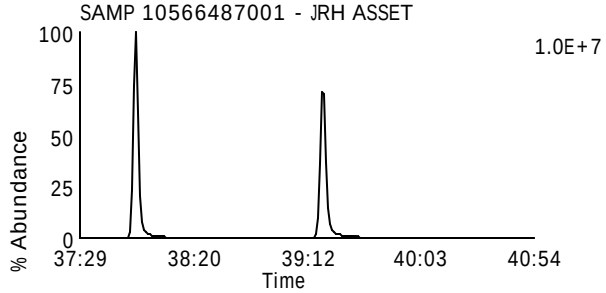
SAMP 10566487001 - JRH ASSET



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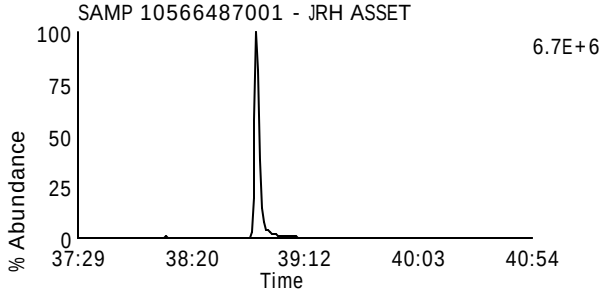
SAMP 10566487001 - JRH ASSET



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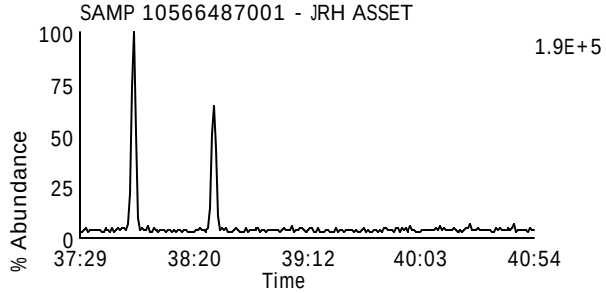
SAMP 10566487001 - JRH ASSET



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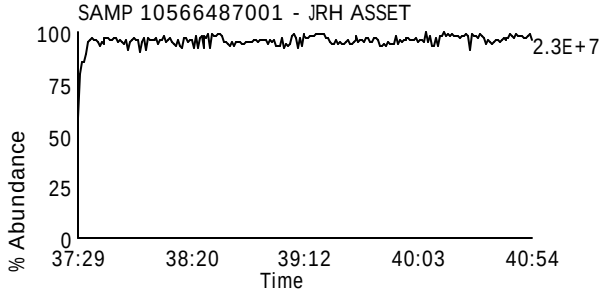
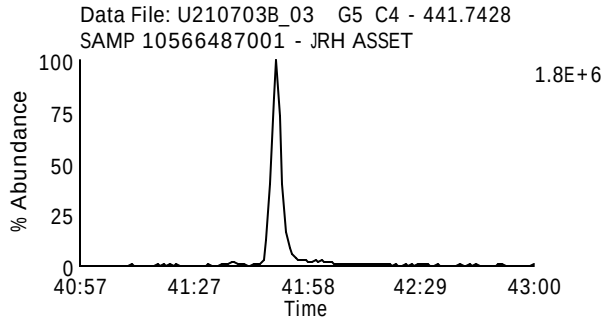
SAMP 10566487001 - JRH ASSET

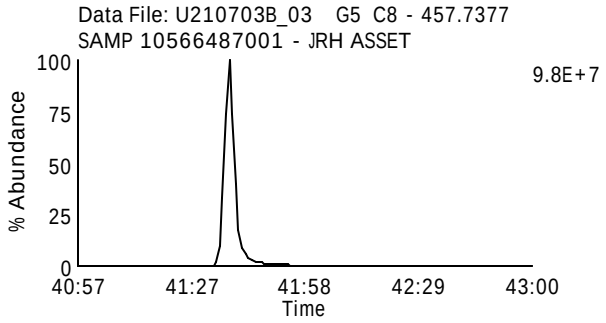


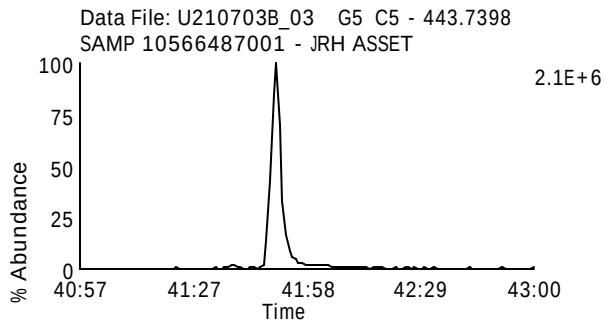
Homologue Group: Octas

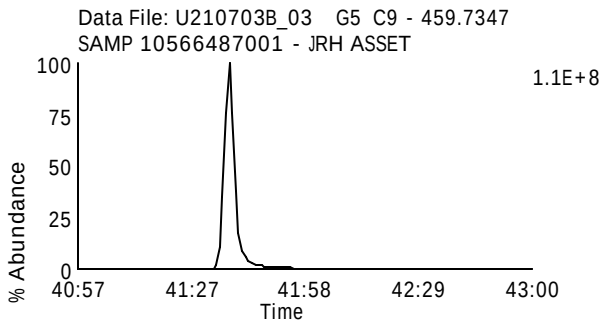
Data File Name: U210703B_03
Date Acquired: 7/3/2021
Sample Description: SAMP 10566487001 - JRH ASSET

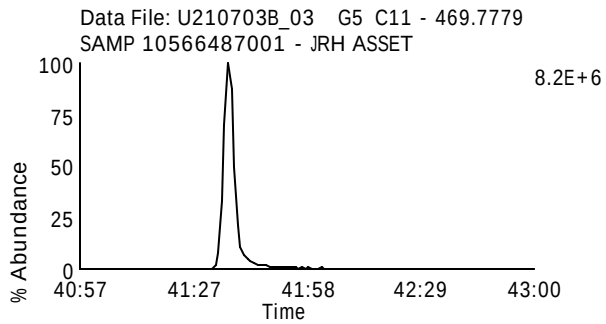
Lab Sample ID: 10566487001
Client Sample ID: N045954-001F/ AOC4-Gabion-WC
Instrument: 10MSHR06 (U)

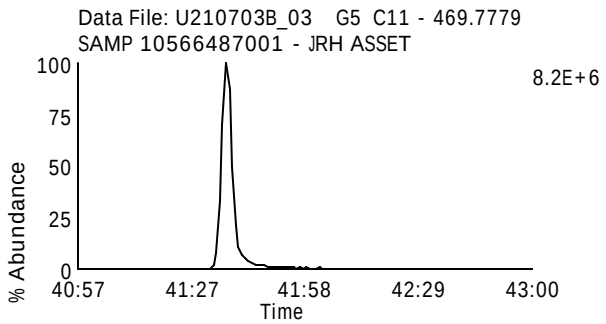


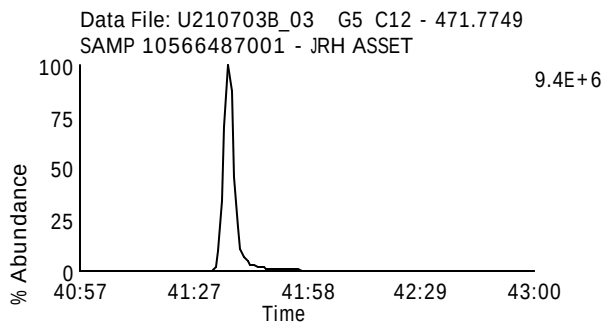


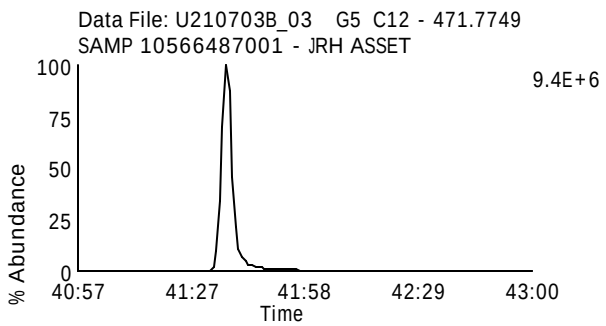


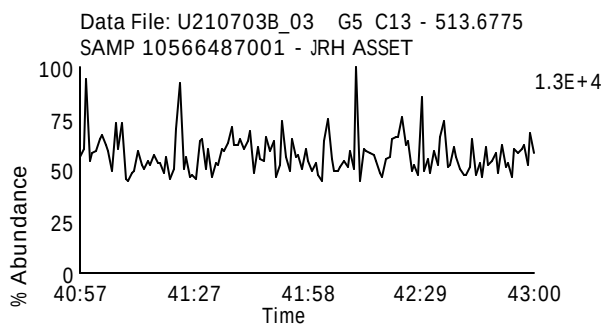


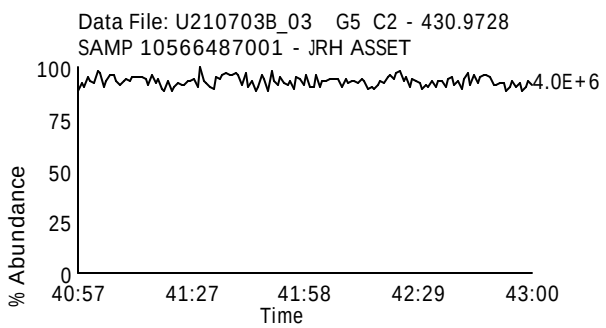












Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

ReviewedBy_____ Date _____

Client Name	Asset Laboratories		
Client ID	N045954-001F/ AOC4-Gabion-WC	Injected By	JRH
Lab ID	10566487001	Instrument ID	10MSHR06 (U)
Filename	U210703B_03	GC Column ID	US1175211H
Analyzed	07/03/2021 13:31	ICAL ID	U210629

Tetra-Furans:		RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C		24:29	2.24e7	2.86e7	3.56e6	4.43e6	5.529e3	5.498e3	0.78	
2,3,7,8-TCDF		24:32	1.18e5	1.46e5	1.25e4	2.28e4	2.228e3	2.509e3	0.81	
Other TCDF	1	19:45	5.45e4	6.54e4					0.83	
	2	20:15	1.01e5	1.25e5					0.81	
	3	20:48	8.86e4	1.10e5					0.81	
	4	21:08	9.24e4	1.23e5					0.75	
	5	21:32	6.24e4	7.15e4					0.87	
	6	21:53	1.52e5	1.75e5					0.87	
	7	22:37	1.12e5	1.66e5					0.67	
	8	22:46	5.09e4	6.46e4					0.79	
	9	23:19	5.14e4	7.01e4					0.73	
	10	25:04	1.68e5	2.08e5					0.81	
Ethers	1	26:49	1.87e5	2.51e5					0.75	P

Tetra-Dioxins:		RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C		24:47	2.21e7	2.80e7	3.42e6	4.34e6	3.152e3	5.078e3	0.79	
2,3,7,8-TCDD-13C		25:48	1.77e7	2.22e7	2.56e6	3.36e6	4.417e3	6.410e3	0.80	
2,3,7,8-TCDD-37Cl4		25:50	4.10e6		5.99e5		3.201e3	-----		
2,3,7,8-TCDD		25:50	ND	ND	ND	ND	2.115e3	2.222e3		
Other TCDD	1	21:29	4.16e4	5.06e4					0.82	

Penta-Furans:		RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C		31:17	2.95e7	1.93e7	7.48e6	4.92e6	1.570e4	1.002e4	1.53	
2,3,4,7,8-PeCDF-13C		32:25	2.83e7	1.84e7	7.86e6	5.14e6	1.610e4	1.144e4	1.54	
1,2,3,7,8-PeCDF		31:18	1.24e5	8.39e4	3.65e4	2.12e4	2.350e3	2.609e3	1.48	
2,3,4,7,8-PeCDF		32:25	2.68e5	1.85e5	5.65e4	3.85e4	2.350e3	2.907e3	1.45	
Other PeCDF	1	29:52	2.02e5	1.51e5					1.34	
	2	30:03	7.37e5	4.79e5					1.54	
	3	30:46	1.72e5	1.19e5					1.44	
	4	31:04	6.30e4	3.96e4					1.59	
	5	32:18	1.43e5	8.33e4					1.71	
	6	27:43	1.42e6	8.61e5					1.65	
Ethers	1	30:30	7.41e4	4.24e4					1.75	P
	2	31:36	3.00e5	2.00e5					1.51	P

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Client Name	Asset Laboratories		
Client ID	N045954-001F/ AOC4-Gabion-WC	Injected By	JRH
Lab ID	10566487001	Instrument ID	10MSHR06 (U)
Filename	U210703B_03	GC Column ID	US1175211H
Analyzed	07/03/2021 13:31	ICAL ID	U210629

	3	32:41	1.13e5	7.83e4	1.44	P
	4	33:27	1.57e5	1.04e5	1.51	P

Penta-Dioxins:		RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C		32:44	2.38e7	1.50e7	7.00e6	4.40e6	4.151e3	2.563e3	1.59	
1,2,3,7,8-PeCDD		32:45	1.06e5	1.58e5	1.27e4	4.58e4	2.129e3	3.551e3	0.68	
Other PeCDD	1	33:11	3.81e4	6.13e4					0.62	
	2	30:06	1.71e5	2.77e5					0.62	
	3	30:43	7.53e4	1.09e5					0.69	
	4	31:19	7.86e4	1.23e5					0.64	
	5	31:31	1.33e5	2.01e5					0.66	
	6	31:38	4.73e4	8.81e4					0.54	
	7	31:53	1.30e5	1.87e5					0.69	
	8	32:17	7.93e4	1.19e5					0.67	

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		35:20	1.28e7	2.47e7	4.40e6	8.74e6	1.160e3	3.752e3	0.52	
1,2,3,6,7,8-HxCDF-13C		35:26	1.55e7	2.94e7	5.52e6	1.05e7	3.714e3	1.657e3	0.53	
2,3,4,6,7,8-HxCDF-13C		35:57	1.35e7	2.63e7	4.99e6	9.68e6	1.443e3	3.752e3	0.51	
1,2,3,7,8,9-HxCDF-13C		36:41	1.23e7	2.40e7	4.55e6	8.68e6	8.336e3	7.299e3	0.51	
1,2,3,4,7,8-HxCDF		35:21	4.59e5	(M)3.95e5	1.58e5	1.42e5	3.921e3	2.332e3	1.16	
1,2,3,6,7,8-HxCDF		35:27	3.71e5	(M)3.03e5	1.31e5	9.73e4	3.020e3	2.332e3	1.22	P
2,3,4,6,7,8-HxCDF		35:58	3.80e5	2.89e5	1.46e5	1.18e5	3.166e3	2.332e3	1.32	
1,2,3,7,8,9-HxCDF		36:43	1.57e5	1.30e5	5.19e4	3.80e4	3.921e3	2.914e3	1.21	
Other HxCDF	1	34:10	7.99e5	5.91e5					1.35	
	2	34:20	2.36e6	1.87e6					1.26	
	3	34:53	2.65e6	2.36e6					1.13	
Ethers	1	35:04	3.21e5	2.62e5					1.23	P
	2	35:27	3.71e5	3.03e5					1.22	P
	3	35:51	3.76e5	2.71e5					1.39	P
	4	36:10	5.86e4	5.59e4					1.05	P

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	36:05	1.85e7	1.46e7	7.64e6	6.16e6	4.766e3	3.852e3	1.26	
1,2,3,6,7,8-HxCDD-13C	36:10	1.97e7	1.58e7	7.47e6	6.13e6	4.812e3	3.512e3	1.25	
1,2,3,7,8,9-HxCDD-13C	36:24	2.86e7	2.33e7	1.10e7	8.65e6	8.347e3	1.246e4	1.23	
1,2,3,4,7,8-HxCDD	36:06	3.19e5	2.36e5	5.57e5	4.13e5	2.634e3	3.464e3	1.35	
1,2,3,6,7,8-HxCDD	36:11	1.48e6	1.18e6	5.57e5	4.13e5	2.069e3	3.464e3	1.25	
1,2,3,7,8,9-HxCDD	36:25	6.05e5	4.75e5	2.49e5	1.70e5	2.047e3	3.464e3	1.27	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Client Name	Asset Laboratories		
Client ID	N045954-001F/ AOC4-Gabion-WC	Injected By	JRH
Lab ID	10566487001	Instrument ID	10MSHR06 (U)
Filename	U210703B_03	GC Column ID	US1175211H
Analyzed	07/03/2021 13:31	ICAL ID	U210629

Other HxCDD	1	34:44	2.16e6	1.78e6					1.21	
	2	35:16	3.85e5	3.43e5					1.12	
	3	35:30	3.66e6	2.90e6					1.26	
	4	36:20	2.12e5	1.86e5					1.14	

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	37:55	1.18e7	(M)2.63e7	4.75e6	1.04e7	5.243e3	5.648e3	0.45	
1,2,3,4,7,8,9-HpCDF-13C	39:20	1.03e7	(M)2.25e7	3.38e6	7.39e6	3.040e3	8.163e3	0.46	
1,2,3,4,6,7,8-HpCDF	37:56	(M)3.77e6	(M)3.61e6	1.91e6	1.85e6	2.499e3	2.261e3	1.04	
1,2,3,4,7,8,9-HpCDF	39:20	4.47e5	4.02e5	1.44e5	1.40e5	2.877e3	2.671e3	1.11	
Other HpCDF 1	38:20	9.43e6	9.10e6					1.04	
Ethers 1	38:30	4.01e5	3.94e5					1.02	P

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	38:50	2.04e7	1.96e7	6.64e6	6.67e6	3.959e3	2.608e4	1.04	
1,2,3,4,6,7,8-HpCDD	38:51	4.86e7	4.46e7	1.69e7	1.62e7	2.002e3	2.160e3	1.09	
Other HpCDD 1	38:11	4.53e7	4.28e7					1.06	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	41:50	6.17e6	7.08e6	1.82e6	2.09e6	1.993e3	2.830e3	0.87	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	41:37	2.81e7	3.31e7	8.21e6	9.38e6	9.510e3	1.478e4	0.85	
OCDD	41:38	3.15e8	3.54e8	9.82e7	1.09e8	6.811e2	1.936e3	0.89	

REPORT OF LABORATORY ANALYSIS

Appendix E

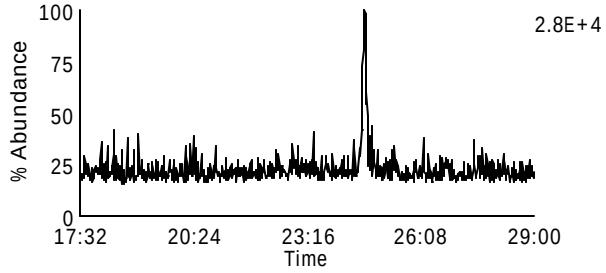
Calibration Raw Data

Homologue Group: Tetras

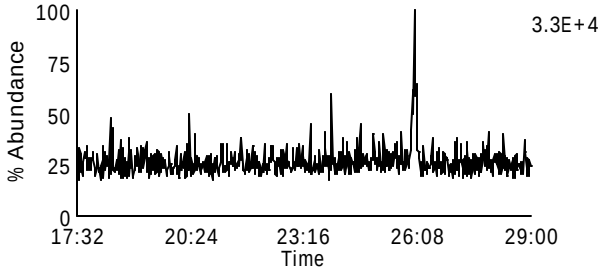
Data File Name: U210629B_04
Date Acquired: 6/29/2021
Sample Description: CAL CS1-20-123-056 - SMT

Lab Sample ID: CS1-20-123-056
Client Sample ID:
Instrument: 10MSHR06 (U)

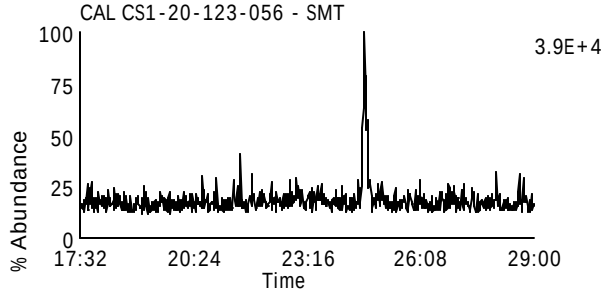
Data File: U210629B_04 G1 C1 - 303.9016
CAL CS1-20-123-056 - SMT



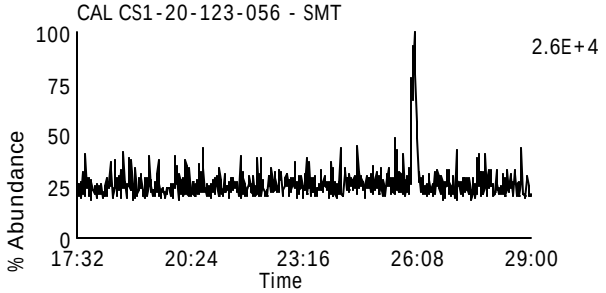
Data File: U210629B_04 G1 C7 - 319.8965
CAL CS1-20-123-056 - SMT



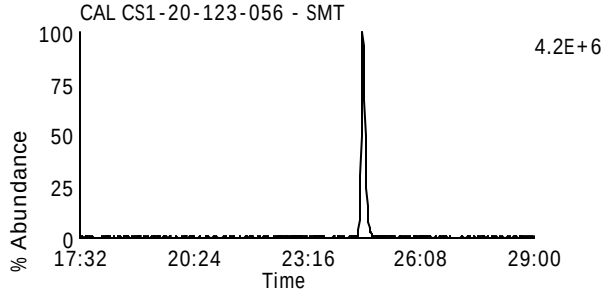
Data File: U210629B_04 G1 C2 - 305.8987
CAL CS1-20-123-056 - SMT



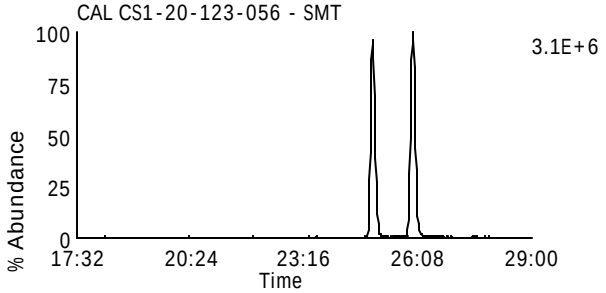
Data File: U210629B_04 G1 C8 - 321.8936
CAL CS1-20-123-056 - SMT



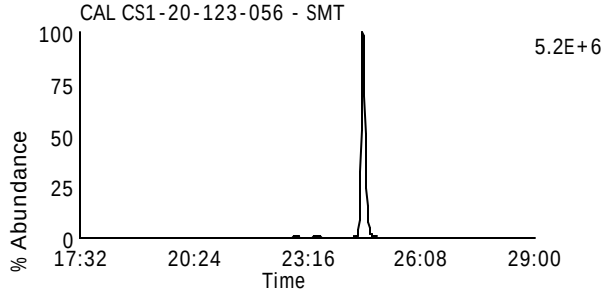
Data File: U210629B_04 G1 C3 - 315.9418
CAL CS1-20-123-056 - SMT



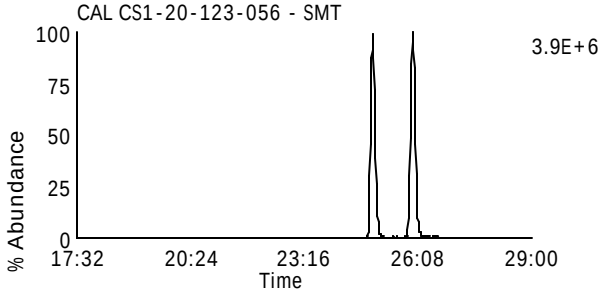
Data File: U210629B_04 G1 C10 - 331.9367
CAL CS1-20-123-056 - SMT



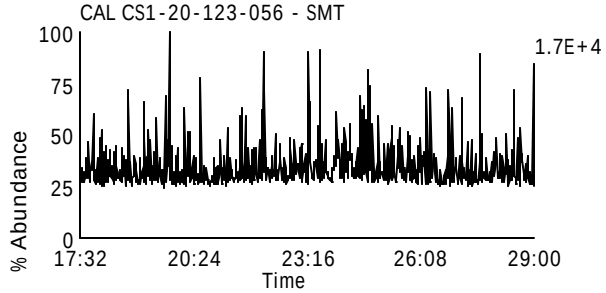
Data File: U210629B_04 G1 C4 - 317.9389
CAL CS1-20-123-056 - SMT



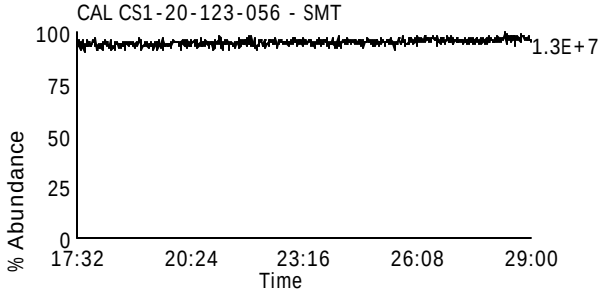
Data File: U210629B_04 G1 C11 - 333.9338
CAL CS1-20-123-056 - SMT



Data File: U210629B_04 G1 C14 - 375.8364
CAL CS1-20-123-056 - SMT



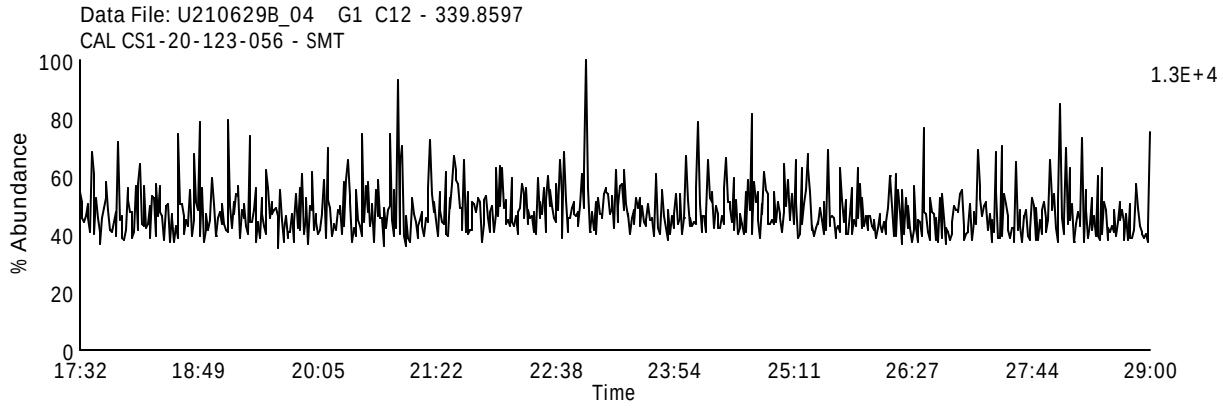
Data File: U210629B_04 G1 C5 - 318.9792
CAL CS1-20-123-056 - SMT

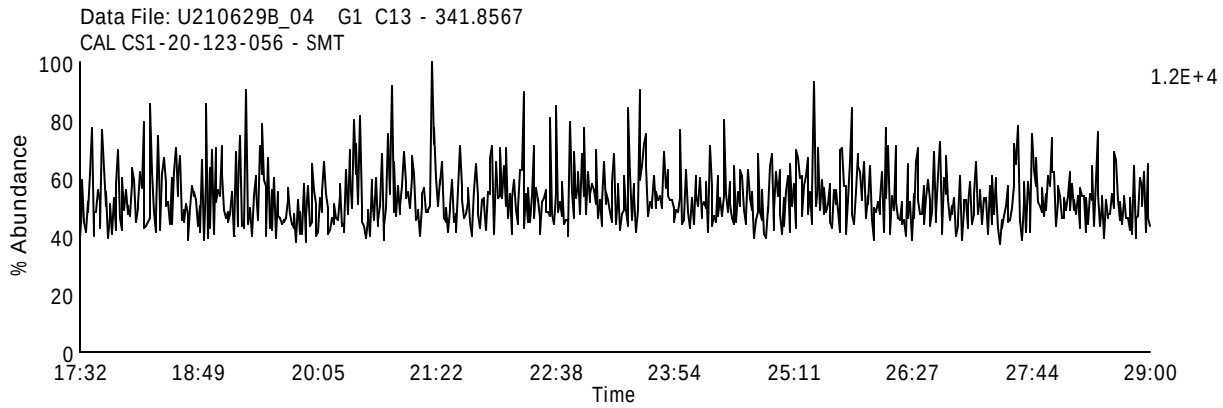


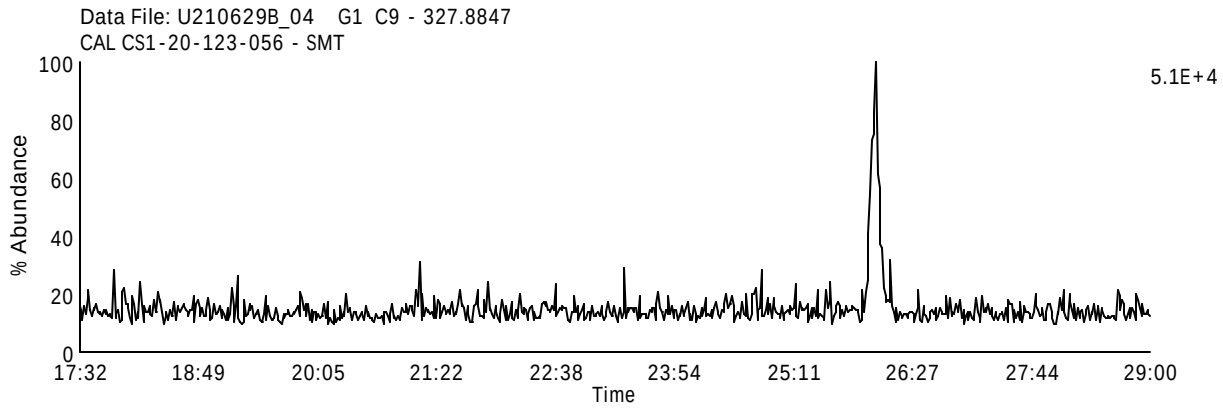
Homologue Group: Penta & Cleanup

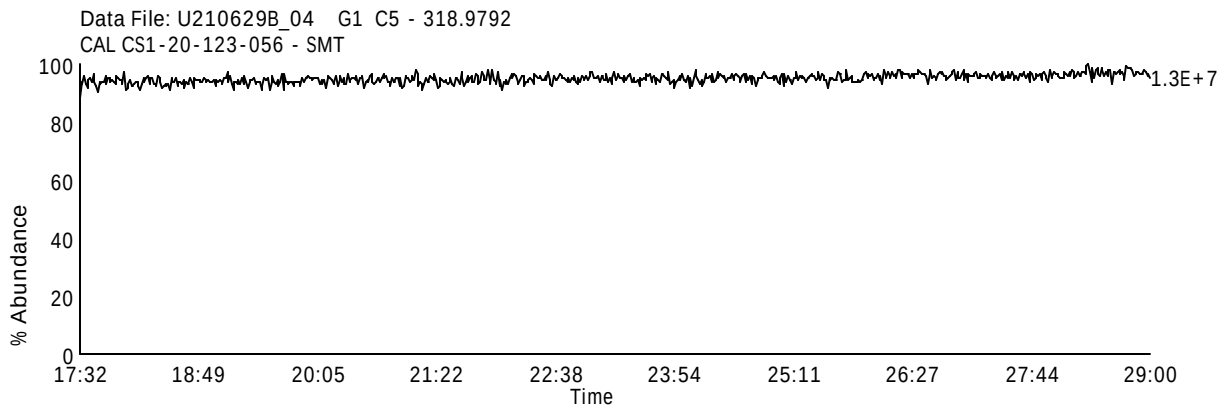
Data File Name: U210629B_04
Date Acquired: 6/29/2021
Sample Description: CAL CS1-20-123-056 - SMT

Lab Sample ID: CS1-20-123-056
Client Sample ID:
Instrument: 10MSHR06 (U)







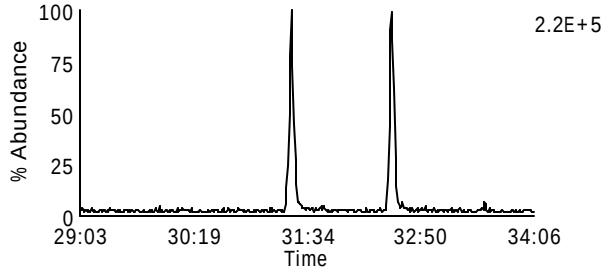


Homologue Group: Pentas

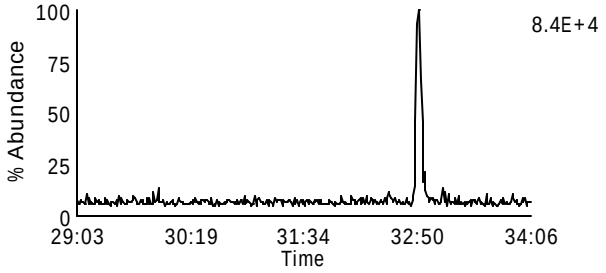
Data File Name: U210629B_04
Date Acquired: 6/29/2021
Sample Description: CAL CS1-20-123-056 - SMT

Lab Sample ID: CS1-20-123-056
Client Sample ID:
Instrument: 10MSHR06 (U)

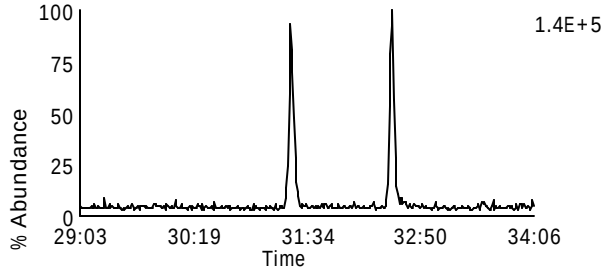
Data File: U210629B_04 G2 C1 - 339.8597
CAL CS1-20-123-056 - SMT



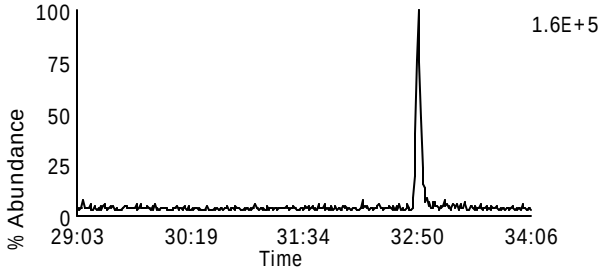
Data File: U210629B_04 G2 C4 - 353.8576
CAL CS1-20-123-056 - SMT



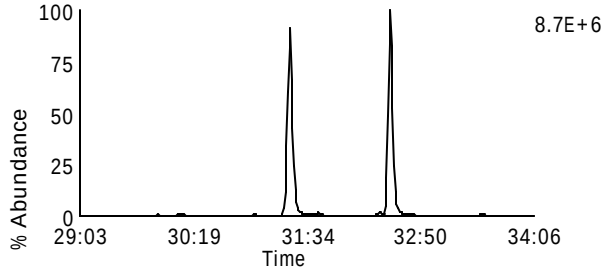
Data File: U210629B_04 G2 C2 - 341.8567
CAL CS1-20-123-056 - SMT



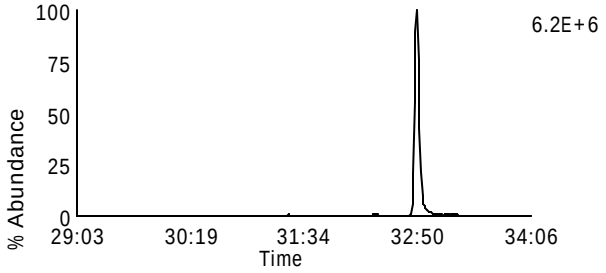
Data File: U210629B_04 G2 C8 - 355.8546
CAL CS1-20-123-056 - SMT



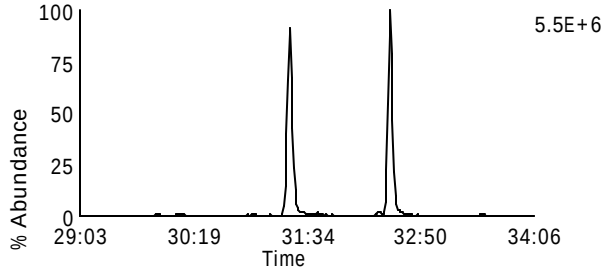
Data File: U210629B_04 G2 C3 - 351.8999
CAL CS1-20-123-056 - SMT



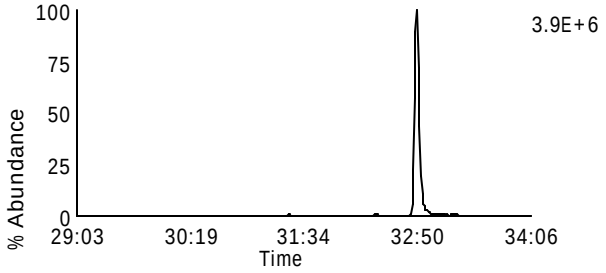
Data File: U210629B_04 G2 C10 - 367.8948
CAL CS1-20-123-056 - SMT



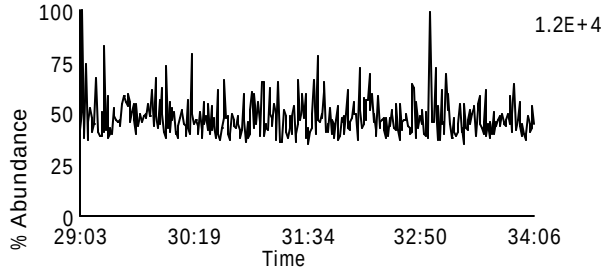
Data File: U210629B_04 G2 C5 - 353.8969
CAL CS1-20-123-056 - SMT



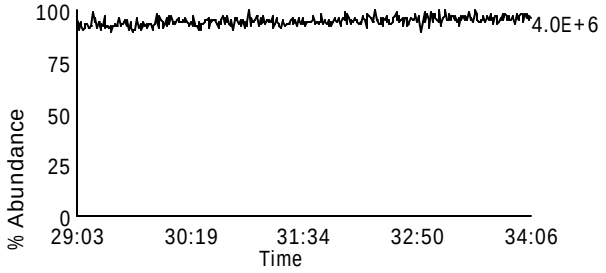
Data File: U210629B_04 G2 C11 - 369.8918
CAL CS1-20-123-056 - SMT



Data File: U210629B_04 G2 C12 - 409.7974
CAL CS1-20-123-056 - SMT



Data File: U210629B_04 G2 C6 - 354.9792
CAL CS1-20-123-056 - SMT

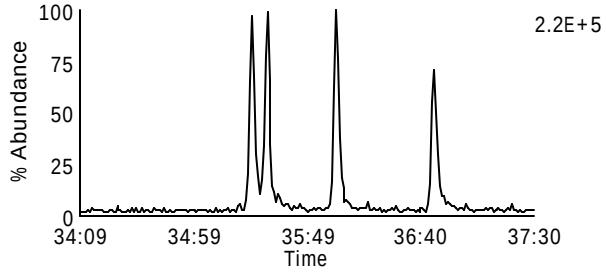


Homologue Group: Hexas

Data File Name: U210629B_04
Date Acquired: 6/29/2021
Sample Description: CAL CS1-20-123-056 - SMT

Lab Sample ID: CS1-20-123-056
Client Sample ID:
Instrument: 10MSHR06 (U)

Data File: U210629B_04 G3 C1 - 373.8207
CAL CS1-20-123-056 - SMT



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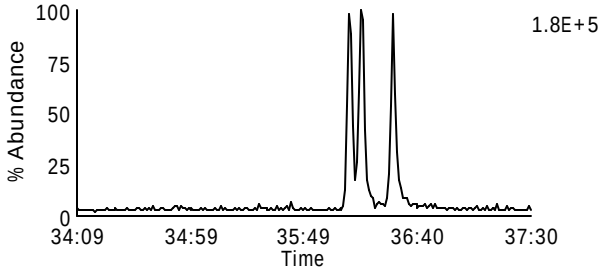
CAL CS1-20-123-056 - SMT



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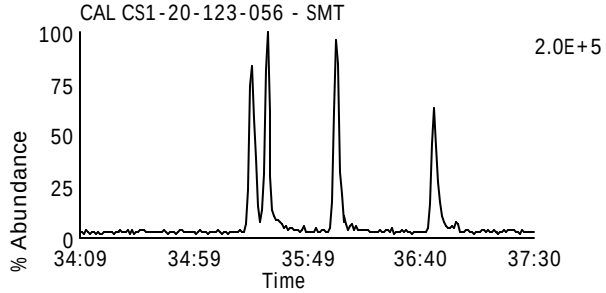
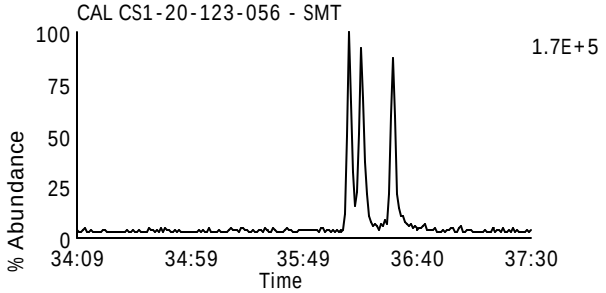
CAL CS1-20-123-056 - SMT



Data File: U210629B_04 G3 C8 - 391.8127
CAL CS1-20-123-056 - SMT



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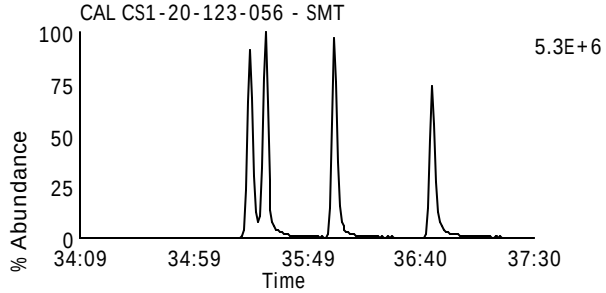
CAL CS1-20-123-056 - SMT



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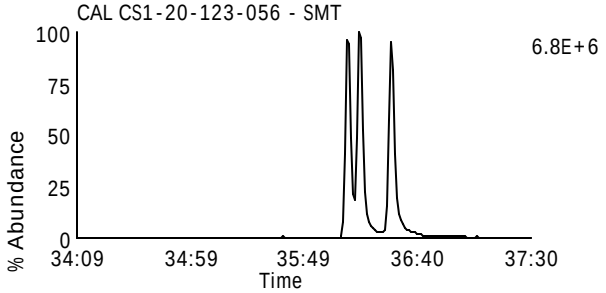
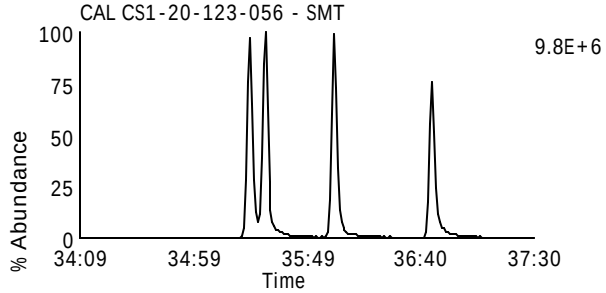
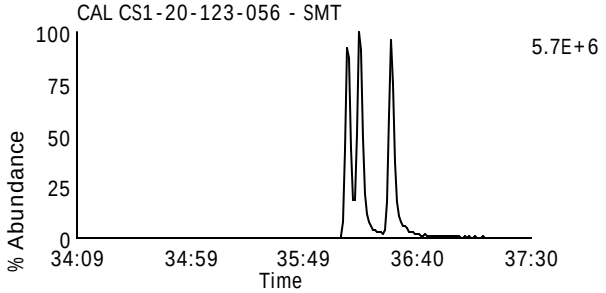
CAL CS1-20-123-056 - SMT



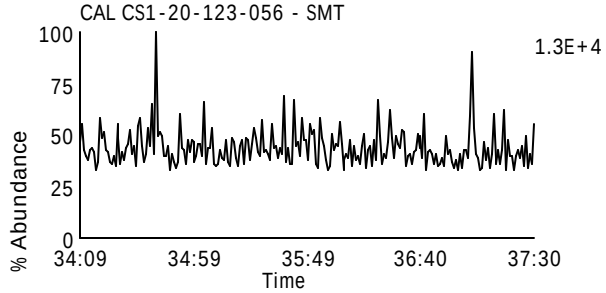
Data File: U210629B_04 G3 C6 - 385.861
CAL CS1-20-123-056 - SMT



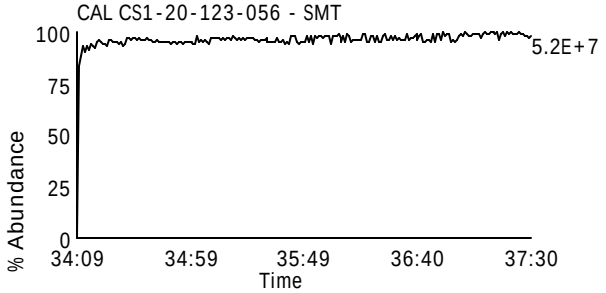
Data File: U210629B_04 G3 C10 - 403.8529
CAL CS1-20-123-056 - SMT



Data File: U210629B_04 G3 C11 - 445.7555
CAL CS1-20-123-056 - SMT



Data File: U210629B_04 G3 C3 - 380.976
CAL CS1-20-123-056 - SMT

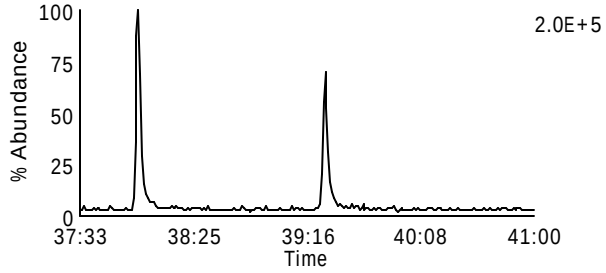


Homologue Group: Heptas

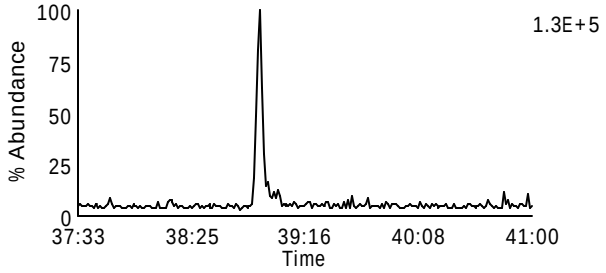
Data File Name: U210629B_04
Date Acquired: 6/29/2021
Sample Description: CAL CS1-20-123-056 - SMT

Lab Sample ID: CS1-20-123-056
Client Sample ID:
Instrument: 10MSHR06 (U)

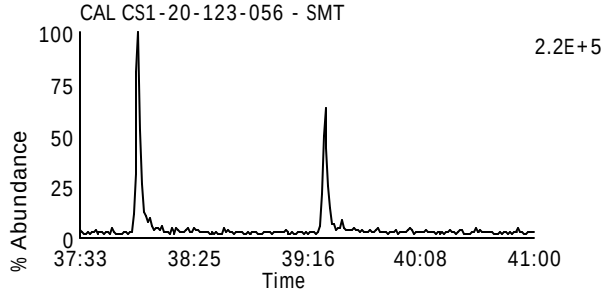
Data File: U210629B_04 G4 C3 - 407.7818
CAL CS1-20-123-056 - SMT



Data File: U210629B_04 G4 C8 - 423.7767
CAL CS1-20-123-056 - SMT



Data File: U210629B_04 G4 C4 - 409.7788
CAL CS1-20-123-056 - SMT



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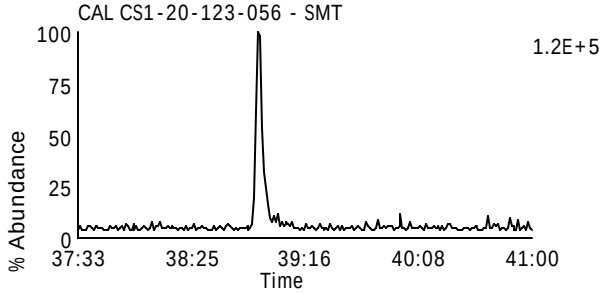
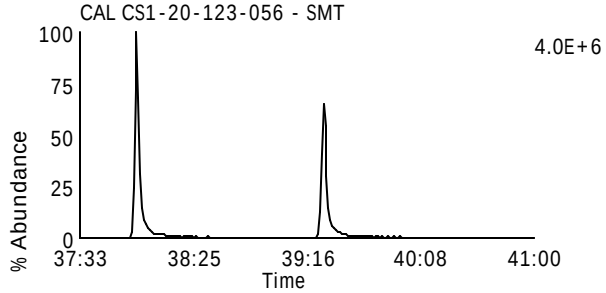
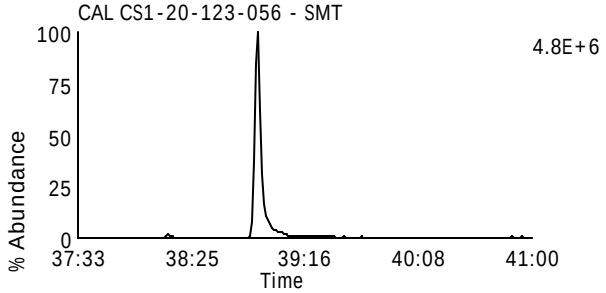
CAL CS1-20-123-056 - SMT



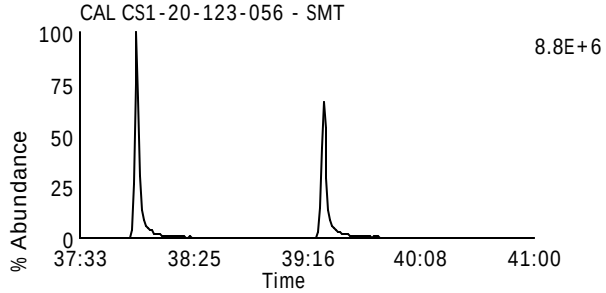
Data File: U210629B_04 G4 C6 - 417.825
CAL CS1-20-123-056 - SMT



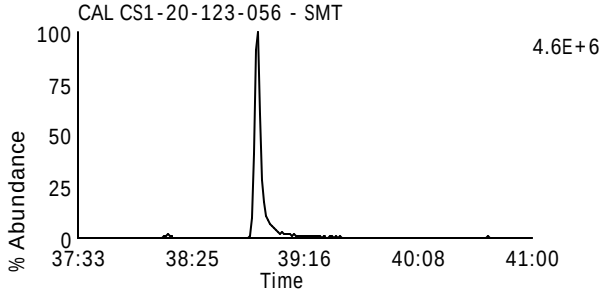
Data File: U210629B_04 G4 C11 - 435.8169
CAL CS1-20-123-056 - SMT



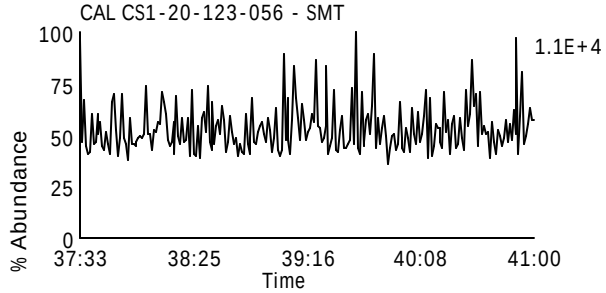
Data File: U210629B_04 G4 C7 - 419.822
CAL CS1-20-123-056 - SMT



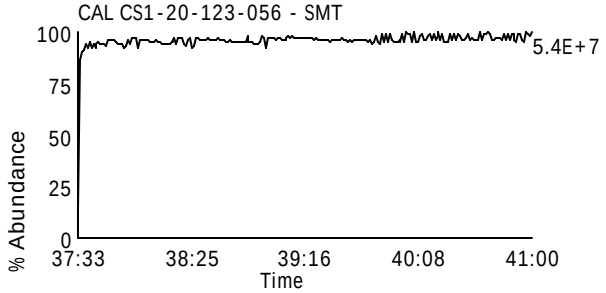
Data File: U210629B_04 G4 C12 - 437.814
CAL CS1-20-123-056 - SMT



Data File: U210629B_04 G4 C13 - 479.7165
CAL CS1-20-123-056 - SMT



Data File: U210629B_04 G4 C1 - 380.976
CAL CS1-20-123-056 - SMT

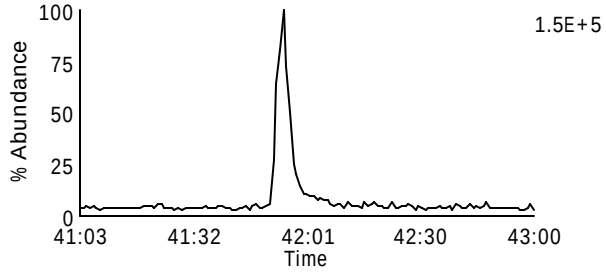


Homologue Group: Octas

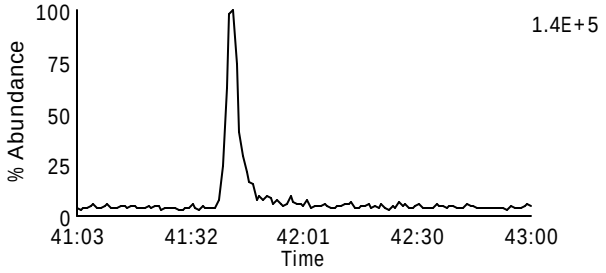
Data File Name: U210629B_04
Date Acquired: 6/29/2021
Sample Description: CAL CS1-20-123-056 - SMT

Lab Sample ID: CS1-20-123-056
Client Sample ID:
Instrument: 10MSHR06 (U)

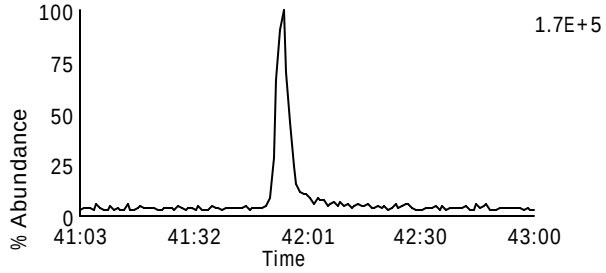
Data File: U210629B_04 G5 C4 - 441.7428
CAL CS1-20-123-056 - SMT



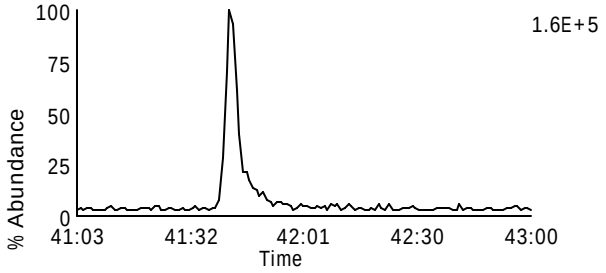
Data File: U210629B_04 G5 C8 - 457.7377
CAL CS1-20-123-056 - SMT



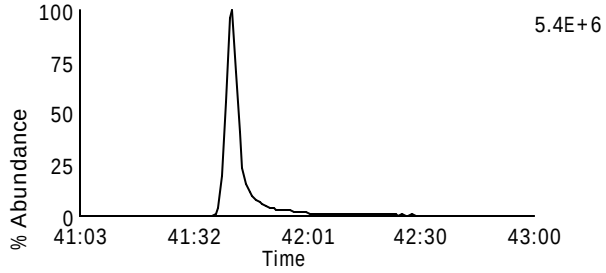
Data File: U210629B_04 G5 C5 - 443.7398
CAL CS1-20-123-056 - SMT



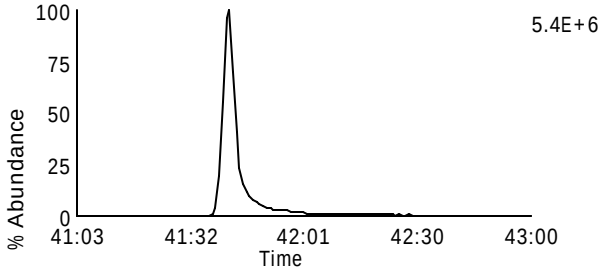
Data File: U210629B_04 G5 C9 - 459.7347
CAL CS1-20-123-056 - SMT



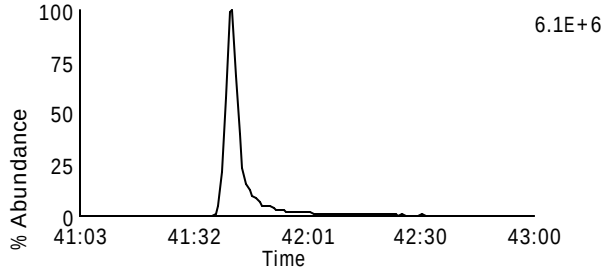
Data File: U210629B_04 G5 C11 - 469.7779
CAL CS1-20-123-056 - SMT



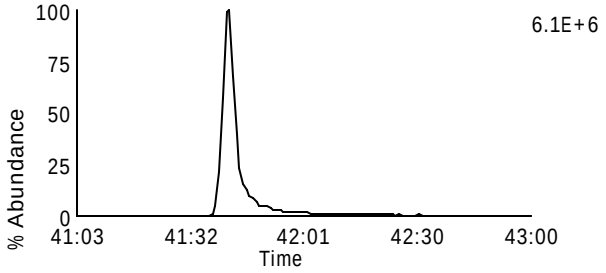
Data File: U210629B_04 G5 C11 - 469.7779
CAL CS1-20-123-056 - SMT



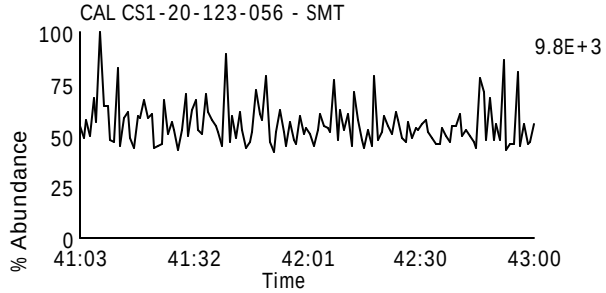
Data File: U210629B_04 G5 C12 - 471.7749
CAL CS1-20-123-056 - SMT



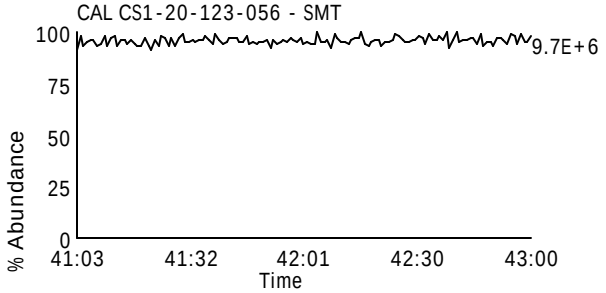
Data File: U210629B_04 G5 C12 - 471.7749
CAL CS1-20-123-056 - SMT



Data File: U210629B_04 G5 C13 - 513.6775
CAL CS1-20-123-056 - SMT



Data File: U210629B_04 G5 C2 - 430.9728
CAL CS1-20-123-056 - SMT

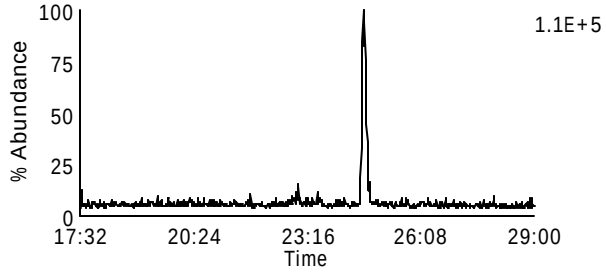


Homologue Group: Tetras

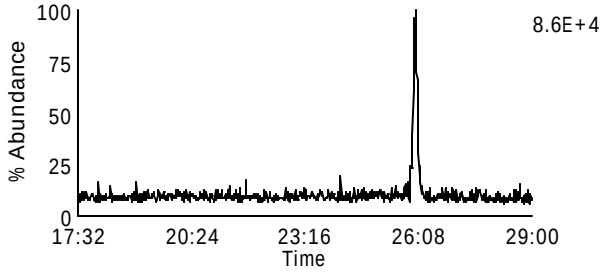
Data File Name: U210629B_03
Date Acquired: 6/29/2021
Sample Description: CAL CS2-20-123-016 - SMT

Lab Sample ID: CS2-20-123-016
Client Sample ID:
Instrument: 10MSHR06 (U)

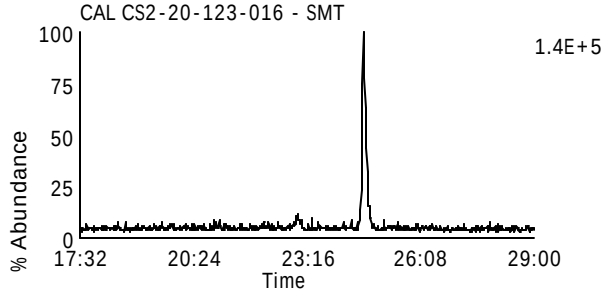
Data File: U210629B_03 G1 C1 - 303.9016
CAL CS2-20-123-016 - SMT



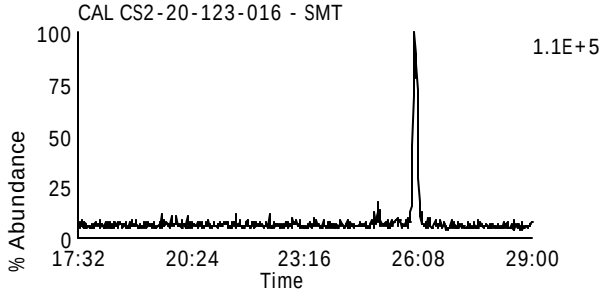
Data File: U210629B_03 G1 C7 - 319.8965
CAL CS2-20-123-016 - SMT



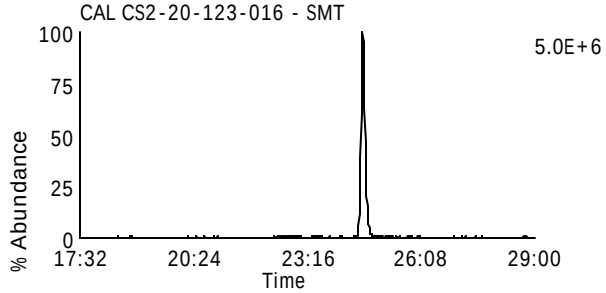
Data File: U210629B_03 G1 C2 - 305.8987
CAL CS2-20-123-016 - SMT



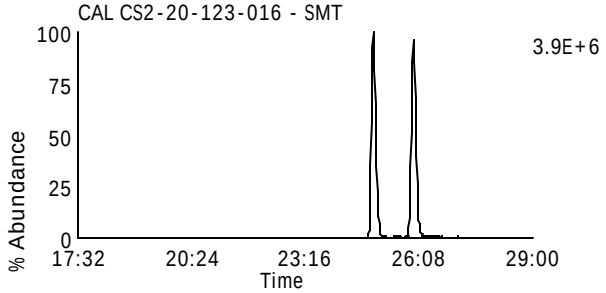
Data File: U210629B_03 G1 C8 - 321.8936
CAL CS2-20-123-016 - SMT



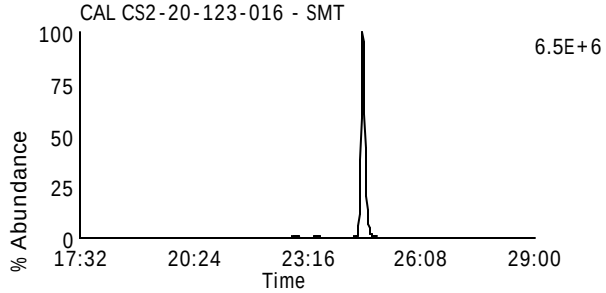
Data File: U210629B_03 G1 C3 - 315.9418
CAL CS2-20-123-016 - SMT



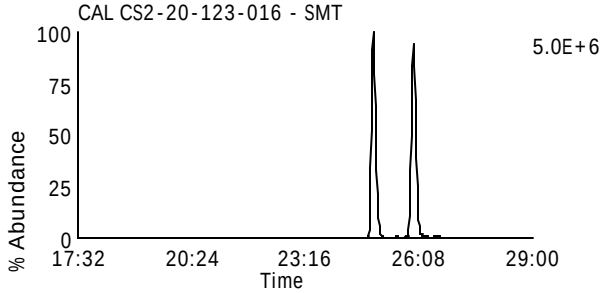
Data File: U210629B_03 G1 C10 - 331.9367
CAL CS2-20-123-016 - SMT



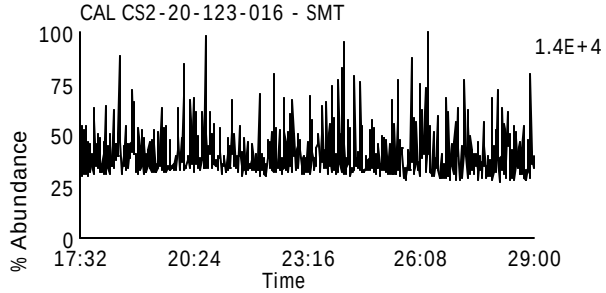
Data File: U210629B_03 G1 C4 - 317.9389
CAL CS2-20-123-016 - SMT



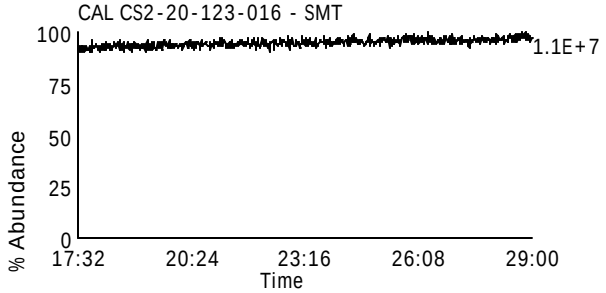
Data File: U210629B_03 G1 C11 - 333.9338
CAL CS2-20-123-016 - SMT



Data File: U210629B_03 G1 C14 - 375.8364
CAL CS2-20-123-016 - SMT



Data File: U210629B_03 G1 C5 - 318.9792
CAL CS2-20-123-016 - SMT

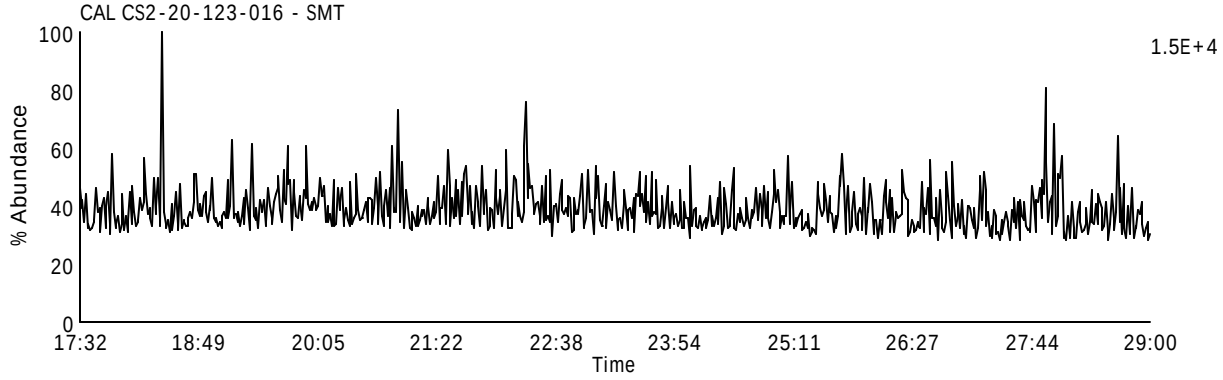


Homologue Group: Penta & Cleanup

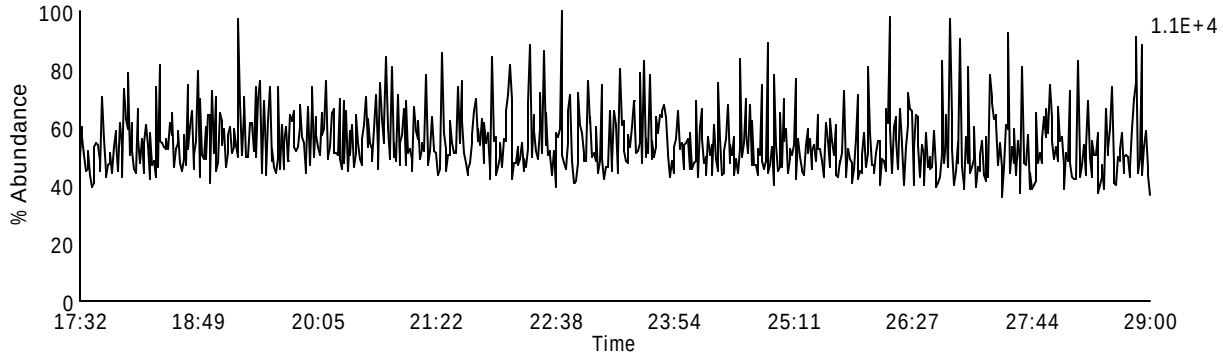
Data File Name: U210629B_03
Date Acquired: 6/29/2021
Sample Description: CAL CS2-20-123-016 - SMT

Lab Sample ID: CS2-20-123-016
Client Sample ID:
Instrument: 10MSHR06 (U)

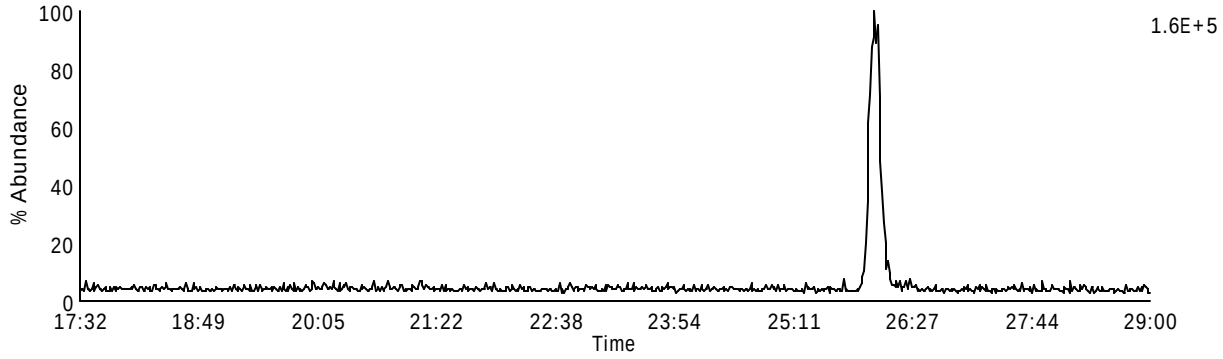
Data File: U210629B_03 G1 C12 - 339.8597
CAL CS2-20-123-016 - SMT



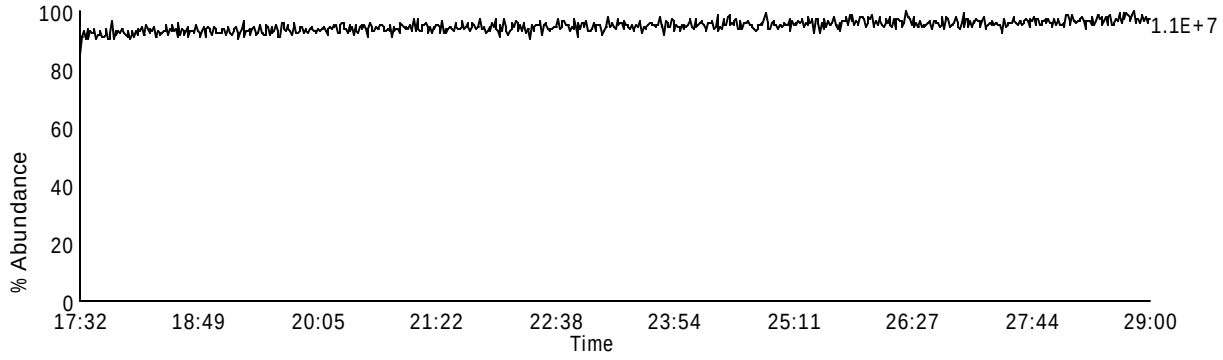
Data File: U210629B_03 G1 C13 - 341.8567
CAL CS2-20-123-016 - SMT



Data File: U210629B_03 G1 C9 - 327.8847
CAL CS2-20-123-016 - SMT



Data File: U210629B_03 G1 C5 - 318.9792
CAL CS2-20-123-016 - SMT

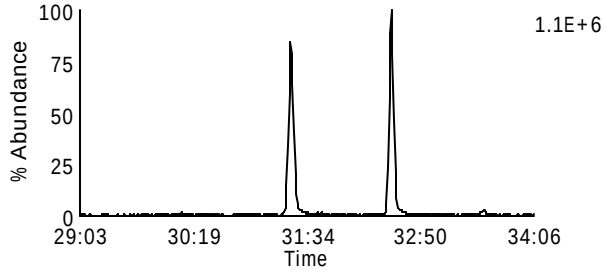


Homologue Group: Pentas

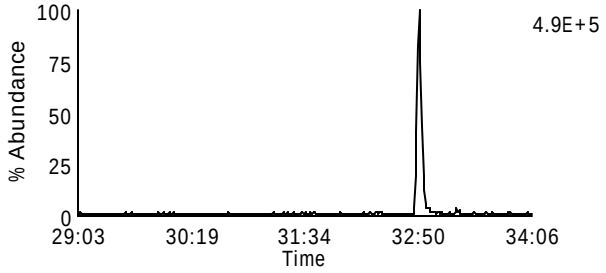
Data File Name: U210629B_03
Date Acquired: 6/29/2021
Sample Description: CAL CS2-20-123-016 - SMT

Lab Sample ID: CS2-20-123-016
Client Sample ID:
Instrument: 10MSHR06 (U)

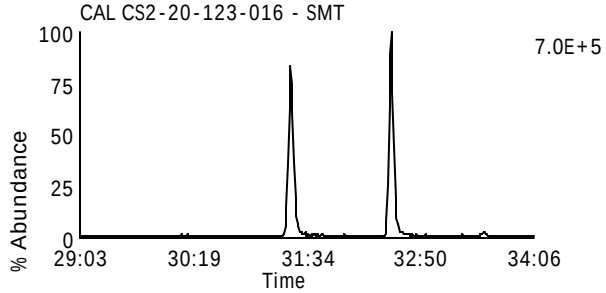
Data File: U210629B_03 G2 C1 - 339.8597
CAL CS2-20-123-016 - SMT



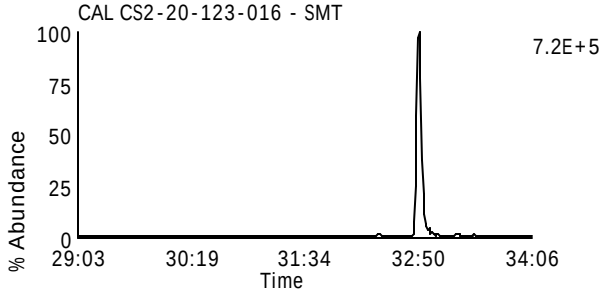
Data File: U210629B_03 G2 C4 - 353.8576
CAL CS2-20-123-016 - SMT



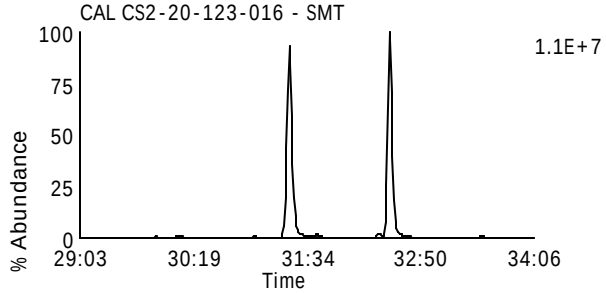
Data File: U210629B_03 G2 C2 - 341.8567
CAL CS2-20-123-016 - SMT



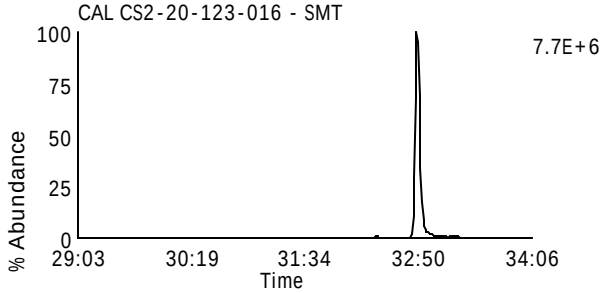
Data File: U210629B_03 G2 C8 - 355.8546
CAL CS2-20-123-016 - SMT



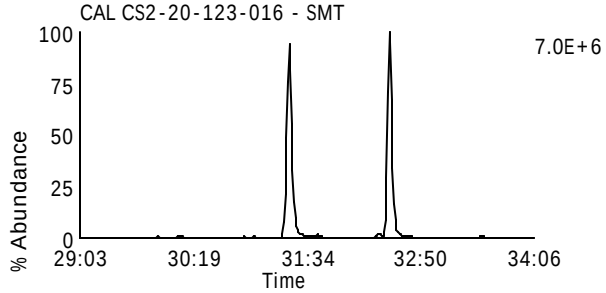
Data File: U210629B_03 G2 C3 - 351.8999
CAL CS2-20-123-016 - SMT



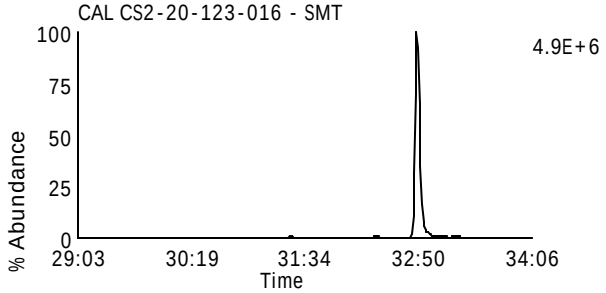
Data File: U210629B_03 G2 C10 - 367.8948
CAL CS2-20-123-016 - SMT



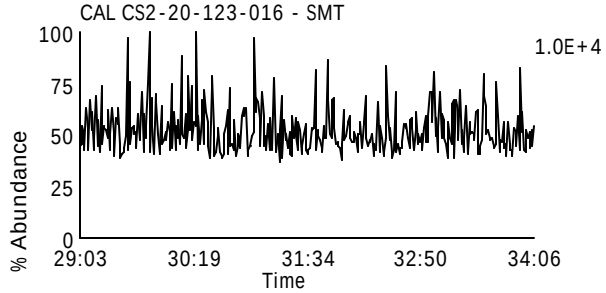
Data File: U210629B_03 G2 C5 - 353.8969
CAL CS2-20-123-016 - SMT



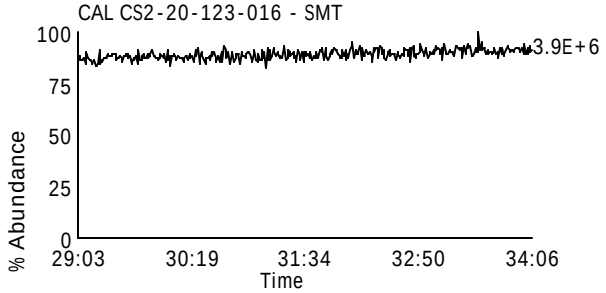
Data File: U210629B_03 G2 C11 - 369.8918
CAL CS2-20-123-016 - SMT



Data File: U210629B_03 G2 C12 - 409.7974
CAL CS2-20-123-016 - SMT



Data File: U210629B_03 G2 C6 - 354.9792
CAL CS2-20-123-016 - SMT

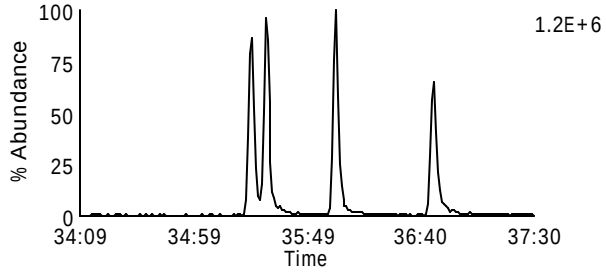


Homologue Group: Hexas

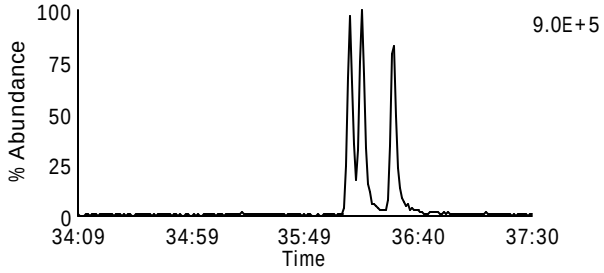
Data File Name: U210629B_03
Date Acquired: 6/29/2021
Sample Description: CAL CS2-20-123-016 - SMT

Lab Sample ID: CS2-20-123-016
Client Sample ID:
Instrument: 10MSHR06 (U)

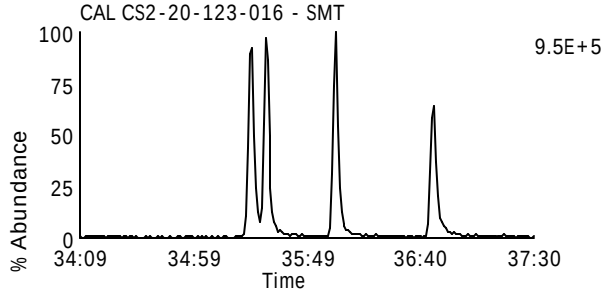
Data File: U210629B_03 G3 C1 - 373.8207
CAL CS2-20-123-016 - SMT



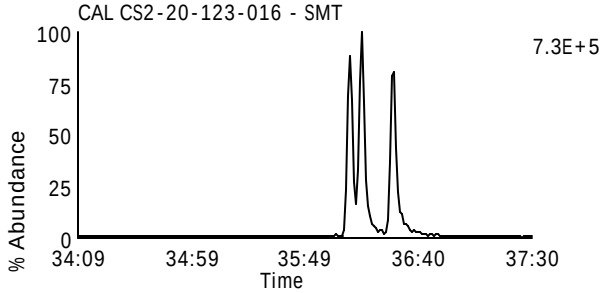
Data File: U210629B_03 G3 C7 - 389.8156
CAL CS2-20-123-016 - SMT



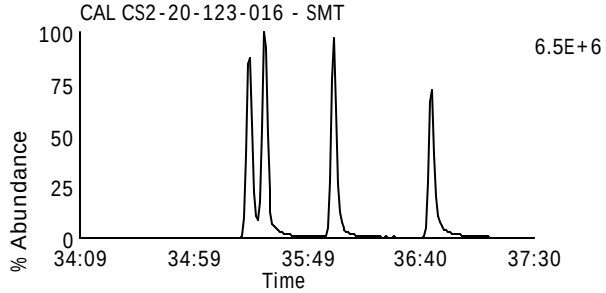
Data File: U210629B_03 G3 C2 - 375.8178
CAL CS2-20-123-016 - SMT



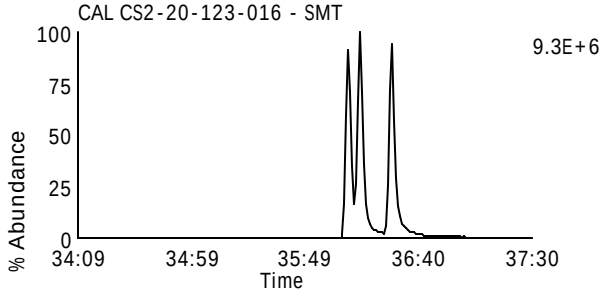
Data File: U210629B_03 G3 C8 - 391.8127
CAL CS2-20-123-016 - SMT



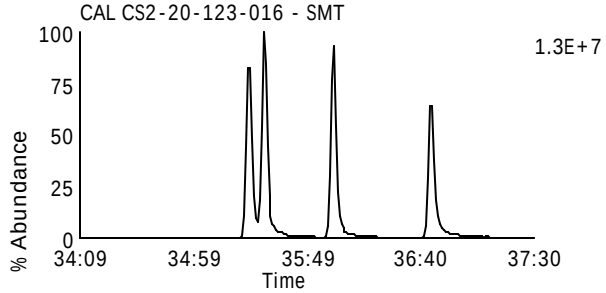
Data File: U210629B_03 G3 C5 - 383.8639
CAL CS2-20-123-016 - SMT



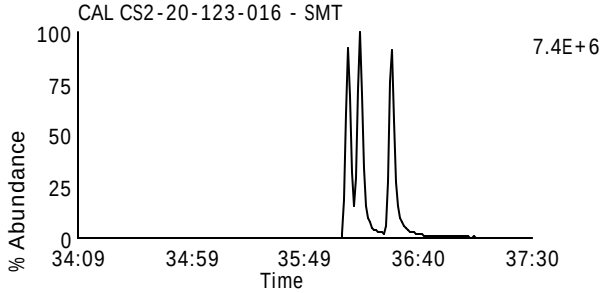
Data File: U210629B_03 G3 C9 - 401.8559
CAL CS2-20-123-016 - SMT



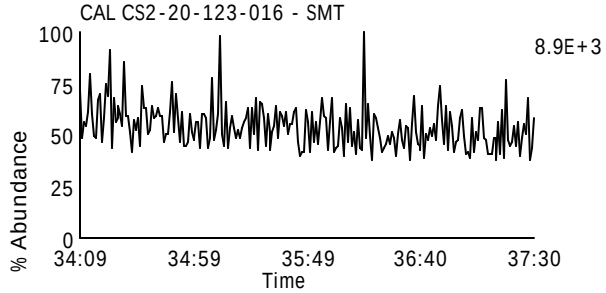
Data File: U210629B_03 G3 C6 - 385.861
CAL CS2-20-123-016 - SMT



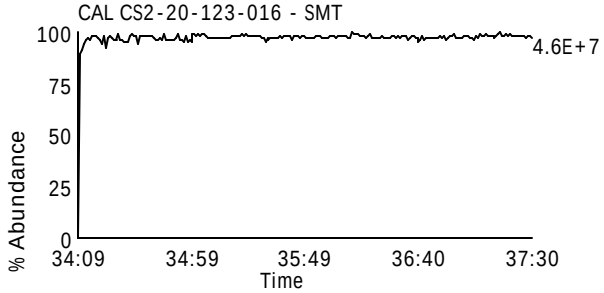
Data File: U210629B_03 G3 C10 - 403.8529
CAL CS2-20-123-016 - SMT



Data File: U210629B_03 G3 C11 - 445.7555
CAL CS2-20-123-016 - SMT



Data File: U210629B_03 G3 C3 - 380.976
CAL CS2-20-123-016 - SMT

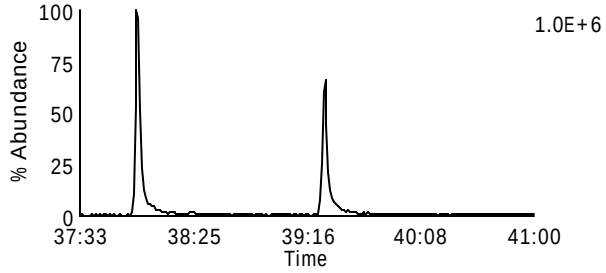


Homologue Group: Heptas

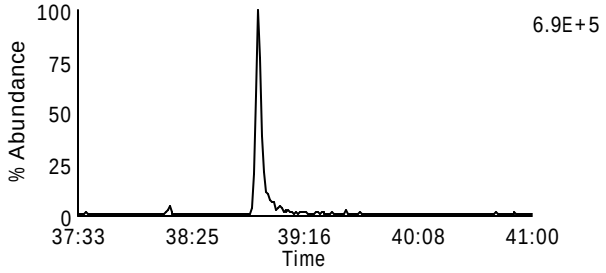
Data File Name: U210629B_03
Date Acquired: 6/29/2021
Sample Description: CAL CS2-20-123-016 - SMT

Lab Sample ID: CS2-20-123-016
Client Sample ID:
Instrument: 10MSHR06 (U)

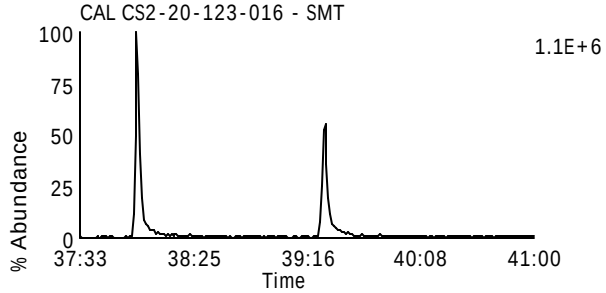
Data File: U210629B_03 G4 C3 - 407.7818
CAL CS2-20-123-016 - SMT



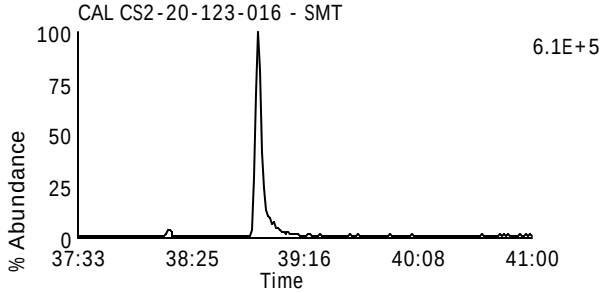
Data File: U210629B_03 G4 C8 - 423.7767
CAL CS2-20-123-016 - SMT



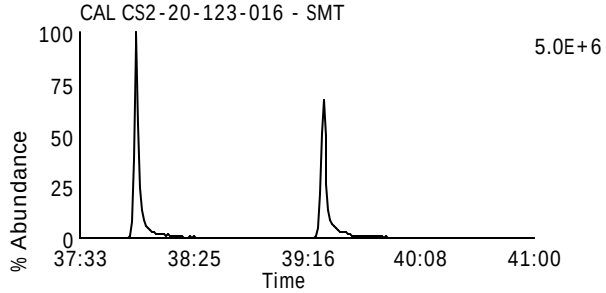
Data File: U210629B_03 G4 C4 - 409.7788
CAL CS2-20-123-016 - SMT



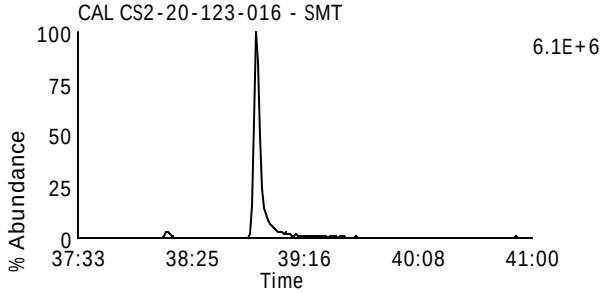
Data File: U210629B_03 G4 C9 - 425.7737
CAL CS2-20-123-016 - SMT



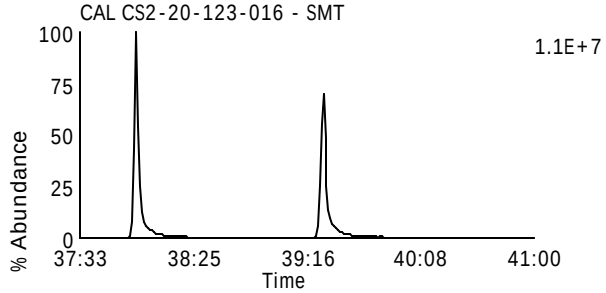
Data File: U210629B_03 G4 C6 - 417.825
CAL CS2-20-123-016 - SMT



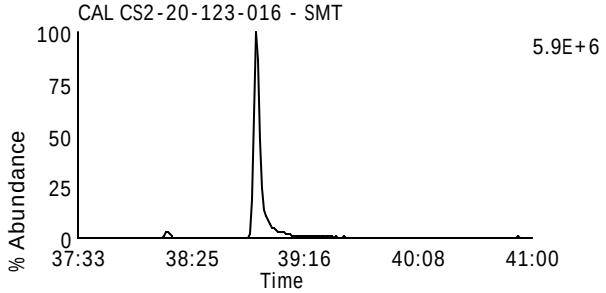
Data File: U210629B_03 G4 C11 - 435.8169
CAL CS2-20-123-016 - SMT



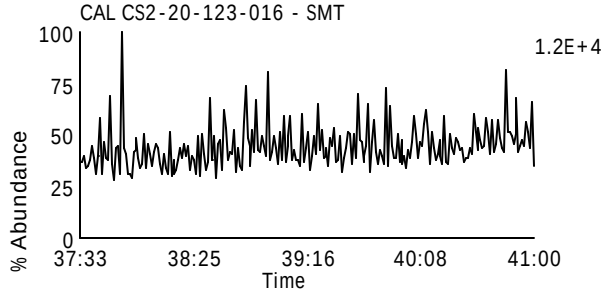
Data File: U210629B_03 G4 C7 - 419.822
CAL CS2-20-123-016 - SMT



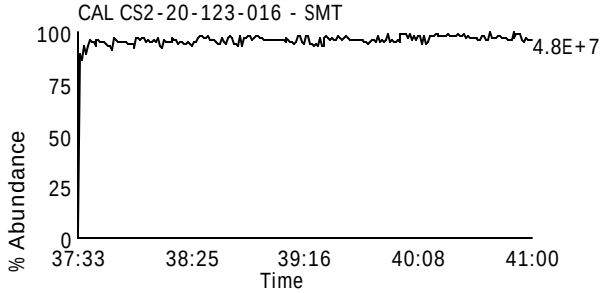
Data File: U210629B_03 G4 C12 - 437.814
CAL CS2-20-123-016 - SMT



Data File: U210629B_03 G4 C13 - 479.7165
CAL CS2-20-123-016 - SMT



Data File: U210629B_03 G4 C1 - 380.976
CAL CS2-20-123-016 - SMT

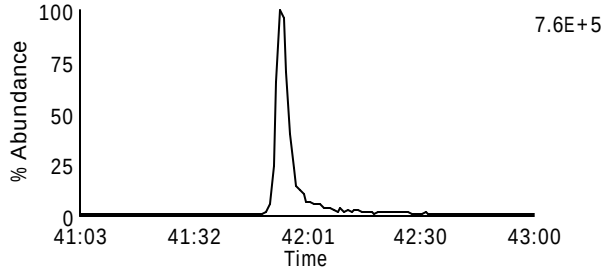


Homologue Group: Octas

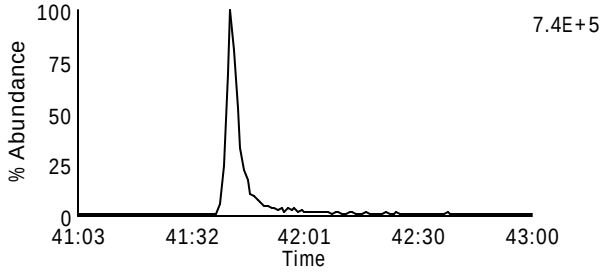
Data File Name: U210629B_03
Date Acquired: 6/29/2021
Sample Description: CAL CS2-20-123-016 - SMT

Lab Sample ID: CS2-20-123-016
Client Sample ID:
Instrument: 10MSHR06 (U)

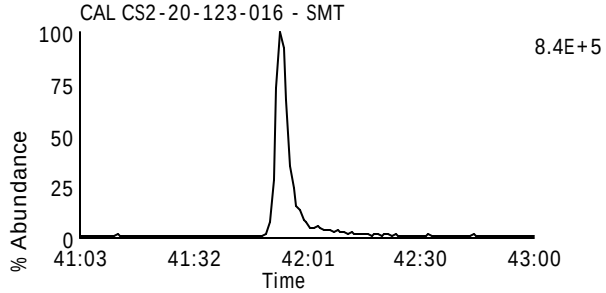
Data File: U210629B_03 G5 C4 - 441.7428
CAL CS2-20-123-016 - SMT



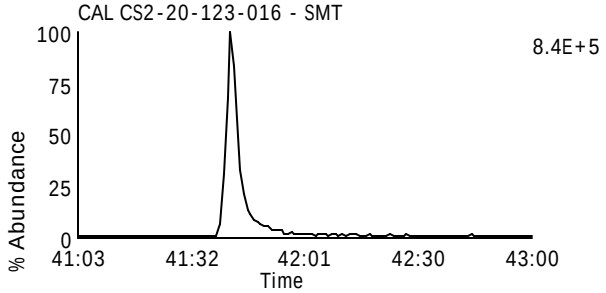
Data File: U210629B_03 G5 C8 - 457.7377
CAL CS2-20-123-016 - SMT



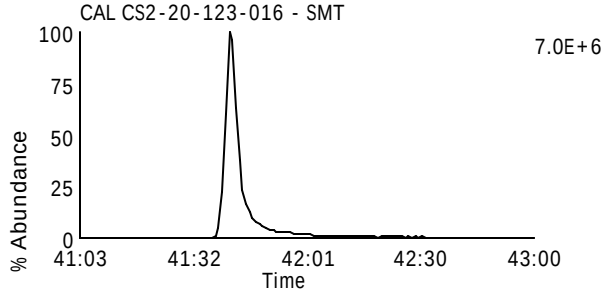
Data File: U210629B_03 G5 C5 - 443.7398
CAL CS2-20-123-016 - SMT



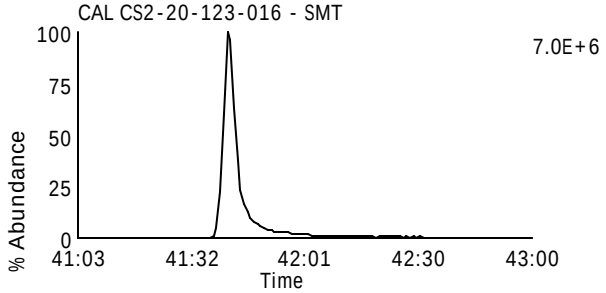
Data File: U210629B_03 G5 C9 - 459.7347
CAL CS2-20-123-016 - SMT



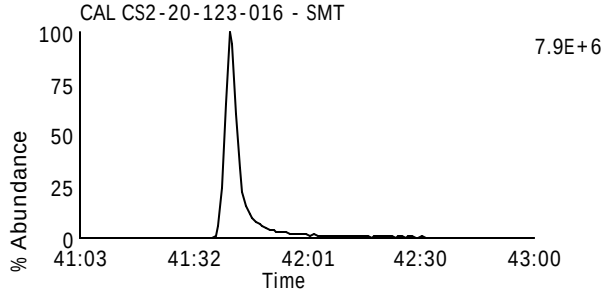
Data File: U210629B_03 G5 C11 - 469.7779
CAL CS2-20-123-016 - SMT



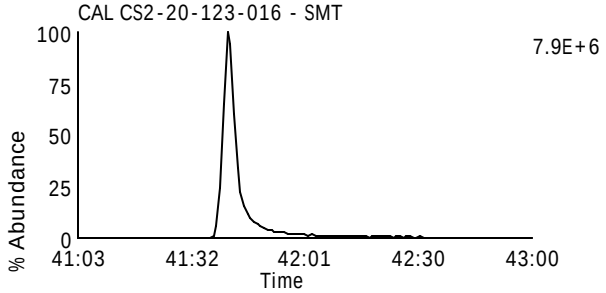
Data File: U210629B_03 G5 C11 - 469.7779
CAL CS2-20-123-016 - SMT



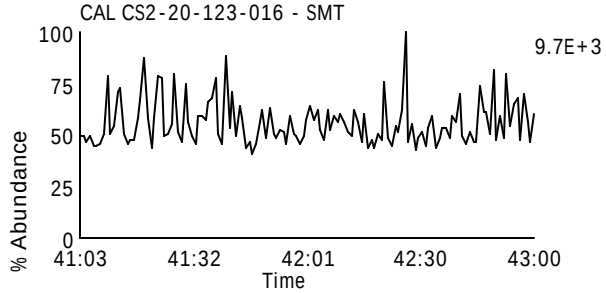
Data File: U210629B_03 G5 C12 - 471.7749
CAL CS2-20-123-016 - SMT



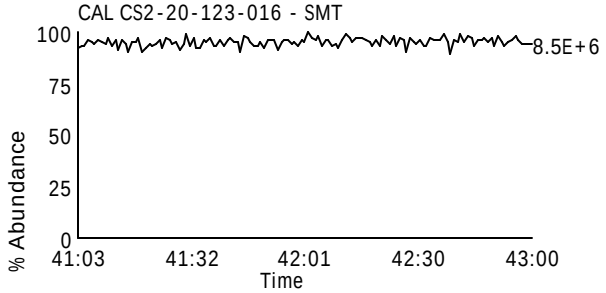
Data File: U210629B_03 G5 C12 - 471.7749
CAL CS2-20-123-016 - SMT



Data File: U210629B_03 G5 C13 - 513.6775
CAL CS2-20-123-016 - SMT



Data File: U210629B_03 G5 C2 - 430.9728
CAL CS2-20-123-016 - SMT

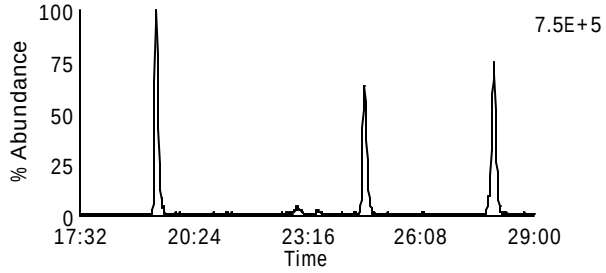


Homologue Group: Tetras

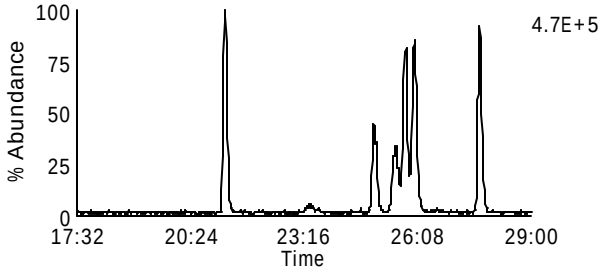
Data File Name: U210629B_02
Date Acquired: 6/29/2021
Sample Description: CAL CS3/CPM-20-123-052 - CVS TC US1175211H

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

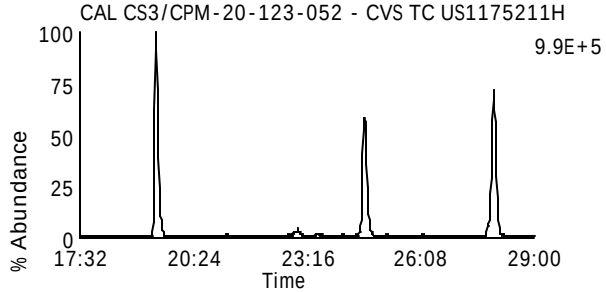
Data File: U210629B_02 G1 C1 - 303.9016
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



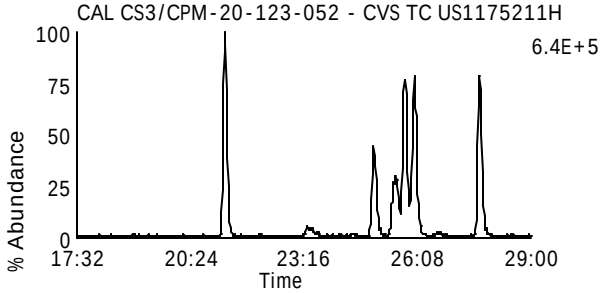
Data File: U210629B_02 G1 C7 - 319.8965
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



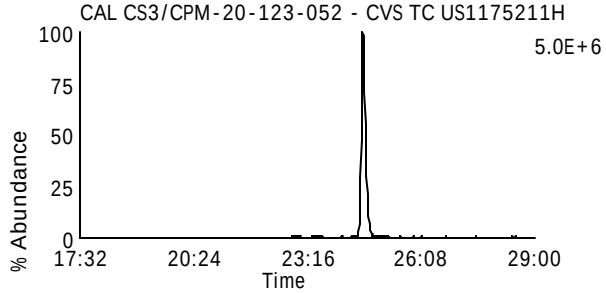
Data File: U210629B_02 G1 C2 - 305.8987
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



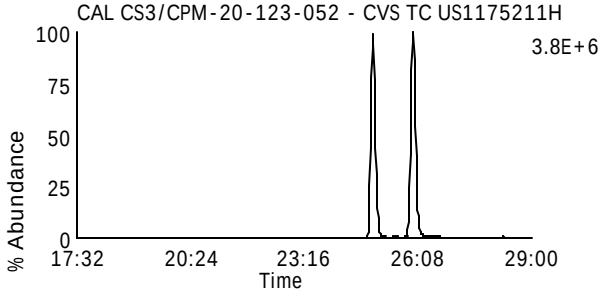
Data File: U210629B_02 G1 C8 - 321.8936
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



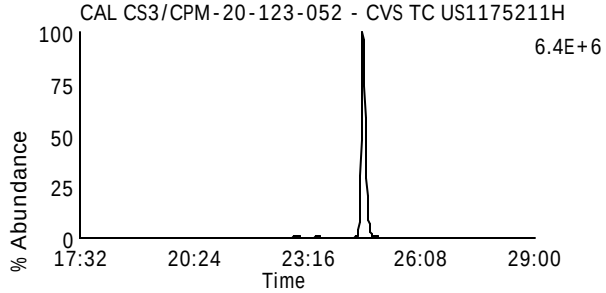
Data File: U210629B_02 G1 C3 - 315.9418
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



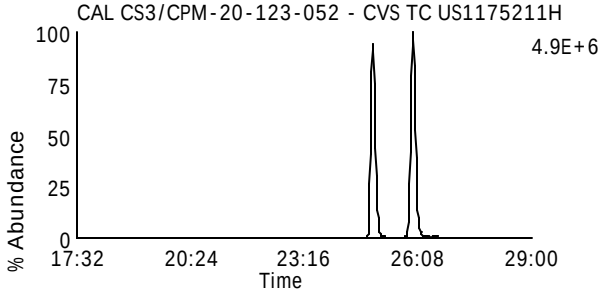
Data File: U210629B_02 G1 C10 - 331.9367
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



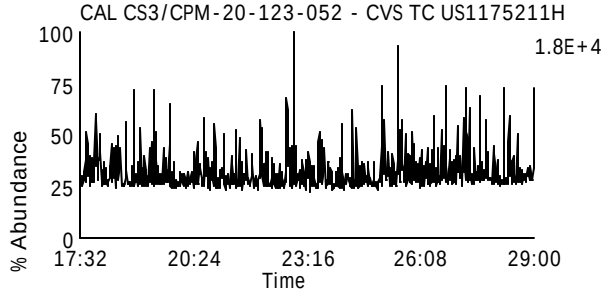
Data File: U210629B_02 G1 C4 - 317.9389
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



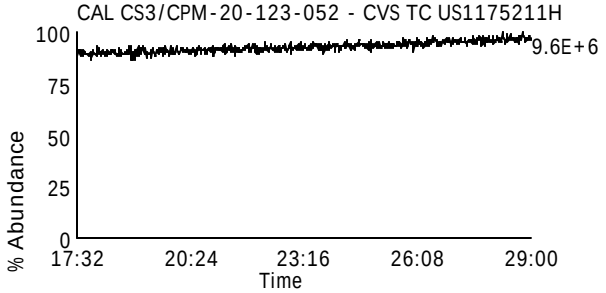
Data File: U210629B_02 G1 C11 - 333.9338
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



Data File: U210629B_02 G1 C14 - 375.8364
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



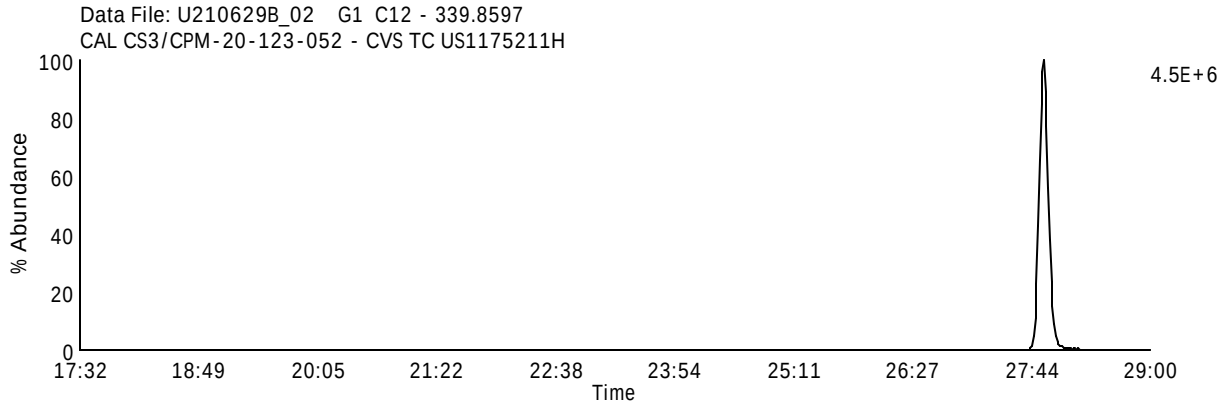
Data File: U210629B_02 G1 C5 - 318.9792
CAL CS3/CPM-20-123-052 - CVS TC US1175211H

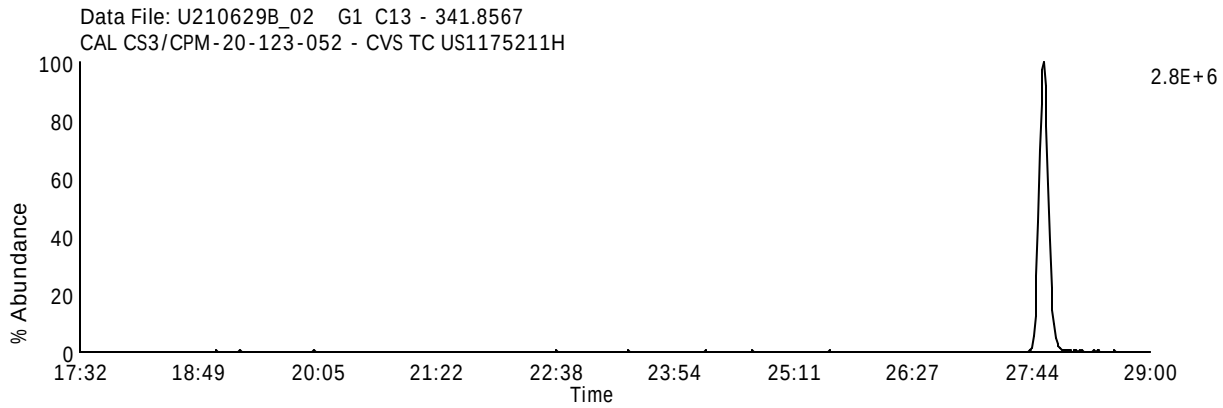


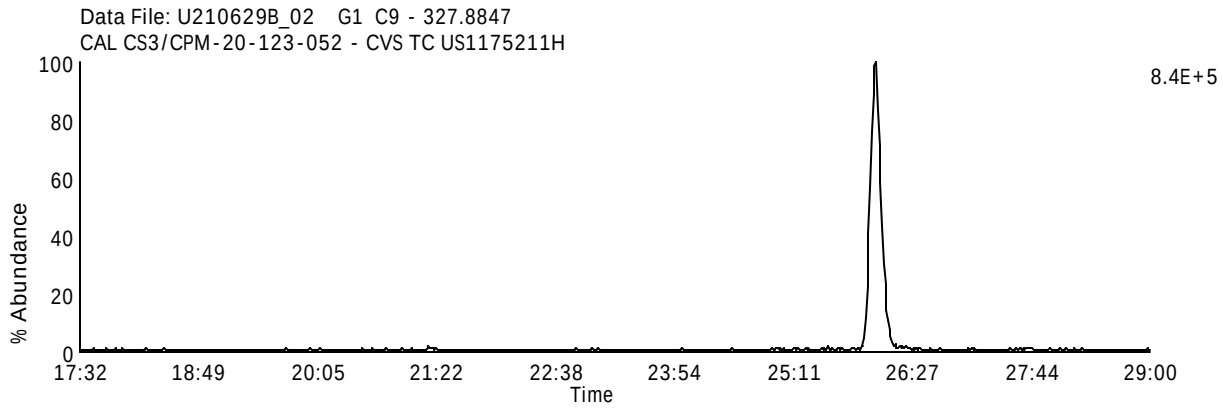
Homologue Group: Penta & Cleanup

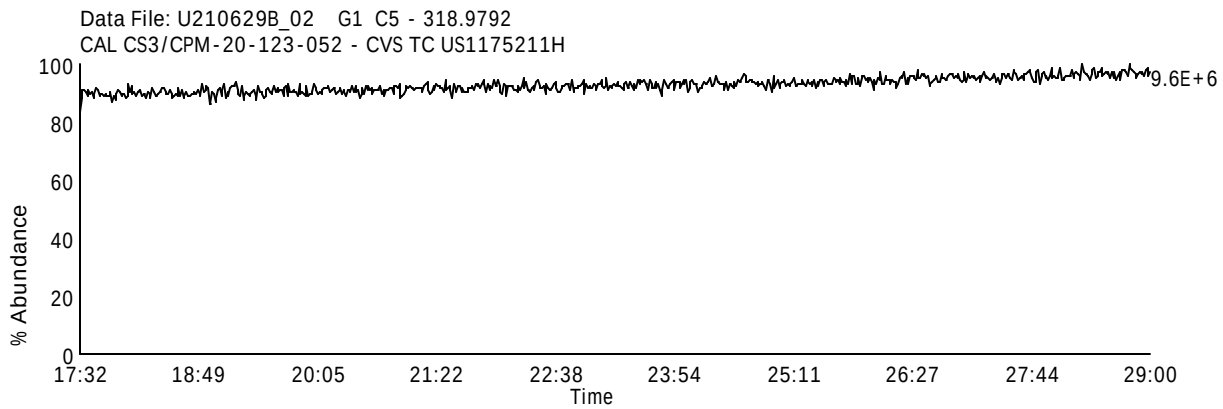
Data File Name: U210629B_02
Date Acquired: 6/29/2021
Sample Description: CAL CS3/CPM-20-123-052 - CVS TC US1175211H

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)







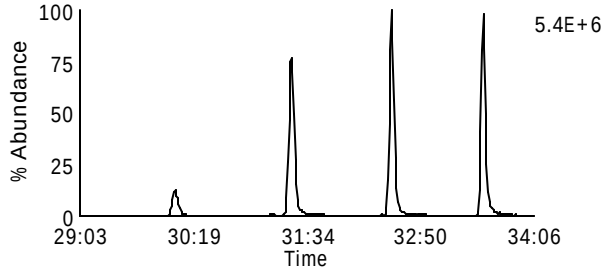


Homologue Group: Pentas

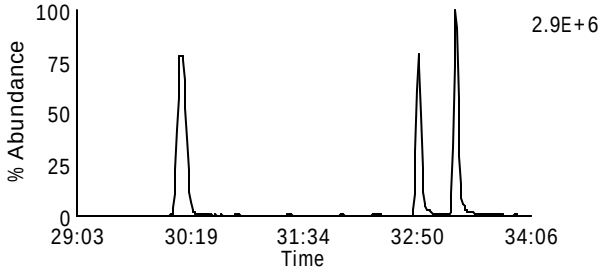
Data File Name: U210629B_02
Date Acquired: 6/29/2021
Sample Description: CAL CS3/CPM-20-123-052 - CVS TC US1175211H

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

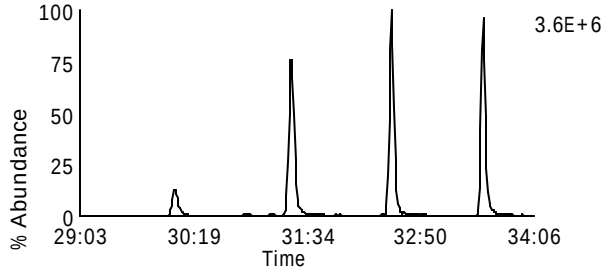
Data File: U210629B_02 G2 C1 - 339.8597
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



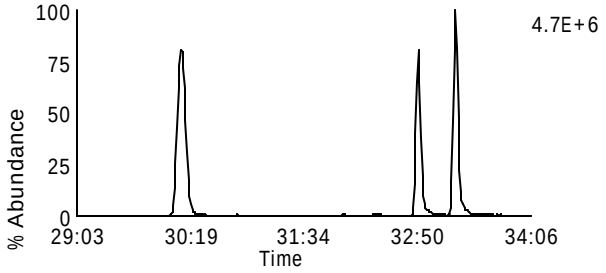
Data File: U210629B_02 G2 C4 - 353.8576
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



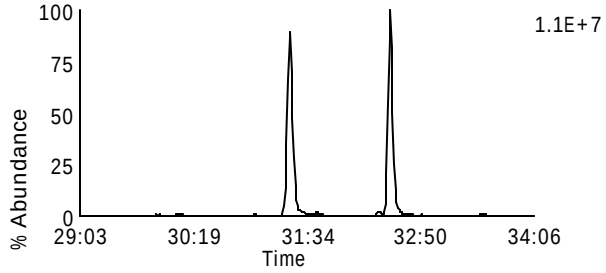
Data File: U210629B_02 G2 C2 - 341.8567
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



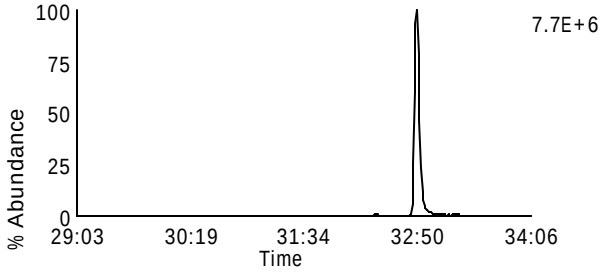
Data File: U210629B_02 G2 C8 - 355.8546
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



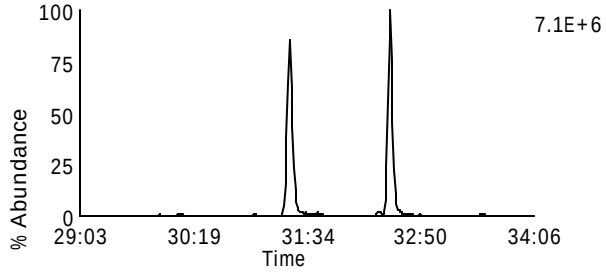
Data File: U210629B_02 G2 C3 - 351.8999
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



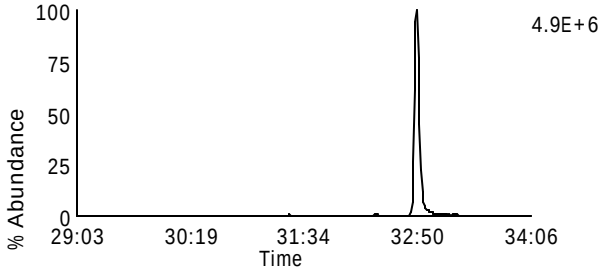
Data File: U210629B_02 G2 C10 - 367.8948
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



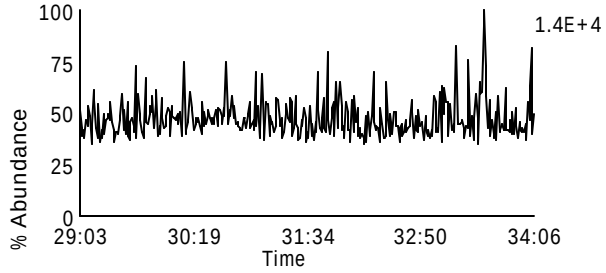
Data File: U210629B_02 G2 C5 - 353.8969
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



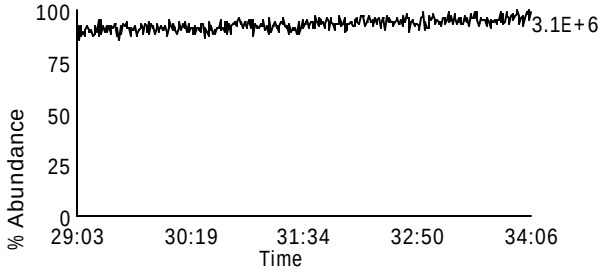
Data File: U210629B_02 G2 C11 - 369.8918
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



Data File: U210629B_02 G2 C12 - 409.7974
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



Data File: U210629B_02 G2 C6 - 354.9792
CAL CS3/CPM-20-123-052 - CVS TC US1175211H

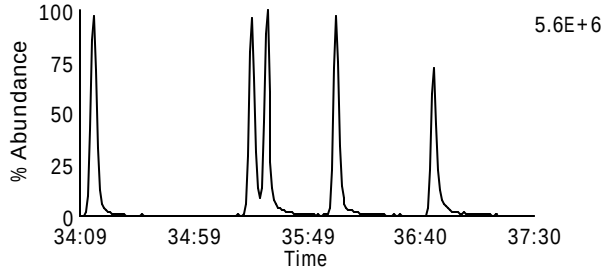


Homologue Group: Hexas

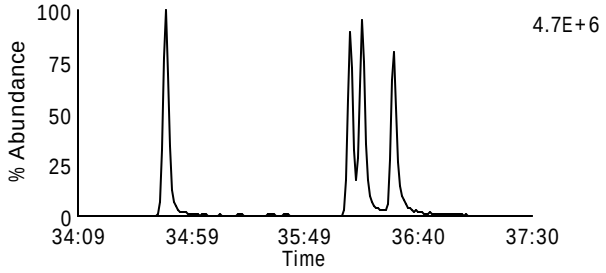
Data File Name: U210629B_02
Date Acquired: 6/29/2021
Sample Description: CAL CS3/CPM-20-123-052 - CVS TC US1175211H

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

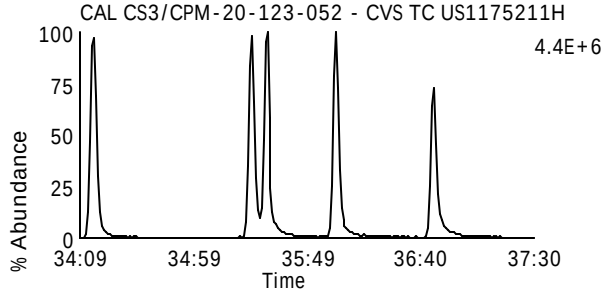
Data File: U210629B_02 G3 C1 - 373.8207
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



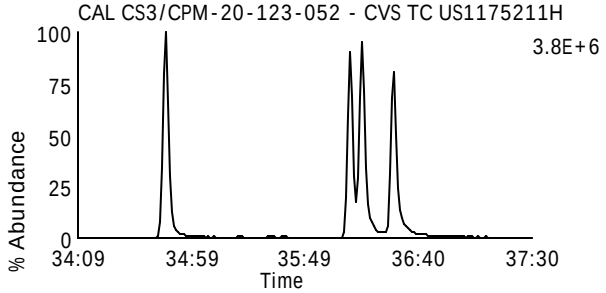
Data File: U210629B_02 G3 C7 - 389.8156
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



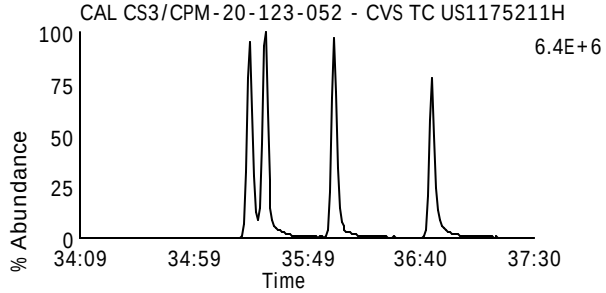
Data File: U210629B_02 G3 C2 - 375.8178
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



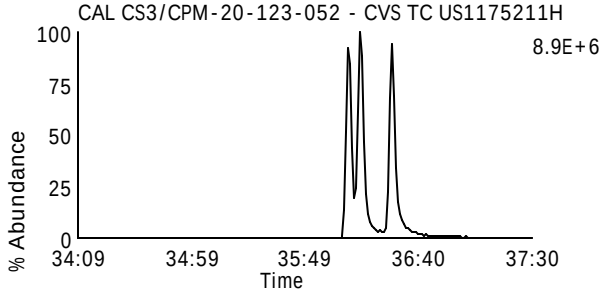
Data File: U210629B_02 G3 C8 - 391.8127
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



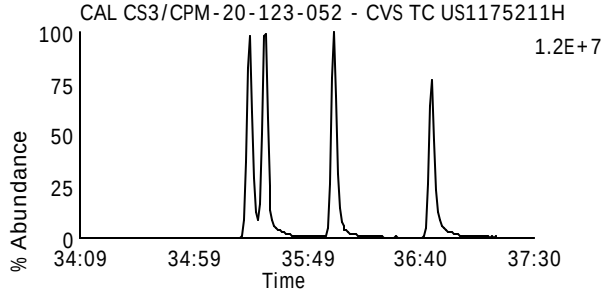
Data File: U210629B_02 G3 C5 - 383.8639
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



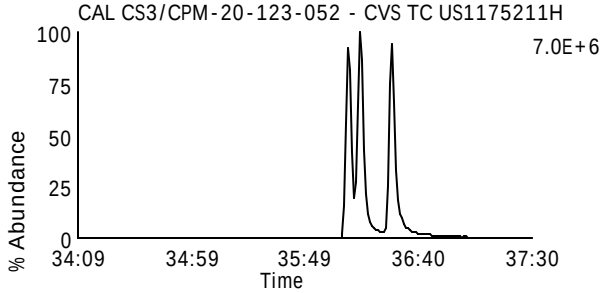
Data File: U210629B_02 G3 C9 - 401.8559
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



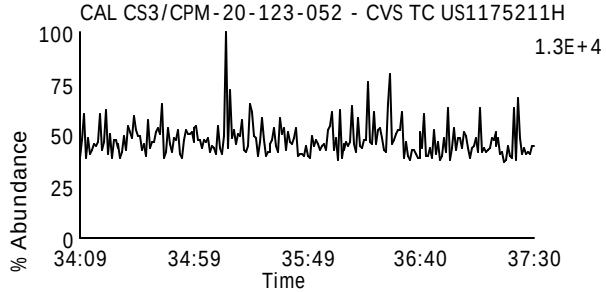
Data File: U210629B_02 G3 C6 - 385.861
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



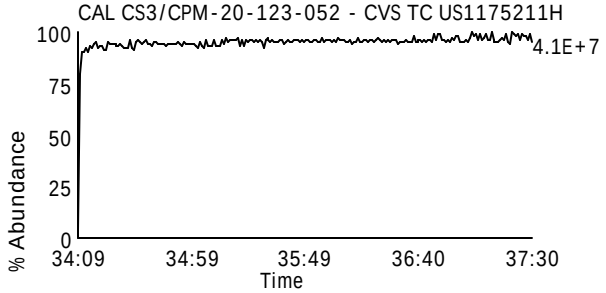
Data File: U210629B_02 G3 C10 - 403.8529
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



Data File: U210629B_02 G3 C11 - 445.7555
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



Data File: U210629B_02 G3 C3 - 380.976
CAL CS3/CPM-20-123-052 - CVS TC US1175211H

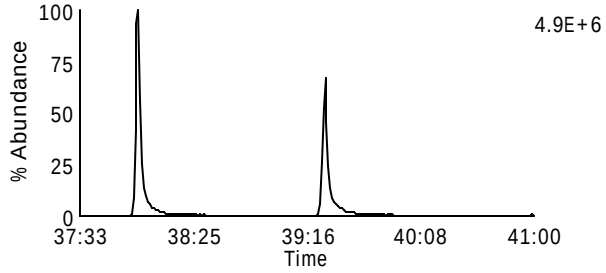


Homologue Group: Heptas

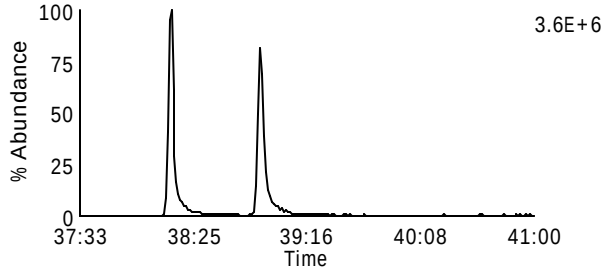
Data File Name: U210629B_02
Date Acquired: 6/29/2021
Sample Description: CAL CS3/CPM-20-123-052 - CVS TC US1175211H

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

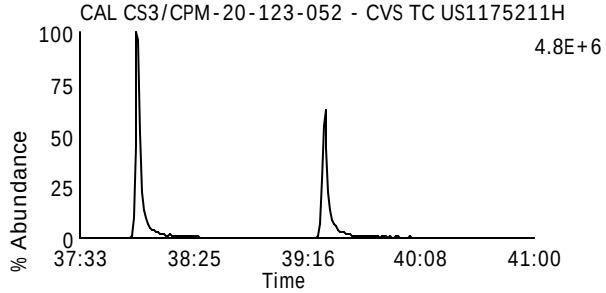
Data File: U210629B_02 G4 C3 - 407.7818
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



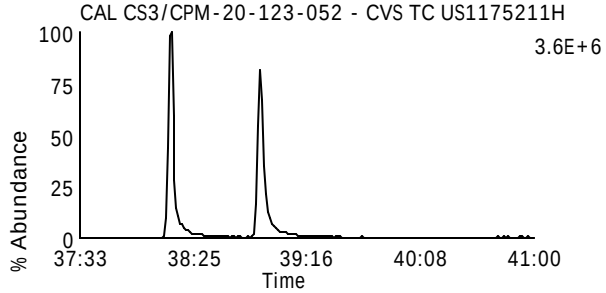
Data File: U210629B_02 G4 C8 - 423.7767
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



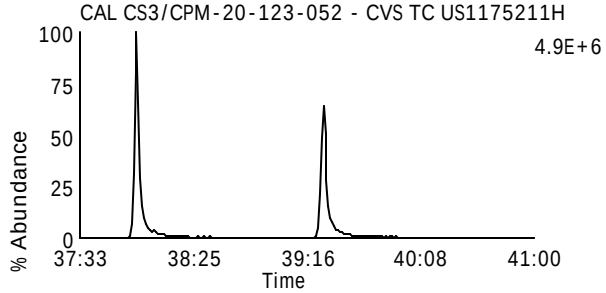
Data File: U210629B_02 G4 C4 - 409.7788
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



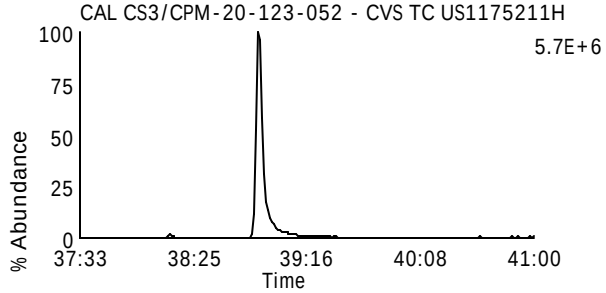
Data File: U210629B_02 G4 C9 - 425.7737
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



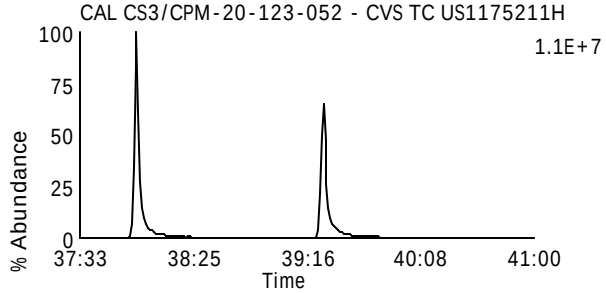
Data File: U210629B_02 G4 C6 - 417.825
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



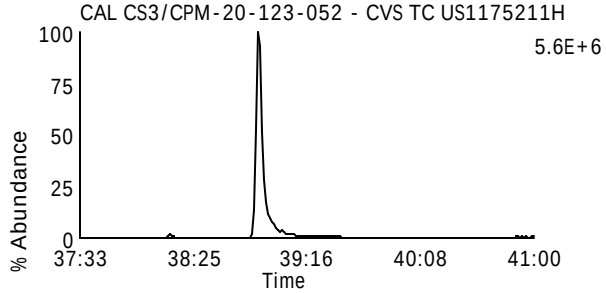
Data File: U210629B_02 G4 C11 - 435.8169
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



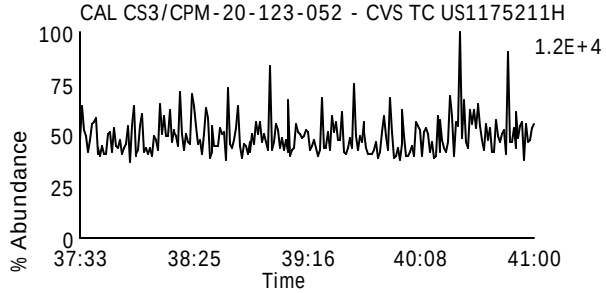
Data File: U210629B_02 G4 C7 - 419.822
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



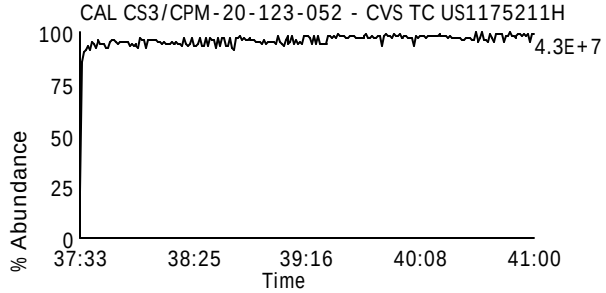
Data File: U210629B_02 G4 C12 - 437.814
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



Data File: U210629B_02 G4 C13 - 479.7165
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



Data File: U210629B_02 G4 C1 - 380.976
CAL CS3/CPM-20-123-052 - CVS TC US1175211H

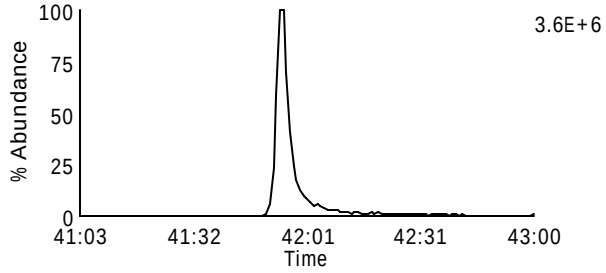


Homologue Group: Octas

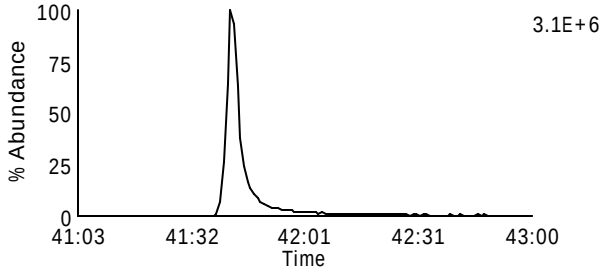
Data File Name: U210629B_02
Date Acquired: 6/29/2021
Sample Description: CAL CS3/CPM-20-123-052 - CVS TC US1175211H

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

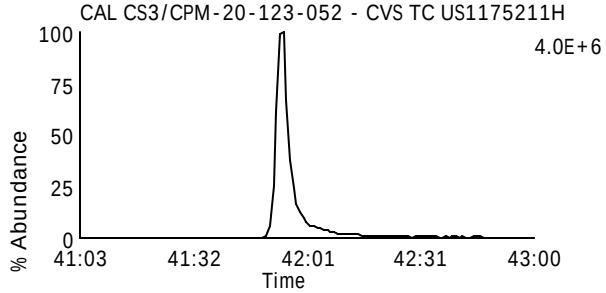
Data File: U210629B_02 G5 C4 - 441.7428
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



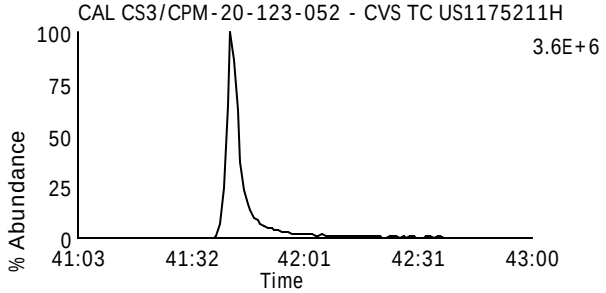
Data File: U210629B_02 G5 C8 - 457.7377
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



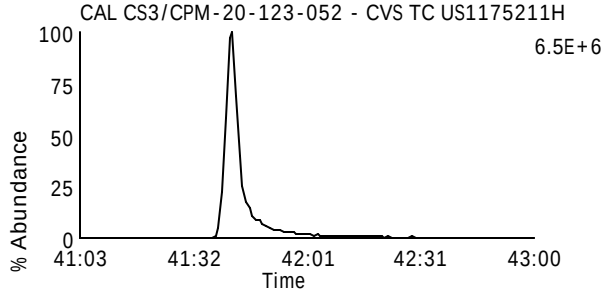
Data File: U210629B_02 G5 C5 - 443.7398
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



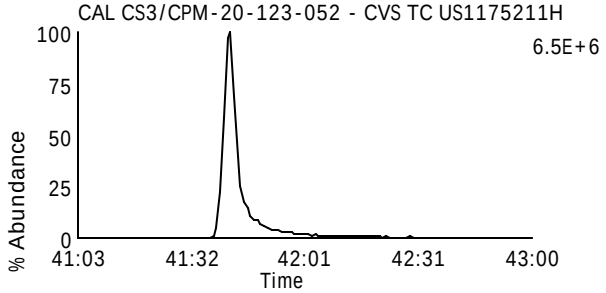
Data File: U210629B_02 G5 C9 - 459.7347
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



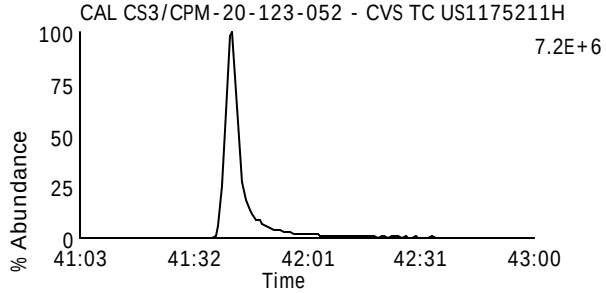
Data File: U210629B_02 G5 C11 - 469.7779
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



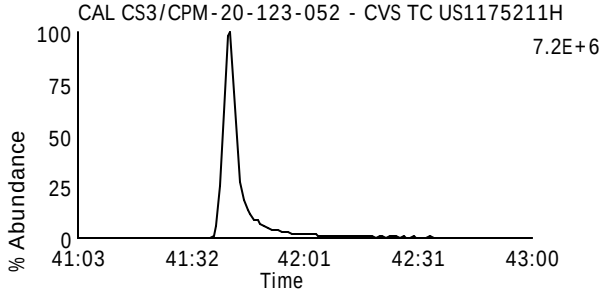
Data File: U210629B_02 G5 C11 - 469.7779
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



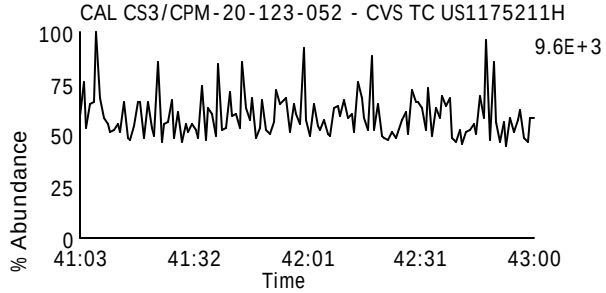
Data File: U210629B_02 G5 C12 - 471.7749
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



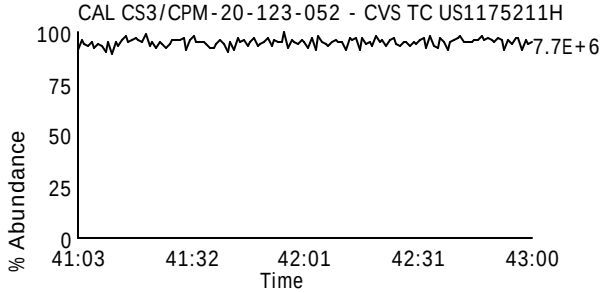
Data File: U210629B_02 G5 C12 - 471.7749
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



Data File: U210629B_02 G5 C13 - 513.6775
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



Data File: U210629B_02 G5 C2 - 430.9728
CAL CS3/CPM-20-123-052 - CVS TC US1175211H

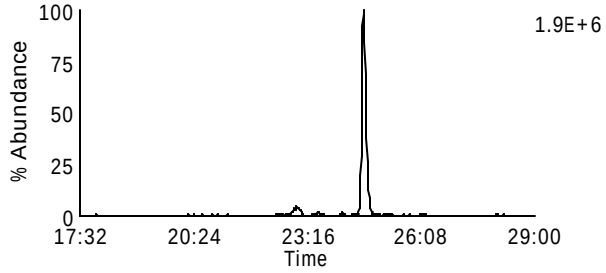


Homologue Group: Tetras

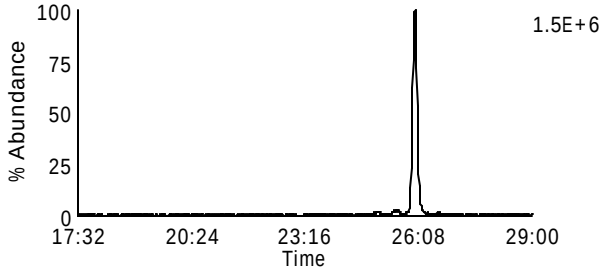
Data File Name: U210629B_06
Date Acquired: 6/29/2021
Sample Description: CAL CS4-20-123-018 - SMT

Lab Sample ID: CS4-20-123-018
Client Sample ID:
Instrument: 10MSHR06 (U)

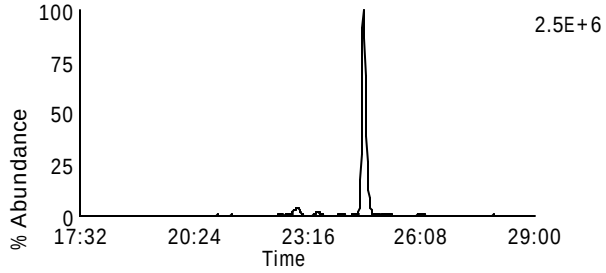
Data File: U210629B_06 G1 C1 - 303.9016
CAL CS4-20-123-018 - SMT



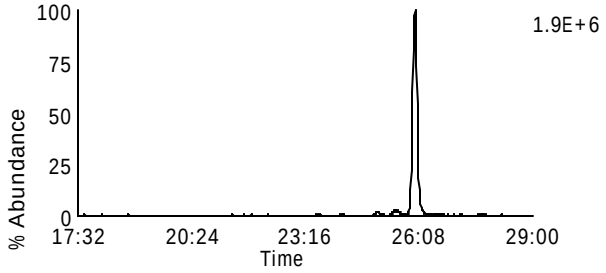
Data File: U210629B_06 G1 C7 - 319.8965
CAL CS4-20-123-018 - SMT



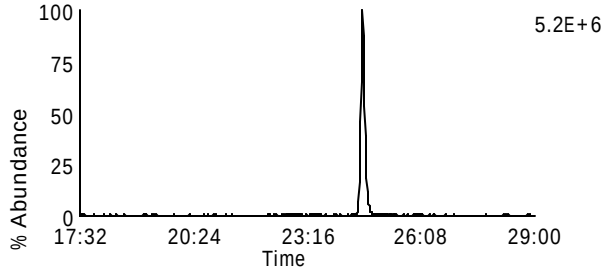
Data File: U210629B_06 G1 C2 - 305.8987
CAL CS4-20-123-018 - SMT



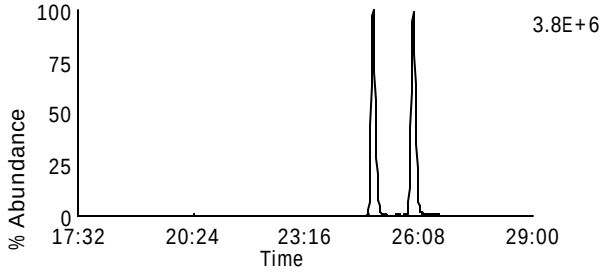
Data File: U210629B_06 G1 C8 - 321.8936
CAL CS4-20-123-018 - SMT



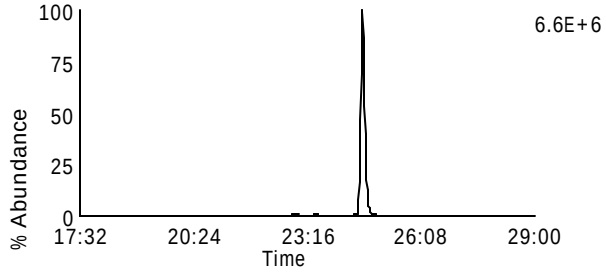
Data File: U210629B_06 G1 C3 - 315.9418
CAL CS4-20-123-018 - SMT



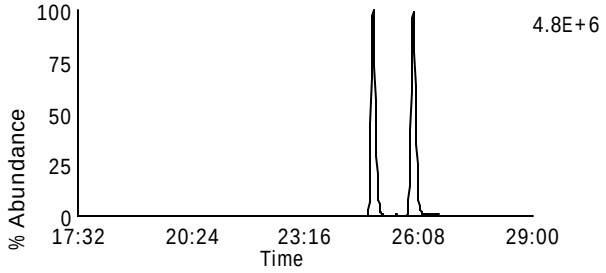
Data File: U210629B_06 G1 C10 - 331.9367
CAL CS4-20-123-018 - SMT



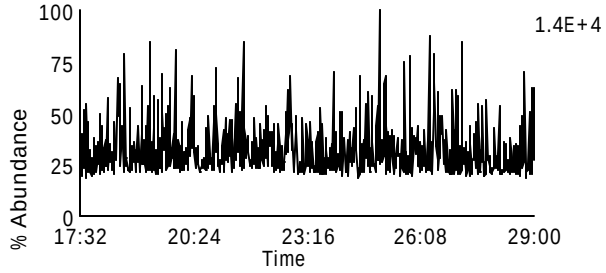
Data File: U210629B_06 G1 C4 - 317.9389
CAL CS4-20-123-018 - SMT



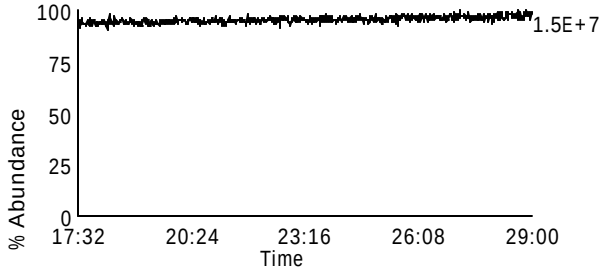
Data File: U210629B_06 G1 C11 - 333.9338
CAL CS4-20-123-018 - SMT



Data File: U210629B_06 G1 C14 - 375.8364
CAL CS4-20-123-018 - SMT



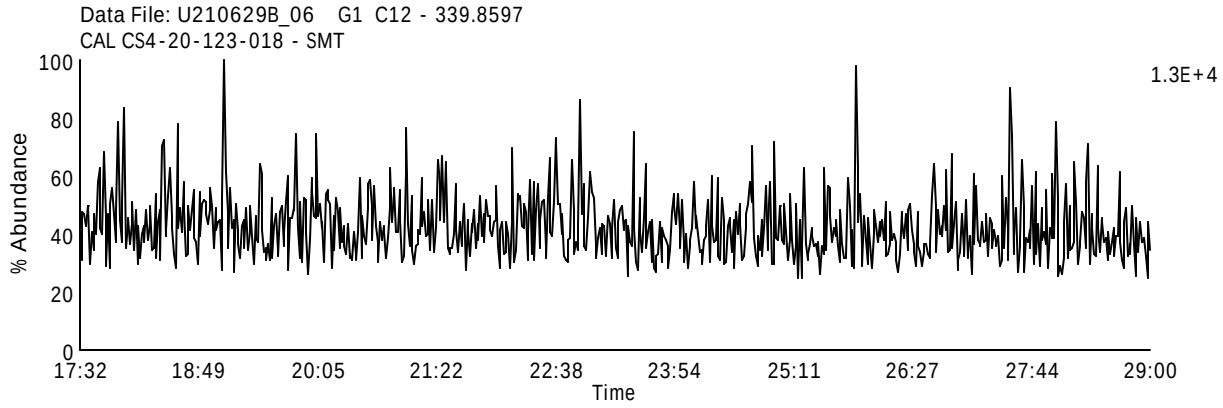
Data File: U210629B_06 G1 C5 - 318.9792
CAL CS4-20-123-018 - SMT

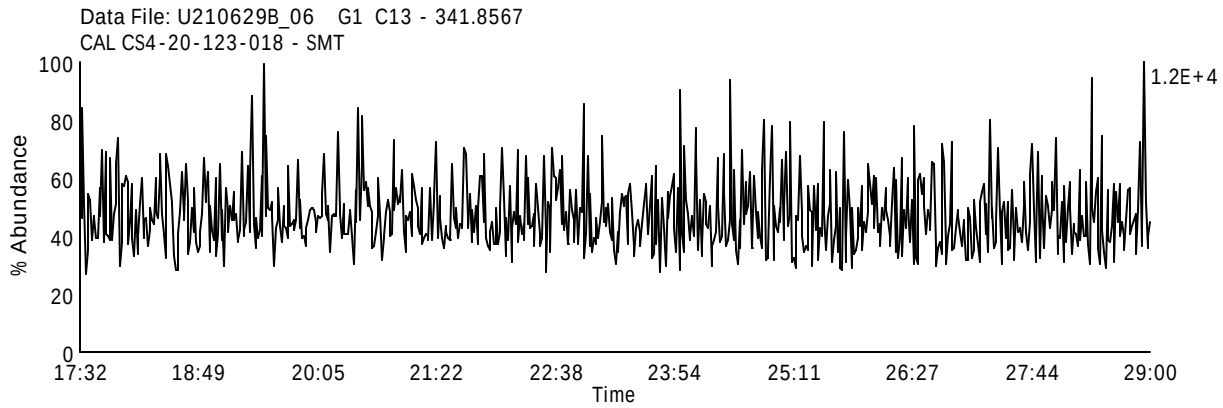


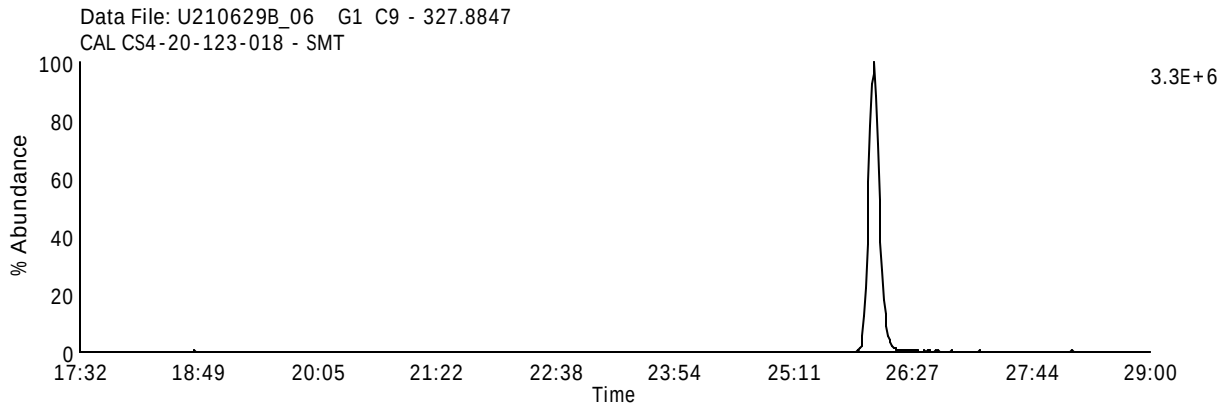
Homologue Group: Penta & Cleanup

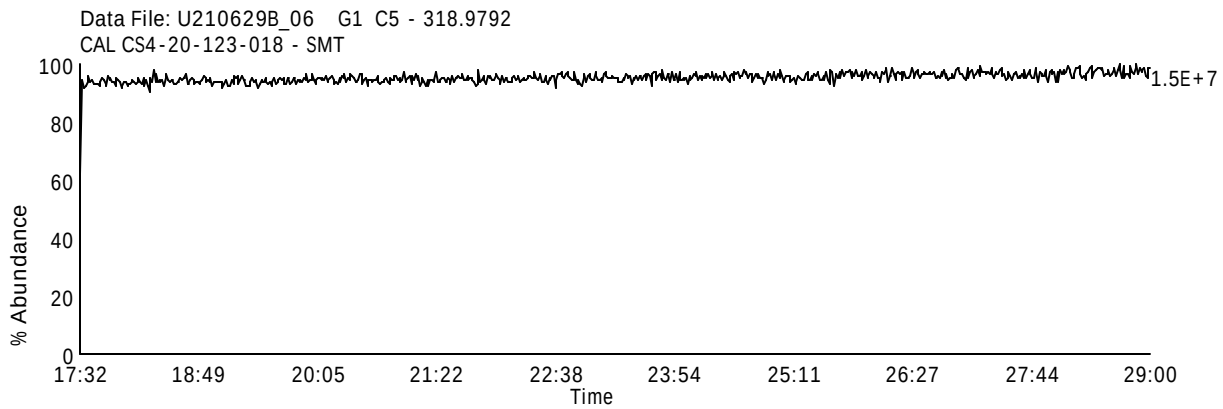
Data File Name: U210629B_06
Date Acquired: 6/29/2021
Sample Description: CAL CS4-20-123-018 - SMT

Lab Sample ID: CS4-20-123-018
Client Sample ID:
Instrument: 10MSHR06 (U)







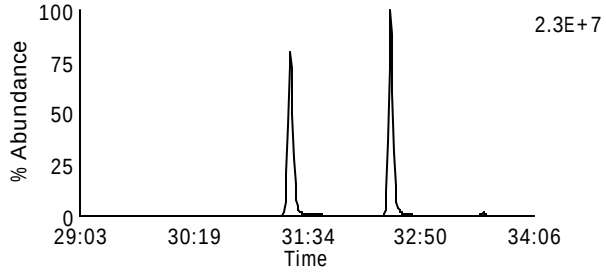


Homologue Group: Pentas

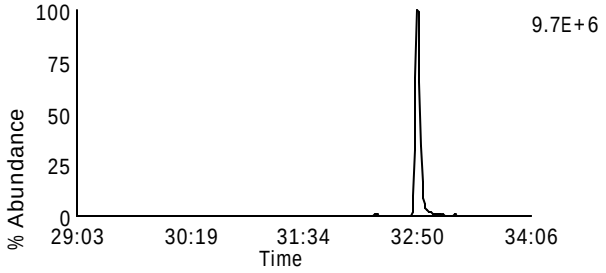
Data File Name: U210629B_06
Date Acquired: 6/29/2021
Sample Description: CAL CS4-20-123-018 - SMT

Lab Sample ID: CS4-20-123-018
Client Sample ID:
Instrument: 10MSHR06 (U)

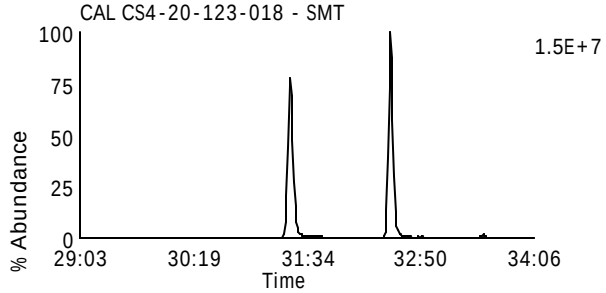
Data File: U210629B_06 G2 C1 - 339.8597
CAL CS4-20-123-018 - SMT



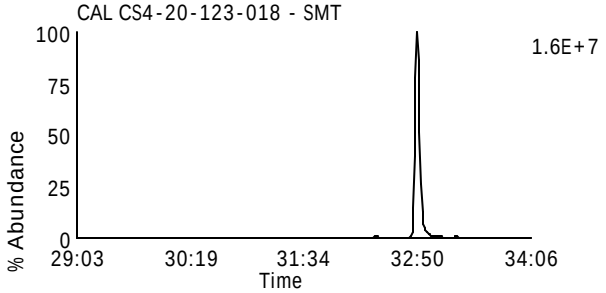
Data File: U210629B_06 G2 C4 - 353.8576
CAL CS4-20-123-018 - SMT



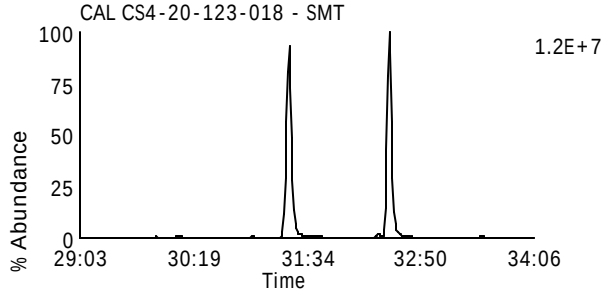
Data File: U210629B_06 G2 C2 - 341.8567
CAL CS4-20-123-018 - SMT



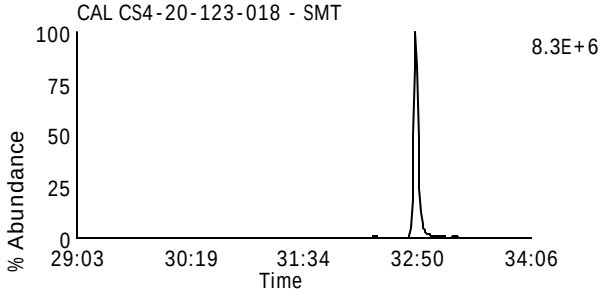
Data File: U210629B_06 G2 C8 - 355.8546
CAL CS4-20-123-018 - SMT



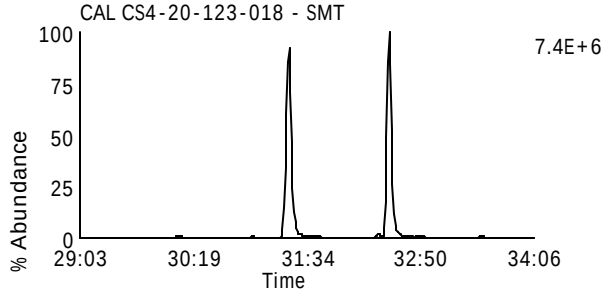
Data File: U210629B_06 G2 C3 - 351.8999
CAL CS4-20-123-018 - SMT



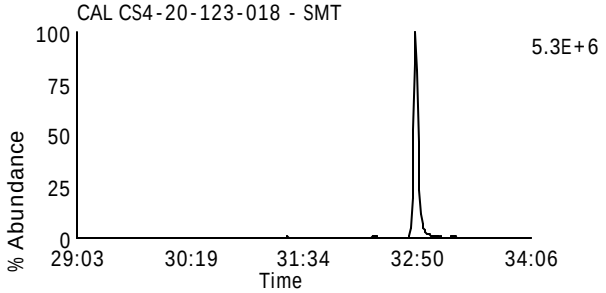
Data File: U210629B_06 G2 C10 - 367.8948
CAL CS4-20-123-018 - SMT



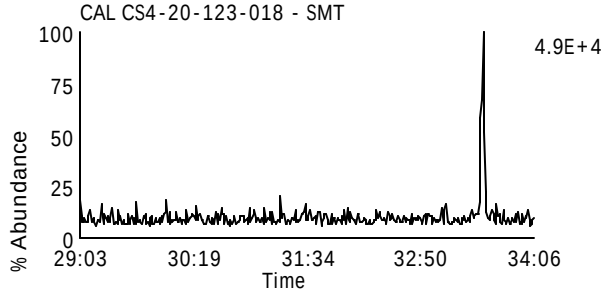
Data File: U210629B_06 G2 C5 - 353.8969
CAL CS4-20-123-018 - SMT



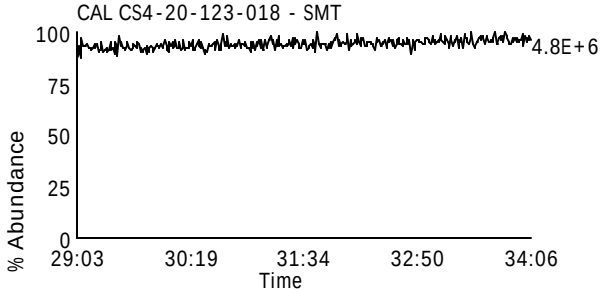
Data File: U210629B_06 G2 C11 - 369.8918
CAL CS4-20-123-018 - SMT



Data File: U210629B_06 G2 C12 - 409.7974
CAL CS4-20-123-018 - SMT



Data File: U210629B_06 G2 C6 - 354.9792
CAL CS4-20-123-018 - SMT

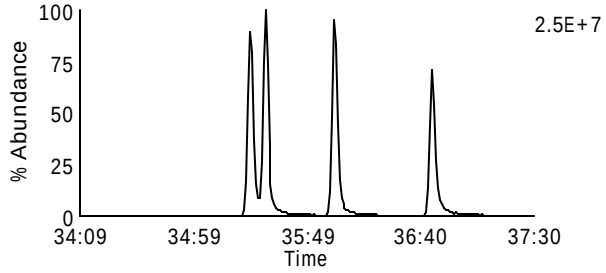


Homologue Group: Hexas

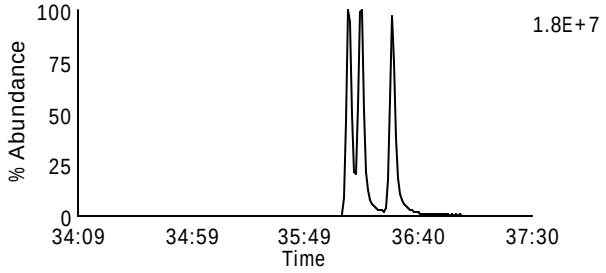
Data File Name: U210629B_06
Date Acquired: 6/29/2021
Sample Description: CAL CS4-20-123-018 - SMT

Lab Sample ID: CS4-20-123-018
Client Sample ID:
Instrument: 10MSHR06 (U)

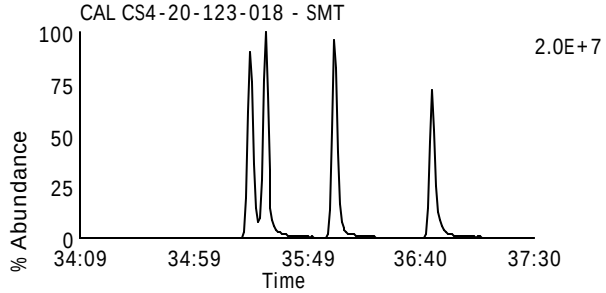
Data File: U210629B_06 G3 C1 - 373.8207
CAL CS4-20-123-018 - SMT



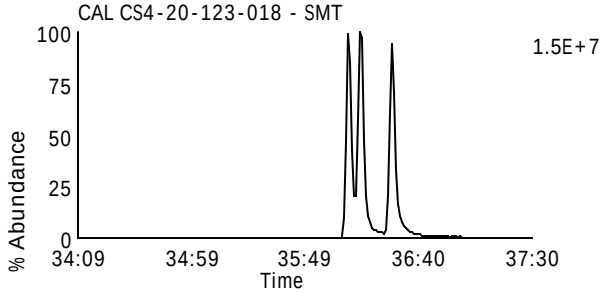
Data File: U210629B_06 G3 C7 - 389.8156
CAL CS4-20-123-018 - SMT



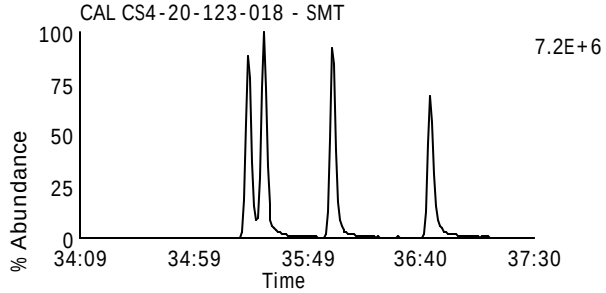
Data File: U210629B_06 G3 C2 - 375.8178
CAL CS4-20-123-018 - SMT



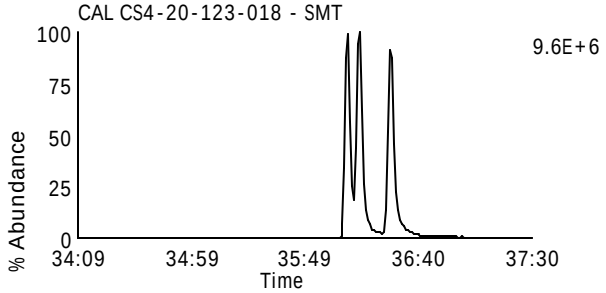
Data File: U210629B_06 G3 C8 - 391.8127
CAL CS4-20-123-018 - SMT



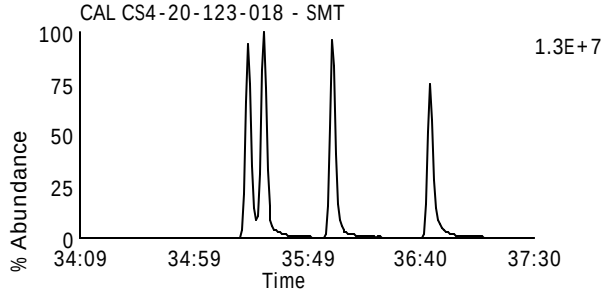
Data File: U210629B_06 G3 C5 - 383.8639
CAL CS4-20-123-018 - SMT



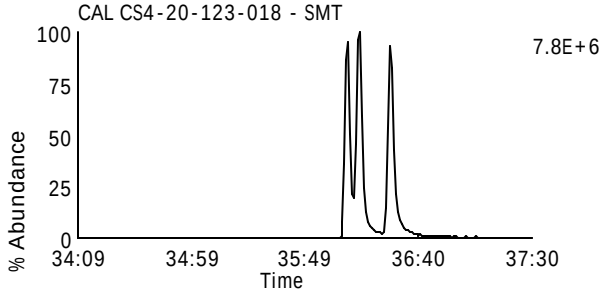
Data File: U210629B_06 G3 C9 - 401.8559
CAL CS4-20-123-018 - SMT



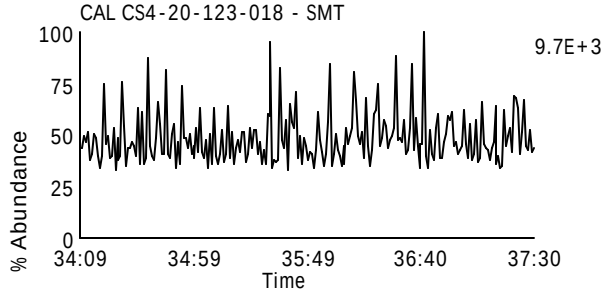
Data File: U210629B_06 G3 C6 - 385.861
CAL CS4-20-123-018 - SMT



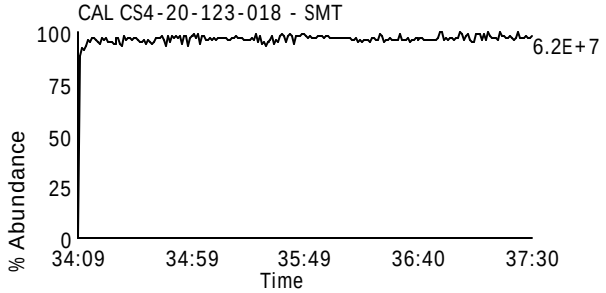
Data File: U210629B_06 G3 C10 - 403.8529
CAL CS4-20-123-018 - SMT



Data File: U210629B_06 G3 C11 - 445.7555
CAL CS4-20-123-018 - SMT



Data File: U210629B_06 G3 C3 - 380.976
CAL CS4-20-123-018 - SMT

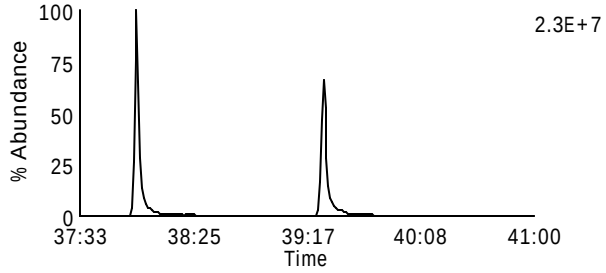


Homologue Group: Heptas

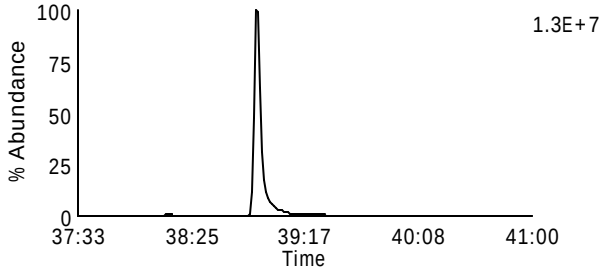
Data File Name: U210629B_06
Date Acquired: 6/29/2021
Sample Description: CAL CS4-20-123-018 - SMT

Lab Sample ID: CS4-20-123-018
Client Sample ID:
Instrument: 10MSHR06 (U)

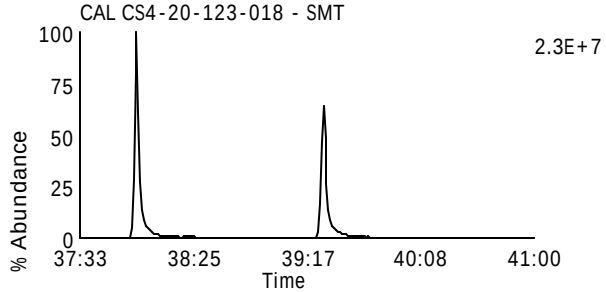
Data File: U210629B_06 G4 C3 - 407.7818
CAL CS4-20-123-018 - SMT



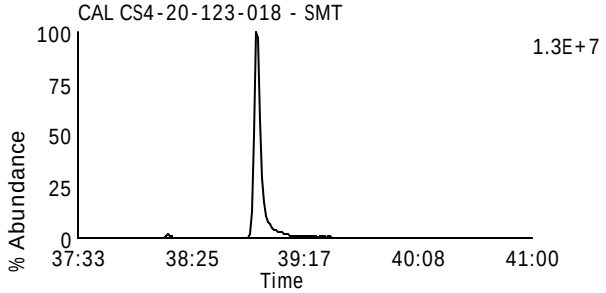
Data File: U210629B_06 G4 C8 - 423.7767
CAL CS4-20-123-018 - SMT



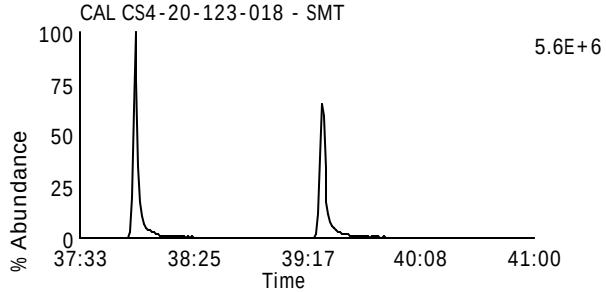
Data File: U210629B_06 G4 C4 - 409.7788
CAL CS4-20-123-018 - SMT



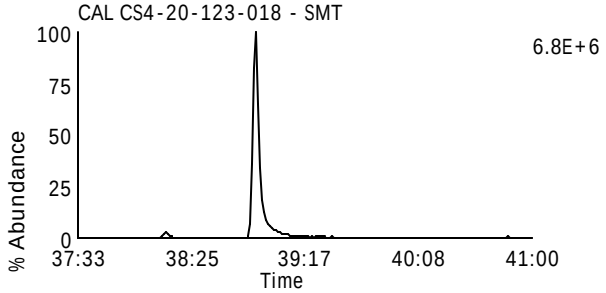
Data File: U210629B_06 G4 C9 - 425.7737
CAL CS4-20-123-018 - SMT



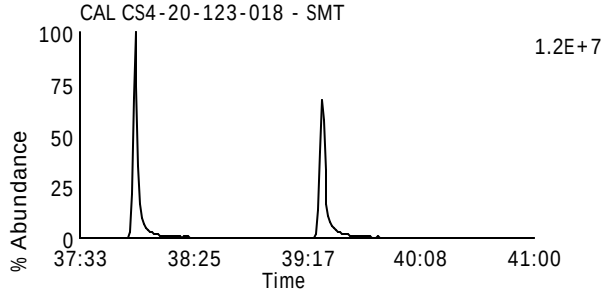
Data File: U210629B_06 G4 C6 - 417.825
CAL CS4-20-123-018 - SMT



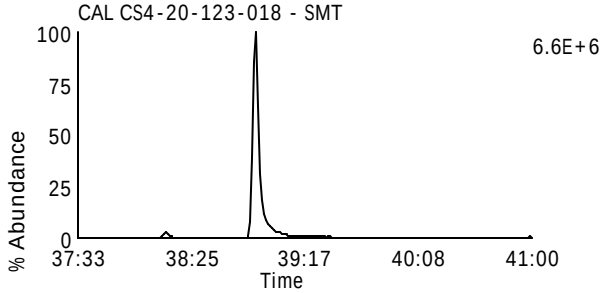
Data File: U210629B_06 G4 C11 - 435.8169
CAL CS4-20-123-018 - SMT



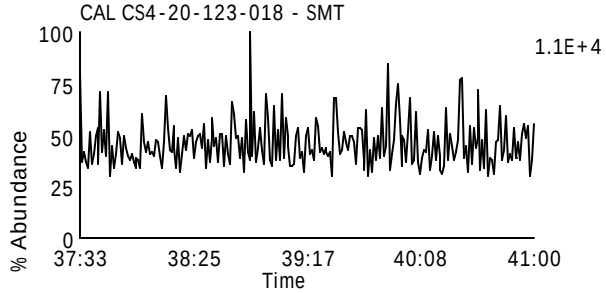
Data File: U210629B_06 G4 C7 - 419.822
CAL CS4-20-123-018 - SMT



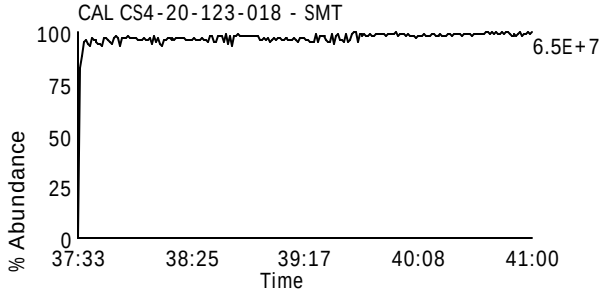
Data File: U210629B_06 G4 C12 - 437.814
CAL CS4-20-123-018 - SMT



Data File: U210629B_06 G4 C13 - 479.7165
CAL CS4-20-123-018 - SMT



Data File: U210629B_06 G4 C1 - 380.976
CAL CS4-20-123-018 - SMT

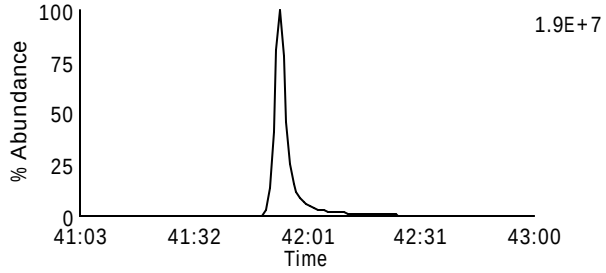


Homologue Group: Octas

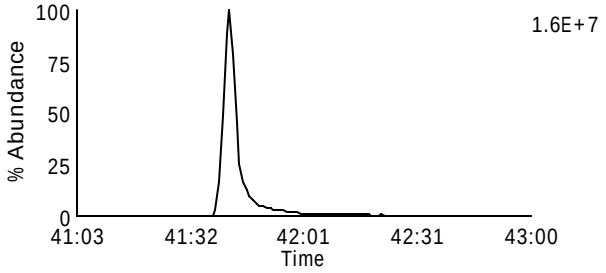
Data File Name: U210629B_06
Date Acquired: 6/29/2021
Sample Description: CAL CS4-20-123-018 - SMT

Lab Sample ID: CS4-20-123-018
Client Sample ID:
Instrument: 10MSHR06 (U)

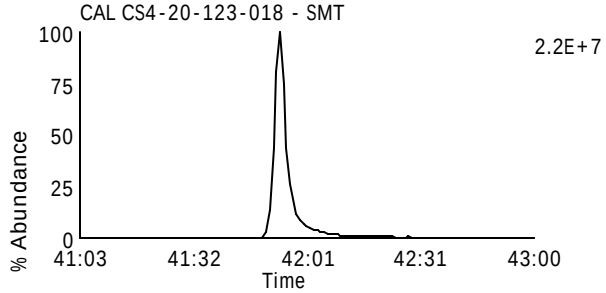
Data File: U210629B_06 G5 C4 - 441.7428
CAL CS4-20-123-018 - SMT



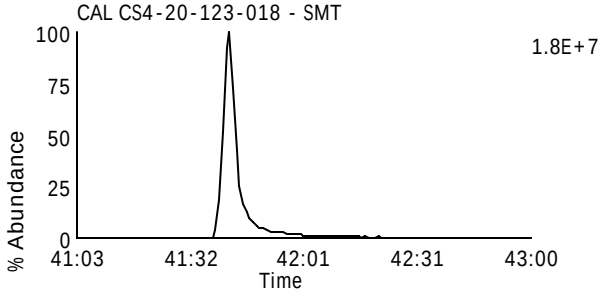
Data File: U210629B_06 G5 C8 - 457.7377
CAL CS4-20-123-018 - SMT



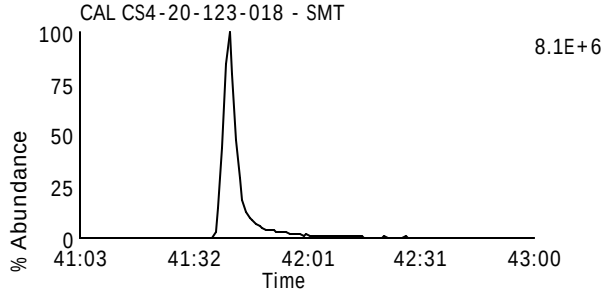
Data File: U210629B_06 G5 C5 - 443.7398
CAL CS4-20-123-018 - SMT



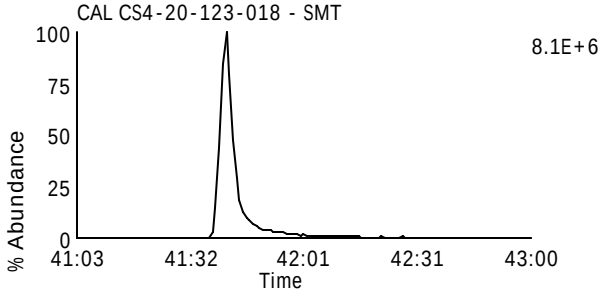
Data File: U210629B_06 G5 C9 - 459.7347
CAL CS4-20-123-018 - SMT



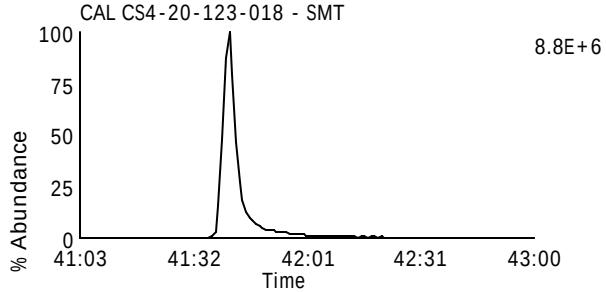
Data File: U210629B_06 G5 C11 - 469.7779
CAL CS4-20-123-018 - SMT



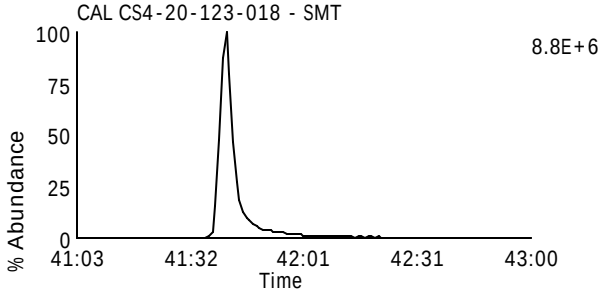
Data File: U210629B_06 G5 C11 - 469.7779
CAL CS4-20-123-018 - SMT



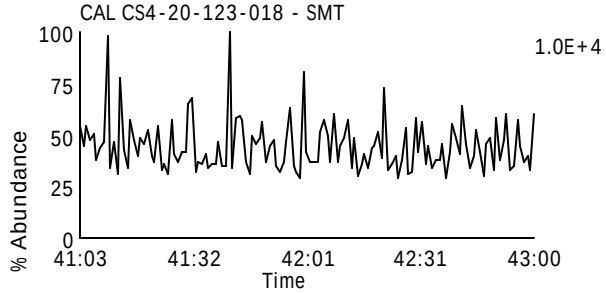
Data File: U210629B_06 G5 C12 - 471.7749
CAL CS4-20-123-018 - SMT



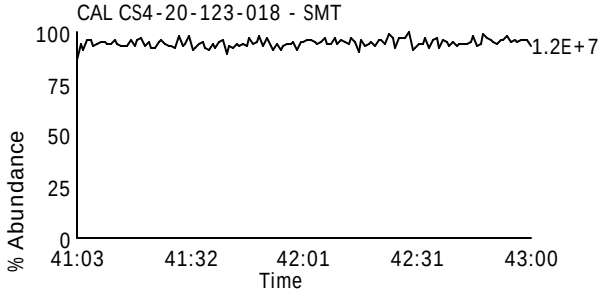
Data File: U210629B_06 G5 C12 - 471.7749
CAL CS4-20-123-018 - SMT



Data File: U210629B_06 G5 C13 - 513.6775
CAL CS4-20-123-018 - SMT



Data File: U210629B_06 G5 C2 - 430.9728
CAL CS4-20-123-018 - SMT

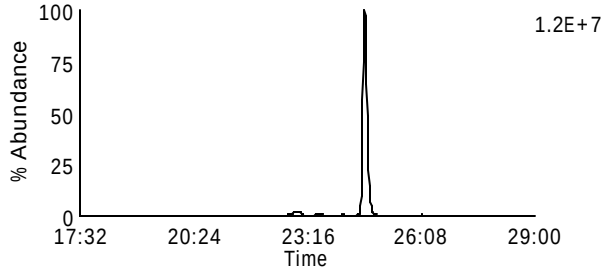


Homologue Group: Tetras

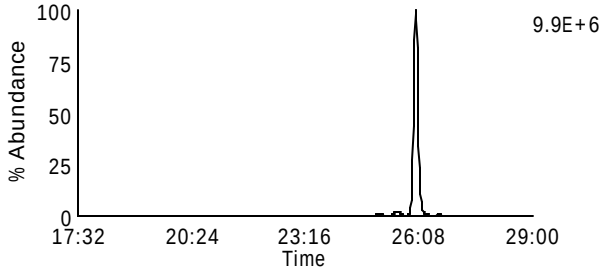
Data File Name: U210629B_05
Date Acquired: 6/29/2021
Sample Description: CAL CS5-20-123-019 - SMT

Lab Sample ID: CS5-20-123-019
Client Sample ID:
Instrument: 10MSHR06 (U)

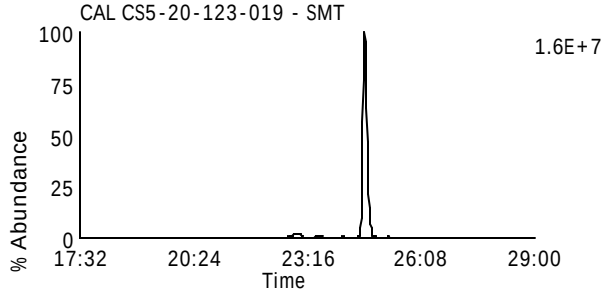
Data File: U210629B_05 G1 C1 - 303.9016
CAL CS5-20-123-019 - SMT



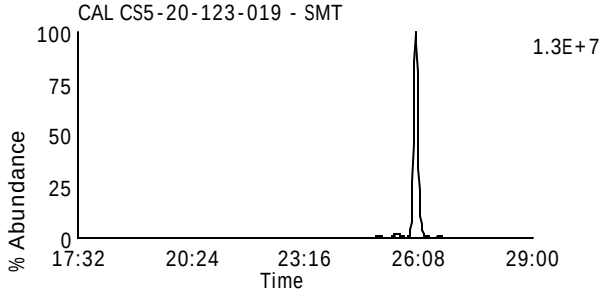
Data File: U210629B_05 G1 C7 - 319.8965
CAL CS5-20-123-019 - SMT



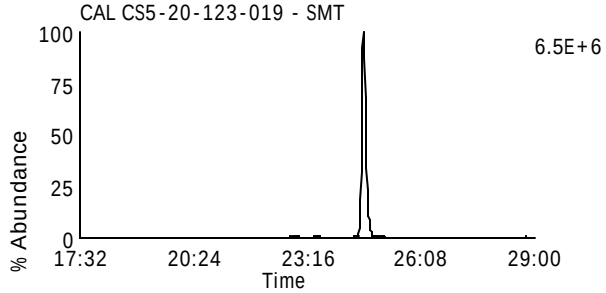
Data File: U210629B_05 G1 C2 - 305.8987
CAL CS5-20-123-019 - SMT



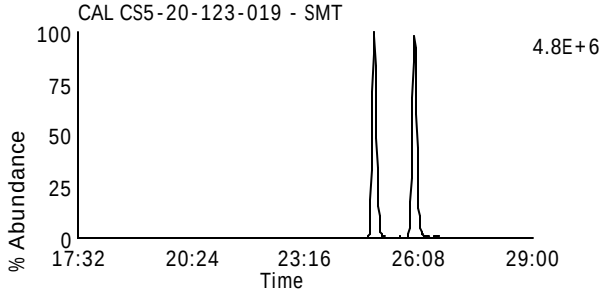
Data File: U210629B_05 G1 C8 - 321.8936
CAL CS5-20-123-019 - SMT



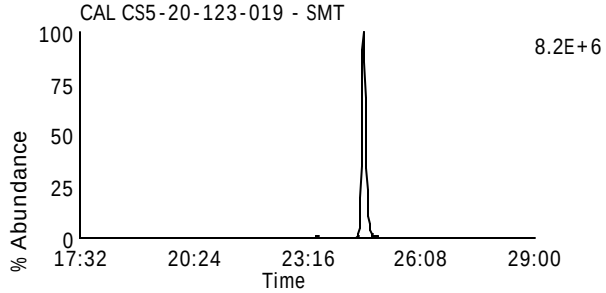
Data File: U210629B_05 G1 C3 - 315.9418
CAL CS5-20-123-019 - SMT



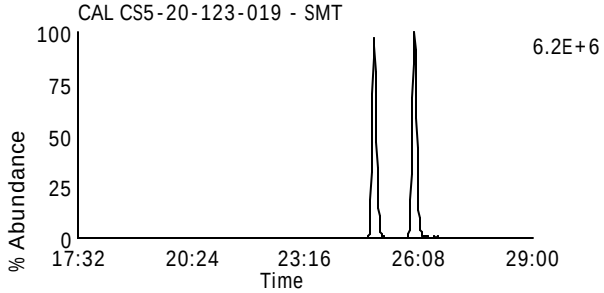
Data File: U210629B_05 G1 C10 - 331.9367
CAL CS5-20-123-019 - SMT



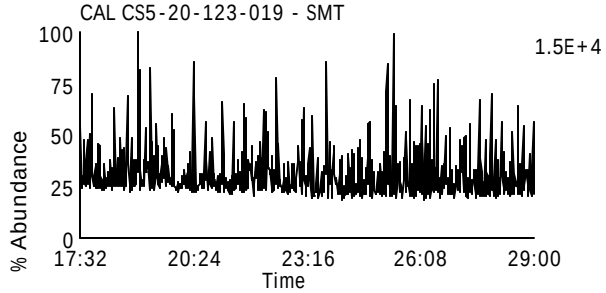
Data File: U210629B_05 G1 C4 - 317.9389
CAL CS5-20-123-019 - SMT



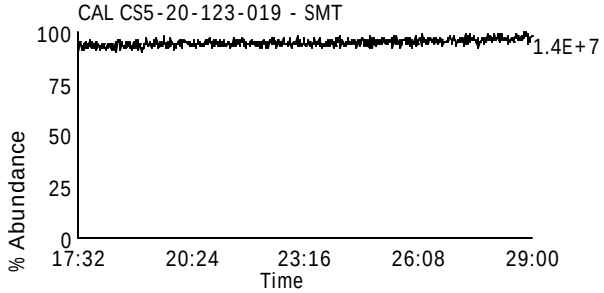
Data File: U210629B_05 G1 C11 - 333.9338
CAL CS5-20-123-019 - SMT



Data File: U210629B_05 G1 C14 - 375.8364
CAL CS5-20-123-019 - SMT



Data File: U210629B_05 G1 C5 - 318.9792
CAL CS5-20-123-019 - SMT

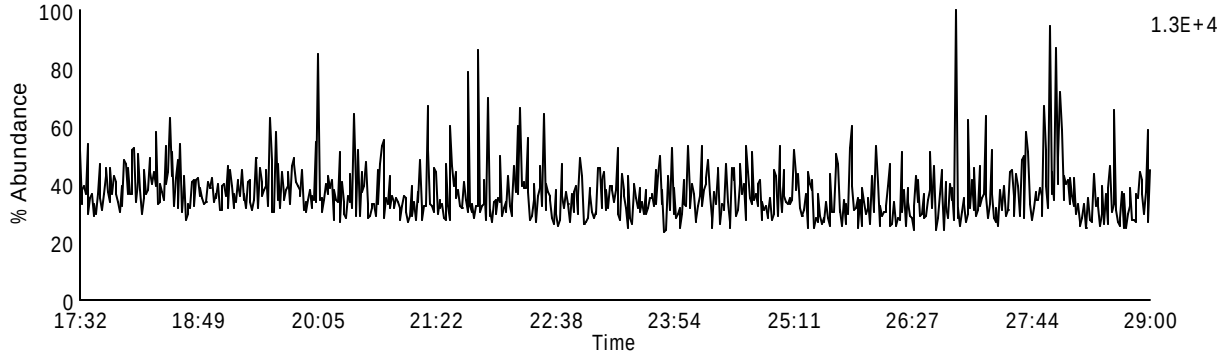


Homologue Group: Penta & Cleanup

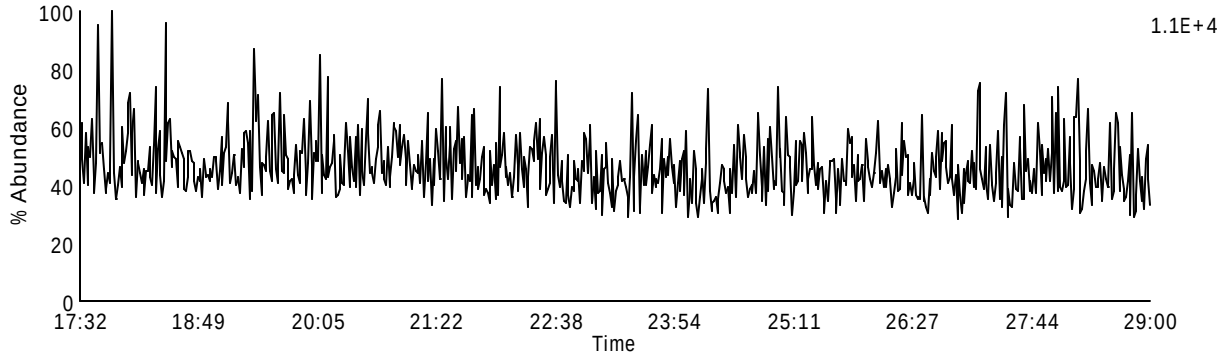
Data File Name: U210629B_05
Date Acquired: 6/29/2021
Sample Description: CAL CS5-20-123-019 - SMT

Lab Sample ID: CS5-20-123-019
Client Sample ID:
Instrument: 10MSHR06 (U)

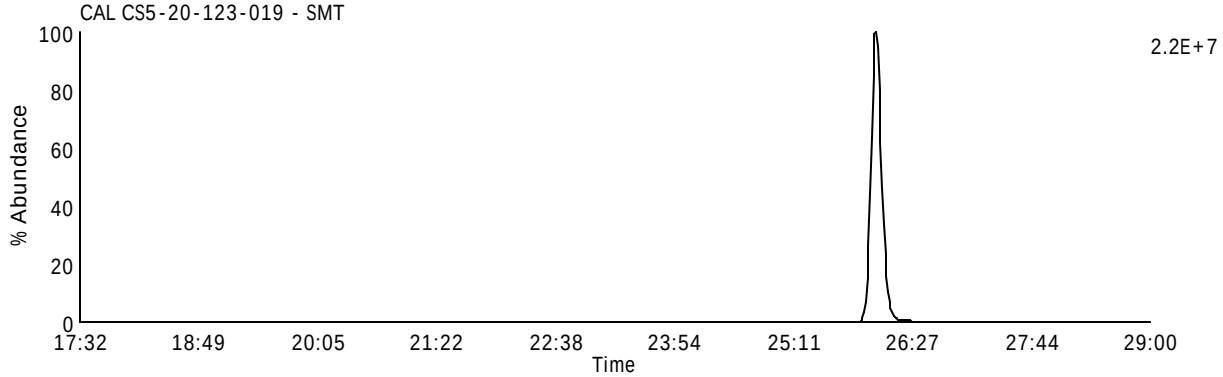
Data File: U210629B_05 G1 C12 - 339.8597
CAL CS5-20-123-019 - SMT



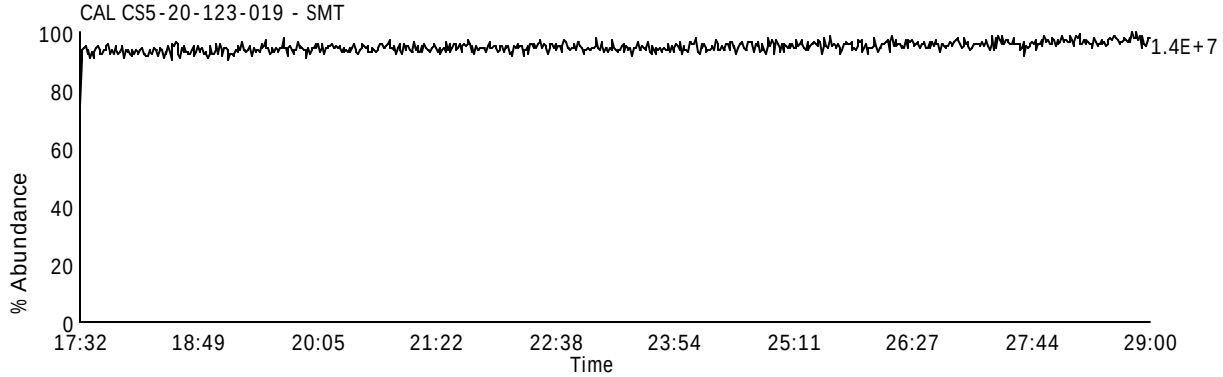
Data File: U210629B_05 G1 C13 - 341.8567
CAL CS5-20-123-019 - SMT



Data File: U210629B_05 G1 C9 - 327.8847
CAL CS5-20-123-019 - SMT



Data File: U210629B_05 G1 C5 - 318.9792
CAL CS5-20-123-019 - SMT

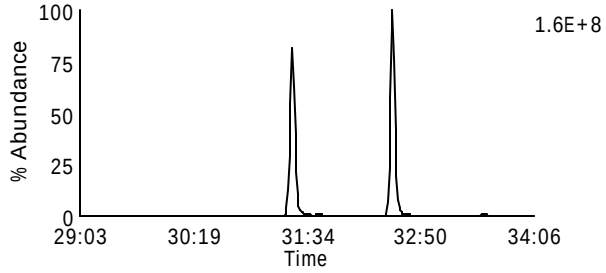


Homologue Group: Pentas

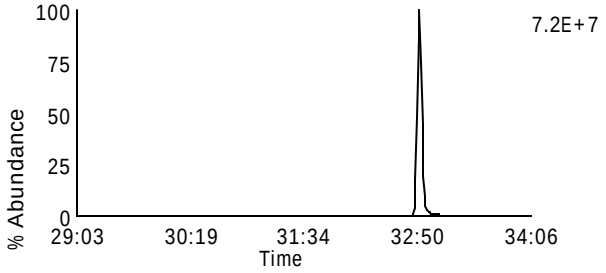
Data File Name: U210629B_05
Date Acquired: 6/29/2021
Sample Description: CAL CS5-20-123-019 - SMT

Lab Sample ID: CS5-20-123-019
Client Sample ID:
Instrument: 10MSHR06 (U)

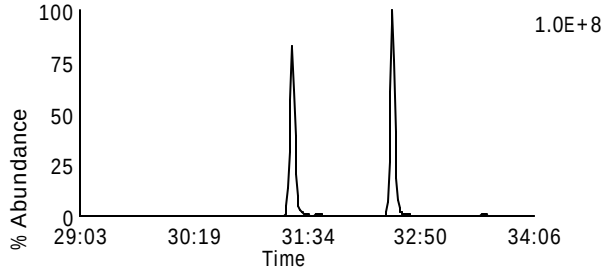
Data File: U210629B_05 G2 C1 - 339.8597
CAL CS5-20-123-019 - SMT



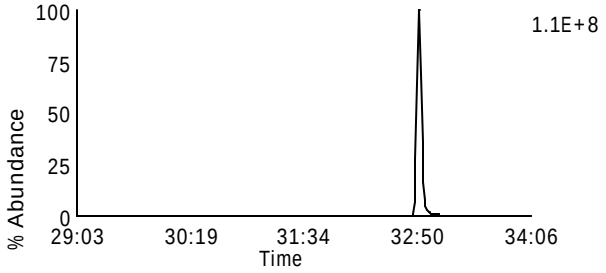
Data File: U210629B_05 G2 C4 - 353.8576
CAL CS5-20-123-019 - SMT



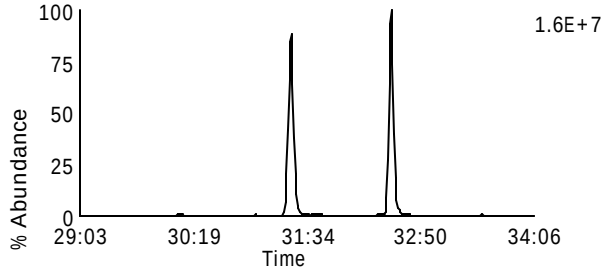
Data File: U210629B_05 G2 C2 - 341.8567
CAL CS5-20-123-019 - SMT



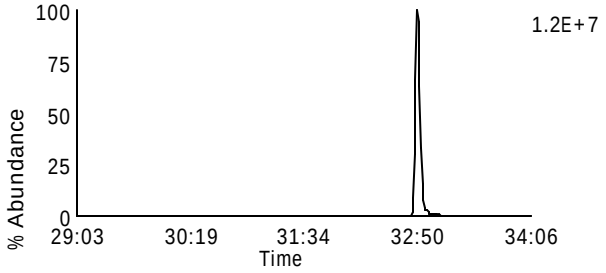
Data File: U210629B_05 G2 C8 - 355.8546
CAL CS5-20-123-019 - SMT



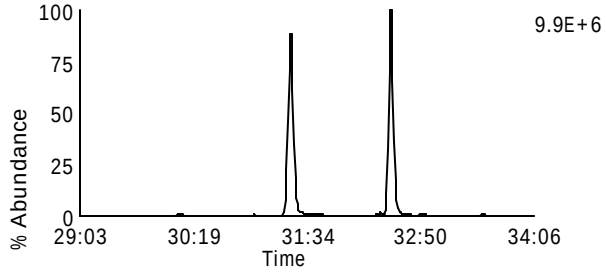
Data File: U210629B_05 G2 C3 - 351.8999
CAL CS5-20-123-019 - SMT



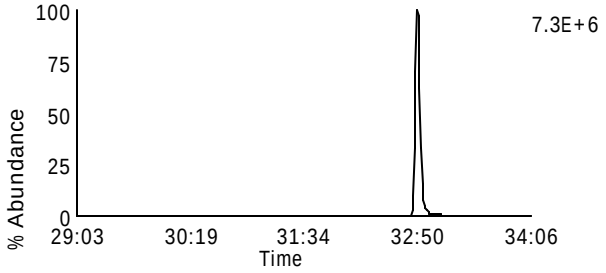
Data File: U210629B_05 G2 C10 - 367.8948
CAL CS5-20-123-019 - SMT



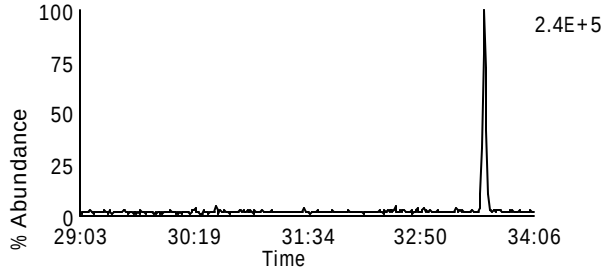
Data File: U210629B_05 G2 C5 - 353.8969
CAL CS5-20-123-019 - SMT



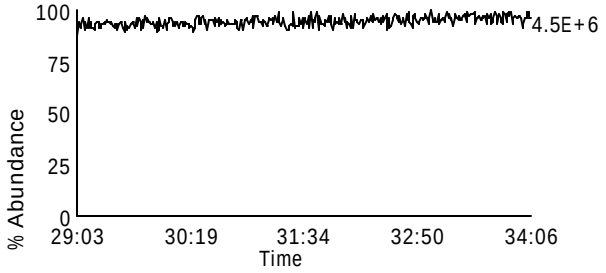
Data File: U210629B_05 G2 C11 - 369.8918
CAL CS5-20-123-019 - SMT



Data File: U210629B_05 G2 C12 - 409.7974
CAL CS5-20-123-019 - SMT



Data File: U210629B_05 G2 C6 - 354.9792
CAL CS5-20-123-019 - SMT

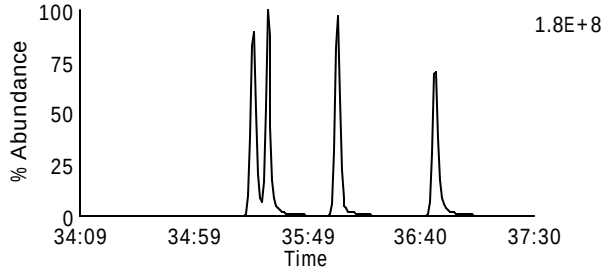


Homologue Group: Hexas

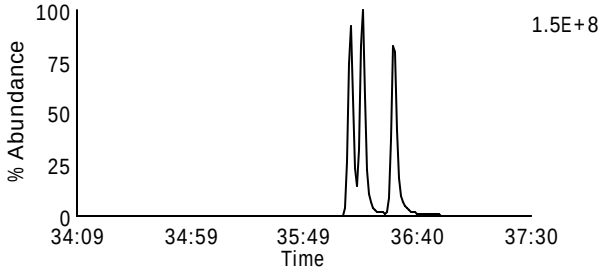
Data File Name: U210629B_05
Date Acquired: 6/29/2021
Sample Description: CAL CS5-20-123-019 - SMT

Lab Sample ID: CS5-20-123-019
Client Sample ID:
Instrument: 10MSHR06 (U)

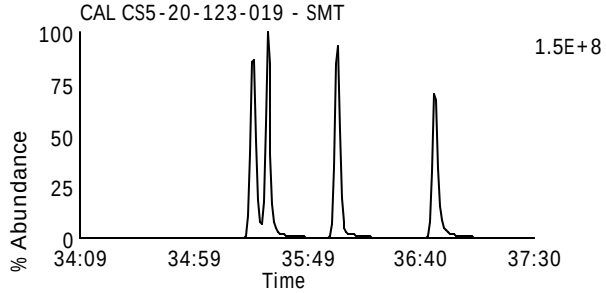
Data File: U210629B_05 G3 C1 - 373.8207
CAL CS5-20-123-019 - SMT



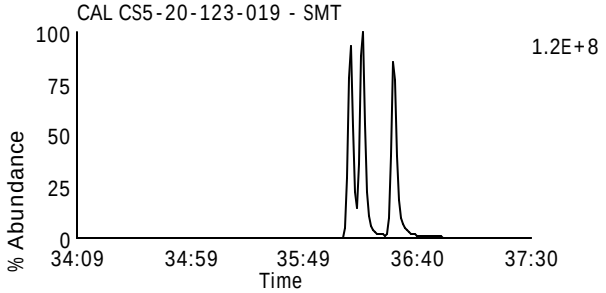
Data File: U210629B_05 G3 C7 - 389.8156
CAL CS5-20-123-019 - SMT



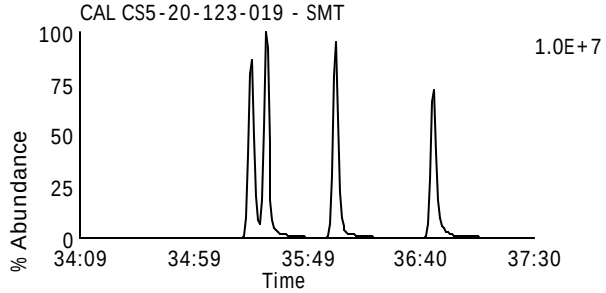
Data File: U210629B_05 G3 C2 - 375.8178
CAL CS5-20-123-019 - SMT



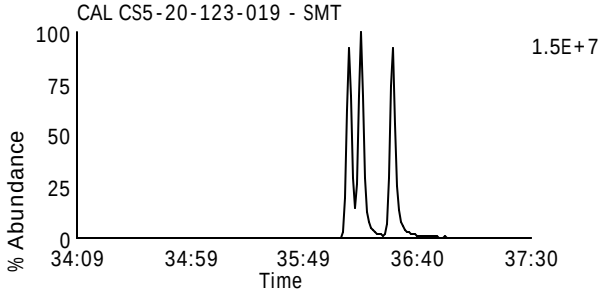
Data File: U210629B_05 G3 C8 - 391.8127
CAL CS5-20-123-019 - SMT



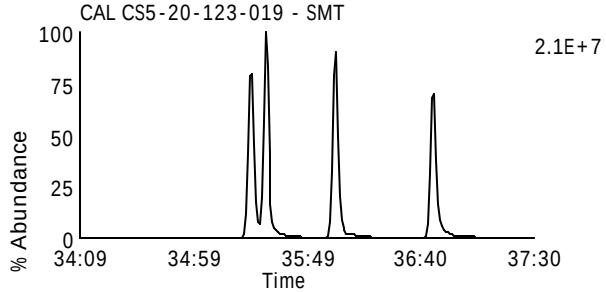
Data File: U210629B_05 G3 C5 - 383.8639
CAL CS5-20-123-019 - SMT



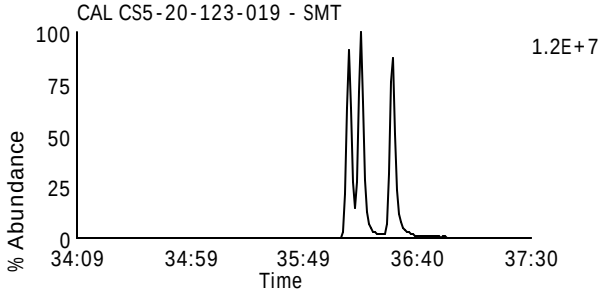
Data File: U210629B_05 G3 C9 - 401.8559
CAL CS5-20-123-019 - SMT



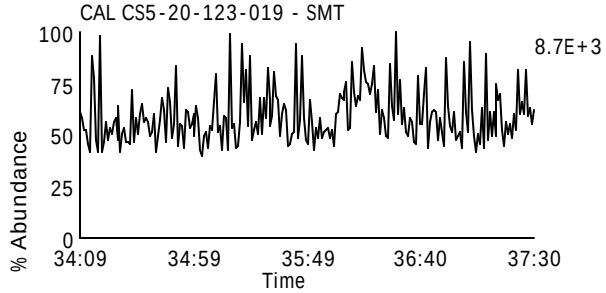
Data File: U210629B_05 G3 C6 - 385.861
CAL CS5-20-123-019 - SMT



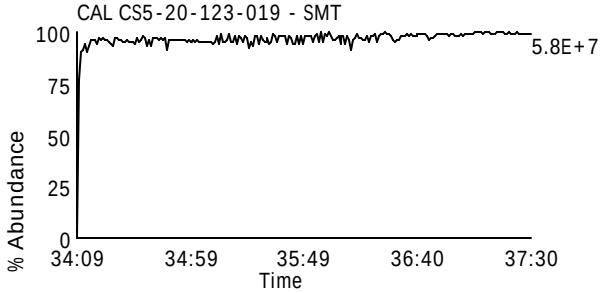
Data File: U210629B_05 G3 C10 - 403.8529
CAL CS5-20-123-019 - SMT



Data File: U210629B_05 G3 C11 - 445.7555
CAL CS5-20-123-019 - SMT



Data File: U210629B_05 G3 C3 - 380.976
CAL CS5-20-123-019 - SMT

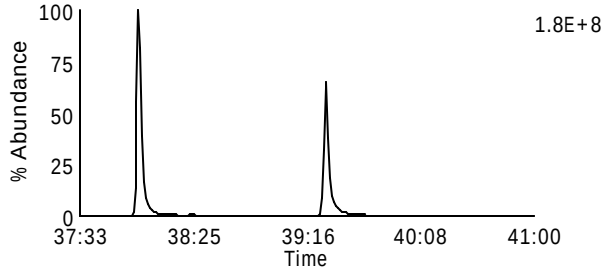


Homologue Group: Heptas

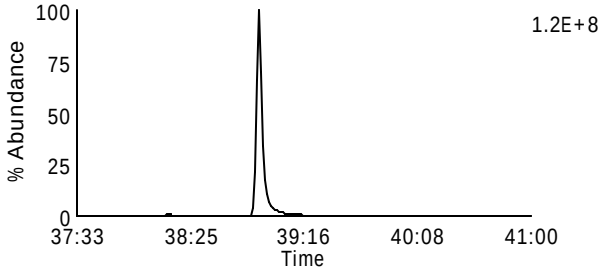
Data File Name: U210629B_05
Date Acquired: 6/29/2021
Sample Description: CAL CS5-20-123-019 - SMT

Lab Sample ID: CS5-20-123-019
Client Sample ID:
Instrument: 10MSHR06 (U)

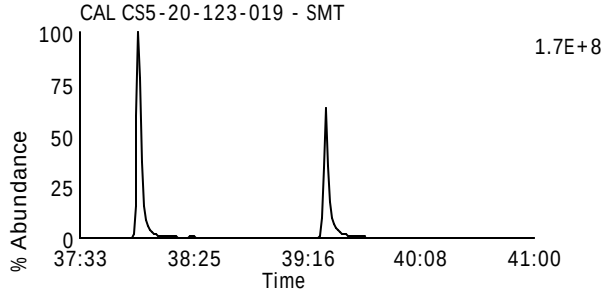
Data File: U210629B_05 G4 C3 - 407.7818
CAL CS5-20-123-019 - SMT



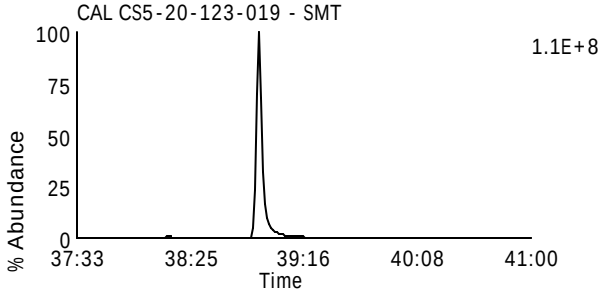
Data File: U210629B_05 G4 C8 - 423.7767
CAL CS5-20-123-019 - SMT



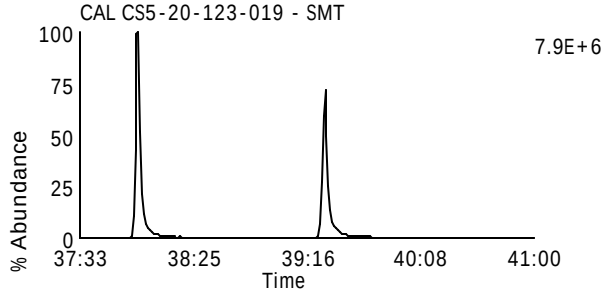
Data File: U210629B_05 G4 C4 - 409.7788
CAL CS5-20-123-019 - SMT



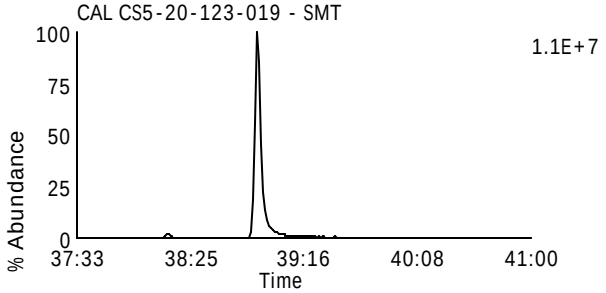
Data File: U210629B_05 G4 C9 - 425.7737
CAL CS5-20-123-019 - SMT



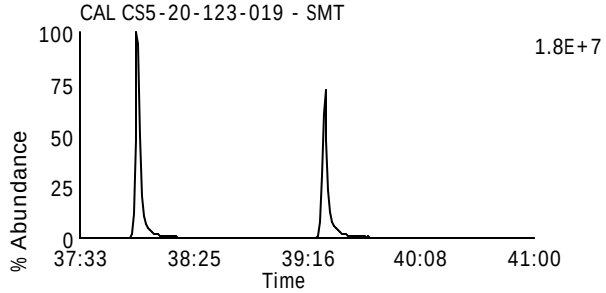
Data File: U210629B_05 G4 C6 - 417.825
CAL CS5-20-123-019 - SMT



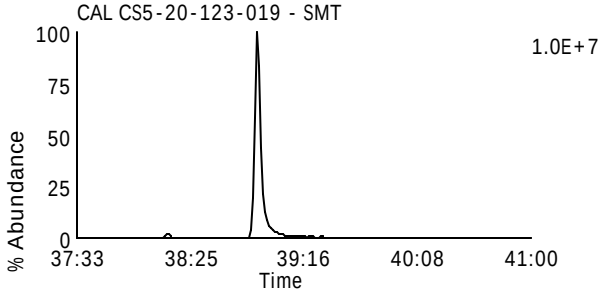
Data File: U210629B_05 G4 C11 - 435.8169
CAL CS5-20-123-019 - SMT



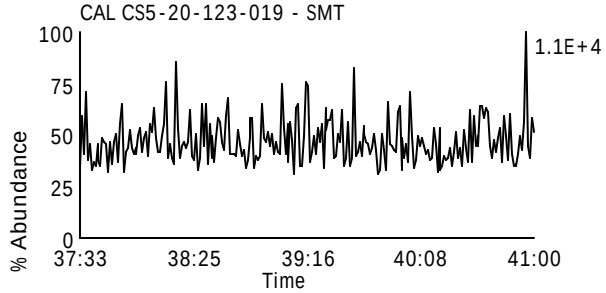
Data File: U210629B_05 G4 C7 - 419.822
CAL CS5-20-123-019 - SMT



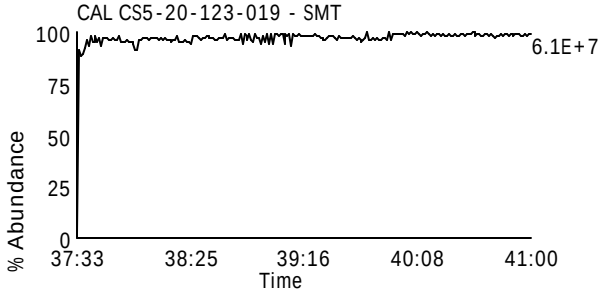
Data File: U210629B_05 G4 C12 - 437.814
CAL CS5-20-123-019 - SMT



Data File: U210629B_05 G4 C13 - 479.7165
CAL CS5-20-123-019 - SMT



Data File: U210629B_05 G4 C1 - 380.976
CAL CS5-20-123-019 - SMT

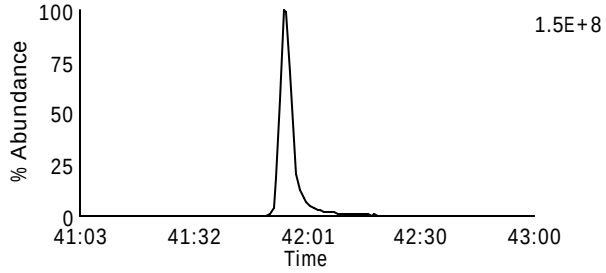


Homologue Group: Octas

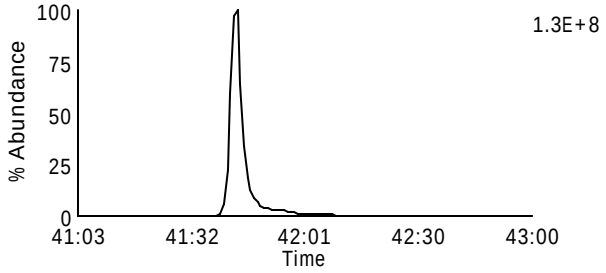
Data File Name: U210629B_05
Date Acquired: 6/29/2021
Sample Description: CAL CS5-20-123-019 - SMT

Lab Sample ID: CS5-20-123-019
Client Sample ID:
Instrument: 10MSHR06 (U)

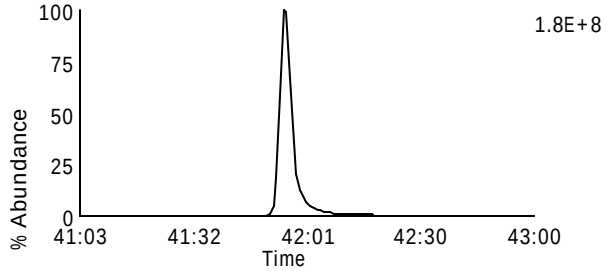
Data File: U210629B_05 G5 C4 - 441.7428
CAL CS5-20-123-019 - SMT



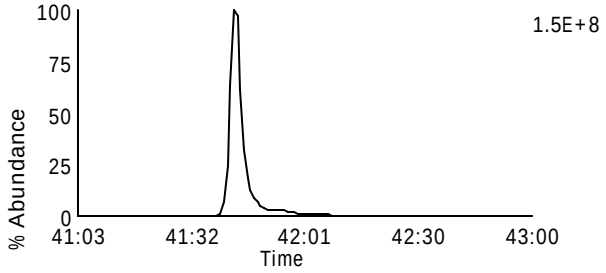
Data File: U210629B_05 G5 C8 - 457.7377
CAL CS5-20-123-019 - SMT



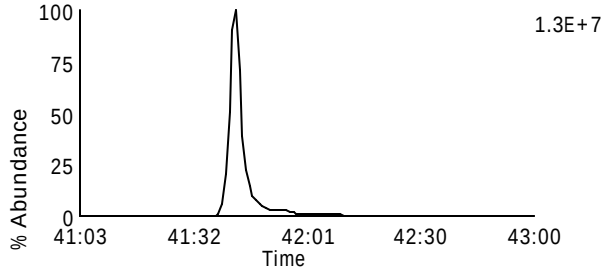
Data File: U210629B_05 G5 C5 - 443.7398
CAL CS5-20-123-019 - SMT



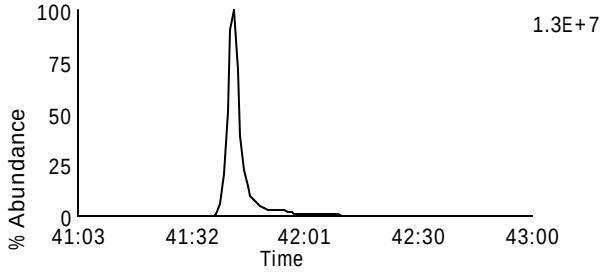
Data File: U210629B_05 G5 C9 - 459.7347
CAL CS5-20-123-019 - SMT



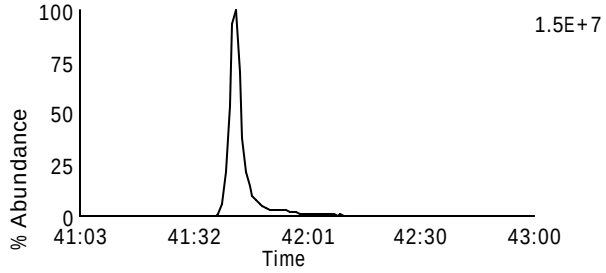
Data File: U210629B_05 G5 C11 - 469.7779
CAL CS5-20-123-019 - SMT



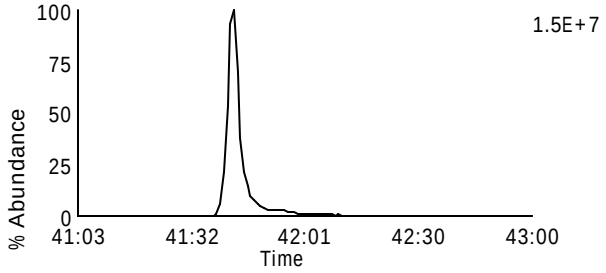
Data File: U210629B_05 G5 C11 - 469.7779
CAL CS5-20-123-019 - SMT



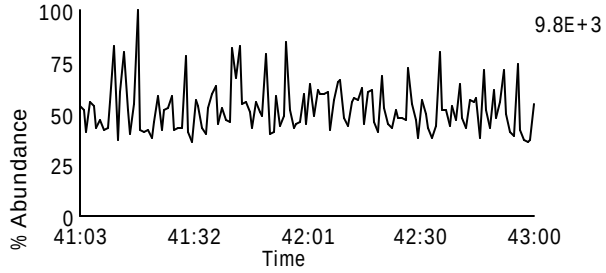
Data File: U210629B_05 G5 C12 - 471.7749
CAL CS5-20-123-019 - SMT



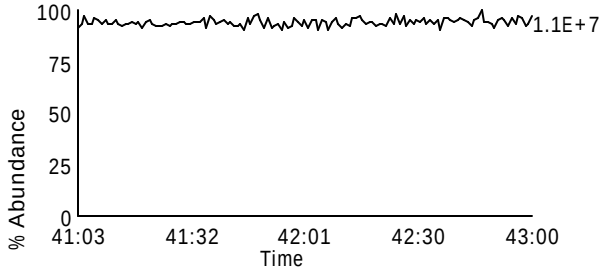
Data File: U210629B_05 G5 C12 - 471.7749
CAL CS5-20-123-019 - SMT



Data File: U210629B_05 G5 C13 - 513.6775
CAL CS5-20-123-019 - SMT



Data File: U210629B_05 G5 C2 - 430.9728
CAL CS5-20-123-019 - SMT

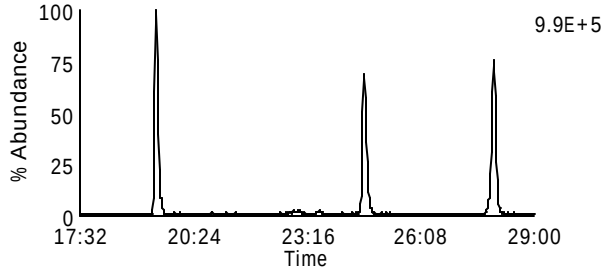


Homologue Group: Tetras

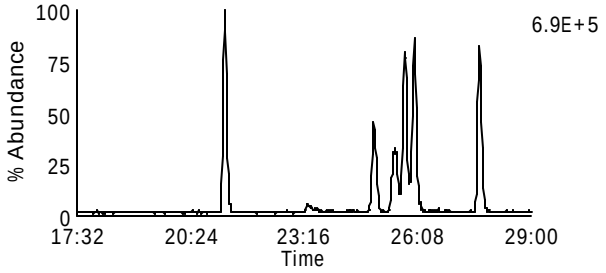
Data File Name: U210630B_01
Date Acquired: 6/30/2021
Sample Description: CAL CS3/CPM-20-123-052 - SMT

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

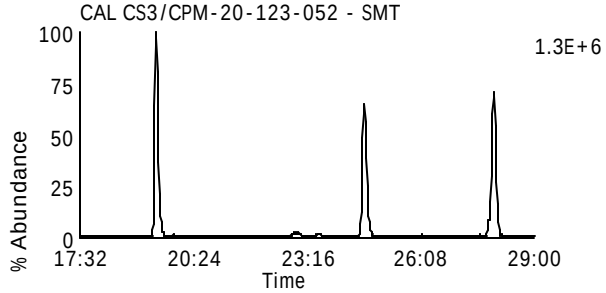
Data File: U210630B_01 G1 C1 - 303.9016
CAL CS3/CPM-20-123-052 - SMT



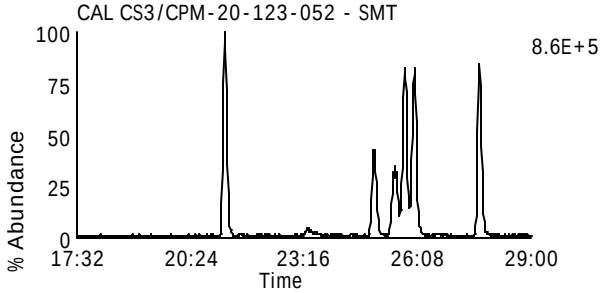
Data File: U210630B_01 G1 C7 - 319.8965
CAL CS3/CPM-20-123-052 - SMT



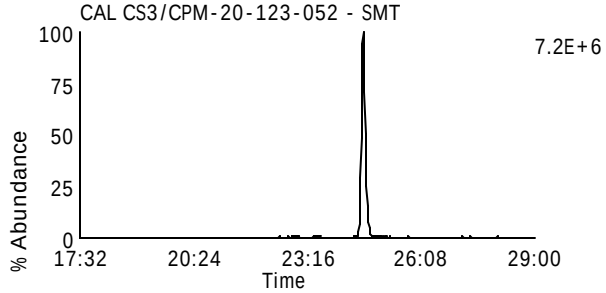
Data File: U210630B_01 G1 C2 - 305.8987
CAL CS3/CPM-20-123-052 - SMT



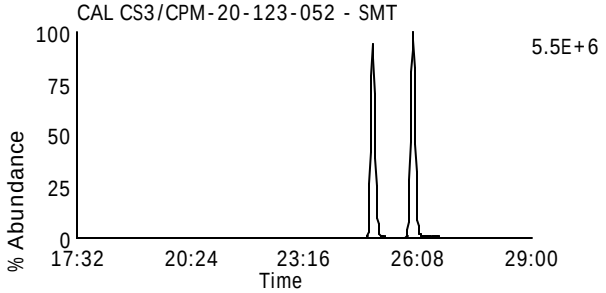
Data File: U210630B_01 G1 C8 - 321.8936
CAL CS3/CPM-20-123-052 - SMT



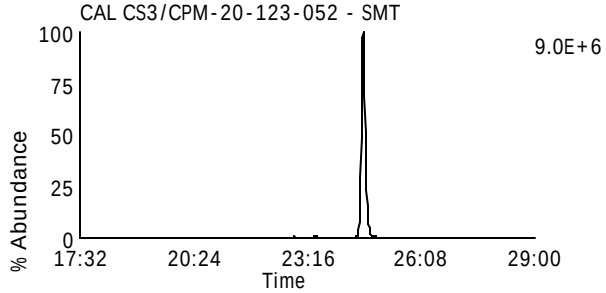
Data File: U210630B_01 G1 C3 - 315.9418
CAL CS3/CPM-20-123-052 - SMT



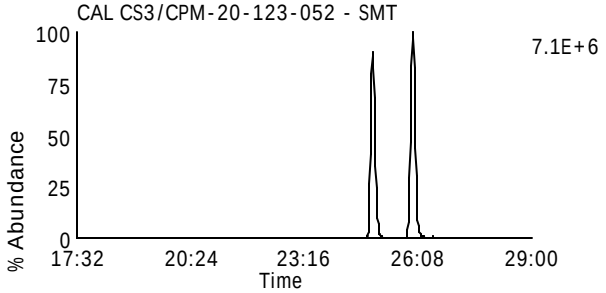
Data File: U210630B_01 G1 C10 - 331.9367
CAL CS3/CPM-20-123-052 - SMT



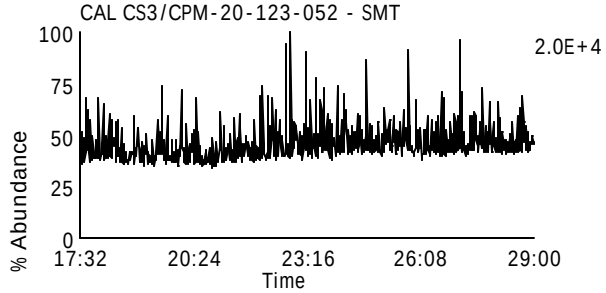
Data File: U210630B_01 G1 C4 - 317.9389
CAL CS3/CPM-20-123-052 - SMT



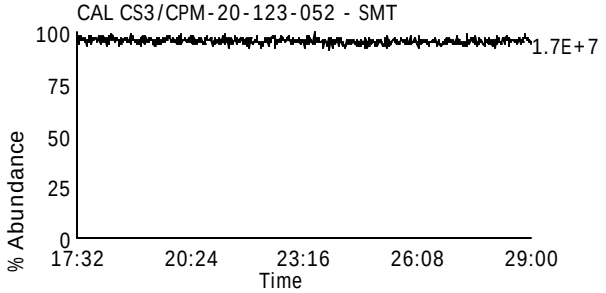
Data File: U210630B_01 G1 C11 - 333.9338
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_01 G1 C14 - 375.8364
CAL CS3/CPM-20-123-052 - SMT



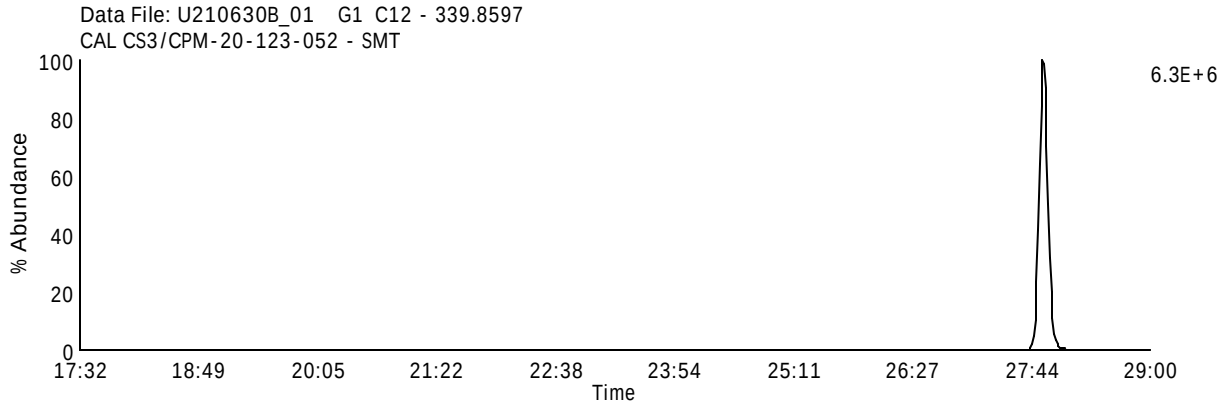
Data File: U210630B_01 G1 C5 - 318.9792
CAL CS3/CPM-20-123-052 - SMT

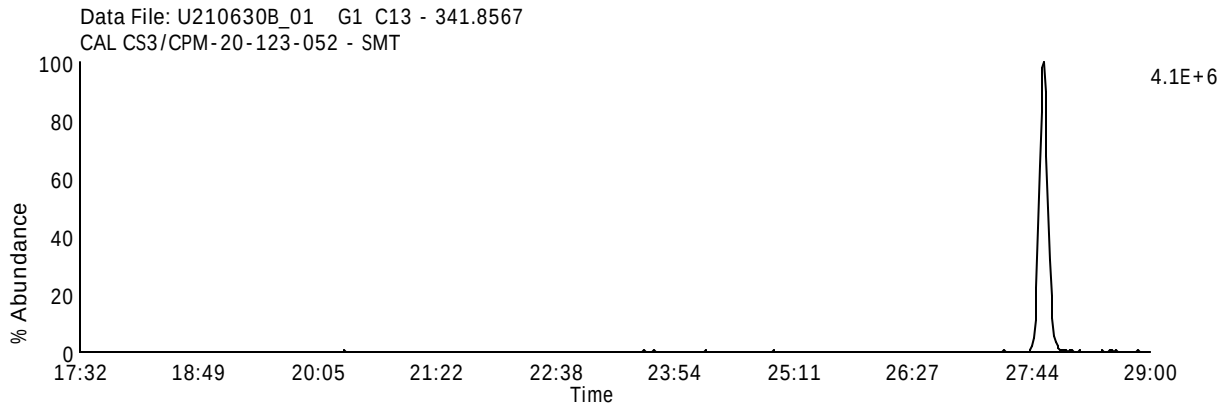


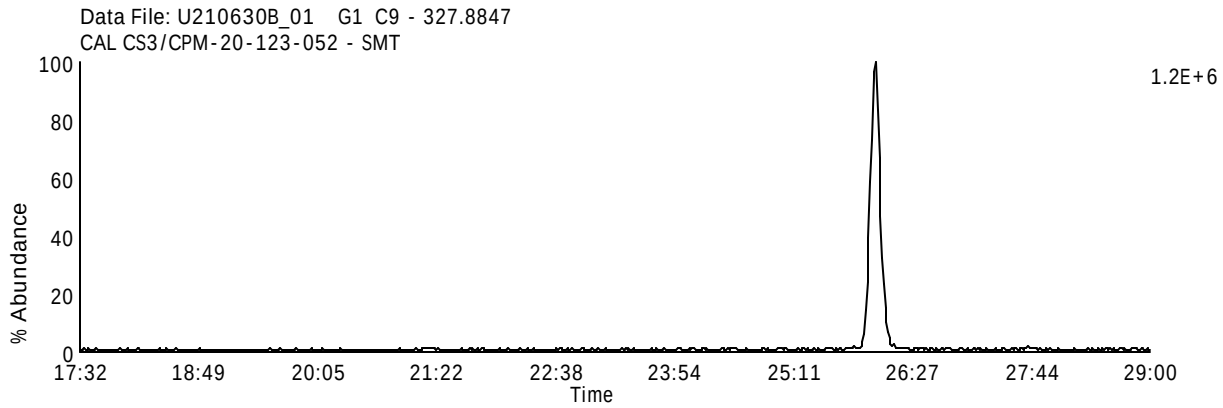
Homologue Group: Penta & Cleanup

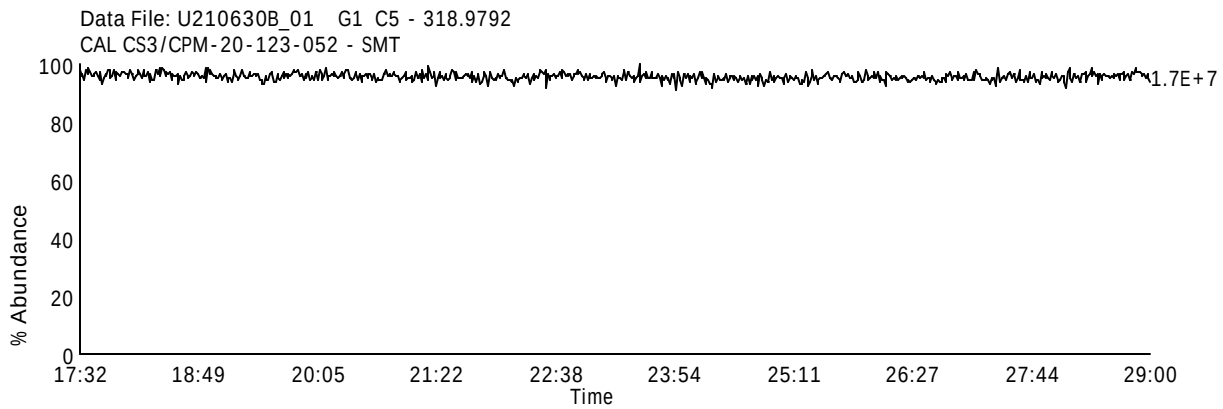
Data File Name: U210630B_01
Date Acquired: 6/30/2021
Sample Description: CAL CS3/CPM-20-123-052 - SMT

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)







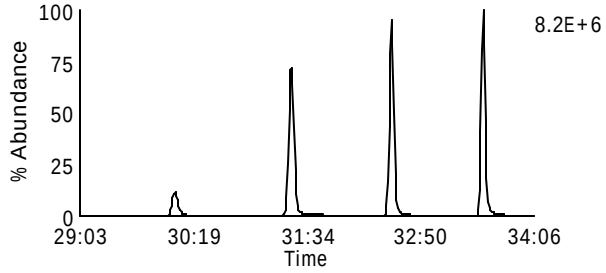


Homologue Group: Pentas

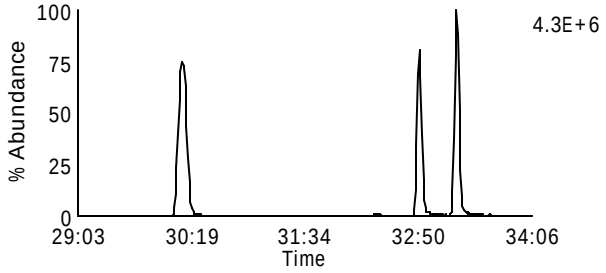
Data File Name: U210630B_01
Date Acquired: 6/30/2021
Sample Description: CAL CS3/CPM-20-123-052 - SMT

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

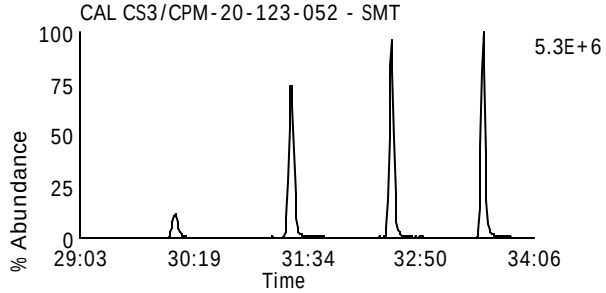
Data File: U210630B_01 G2 C1 - 339.8597
CAL CS3/CPM-20-123-052 - SMT



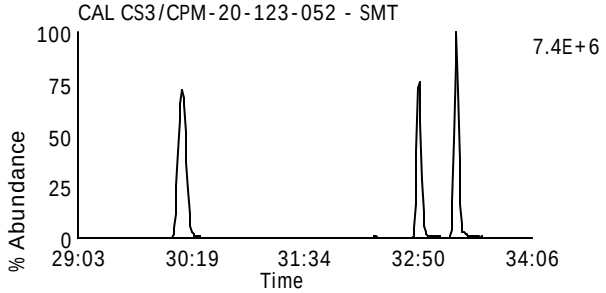
Data File: U210630B_01 G2 C4 - 353.8576
CAL CS3/CPM-20-123-052 - SMT



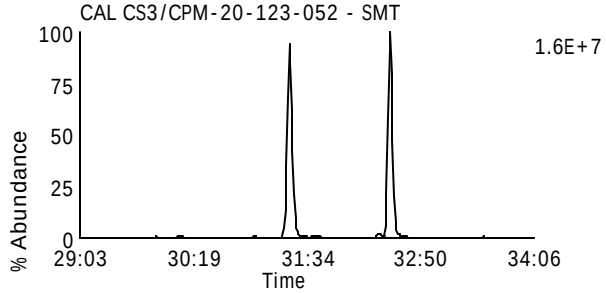
Data File: U210630B_01 G2 C2 - 341.8567
CAL CS3/CPM-20-123-052 - SMT



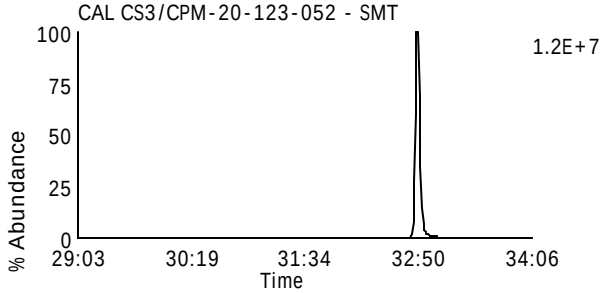
Data File: U210630B_01 G2 C8 - 355.8546
CAL CS3/CPM-20-123-052 - SMT



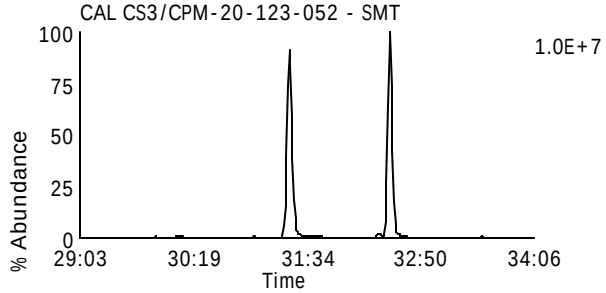
Data File: U210630B_01 G2 C3 - 351.8999
CAL CS3/CPM-20-123-052 - SMT



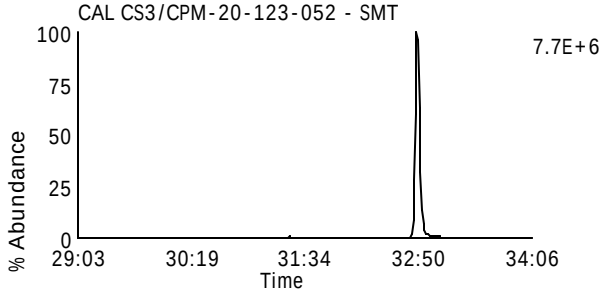
Data File: U210630B_01 G2 C10 - 367.8948
CAL CS3/CPM-20-123-052 - SMT



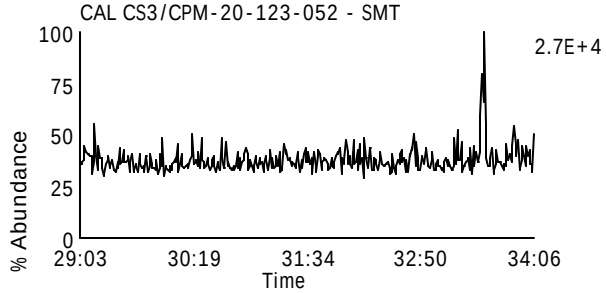
Data File: U210630B_01 G2 C5 - 353.8969
CAL CS3/CPM-20-123-052 - SMT



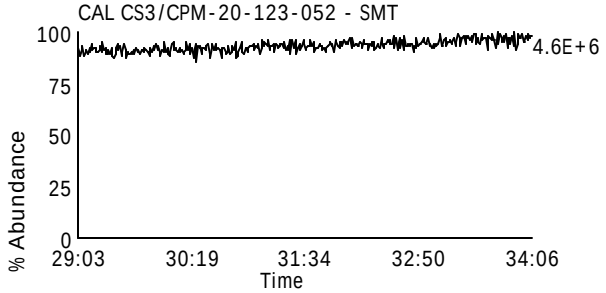
Data File: U210630B_01 G2 C11 - 369.8918
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_01 G2 C12 - 409.7974
CAL CS3/CPM-20-123-052 - SMT



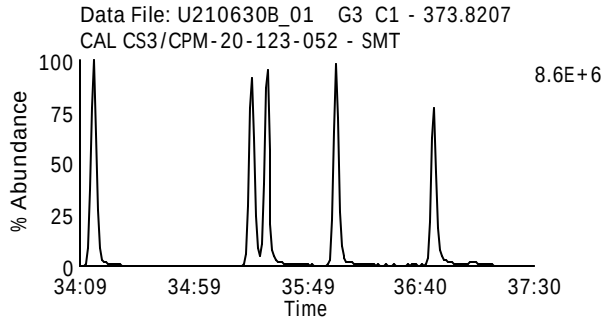
Data File: U210630B_01 G2 C6 - 354.9792
CAL CS3/CPM-20-123-052 - SMT

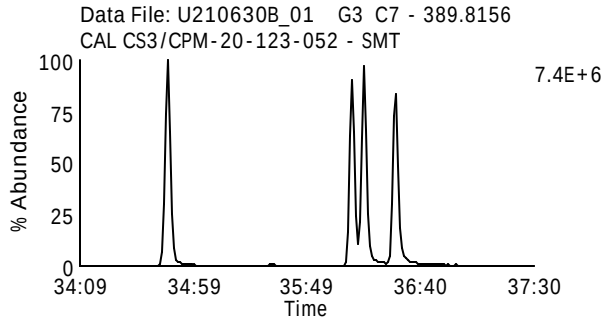


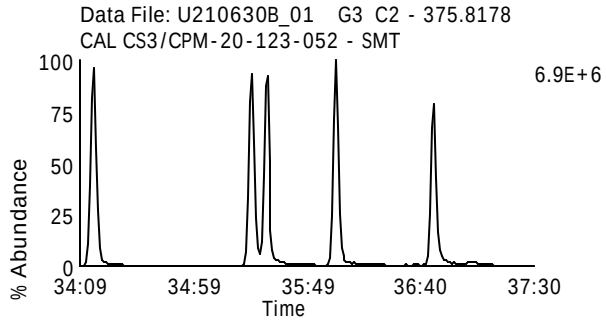
Homologue Group: Hexas

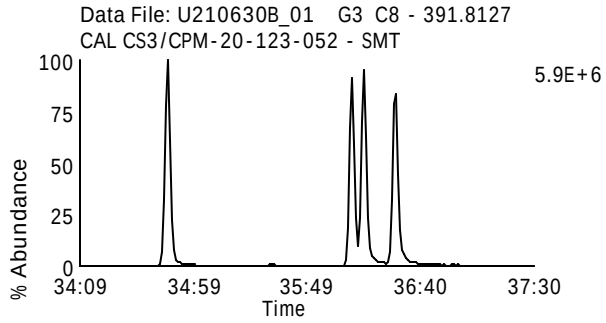
Data File Name: U210630B_01
Date Acquired: 6/30/2021
Sample Description: CAL CS3/CPM-20-123-052 - SMT

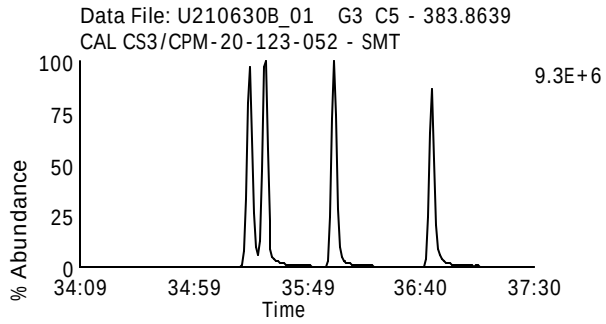
Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

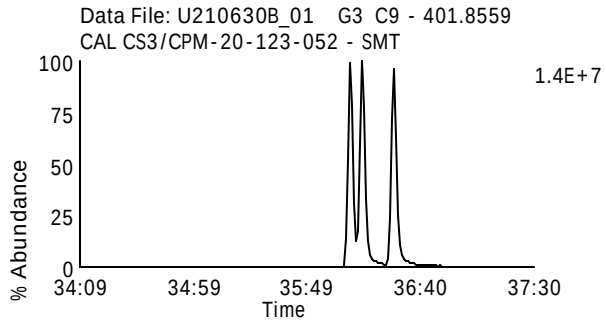


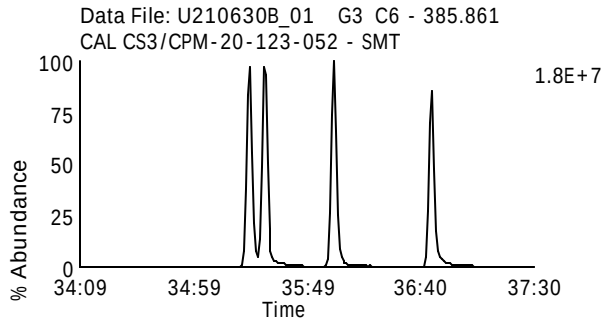


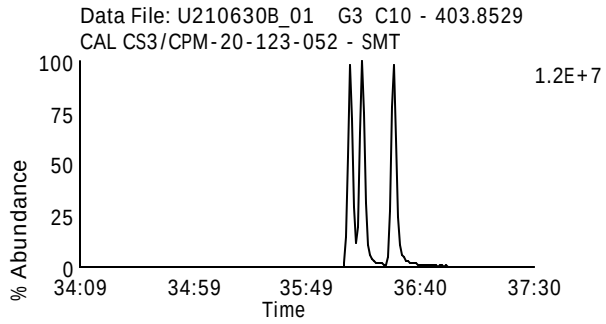


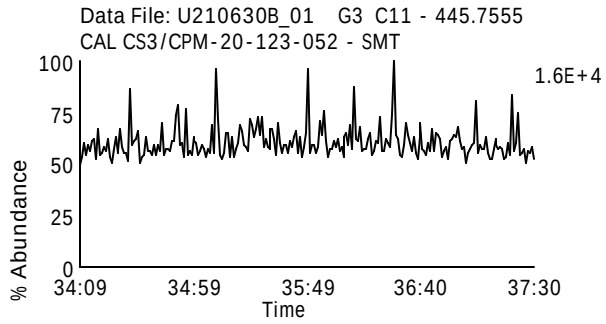


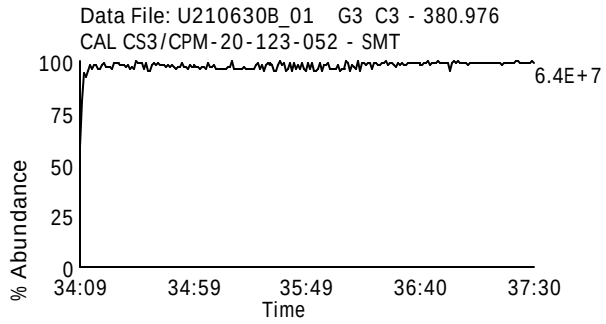










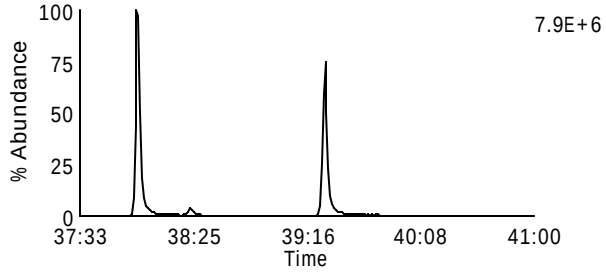


Homologue Group: Heptas

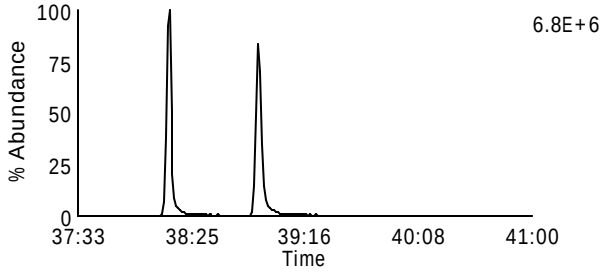
Data File Name: U210630B_01
Date Acquired: 6/30/2021
Sample Description: CAL CS3/CPM-20-123-052 - SMT

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

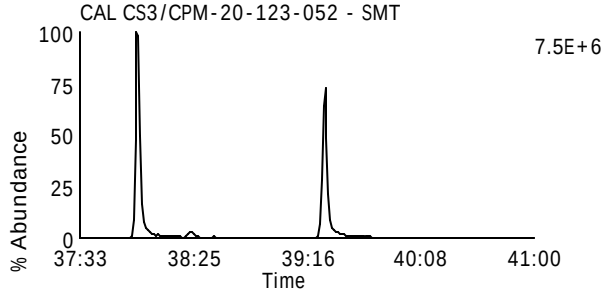
Data File: U210630B_01 G4 C3 - 407.7818
CAL CS3/CPM-20-123-052 - SMT



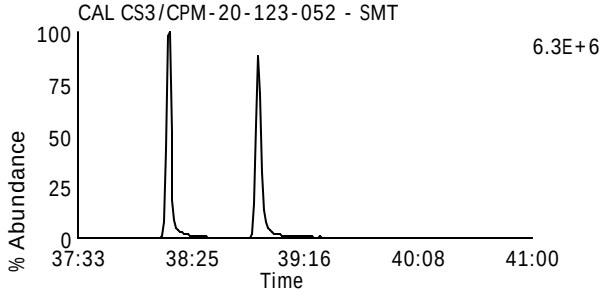
Data File: U210630B_01 G4 C8 - 423.7767
CAL CS3/CPM-20-123-052 - SMT



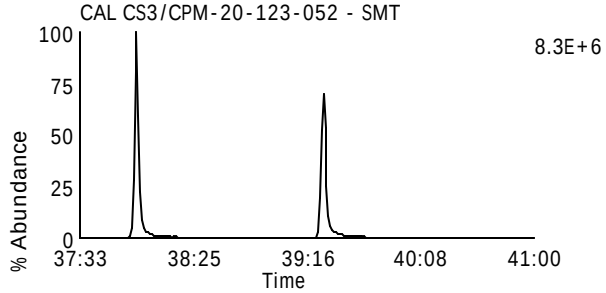
Data File: U210630B_01 G4 C4 - 409.7788
CAL CS3/CPM-20-123-052 - SMT



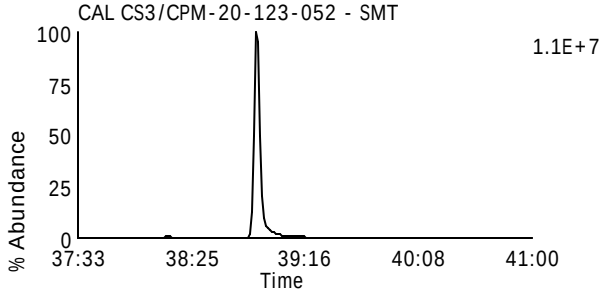
Data File: U210630B_01 G4 C9 - 425.7737
CAL CS3/CPM-20-123-052 - SMT



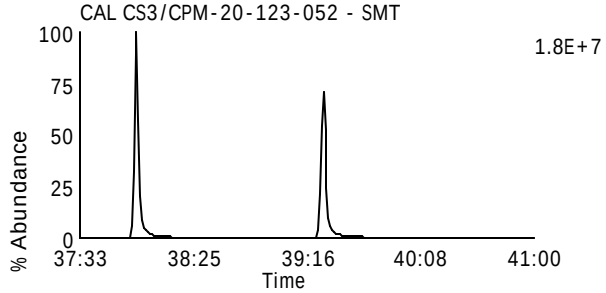
Data File: U210630B_01 G4 C6 - 417.825
CAL CS3/CPM-20-123-052 - SMT



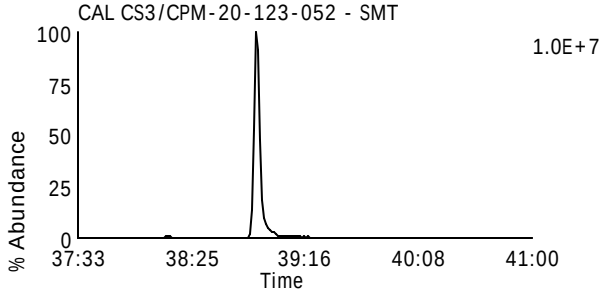
Data File: U210630B_01 G4 C11 - 435.8169
CAL CS3/CPM-20-123-052 - SMT



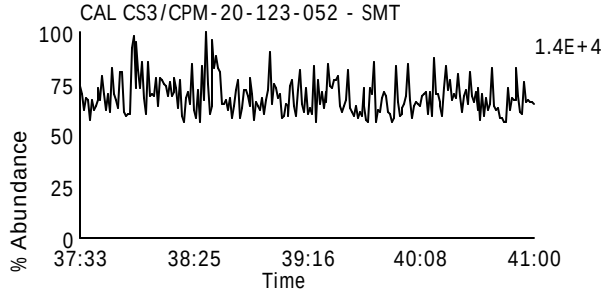
Data File: U210630B_01 G4 C7 - 419.822
CAL CS3/CPM-20-123-052 - SMT



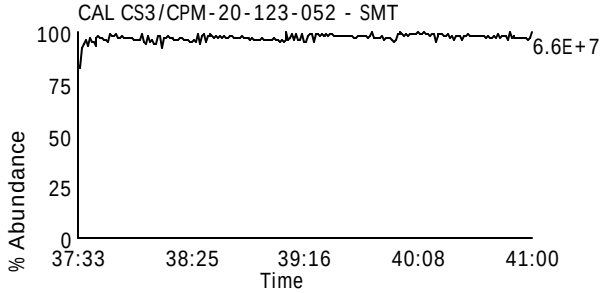
Data File: U210630B_01 G4 C12 - 437.814
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_01 G4 C13 - 479.7165
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_01 G4 C1 - 380.976
CAL CS3/CPM-20-123-052 - SMT

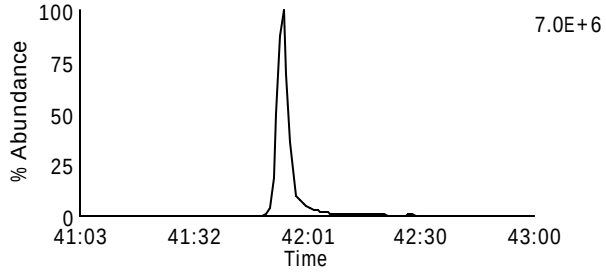


Homologue Group: Octas

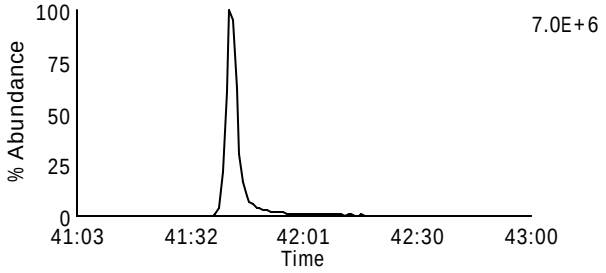
Data File Name: U210630B_01
Date Acquired: 6/30/2021
Sample Description: CAL CS3/CPM-20-123-052 - SMT

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

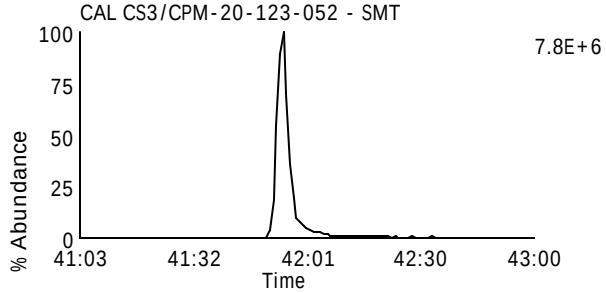
Data File: U210630B_01 G5 C4 - 441.7428
CAL CS3/CPM-20-123-052 - SMT



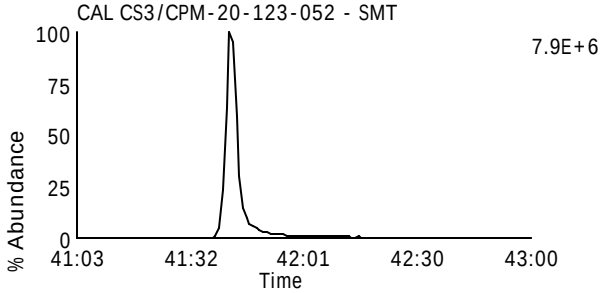
Data File: U210630B_01 G5 C8 - 457.7377
CAL CS3/CPM-20-123-052 - SMT



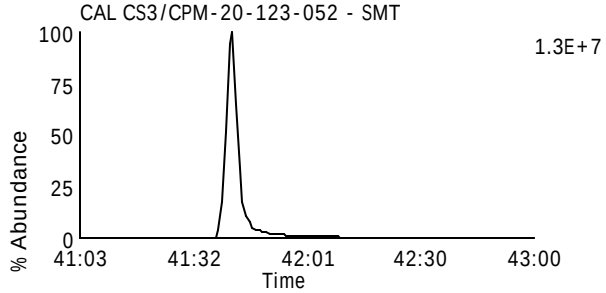
Data File: U210630B_01 G5 C5 - 443.7398
CAL CS3/CPM-20-123-052 - SMT



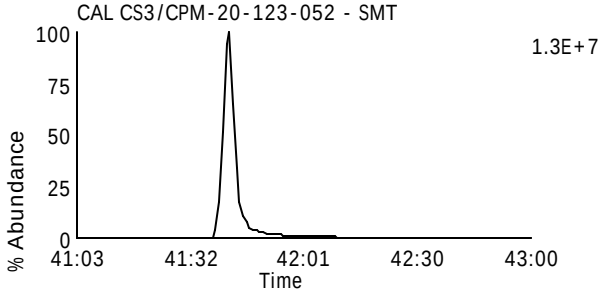
Data File: U210630B_01 G5 C9 - 459.7347
CAL CS3/CPM-20-123-052 - SMT



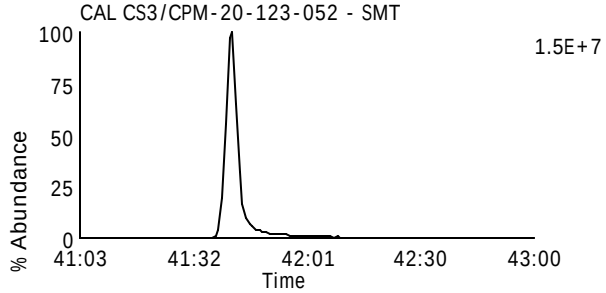
Data File: U210630B_01 G5 C11 - 469.7779
CAL CS3/CPM-20-123-052 - SMT



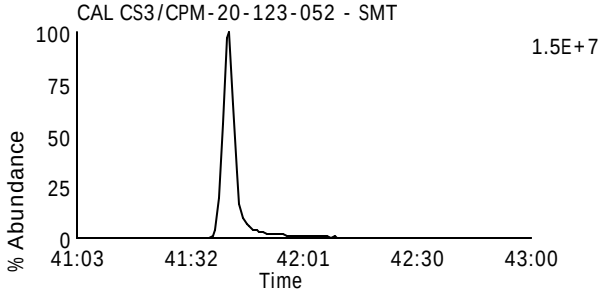
Data File: U210630B_01 G5 C11 - 469.7779
CAL CS3/CPM-20-123-052 - SMT



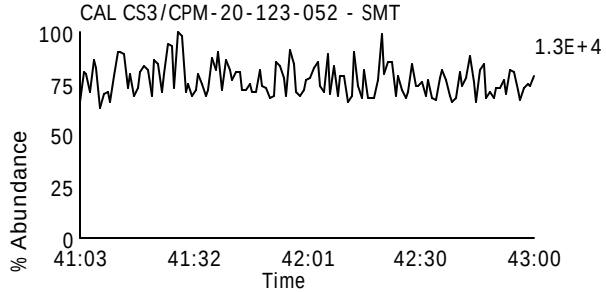
Data File: U210630B_01 G5 C12 - 471.7749
CAL CS3/CPM-20-123-052 - SMT



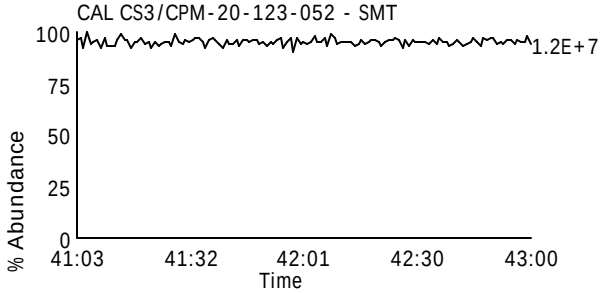
Data File: U210630B_01 G5 C12 - 471.7749
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_01 G5 C13 - 513.6775
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_01 G5 C2 - 430.9728
CAL CS3/CPM-20-123-052 - SMT

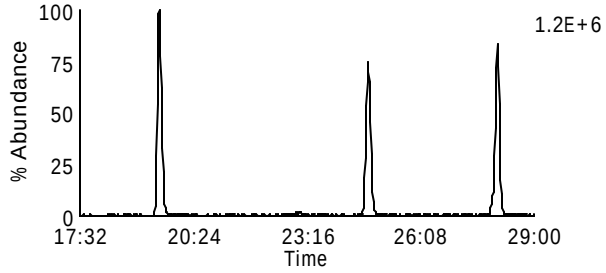


Homologue Group: Tetras

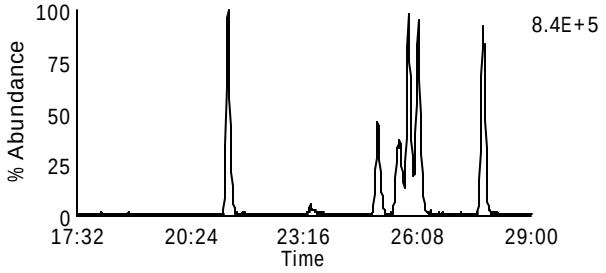
Data File Name: U210630B_17
Date Acquired: 7/1/2021
Sample Description: CAL CS3/CPM-20-123-052 - SMT

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

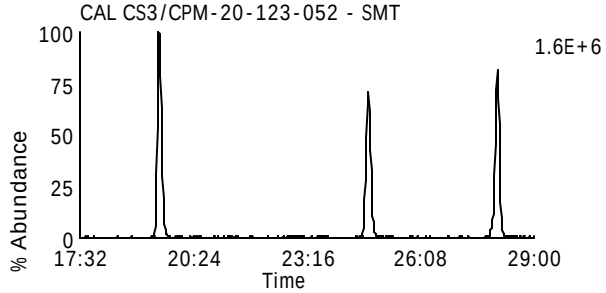
Data File: U210630B_17 G1 C1 - 303.9016
CAL CS3/CPM-20-123-052 - SMT



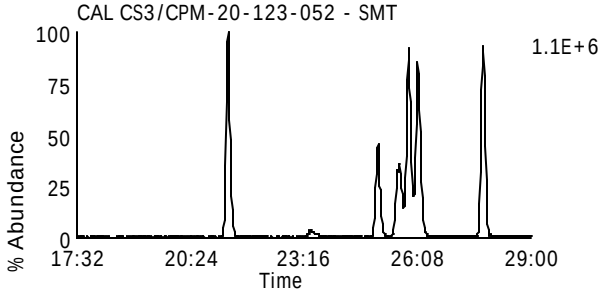
Data File: U210630B_17 G1 C7 - 319.8965
CAL CS3/CPM-20-123-052 - SMT



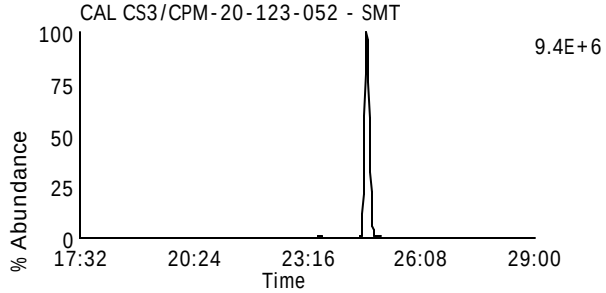
Data File: U210630B_17 G1 C2 - 305.8987
CAL CS3/CPM-20-123-052 - SMT



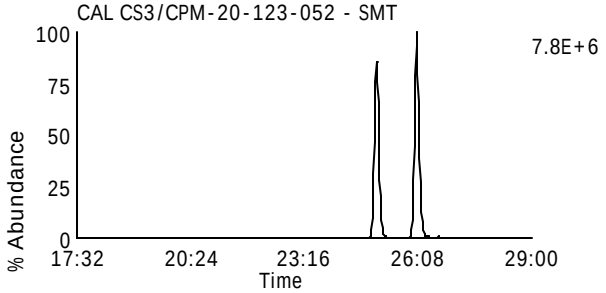
Data File: U210630B_17 G1 C8 - 321.8936
CAL CS3/CPM-20-123-052 - SMT



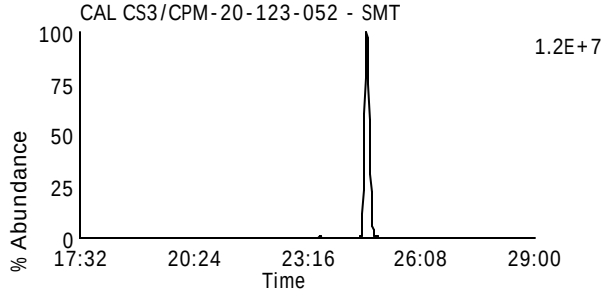
Data File: U210630B_17 G1 C3 - 315.9418
CAL CS3/CPM-20-123-052 - SMT



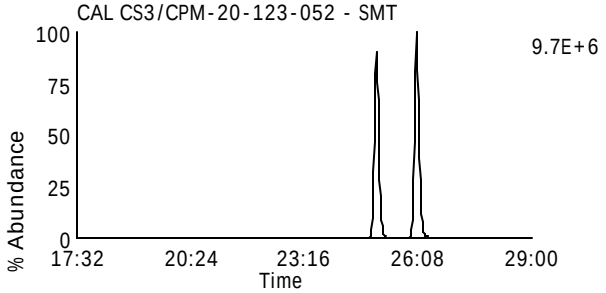
Data File: U210630B_17 G1 C10 - 331.9367
CAL CS3/CPM-20-123-052 - SMT



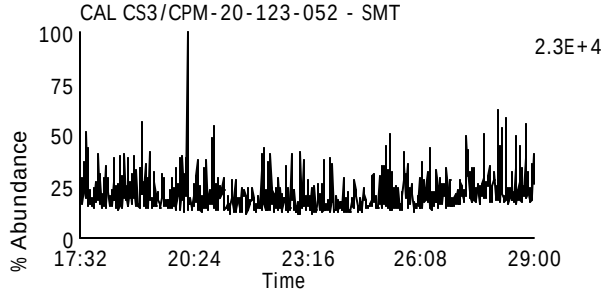
Data File: U210630B_17 G1 C4 - 317.9389
CAL CS3/CPM-20-123-052 - SMT



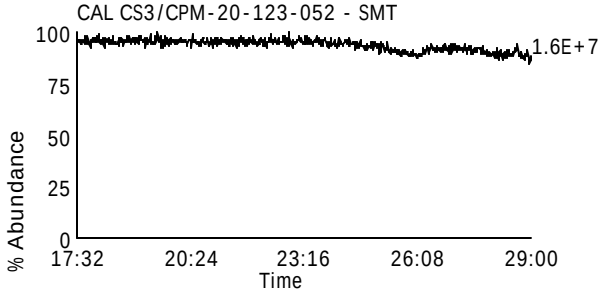
Data File: U210630B_17 G1 C11 - 333.9338
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_17 G1 C14 - 375.8364
CAL CS3/CPM-20-123-052 - SMT



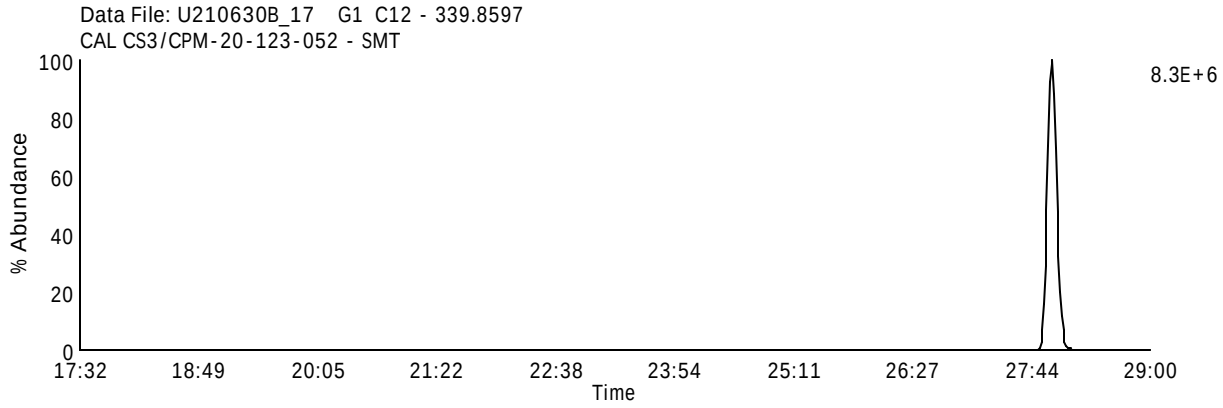
Data File: U210630B_17 G1 C5 - 318.9792
CAL CS3/CPM-20-123-052 - SMT

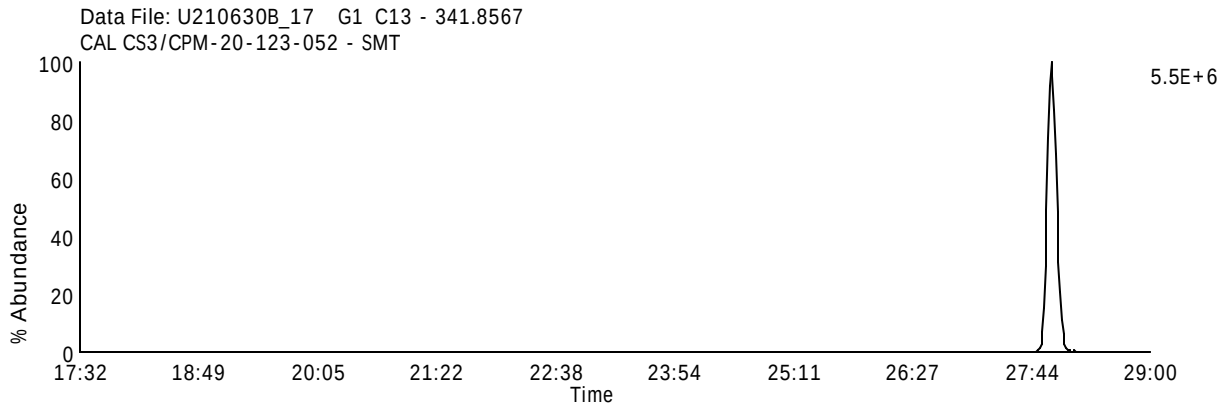


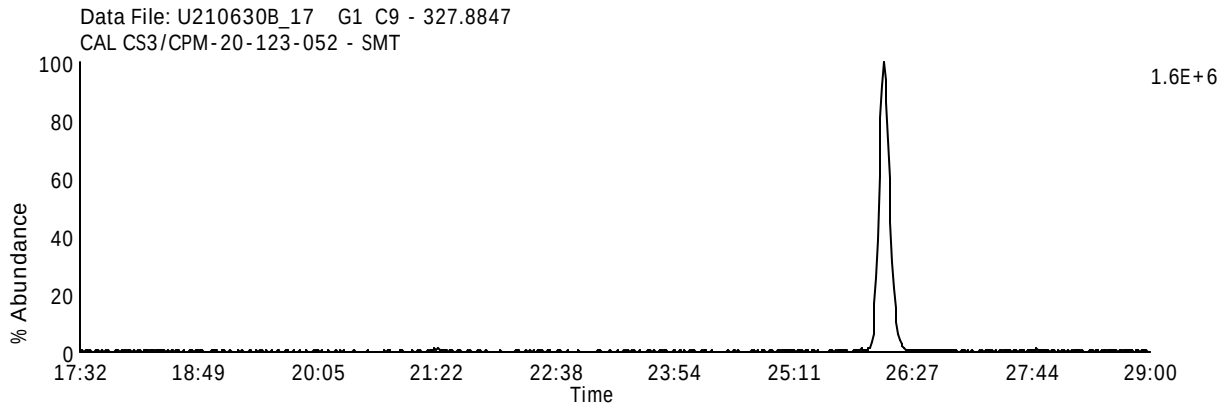
Homologue Group: Penta & Cleanup

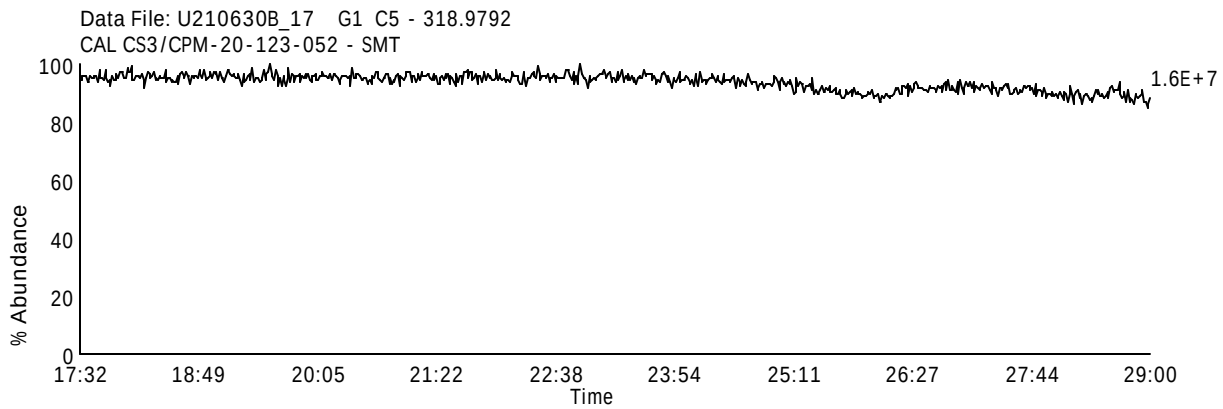
Data File Name: U210630B_17
Date Acquired: 7/1/2021
Sample Description: CAL CS3/CPM-20-123-052 - SMT

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)







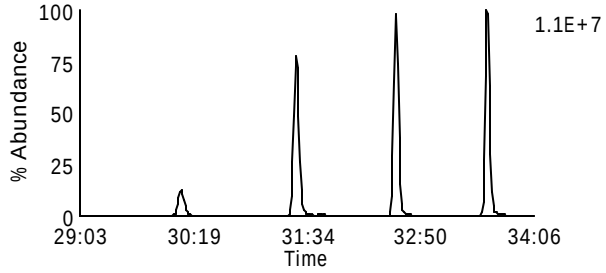


Homologue Group: Pentas

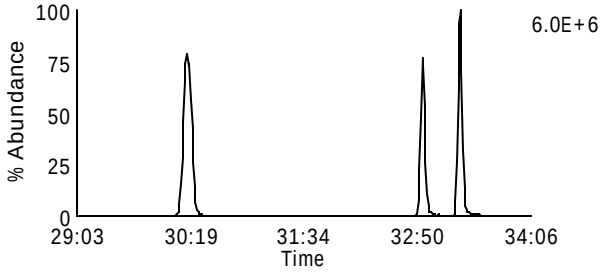
Data File Name: U210630B_17
Date Acquired: 7/1/2021
Sample Description: CAL CS3/CPM-20-123-052 - SMT

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

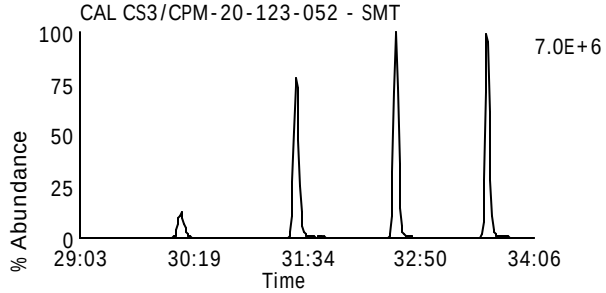
Data File: U210630B_17 G2 C1 - 339.8597
CAL CS3/CPM-20-123-052 - SMT



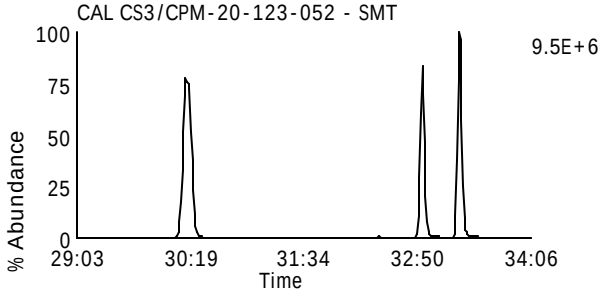
Data File: U210630B_17 G2 C4 - 353.8576
CAL CS3/CPM-20-123-052 - SMT



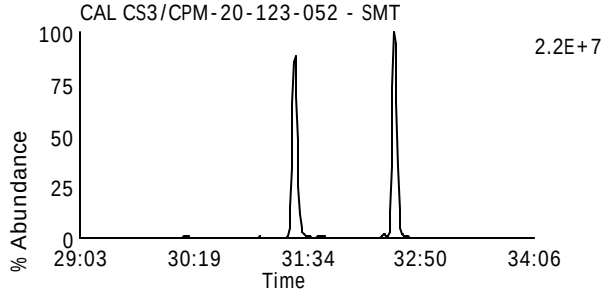
Data File: U210630B_17 G2 C2 - 341.8567
CAL CS3/CPM-20-123-052 - SMT



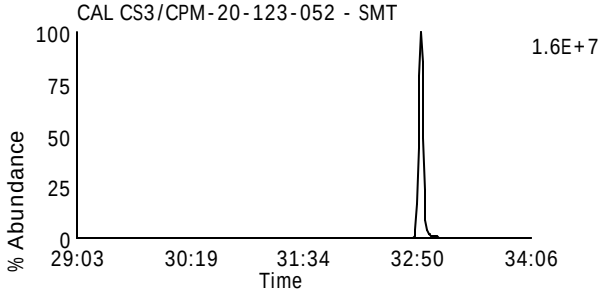
Data File: U210630B_17 G2 C8 - 355.8546
CAL CS3/CPM-20-123-052 - SMT



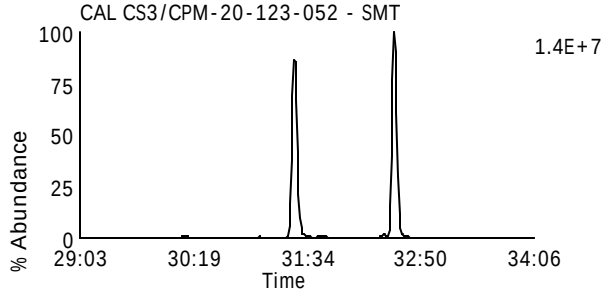
Data File: U210630B_17 G2 C3 - 351.8999
CAL CS3/CPM-20-123-052 - SMT



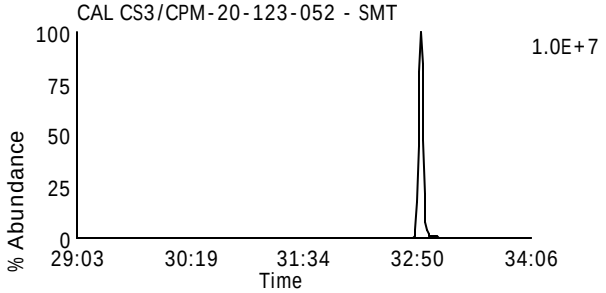
Data File: U210630B_17 G2 C10 - 367.8948
CAL CS3/CPM-20-123-052 - SMT



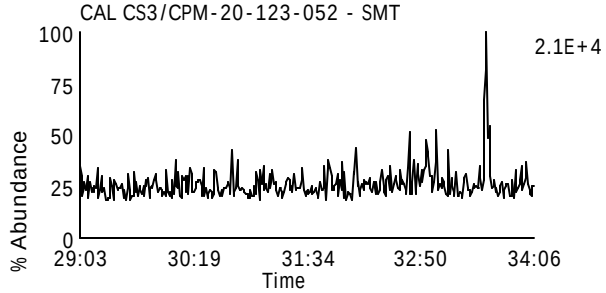
Data File: U210630B_17 G2 C5 - 353.8969
CAL CS3/CPM-20-123-052 - SMT



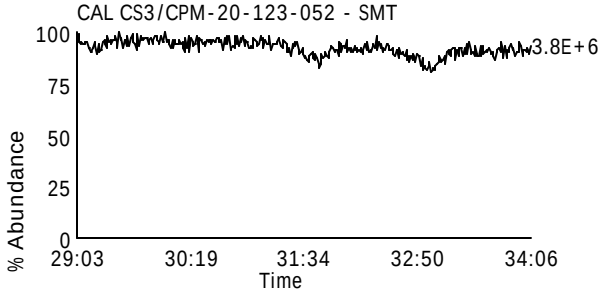
Data File: U210630B_17 G2 C11 - 369.8918
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_17 G2 C12 - 409.7974
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_17 G2 C6 - 354.9792
CAL CS3/CPM-20-123-052 - SMT

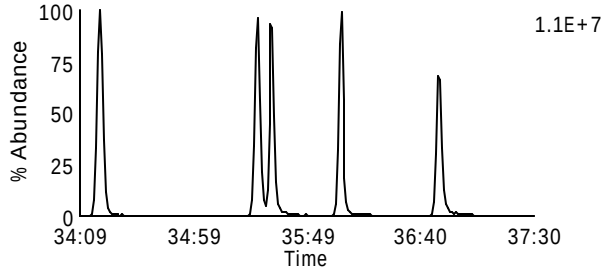


Homologue Group: Hexas

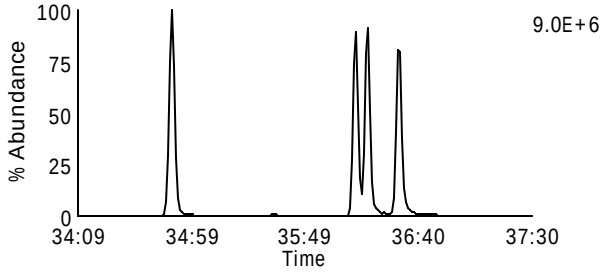
Data File Name: U210630B_17
Date Acquired: 7/1/2021
Sample Description: CAL CS3/CPM-20-123-052 - SMT

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

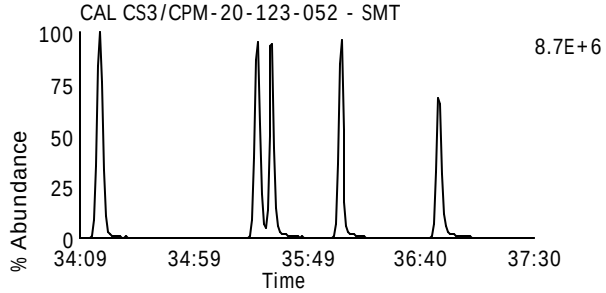
Data File: U210630B_17 G3 C1 - 373.8207
CAL CS3/CPM-20-123-052 - SMT



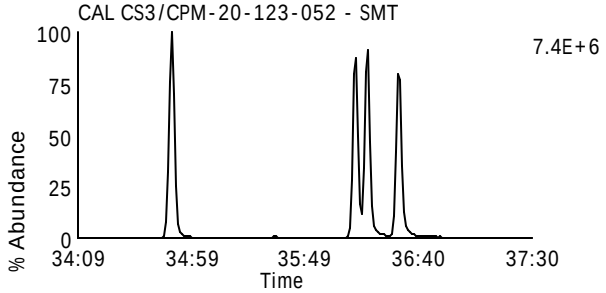
Data File: U210630B_17 G3 C7 - 389.8156
CAL CS3/CPM-20-123-052 - SMT



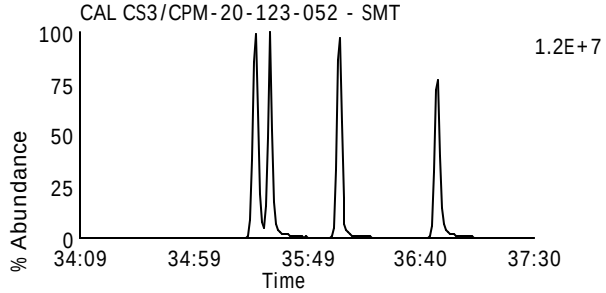
Data File: U210630B_17 G3 C2 - 375.8178
CAL CS3/CPM-20-123-052 - SMT



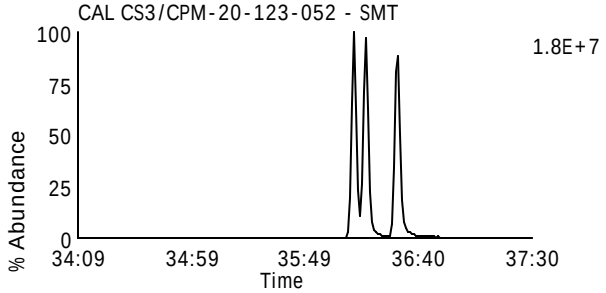
Data File: U210630B_17 G3 C8 - 391.8127
CAL CS3/CPM-20-123-052 - SMT



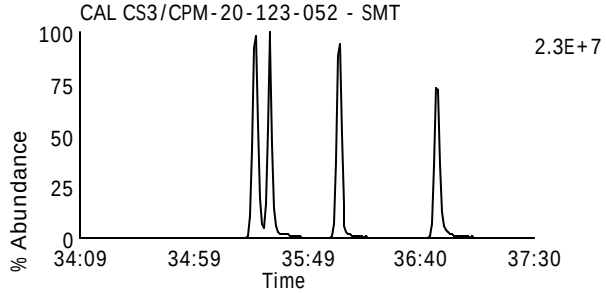
Data File: U210630B_17 G3 C5 - 383.8639
CAL CS3/CPM-20-123-052 - SMT



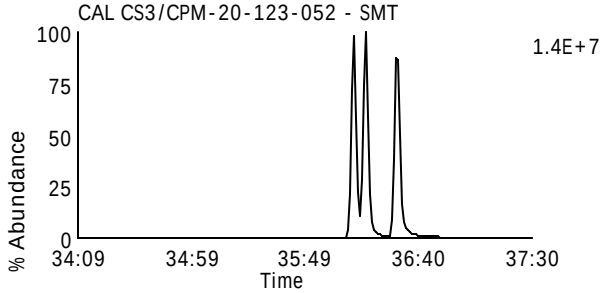
Data File: U210630B_17 G3 C9 - 401.8559
CAL CS3/CPM-20-123-052 - SMT



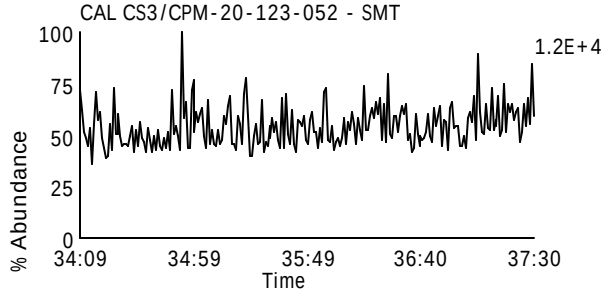
Data File: U210630B_17 G3 C6 - 385.861
CAL CS3/CPM-20-123-052 - SMT



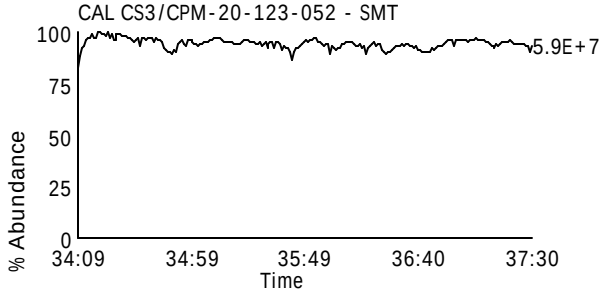
Data File: U210630B_17 G3 C10 - 403.8529
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_17 G3 C11 - 445.7555
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_17 G3 C3 - 380.976
CAL CS3/CPM-20-123-052 - SMT

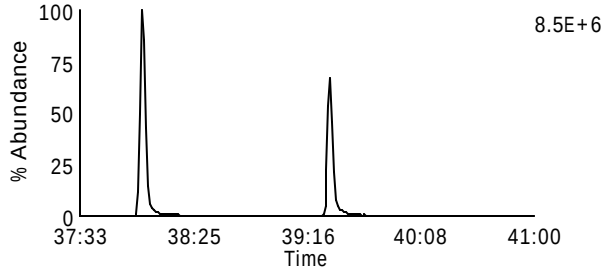


Homologue Group: Heptas

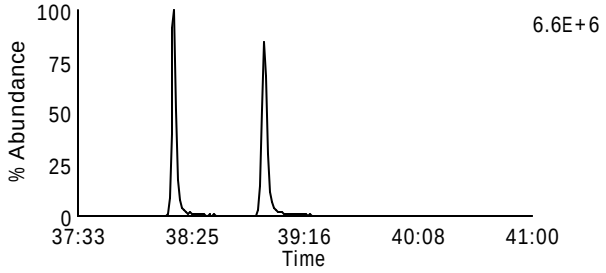
Data File Name: U210630B_17
Date Acquired: 7/1/2021
Sample Description: CAL CS3/CPM-20-123-052 - SMT

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

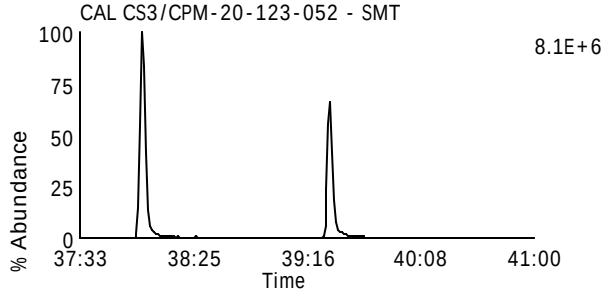
Data File: U210630B_17 G4 C3 - 407.7818
CAL CS3/CPM-20-123-052 - SMT



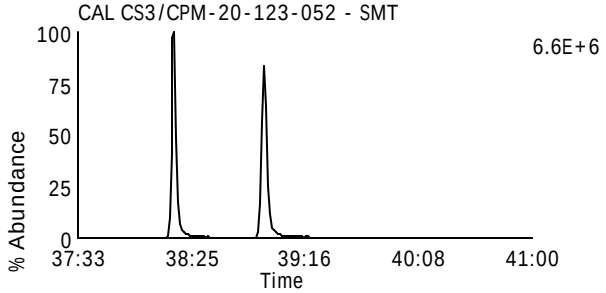
Data File: U210630B_17 G4 C8 - 423.7767
CAL CS3/CPM-20-123-052 - SMT



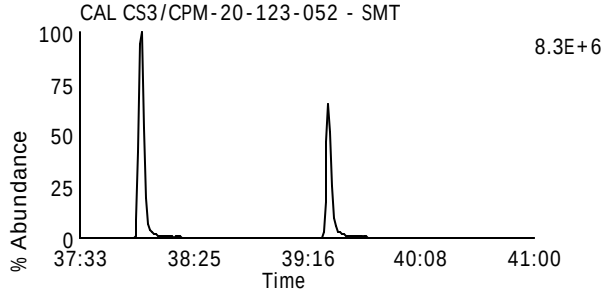
Data File: U210630B_17 G4 C4 - 409.7788
CAL CS3/CPM-20-123-052 - SMT



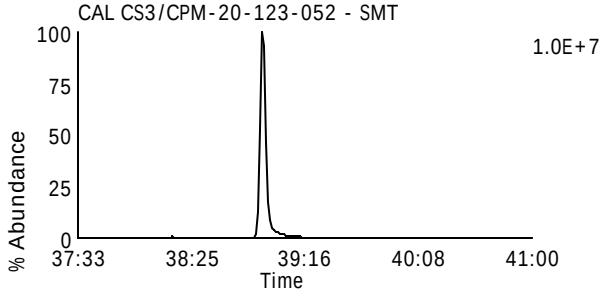
Data File: U210630B_17 G4 C9 - 425.7737
CAL CS3/CPM-20-123-052 - SMT



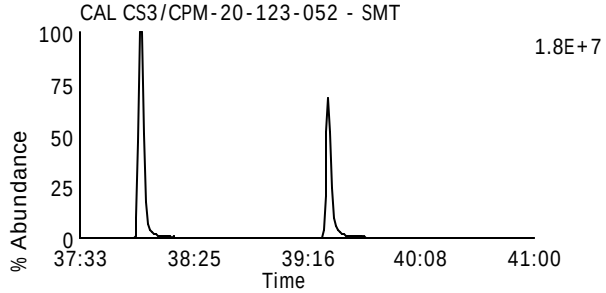
Data File: U210630B_17 G4 C6 - 417.825
CAL CS3/CPM-20-123-052 - SMT



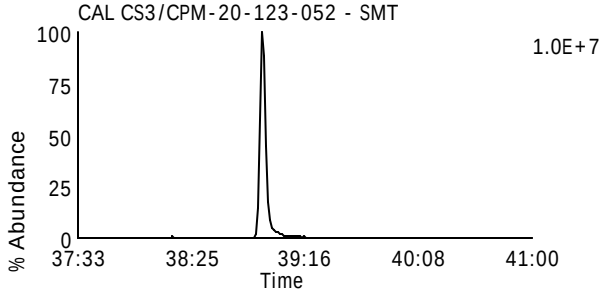
Data File: U210630B_17 G4 C11 - 435.8169
CAL CS3/CPM-20-123-052 - SMT



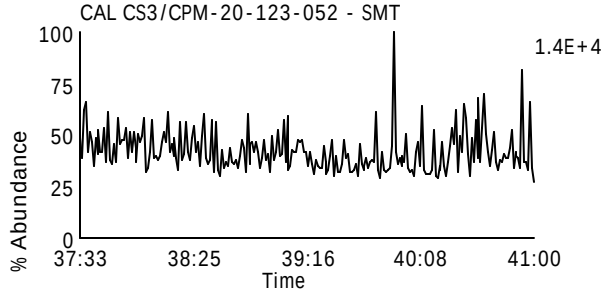
Data File: U210630B_17 G4 C7 - 419.822
CAL CS3/CPM-20-123-052 - SMT



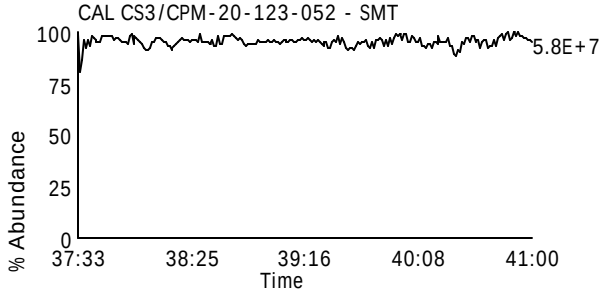
Data File: U210630B_17 G4 C12 - 437.814
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_17 G4 C13 - 479.7165
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_17 G4 C1 - 380.976
CAL CS3/CPM-20-123-052 - SMT

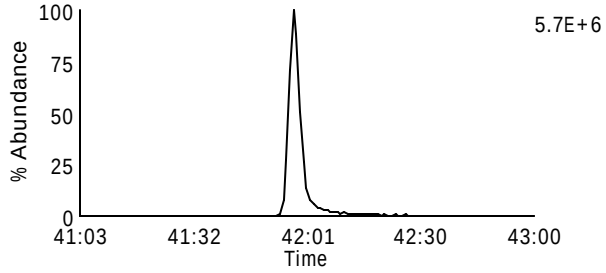


Homologue Group: Octas

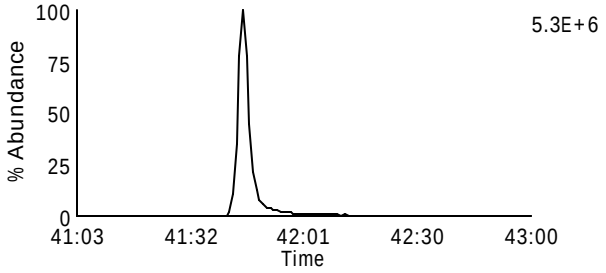
Data File Name: U210630B_17
Date Acquired: 7/1/2021
Sample Description: CAL CS3/CPM-20-123-052 - SMT

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

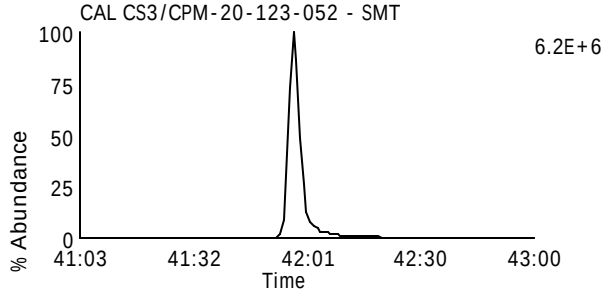
Data File: U210630B_17 G5 C4 - 441.7428
CAL CS3/CPM-20-123-052 - SMT



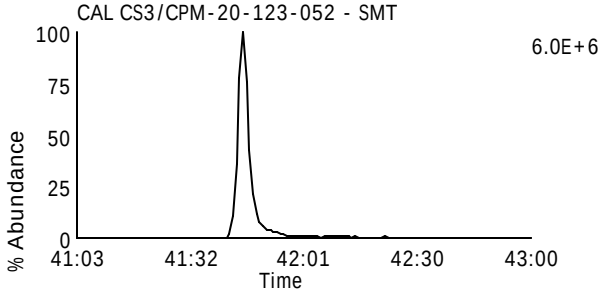
Data File: U210630B_17 G5 C8 - 457.7377
CAL CS3/CPM-20-123-052 - SMT



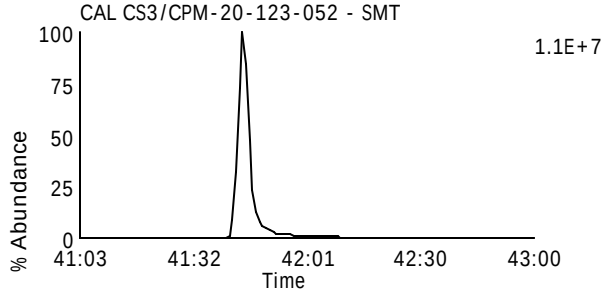
Data File: U210630B_17 G5 C5 - 443.7398
CAL CS3/CPM-20-123-052 - SMT



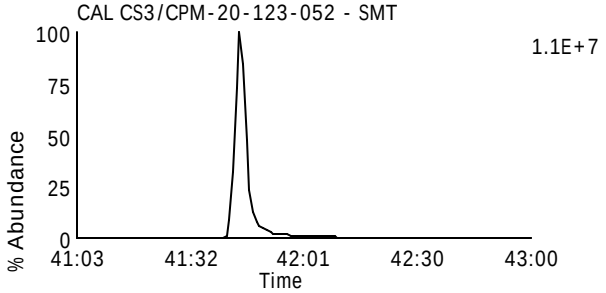
Data File: U210630B_17 G5 C9 - 459.7347
CAL CS3/CPM-20-123-052 - SMT



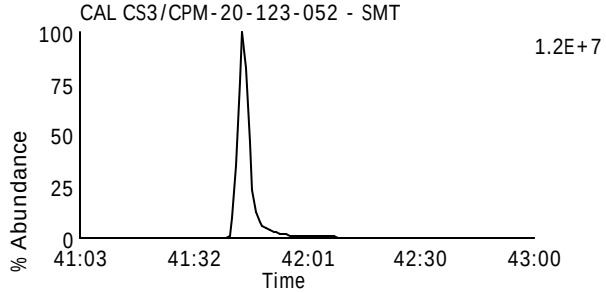
Data File: U210630B_17 G5 C11 - 469.7779
CAL CS3/CPM-20-123-052 - SMT



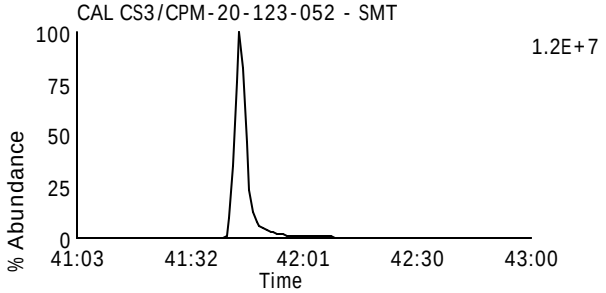
Data File: U210630B_17 G5 C11 - 469.7779
CAL CS3/CPM-20-123-052 - SMT



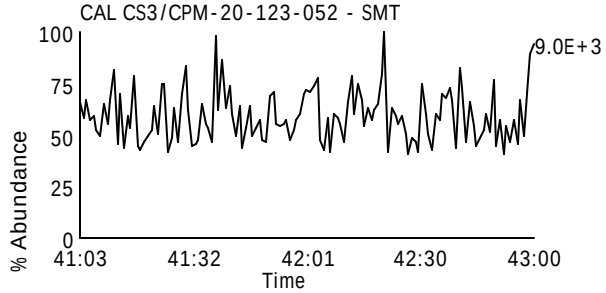
Data File: U210630B_17 G5 C12 - 471.7749
CAL CS3/CPM-20-123-052 - SMT



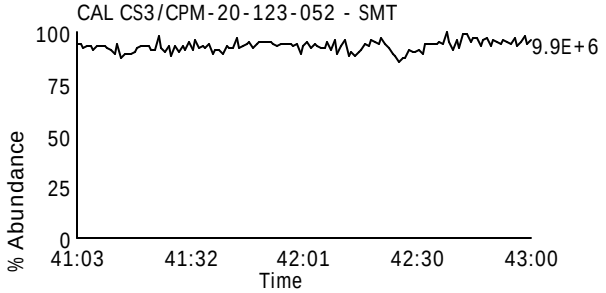
Data File: U210630B_17 G5 C12 - 471.7749
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_17 G5 C13 - 513.6775
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_17 G5 C2 - 430.9728
CAL CS3/CPM-20-123-052 - SMT

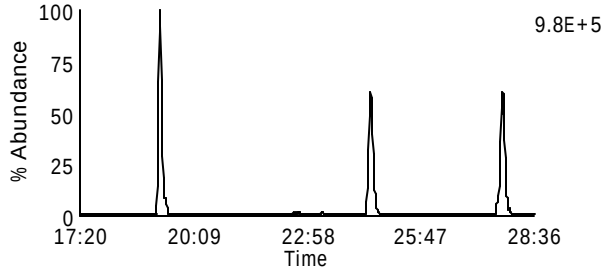


Homologue Group: Tetras

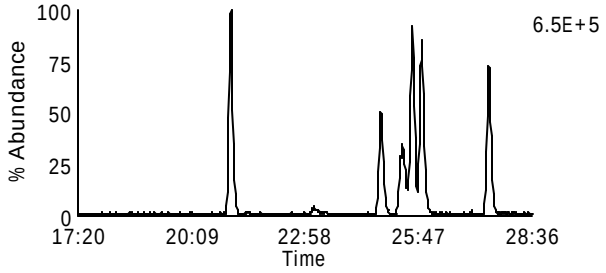
Data File Name: U210703B_01
Date Acquired: 7/3/2021
Sample Description: CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

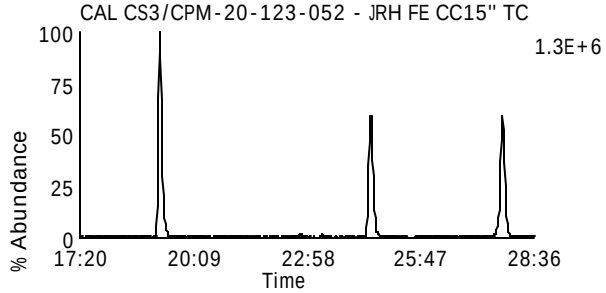
Data File: U210703B_01 G1 C1 - 303.9016
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



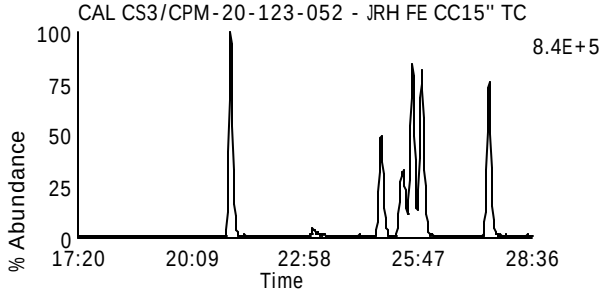
Data File: U210703B_01 G1 C7 - 319.8965
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



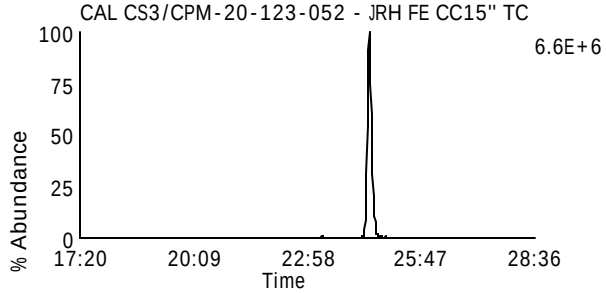
Data File: U210703B_01 G1 C2 - 305.8987
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



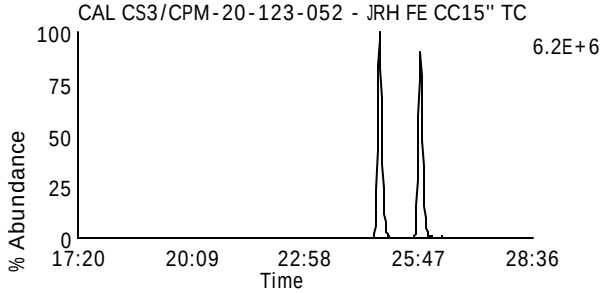
Data File: U210703B_01 G1 C8 - 321.8936
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



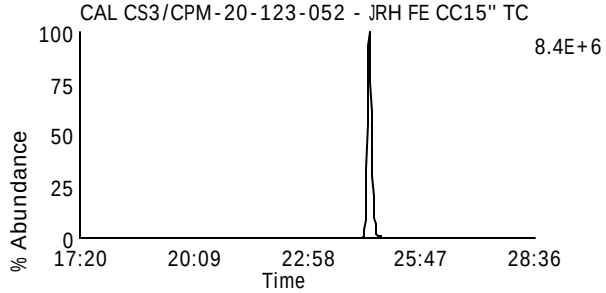
Data File: U210703B_01 G1 C3 - 315.9418
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



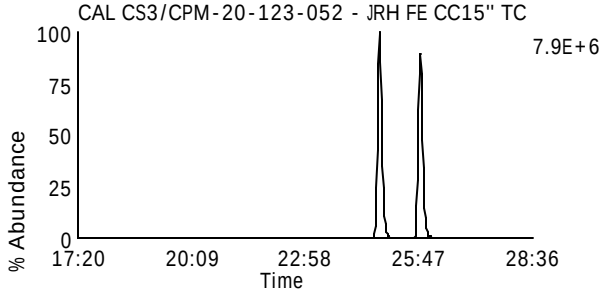
Data File: U210703B_01 G1 C10 - 331.9367
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



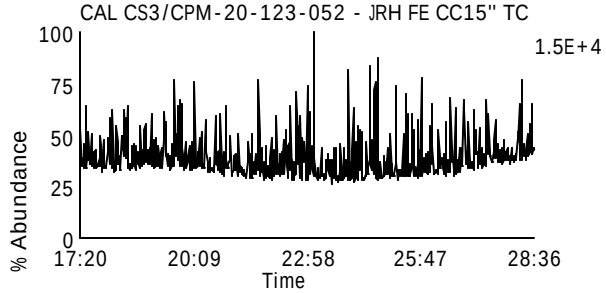
Data File: U210703B_01 G1 C4 - 317.9389
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



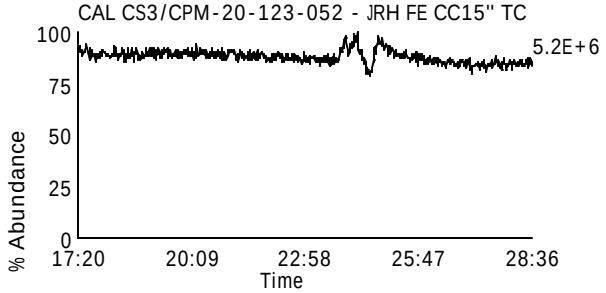
Data File: U210703B_01 G1 C11 - 333.9338
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



Data File: U210703B_01 G1 C14 - 375.8364
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



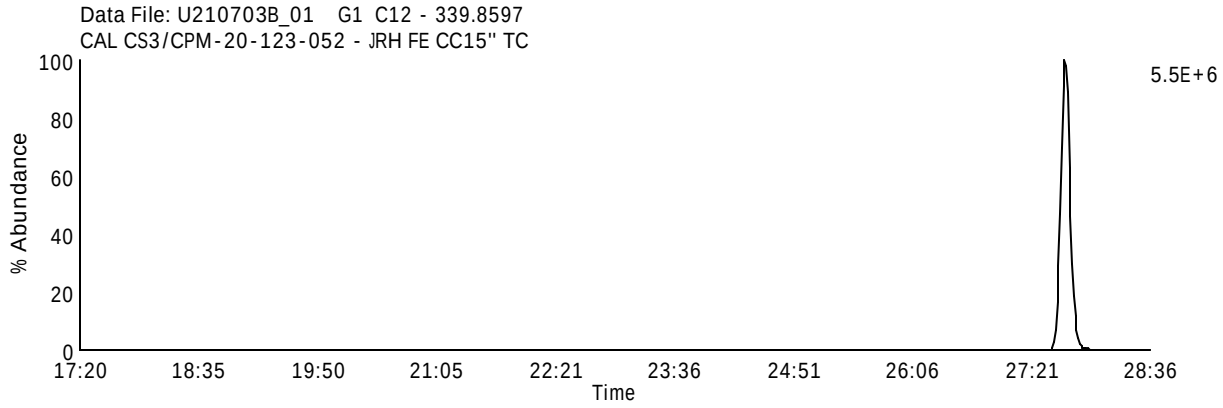
Data File: U210703B_01 G1 C5 - 318.9792
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC

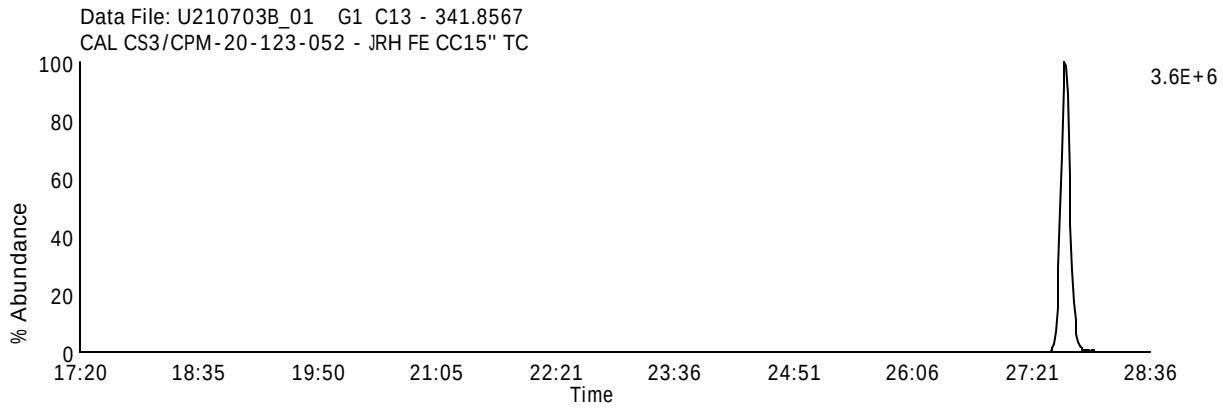


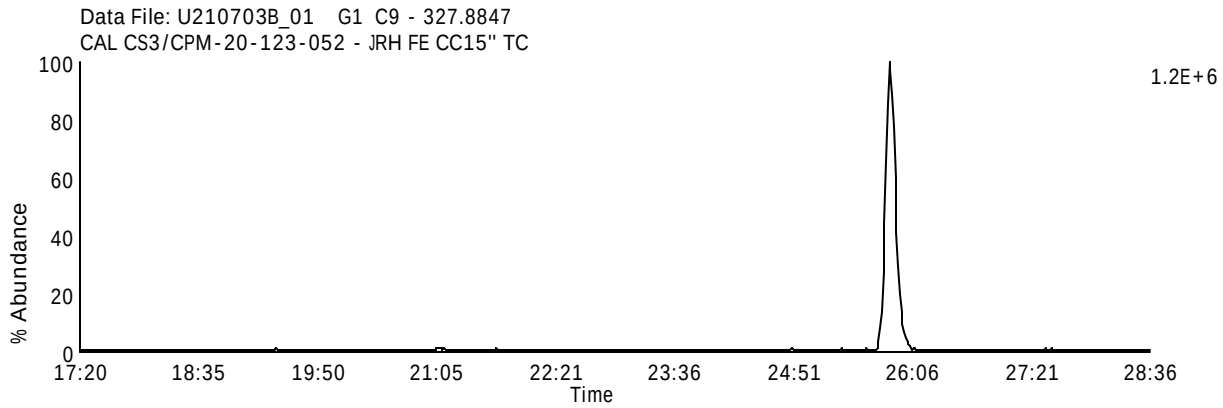
Homologue Group: Penta & Cleanup

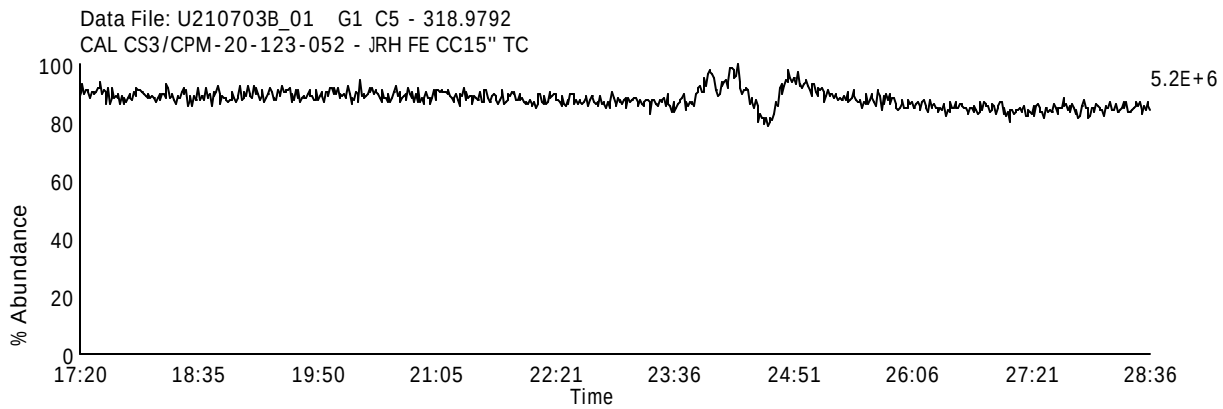
Data File Name: U210703B_01
Date Acquired: 7/3/2021
Sample Description: CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)







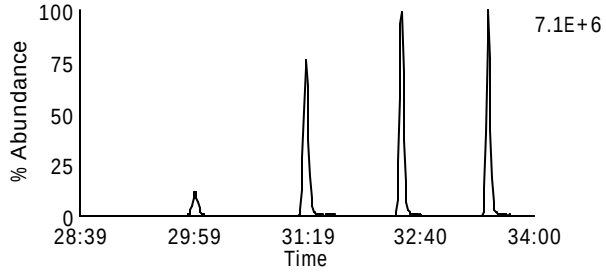


Homologue Group: Pentas

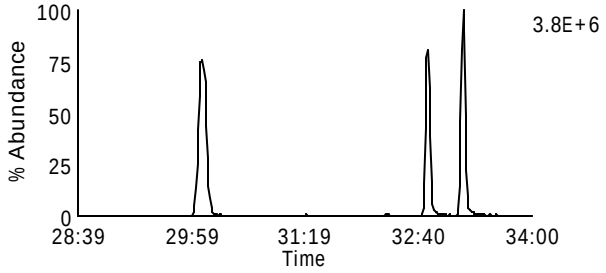
Data File Name: U210703B_01
Date Acquired: 7/3/2021
Sample Description: CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

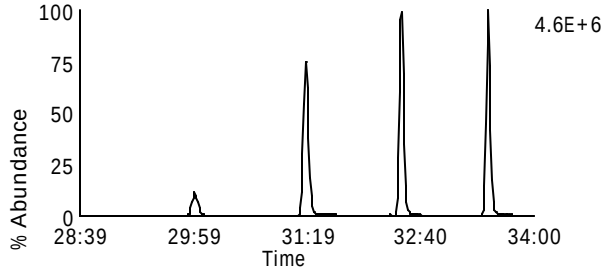
Data File: U210703B_01 G2 C1 - 339.8597
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



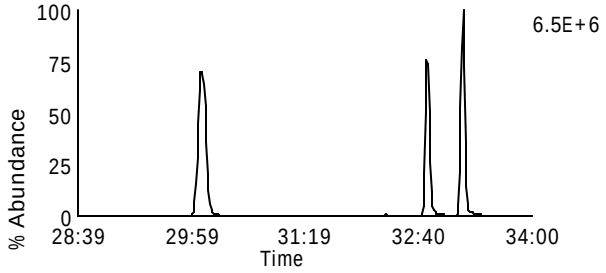
Data File: U210703B_01 G2 C4 - 353.8576
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



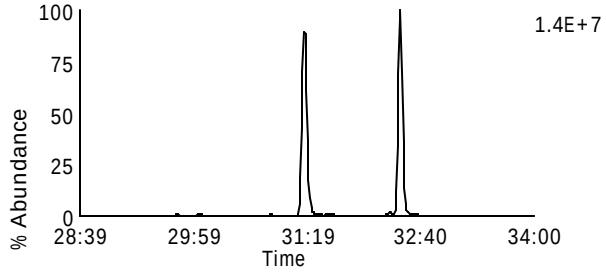
Data File: U210703B_01 G2 C2 - 341.8567
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



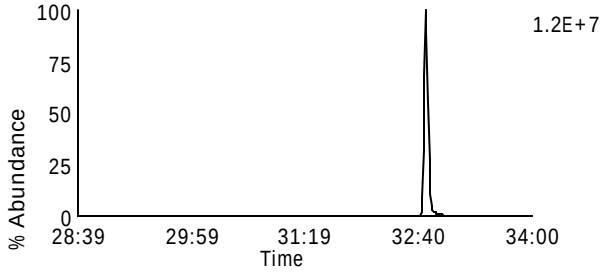
Data File: U210703B_01 G2 C8 - 355.8546
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



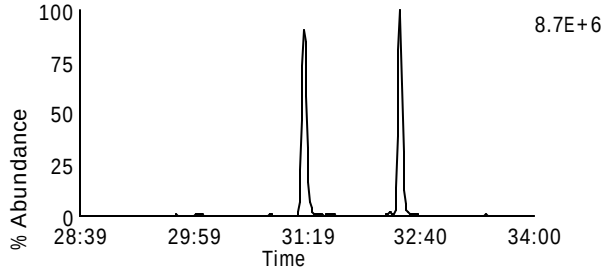
Data File: U210703B_01 G2 C3 - 351.8999
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



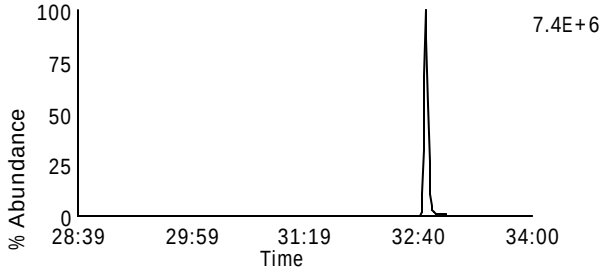
Data File: U210703B_01 G2 C10 - 367.8948
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



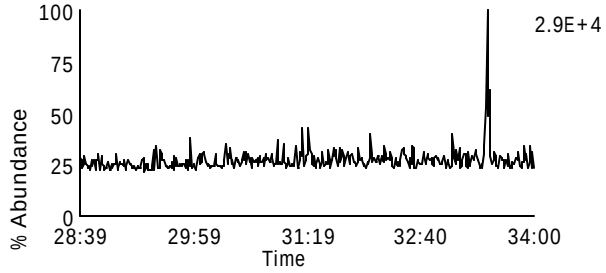
Data File: U210703B_01 G2 C5 - 353.8969
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



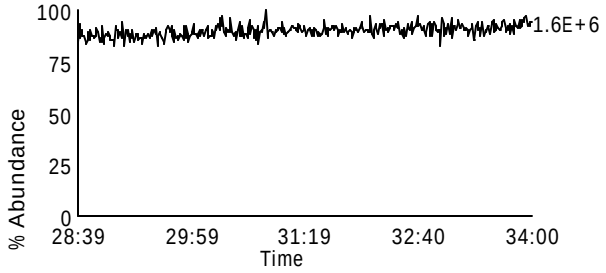
Data File: U210703B_01 G2 C11 - 369.8918
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



Data File: U210703B_01 G2 C12 - 409.7974
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



Data File: U210703B_01 G2 C6 - 354.9792
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC

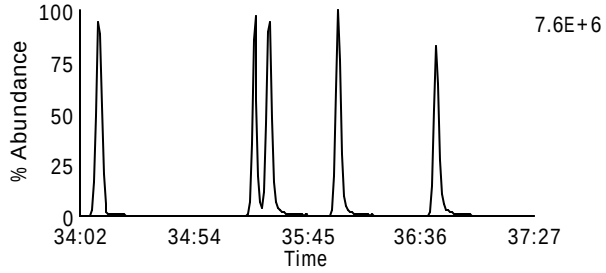


Homologue Group: Hexas

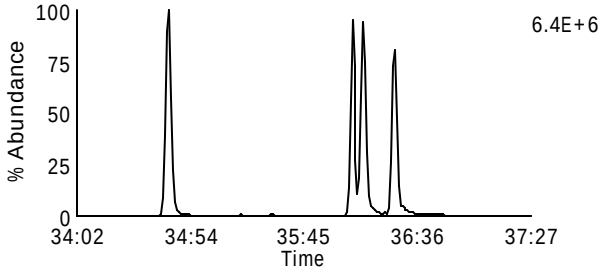
Data File Name: U210703B_01
Date Acquired: 7/3/2021
Sample Description: CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

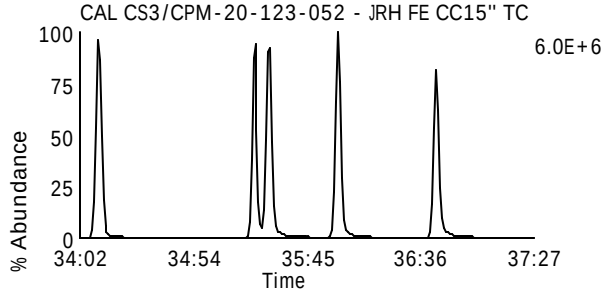
Data File: U210703B_01 G3 C1 - 373.8207
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



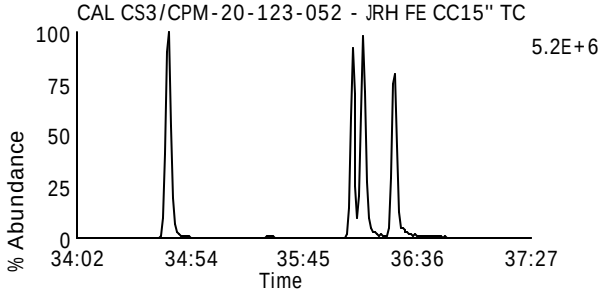
Data File: U210703B_01 G3 C7 - 389.8156
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



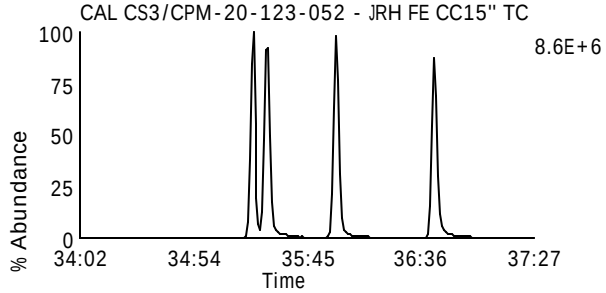
Data File: U210703B_01 G3 C2 - 375.8178
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



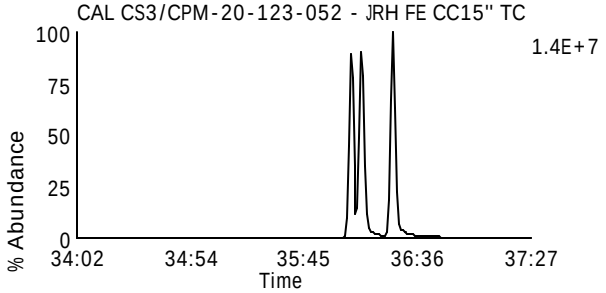
Data File: U210703B_01 G3 C8 - 391.8127
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



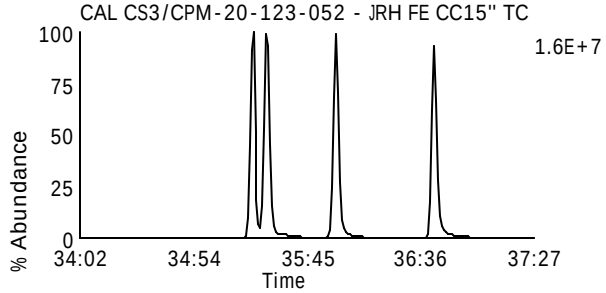
Data File: U210703B_01 G3 C5 - 383.8639
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



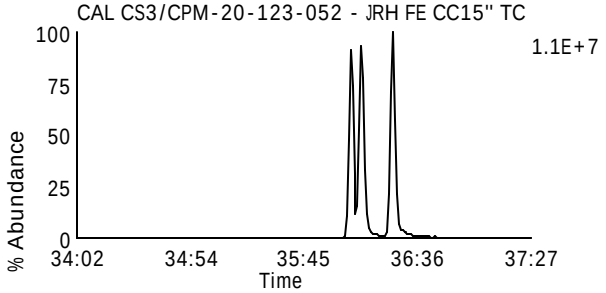
Data File: U210703B_01 G3 C9 - 401.8559
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



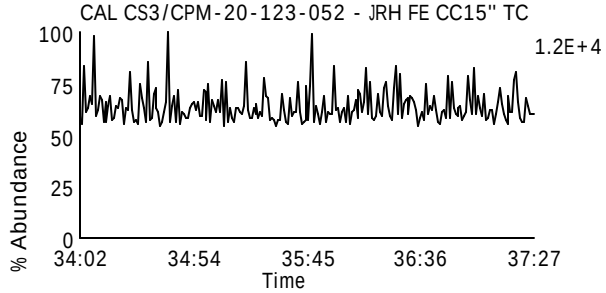
Data File: U210703B_01 G3 C6 - 385.861
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



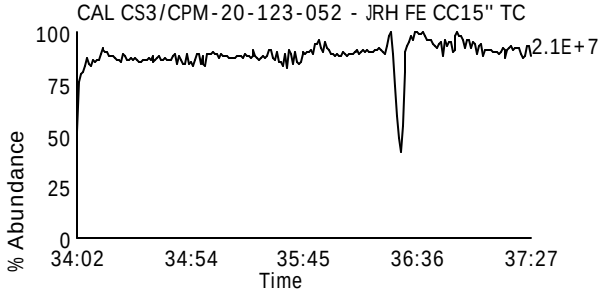
Data File: U210703B_01 G3 C10 - 403.8529
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



Data File: U210703B_01 G3 C11 - 445.7555
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



Data File: U210703B_01 G3 C3 - 380.976
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC

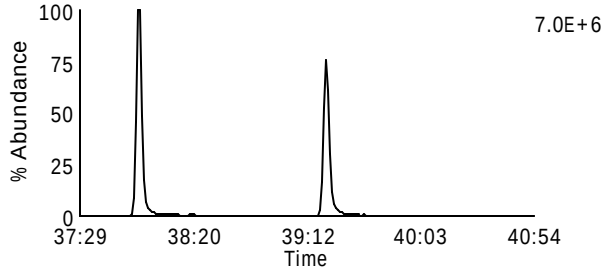


Homologue Group: Heptas

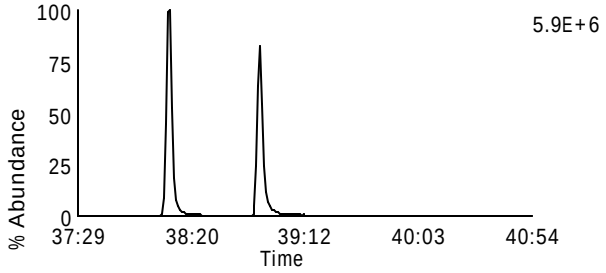
Data File Name: U210703B_01
Date Acquired: 7/3/2021
Sample Description: CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

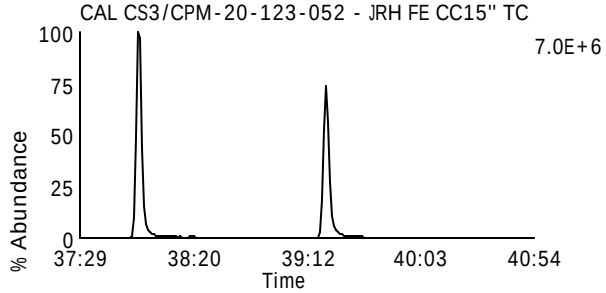
Data File: U210703B_01 G4 C3 - 407.7818
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



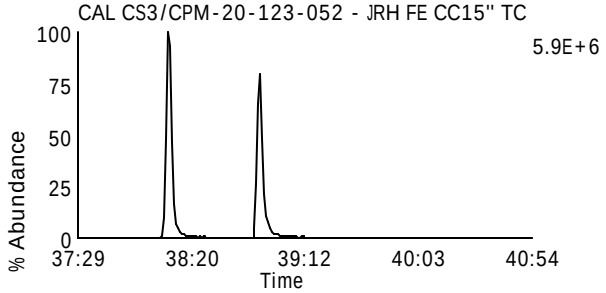
Data File: U210703B_01 G4 C8 - 423.7767
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



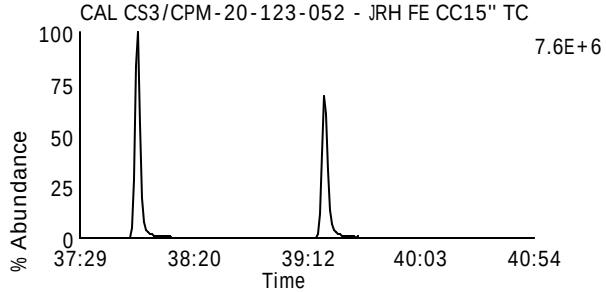
Data File: U210703B_01 G4 C4 - 409.7788
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



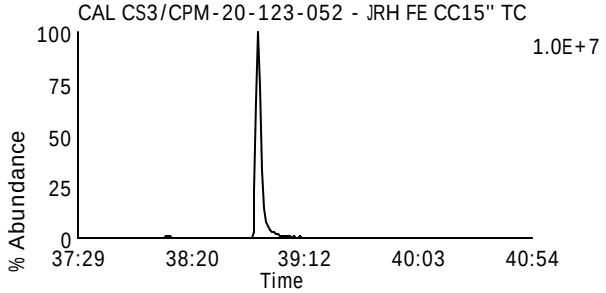
Data File: U210703B_01 G4 C9 - 425.7737
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



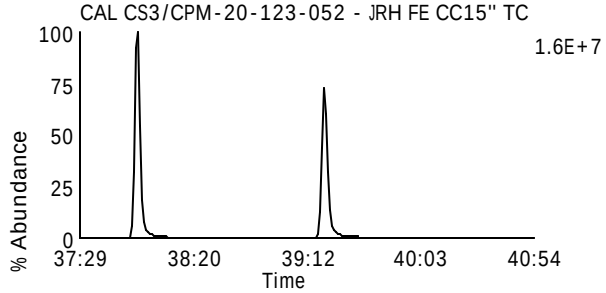
Data File: U210703B_01 G4 C6 - 417.825
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



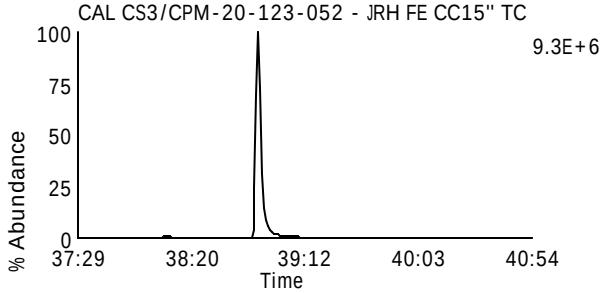
Data File: U210703B_01 G4 C11 - 435.8169
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



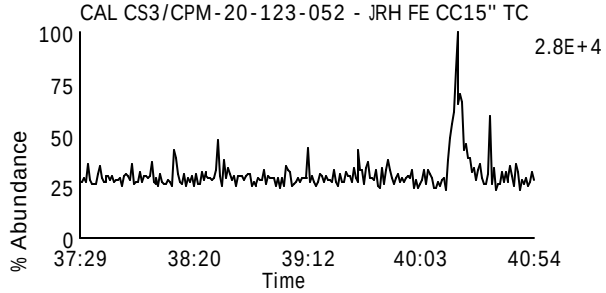
Data File: U210703B_01 G4 C7 - 419.822
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



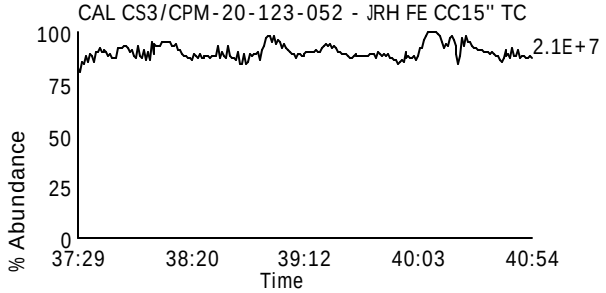
Data File: U210703B_01 G4 C12 - 437.814
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



Data File: U210703B_01 G4 C13 - 479.7165
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



Data File: U210703B_01 G4 C1 - 380.976
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC

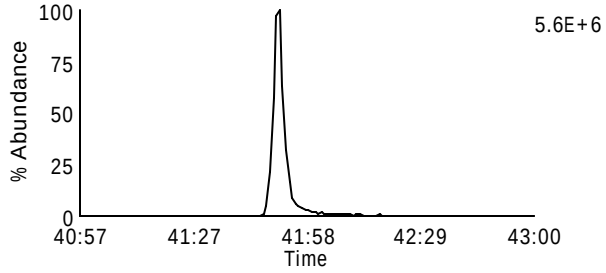


Homologue Group: Octas

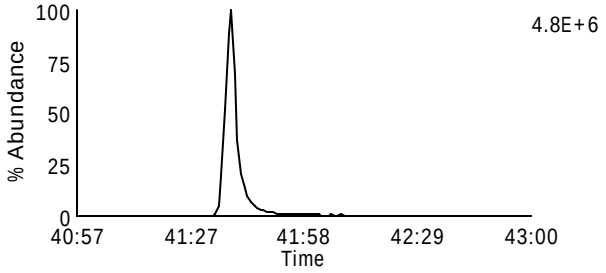
Data File Name: U210703B_01
Date Acquired: 7/3/2021
Sample Description: CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

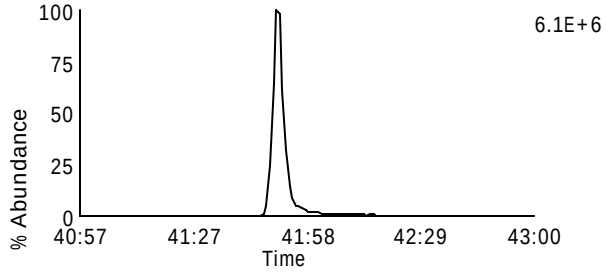
Data File: U210703B_01 G5 C4 - 441.7428
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



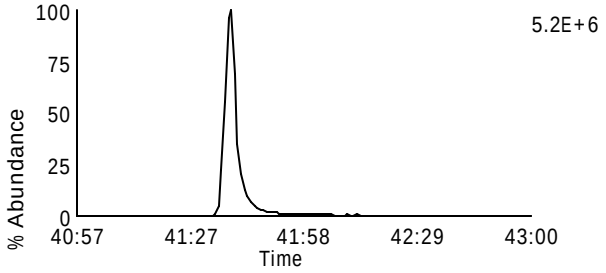
Data File: U210703B_01 G5 C8 - 457.7377
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



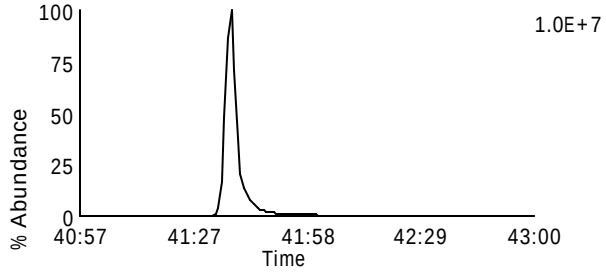
Data File: U210703B_01 G5 C5 - 443.7398
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



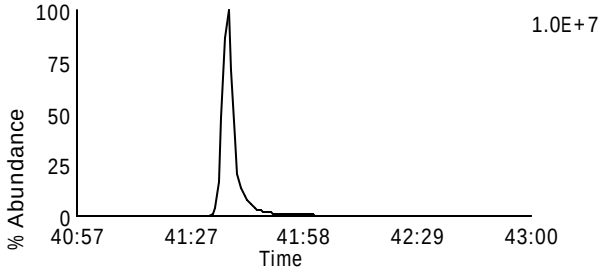
Data File: U210703B_01 G5 C9 - 459.7347
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



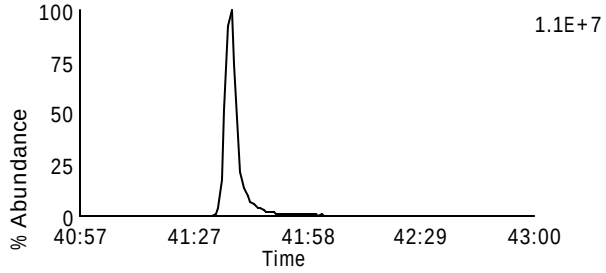
Data File: U210703B_01 G5 C11 - 469.7779
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



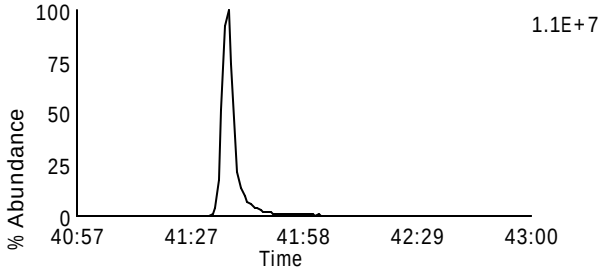
Data File: U210703B_01 G5 C11 - 469.7779
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



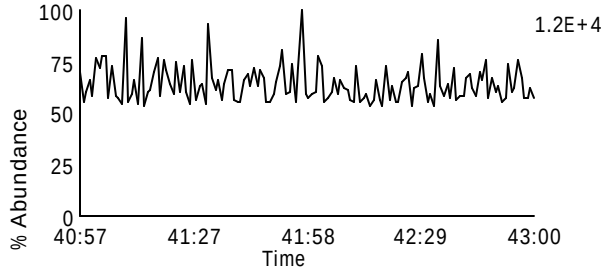
Data File: U210703B_01 G5 C12 - 471.7749
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



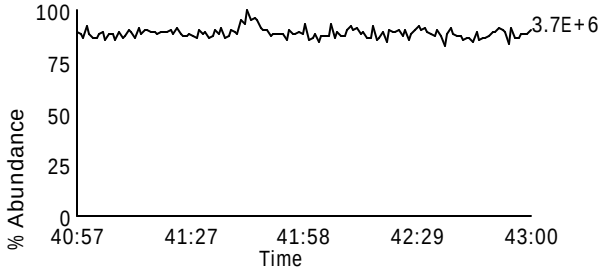
Data File: U210703B_01 G5 C12 - 471.7749
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



Data File: U210703B_01 G5 C13 - 513.6775
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



Data File: U210703B_01 G5 C2 - 430.9728
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC

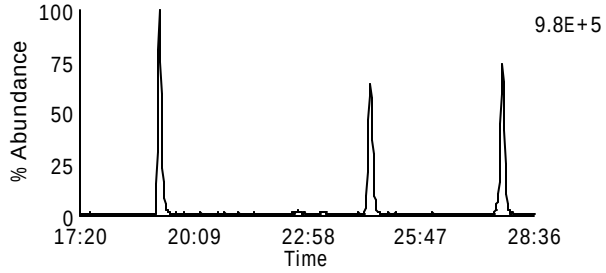


Homologue Group: Tetras

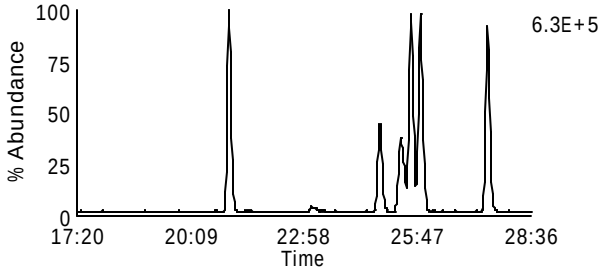
Data File Name: U210703B_17
Date Acquired: 7/4/2021
Sample Description: CAL CS3/CPM-20-123-052 - JRH

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

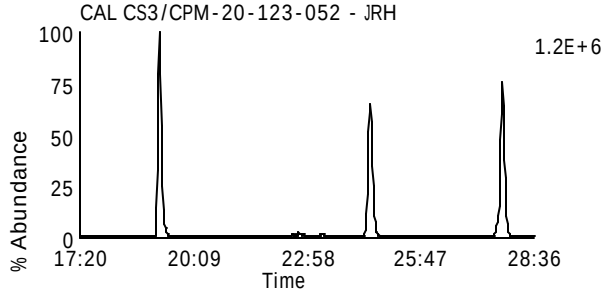
Data File: U210703B_17 G1 C1 - 303.9016
CAL CS3/CPM-20-123-052 - JRH



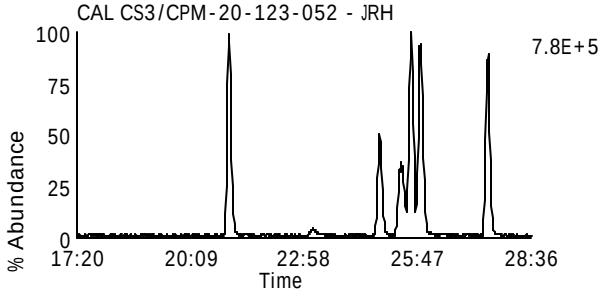
Data File: U210703B_17 G1 C7 - 319.8965
CAL CS3/CPM-20-123-052 - JRH



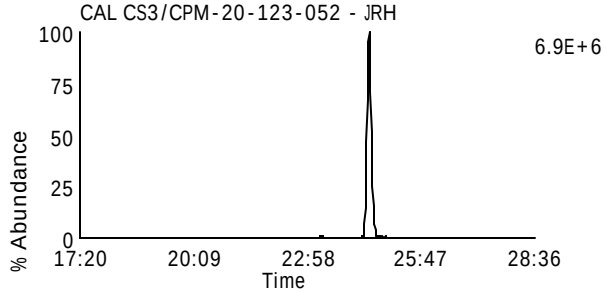
Data File: U210703B_17 G1 C2 - 305.8987
CAL CS3/CPM-20-123-052 - JRH



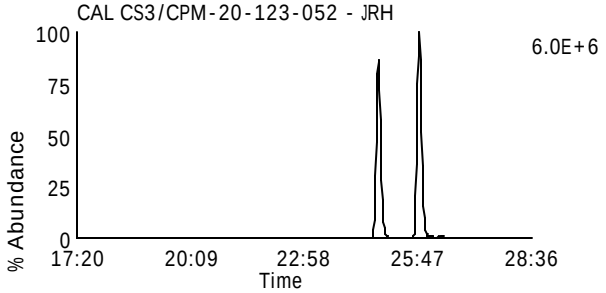
Data File: U210703B_17 G1 C8 - 321.8936
CAL CS3/CPM-20-123-052 - JRH



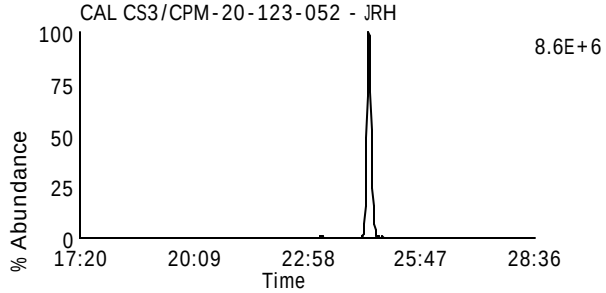
Data File: U210703B_17 G1 C3 - 315.9418
CAL CS3/CPM-20-123-052 - JRH



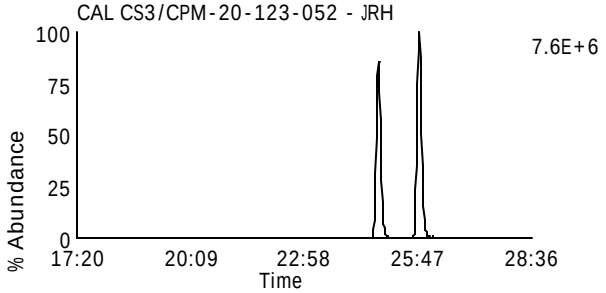
Data File: U210703B_17 G1 C10 - 331.9367
CAL CS3/CPM-20-123-052 - JRH



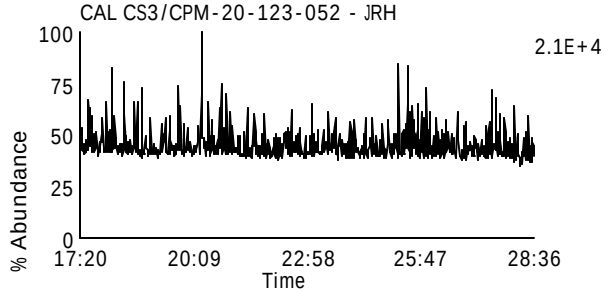
Data File: U210703B_17 G1 C4 - 317.9389
CAL CS3/CPM-20-123-052 - JRH



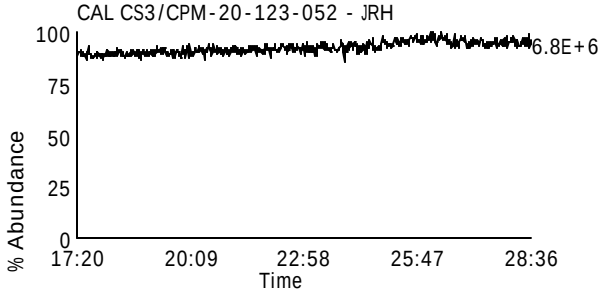
Data File: U210703B_17 G1 C11 - 333.9338
CAL CS3/CPM-20-123-052 - JRH



Data File: U210703B_17 G1 C14 - 375.8364
CAL CS3/CPM-20-123-052 - JRH



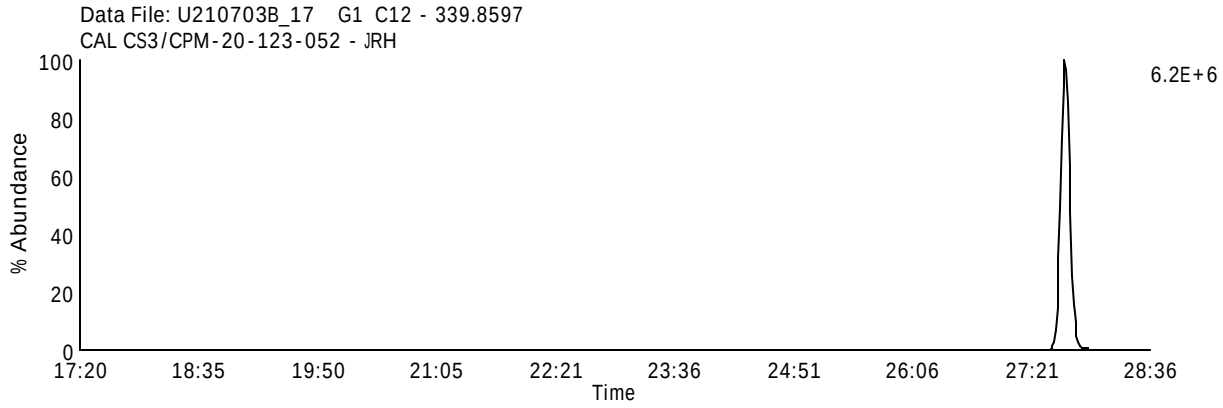
Data File: U210703B_17 G1 C5 - 318.9792
CAL CS3/CPM-20-123-052 - JRH

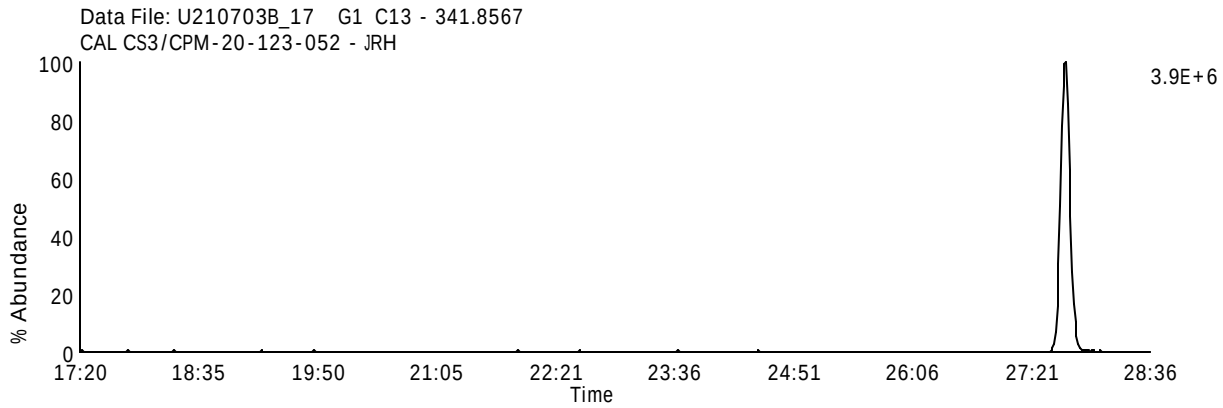


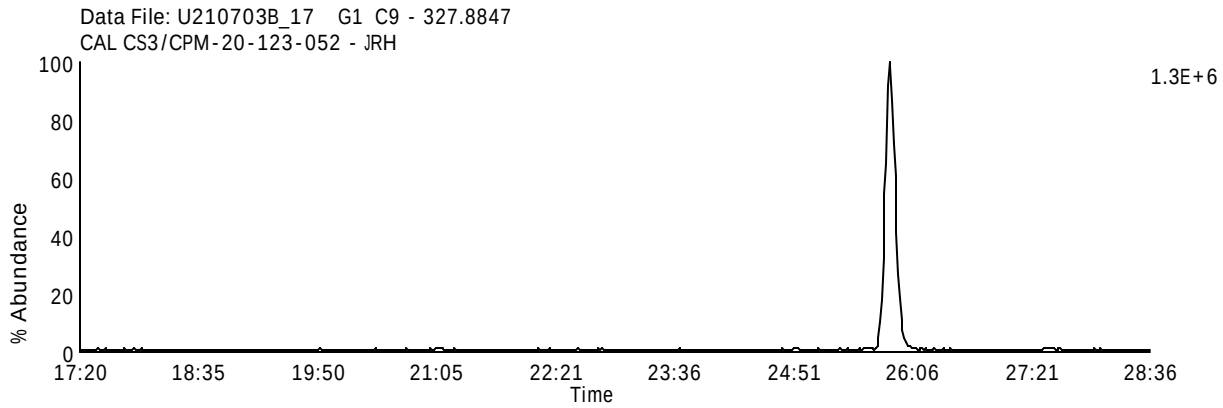
Homologue Group: Penta & Cleanup

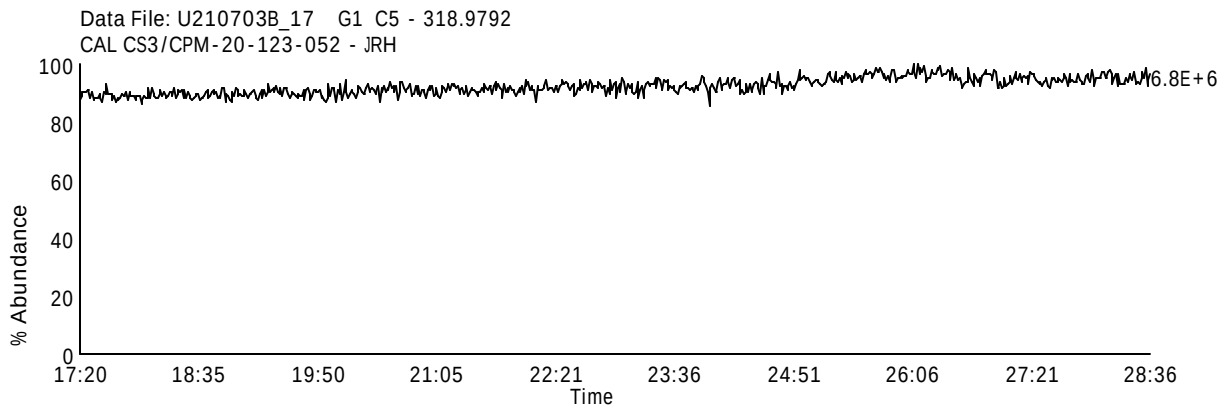
Data File Name: U210703B_17
Date Acquired: 7/4/2021
Sample Description: CAL CS3/CPM-20-123-052 - JRH

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)







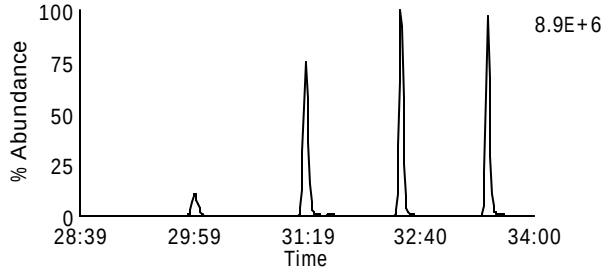


Homologue Group: Pentas

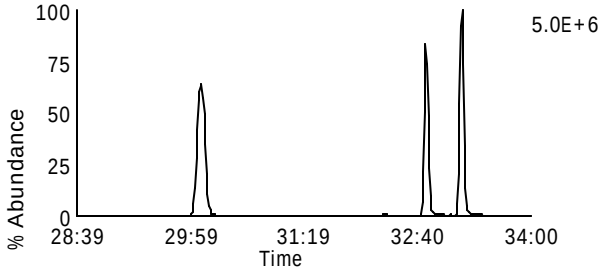
Data File Name: U210703B_17
Date Acquired: 7/4/2021
Sample Description: CAL CS3/CPM-20-123-052 - JRH

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

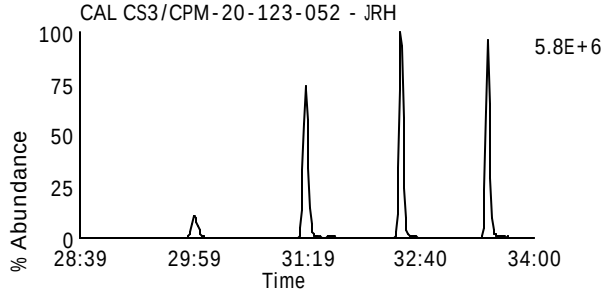
Data File: U210703B_17 G2 C1 - 339.8597
CAL CS3/CPM-20-123-052 - JRH



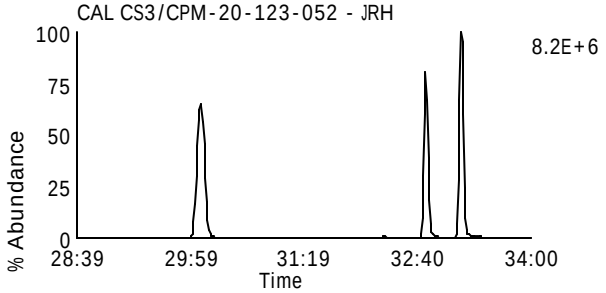
Data File: U210703B_17 G2 C4 - 353.8576
CAL CS3/CPM-20-123-052 - JRH



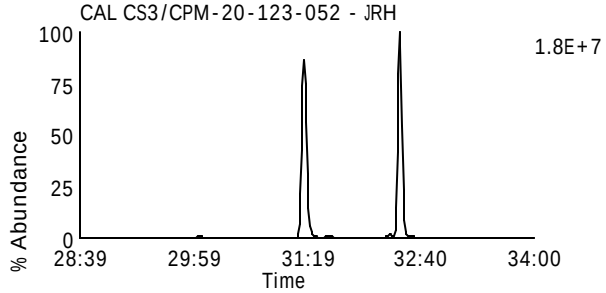
Data File: U210703B_17 G2 C2 - 341.8567
CAL CS3/CPM-20-123-052 - JRH



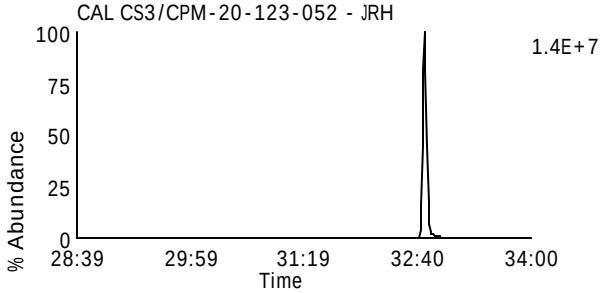
Data File: U210703B_17 G2 C8 - 355.8546
CAL CS3/CPM-20-123-052 - JRH



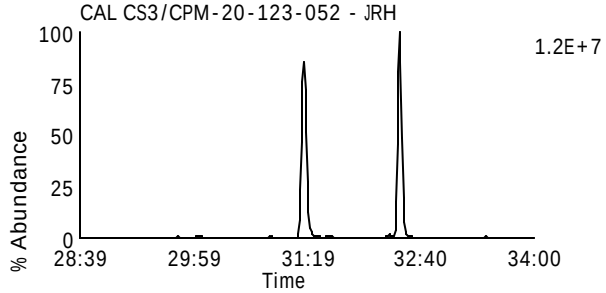
Data File: U210703B_17 G2 C3 - 351.8999
CAL CS3/CPM-20-123-052 - JRH



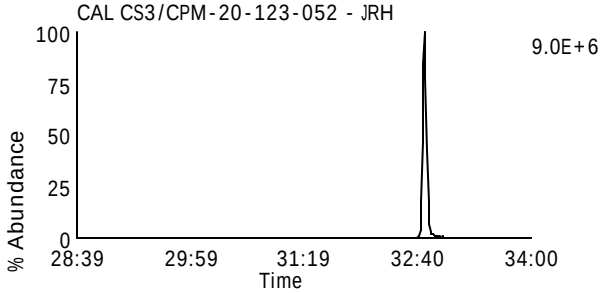
Data File: U210703B_17 G2 C10 - 367.8948
CAL CS3/CPM-20-123-052 - JRH



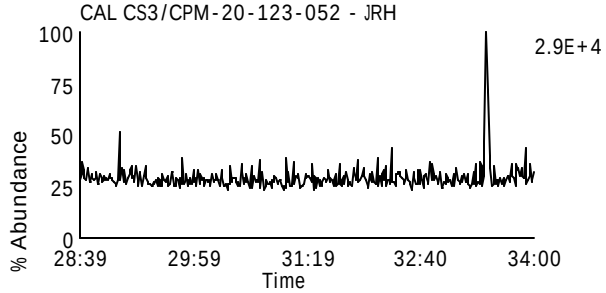
Data File: U210703B_17 G2 C5 - 353.8969
CAL CS3/CPM-20-123-052 - JRH



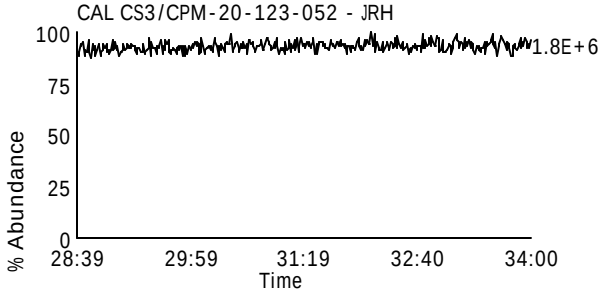
Data File: U210703B_17 G2 C11 - 369.8918
CAL CS3/CPM-20-123-052 - JRH



Data File: U210703B_17 G2 C12 - 409.7974
CAL CS3/CPM-20-123-052 - JRH



Data File: U210703B_17 G2 C6 - 354.9792
CAL CS3/CPM-20-123-052 - JRH

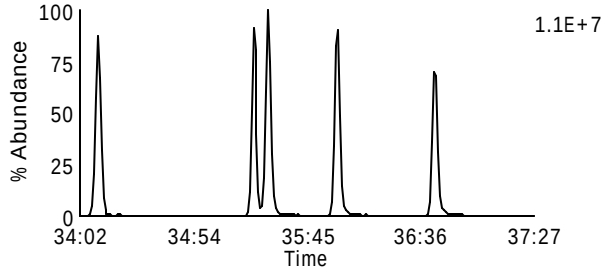


Homologue Group: Hexas

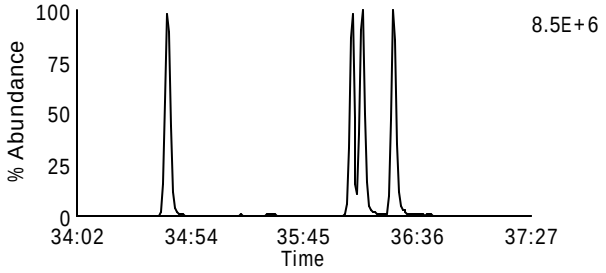
Data File Name: U210703B_17
Date Acquired: 7/4/2021
Sample Description: CAL CS3/CPM-20-123-052 - JRH

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

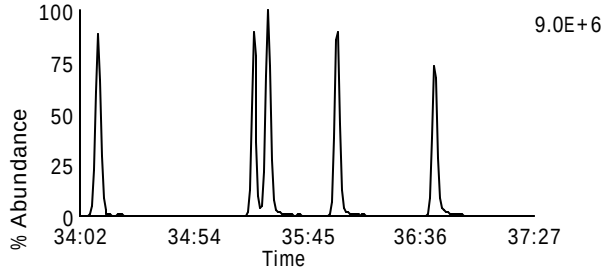
Data File: U210703B_17 G3 C1 - 373.8207
CAL CS3/CPM-20-123-052 - JRH



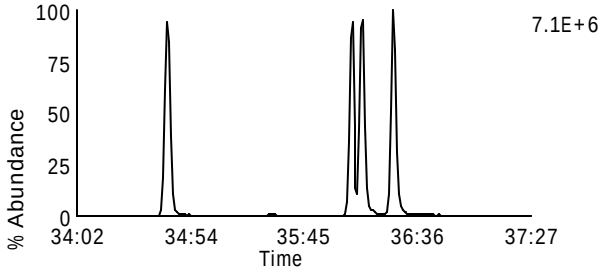
Data File: U210703B_17 G3 C7 - 389.8156
CAL CS3/CPM-20-123-052 - JRH



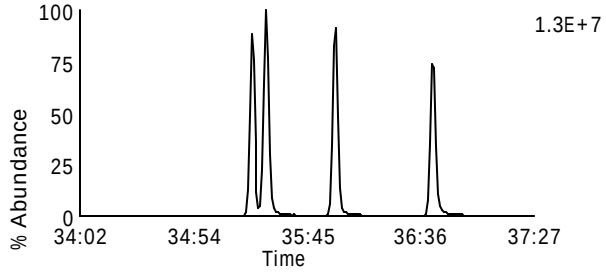
Data File: U210703B_17 G3 C2 - 375.8178
CAL CS3/CPM-20-123-052 - JRH



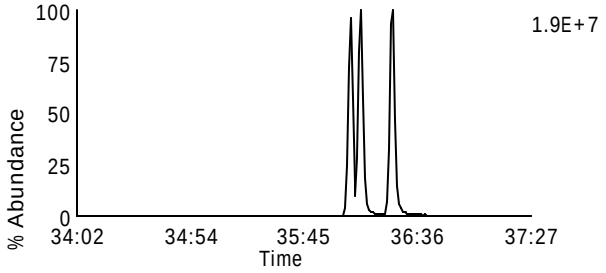
Data File: U210703B_17 G3 C8 - 391.8127
CAL CS3/CPM-20-123-052 - JRH



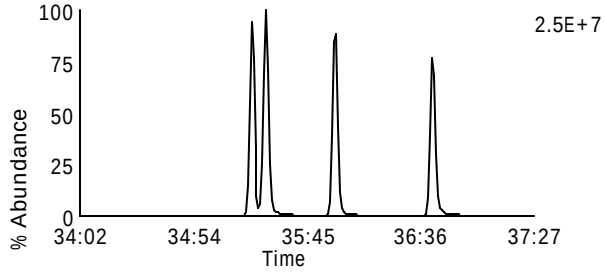
Data File: U210703B_17 G3 C5 - 383.8639
CAL CS3/CPM-20-123-052 - JRH



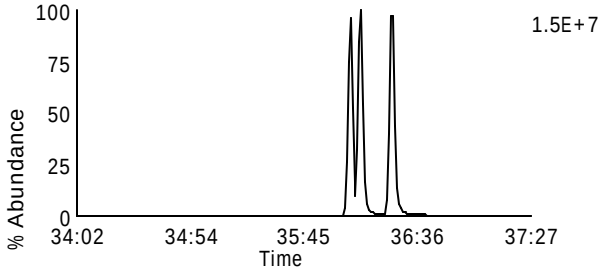
Data File: U210703B_17 G3 C9 - 401.8559
CAL CS3/CPM-20-123-052 - JRH



Data File: U210703B_17 G3 C6 - 385.861
CAL CS3/CPM-20-123-052 - JRH



Data File: U210703B_17 G3 C10 - 403.8529
CAL CS3/CPM-20-123-052 - JRH



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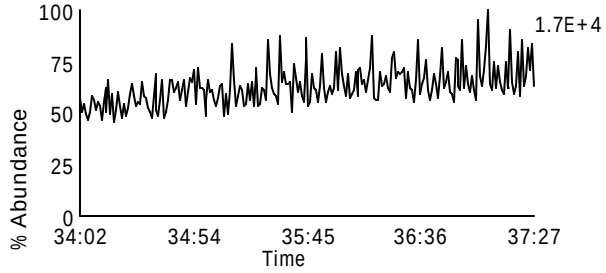
CAL CS3/CPM-20-123-052 - JRH



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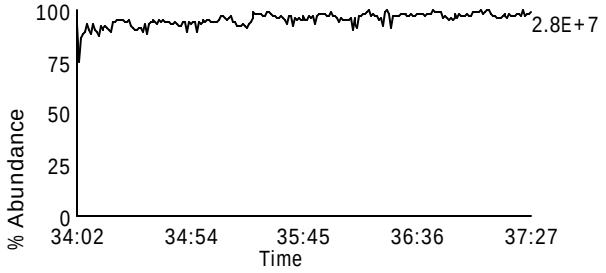
CAL CS3/CPM-20-123-052 - JRH

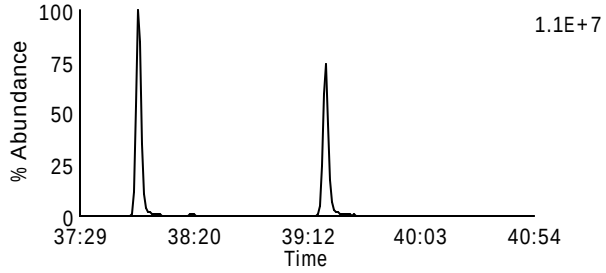


Homologue Group: Heptas

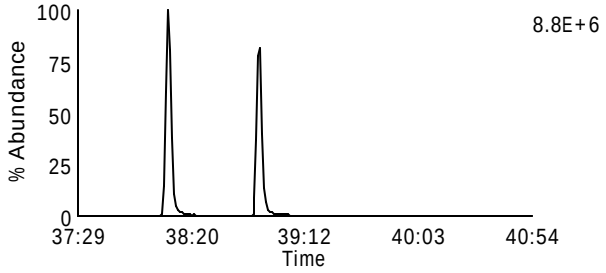
Data File Name: U210703B_17
Date Acquired: 7/4/2021
Sample Description: CAL CS3/CPM-20-123-052 - JRH

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

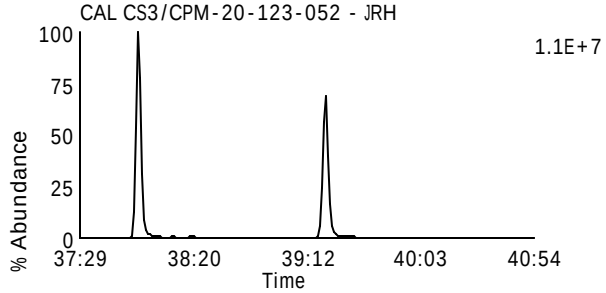
Data File: U210703B_17 G4 C3 - 407.7818
CAL CS3/CPM-20-123-052 - JRH



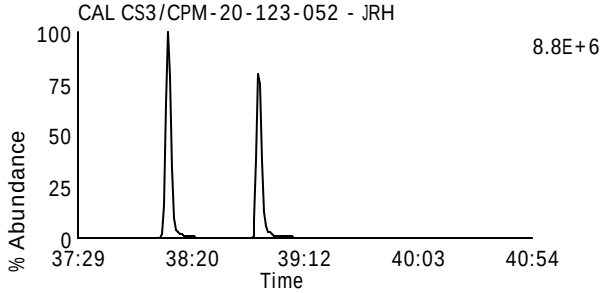
Data File: U210703B_17 G4 C8 - 423.7767
CAL CS3/CPM-20-123-052 - JRH



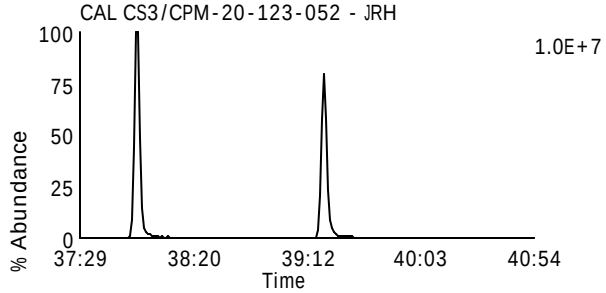
Data File: U210703B_17 G4 C4 - 409.7788
CAL CS3/CPM-20-123-052 - JRH



Data File: U210703B_17 G4 C9 - 425.7737
CAL CS3/CPM-20-123-052 - JRH



Data File: U210703B_17 G4 C6 - 417.825
CAL CS3/CPM-20-123-052 - JRH



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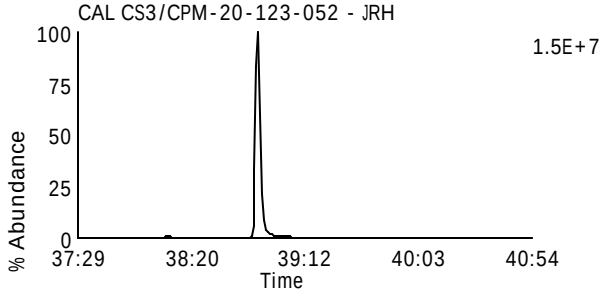
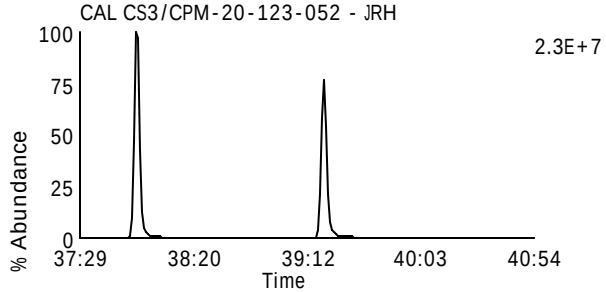
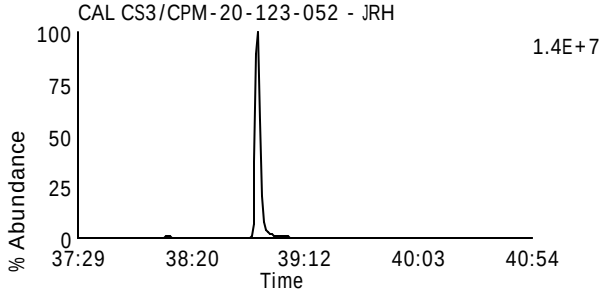
CAL CS3/CPM-20-123-052 - JRH



Data File: U210703B_17 G4 C7 - 419.822
CAL CS3/CPM-20-123-052 - JRH



Data File: U210703B_17 G4 C12 - 437.814
CAL CS3/CPM-20-123-052 - JRH



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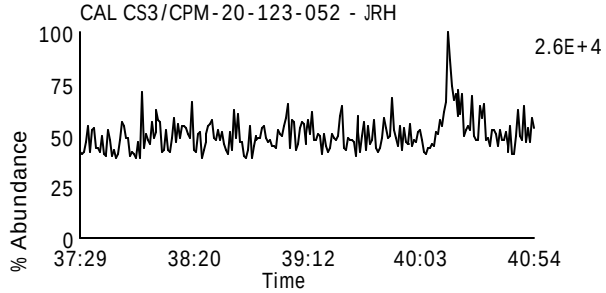
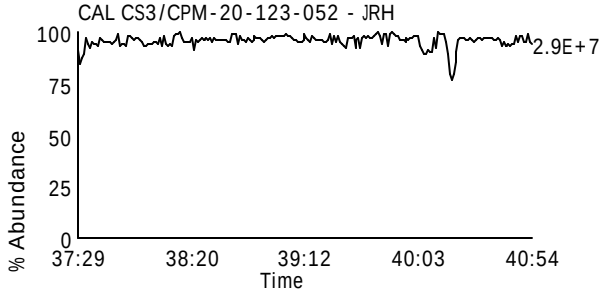
CAL CS3/CPM-20-123-052 - JRH



Data File: U210703B_17 G4 C1 - 380.976
CAL CS3/CPM-20-123-052 - JRH

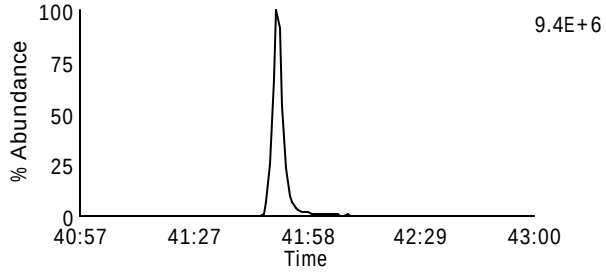


Homologue Group: Octas

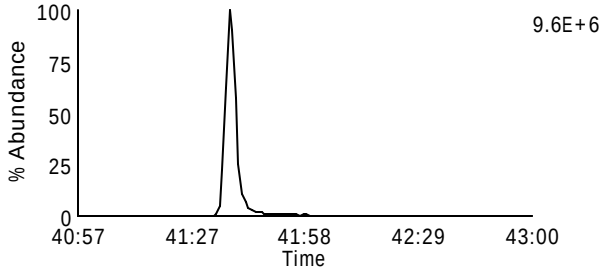
Data File Name: U210703B_17
Date Acquired: 7/4/2021
Sample Description: CAL CS3/CPM-20-123-052 - JRH

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID:
Instrument: 10MSHR06 (U)

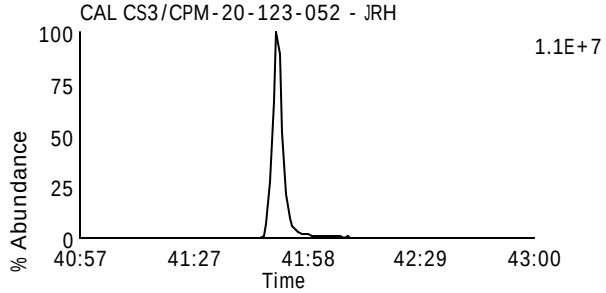
Data File: U210703B_17 G5 C4 - 441.7428
CAL CS3/CPM-20-123-052 - JRH



Data File: U210703B_17 G5 C8 - 457.7377
CAL CS3/CPM-20-123-052 - JRH



Data File: U210703B_17 G5 C5 - 443.7398
CAL CS3/CPM-20-123-052 - JRH



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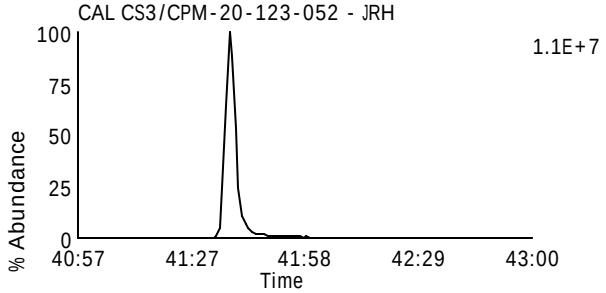
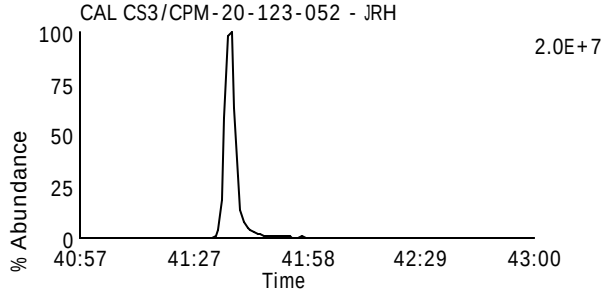
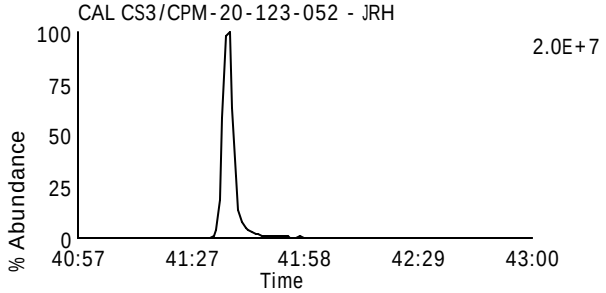
CAL CS3/CPM-20-123-052 - JRH



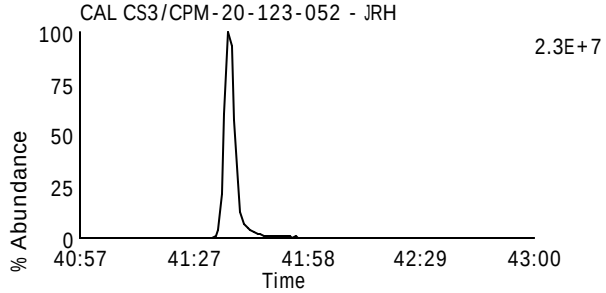
Data File: U210703B_17 G5 C11 - 469.7779
CAL CS3/CPM-20-123-052 - JRH



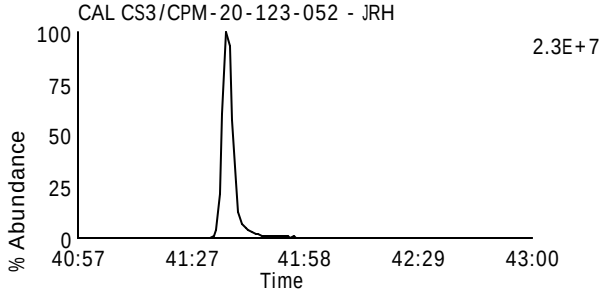
Data File: U210703B_17 G5 C11 - 469.7779
CAL CS3/CPM-20-123-052 - JRH



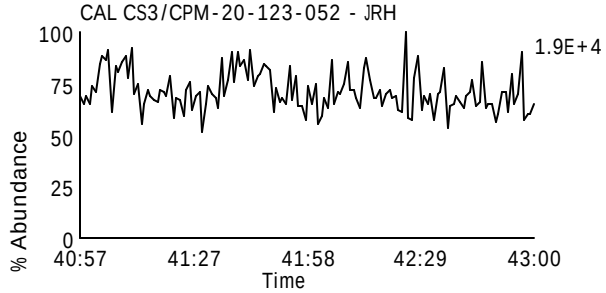
Data File: U210703B_17 G5 C12 - 471.7749
CAL CS3/CPM-20-123-052 - JRH



Data File: U210703B_17 G5 C12 - 471.7749
CAL CS3/CPM-20-123-052 - JRH



Data File: U210703B_17 G5 C13 - 513.6775
CAL CS3/CPM-20-123-052 - JRH



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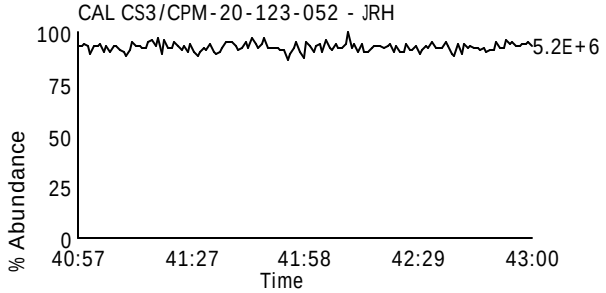
CAL CS3/CPM-20-123-052 - JRH



Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

ReviewedBy _____ Date _____

Client Name	Asset Laboratories		
Client ID		Injected By	SMT
Lab ID	CS1-20-123-056	Instrument ID	10MSHR06 (U)
Filename	U210629B_04	GC Column ID	US1175211H
Analyzed	06/29/2021 13:15	ICAL ID	U210629

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	24:41	(M)2.97e7	(M)3.86e7	4.16e6	5.16e6	-----	-----	0.77	
2,3,7,8-TCDF	24:44	1.76e5	(M)2.26e5	2.23e4	3.27e4	1.845e3	1.886e3	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	25:01	2.25e7	2.87e7	2.99e6	3.89e6	-----	-----	0.78	
2,3,7,8-TCDD-13C	26:02	(M)2.48e7	(M)3.14e7	3.09e6	3.92e6	-----	-----	0.79	
2,3,7,8-TCDD-37Cl4	26:05	2.73e5		4.55e4		-----	-----		
2,3,7,8-TCDD	26:04	1.34e5	(M)1.58e5	1.81e4	1.42e4	2.421e3	1.986e3	0.85	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	31:24	3.23e7	(M)2.13e7	7.97e6	4.97e6	-----	-----	1.52	
2,3,4,7,8-PeCDF-13C	32:31	3.13e7	2.00e7	8.65e6	5.45e6	-----	-----	1.56	
1,2,3,7,8-PeCDF	31:25	7.66e5	4.99e5	2.16e5	1.25e5	2.573e3	3.491e3	1.53	
2,3,4,7,8-PeCDF	32:32	7.90e5	4.94e5	2.14e5	1.36e5	1.111e3	1.844e3	1.60	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:51	2.27e7	(M)1.43e7	6.22e6	3.93e6	-----	-----	1.58	
1,2,3,7,8-PeCDD	32:51	3.26e5	5.39e5	5.99e4	1.56e5	3.201e3	2.335e3	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	35:24	1.36e7	(M)2.66e7	4.81e6	9.56e6	-----	-----	0.51	
1,2,3,6,7,8-HxCDF-13C	35:31	1.66e7	(M)3.14e7	5.28e6	9.81e6	-----	-----	0.53	
2,3,4,6,7,8-HxCDF-13C	36:02	1.48e7	(M)2.79e7	5.11e6	9.67e6	-----	-----	0.53	
1,2,3,7,8,9-HxCDF-13C	36:46	1.20e7	(M)2.28e7	3.86e6	7.41e6	-----	-----	0.53	
1,2,3,4,7,8-HxCDF	35:25	5.59e5	(M)4.95e5	2.09e5	1.59e5	2.430e3	2.232e3	1.13	
1,2,3,6,7,8-HxCDF	35:32	6.88e5	(M)6.14e5	2.13e5	1.91e5	2.364e3	3.546e3	1.12	
2,3,4,6,7,8-HxCDF	36:02	6.36e5	(M)5.69e5	2.16e5	1.83e5	1.962e3	2.200e3	1.12	
1,2,3,7,8,9-HxCDF	36:47	(M)5.05e5	(M)3.86e5	1.51e5	1.18e5	3.005e3	1.944e3	1.31	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Client Name	Asset Laboratories		
Client ID		Injected By	SMT
Lab ID	CS1-20-123-056	Instrument ID	10MSHR06 (U)
Filename	U210629B_04	GC Column ID	US1175211H
Analyzed	06/29/2021 13:15	ICAL ID	U210629

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	36:09	1.85e7	1.48e7	6.51e6	5.25e6	-----	-----	1.25	
1,2,3,6,7,8-HxCDD-13C	36:15	2.18e7	1.75e7	6.80e6	5.68e6	-----	-----	1.25	
1,2,3,7,8,9-HxCDD-13C	36:28	2.17e7	1.73e7	6.49e6	5.43e6	-----	-----	1.26	
1,2,3,4,7,8-HxCDD	36:10	4.60e5	(M)3.74e5	1.72e5	1.65e5	2.881e3	2.667e3	1.23	
1,2,3,6,7,8-HxCDD	36:15	5.58e5	(M)4.51e5	1.75e5	1.52e5	2.881e3	1.997e3	1.24	
1,2,3,7,8,9-HxCDD	36:29	4.99e5	(M)4.15e5	1.73e5	1.44e5	1.607e3	6.139e2	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	37:59	1.21e7	(M)2.67e7	4.02e6	8.82e6	-----	-----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	39:24	8.92e6	2.02e7	2.63e6	5.83e6	-----	-----	0.44	
1,2,3,4,6,7,8-HpCDF	38:00	6.28e5	6.42e5	1.98e5	2.19e5	2.284e3	1.540e3	0.98	
1,2,3,4,7,8,9-HpCDF	39:25	(M)4.55e5	4.17e5	1.37e5	1.36e5	2.151e3	1.815e3	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	38:56	1.63e7	(M)1.59e7	4.82e6	4.61e6	-----	-----	1.02	
1,2,3,4,6,7,8-HpCDD	38:57	(M)4.19e5	(M)4.15e5	1.21e5	1.13e5	2.287e3	1.735e3	1.01	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	41:56	6.28e5	6.76e5	1.45e5	1.63e5	7.363e2	1.841e3	0.93	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	41:43	2.30e7	(M)2.66e7	5.39e6	6.05e6	-----	-----	0.87	
OCDD	41:43	5.55e5	6.72e5	1.32e5	1.56e5	5.923e2	2.319e3	0.83	

REPORT OF LABORATORY ANALYSIS

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

ReviewedBy _____ Date _____

Client Name	Asset Laboratories		
Client ID		Injected By	SMT
Lab ID	CS2-20-123-016	Instrument ID	10MSHR06 (U)
Filename	U210629B_03	GC Column ID	US1175211H
Analyzed	06/29/2021 12:28	ICAL ID	U210629

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	24:41	(M)3.75e7	4.81e7	4.96e6	6.46e6	-----	-----	0.78	
2,3,7,8-TCDF	24:42	7.47e5	9.29e5	1.03e5	1.33e5	-----	-----	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	25:00	2.83e7	3.55e7	3.84e6	4.95e6	-----	-----	0.80	
2,3,7,8-TCDD-13C	26:01	2.89e7	3.63e7	3.68e6	4.64e6	-----	-----	0.80	
2,3,7,8-TCDD-37Cl4	26:04	(M)1.31e6		1.56e5		-----	-----		
2,3,7,8-TCDD	26:05	5.74e5	7.64e5	7.88e4	1.01e5	-----	-----	0.75	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	31:23	4.22e7	2.69e7	1.01e7	6.56e6	-----	-----	1.57	
2,3,4,7,8-PeCDF-13C	32:30	(M)3.97e7	(M)2.57e7	1.08e7	6.99e6	-----	-----	1.55	
1,2,3,7,8-PeCDF	31:24	3.79e6	2.45e6	8.96e5	5.81e5	-----	-----	1.55	
2,3,4,7,8-PeCDF	32:32	3.85e6	2.52e6	1.06e6	6.92e5	-----	-----	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	32:50	(M)2.87e7	(M)1.81e7	7.71e6	4.92e6	-----	-----	1.59	
1,2,3,7,8-PeCDD	32:51	(M)1.66e6	(M)2.75e6	4.86e5	7.17e5	-----	-----	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	35:24	(M)1.75e7	3.43e7	5.67e6	1.09e7	-----	-----	0.51	
1,2,3,6,7,8-HxCDF-13C	35:30	(M)2.16e7	4.12e7	6.46e6	1.32e7	-----	-----	0.52	
2,3,4,6,7,8-HxCDF-13C	36:02	(M)1.85e7	3.56e7	6.26e6	1.22e7	-----	-----	0.52	
1,2,3,7,8,9-HxCDF-13C	36:46	(M)1.52e7	3.01e7	4.64e6	8.49e6	-----	-----	0.51	
1,2,3,4,7,8-HxCDF	35:25	3.07e6	(M)2.70e6	1.02e6	8.78e5	-----	-----	1.14	
1,2,3,6,7,8-HxCDF	35:31	3.87e6	(M)2.99e6	1.13e6	9.18e5	-----	-----	1.30	
2,3,4,6,7,8-HxCDF	36:02	3.33e6	2.65e6	1.18e6	9.46e5	-----	-----	1.26	
1,2,3,7,8,9-HxCDF	36:47	2.51e6	2.04e6	7.59e5	6.04e5	-----	-----	1.23	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
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Client Name	Asset Laboratories		
Client ID		Injected By	SMT
Lab ID	CS2-20-123-016	Instrument ID	10MSHR06 (U)
Filename	U210629B_03	GC Column ID	US1175211H
Analyzed	06/29/2021 12:28	ICAL ID	U210629

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	36:09	2.28e7	1.80e7	8.46e6	6.77e6	-----	-----	1.27	
1,2,3,6,7,8-HxCDD-13C	36:15	2.90e7	2.29e7	9.32e6	7.37e6	-----	-----	1.26	
1,2,3,7,8,9-HxCDD-13C	36:28	2.84e7	2.19e7	8.82e6	6.75e6	-----	-----	1.30	
1,2,3,4,7,8-HxCDD	36:10	2.30e6	1.76e6	8.68e5	6.38e5	-----	-----	1.31	
1,2,3,6,7,8-HxCDD	36:15	2.84e6	2.21e6	8.99e5	7.19e5	-----	-----	1.29	
1,2,3,7,8,9-HxCDD	36:29	2.60e6	1.96e6	7.41e5	5.74e5	-----	-----	1.33	

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	37:59	1.55e7	(M)3.46e7	4.93e6	1.07e7	-----	-----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	39:24	1.19e7	2.63e7	3.32e6	7.44e6	-----	-----	0.45	
1,2,3,4,6,7,8-HpCDF	37:59	(M)3.42e6	(M)3.17e6	1.01e6	1.08e6	-----	-----	1.08	
1,2,3,4,7,8,9-HpCDF	39:25	2.44e6	2.28e6	6.61e5	5.91e5	-----	-----	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	38:55	2.15e7	(M)2.09e7	6.10e6	5.94e6	-----	-----	1.03	
1,2,3,4,6,7,8-HpCDD	38:56	(M)2.20e6	(M)2.18e6	6.82e5	6.09e5	-----	-----	1.01	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	41:55	(M)3.22e6	3.61e6	7.50e5	8.34e5	-----	-----	0.89	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	41:42	(M)3.01e7	3.31e7	6.96e6	7.83e6	-----	-----	0.91	
OCDD	41:43	2.92e6	(M)3.40e6	7.38e5	8.34e5	-----	-----	0.86	

REPORT OF LABORATORY ANALYSIS

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

ReviewedBy _____ Date _____

Client Name	Asset Laboratories		
Client ID		Injected By	CVS
Lab ID	CS3/CPM-20-123-052	Instrument ID	10MSHR06 (U)
Filename	U210629B_02	GC Column ID	US1175211H
Analyzed	06/29/2021 11:44	ICAL ID	U210629

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	24:41	3.75e7	4.84e7	4.94e6	6.33e6	-----	-----	0.77	
2,3,7,8-TCDF	24:43	3.47e6	4.62e6	4.67e5	5.76e5	-----	-----	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	25:01	2.84e7	3.57e7	3.78e6	4.62e6	-----	-----	0.80	
2,3,7,8-TCDD-13C	26:02	3.12e7	3.95e7	3.80e6	4.92e6	-----	-----	0.79	
2,3,7,8-TCDD-37Cl4	26:05	6.70e6		8.30e5		-----	-----		
2,3,7,8-TCDD	26:05	3.22e6	3.94e6	3.93e5	5.01e5	-----	-----	0.82	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	31:24	4.20e7	2.70e7	9.60e6	6.04e6	-----	-----	1.56	
2,3,4,7,8-PeCDF-13C	32:31	(M)4.01e7	(M)2.63e7	1.07e7	7.09e6	-----	-----	1.53	
1,2,3,7,8-PeCDF	31:25	1.90e7	1.24e7	4.19e6	2.71e6	-----	-----	1.53	
2,3,4,7,8-PeCDF	32:32	2.00e7	1.30e7	5.41e6	3.58e6	-----	-----	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	32:51	2.92e7	1.84e7	7.64e6	4.87e6	-----	-----	1.58	
1,2,3,7,8-PeCDD	32:51	(M)8.50e6	1.40e7	2.25e6	3.79e6	-----	-----	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	35:24	1.80e7	(M)3.46e7	6.13e6	1.17e7	-----	-----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:31	2.21e7	(M)4.18e7	6.42e6	1.18e7	-----	-----	0.53	
2,3,4,6,7,8-HxCDF-13C	36:02	1.90e7	(M)3.65e7	6.23e6	1.19e7	-----	-----	0.52	
1,2,3,7,8,9-HxCDF-13C	36:46	(M)1.54e7	2.99e7	5.00e6	9.16e6	-----	-----	0.51	
1,2,3,4,7,8-HxCDF	35:25	(M)1.57e7	(M)1.26e7	5.34e6	4.28e6	-----	-----	1.24	
1,2,3,6,7,8-HxCDF	35:32	(M)1.83e7	(M)1.46e7	5.56e6	4.35e6	-----	-----	1.25	
2,3,4,6,7,8-HxCDF	36:02	1.66e7	1.35e7	5.40e6	4.34e6	-----	-----	1.23	
1,2,3,7,8,9-HxCDF	36:47	(M)1.29e7	1.07e7	3.96e6	3.18e6	-----	-----	1.20	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Client Name	Asset Laboratories		
Client ID		Injected By	CVS
Lab ID	CS3/CPM-20-123-052	Instrument ID	10MSHR06 (U)
Filename	U210629B_02	GC Column ID	US1175211H
Analyzed	06/29/2021 11:44	ICAL ID	U210629

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	36:09	2.28e7	1.80e7	8.23e6	6.40e6	-----	-----	1.27	
1,2,3,6,7,8-HxCDD-13C	36:15	2.99e7	2.35e7	8.91e6	6.94e6	-----	-----	1.27	
1,2,3,7,8,9-HxCDD-13C	36:28	2.77e7	2.20e7	8.39e6	6.50e6	-----	-----	1.26	
1,2,3,4,7,8-HxCDD	36:10	1.12e7	(M)9.11e6	4.20e6	3.42e6	-----	-----	1.23	
1,2,3,6,7,8-HxCDD	36:15	1.46e7	(M)1.17e7	4.44e6	3.61e6	-----	-----	1.25	
1,2,3,7,8,9-HxCDD	36:29	1.29e7	(M)1.04e7	3.72e6	3.05e6	-----	-----	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	37:59	1.55e7	(M)3.53e7	4.87e6	1.10e7	-----	-----	0.44	
1,2,3,4,7,8,9-HpCDF-13C	39:24	(M)1.16e7	2.57e7	3.10e6	7.09e6	-----	-----	0.45	
1,2,3,4,6,7,8-HpCDF	38:00	(M)1.57e7	(M)1.58e7	4.86e6	4.78e6	-----	-----	1.00	
1,2,3,4,7,8,9-HpCDF	39:25	(M)1.16e7	(M)1.12e7	3.24e6	2.95e6	-----	-----	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	38:55	(M)2.15e7	(M)2.01e7	5.68e6	5.55e6	-----	-----	1.07	
1,2,3,4,6,7,8-HpCDD	38:56	1.02e7	(M)1.01e7	2.97e6	2.86e6	-----	-----	1.02	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	41:55	1.56e7	1.72e7	3.57e6	3.99e6	-----	-----	0.91	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	41:43	(M)2.94e7	(M)3.34e7	6.52e6	7.18e6	-----	-----	0.88	
OCDD	41:43	1.41e7	1.58e7	3.12e6	3.61e6	-----	-----	0.89	

REPORT OF LABORATORY ANALYSIS

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

ReviewedBy _____ Date _____

Client Name	Asset Laboratories		
Client ID		Injected By	SMT
Lab ID	CS4-20-123-018	Instrument ID	10MSHR06 (U)
Filename	U210629B_06	GC Column ID	US1175211H
Analyzed	06/29/2021 15:12	ICAL ID	U210629

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	24:41	3.79e7	4.97e7	5.15e6	6.61e6	-----	-----	0.76	
2,3,7,8-TCDF	24:43	1.46e7	1.88e7	1.92e6	2.51e6	-----	-----	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	25:00	2.82e7	3.53e7	3.81e6	4.77e6	-----	-----	0.80	
2,3,7,8-TCDD-13C	26:01	(M)2.93e7	3.66e7	3.79e6	4.71e6	-----	-----	0.80	
2,3,7,8-TCDD-37Cl4	26:04	2.58e7		3.28e6		-----	-----		
2,3,7,8-TCDD	26:04	1.22e7	1.55e7	1.49e6	1.92e6	-----	-----	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	31:23	(M)4.28e7	2.80e7	1.07e7	6.80e6	-----	-----	1.53	
2,3,4,7,8-PeCDF-13C	32:30	4.25e7	2.69e7	1.15e7	7.33e6	-----	-----	1.58	
1,2,3,7,8-PeCDF	31:24	7.92e7	5.12e7	1.84e7	1.19e7	-----	-----	1.55	
2,3,4,7,8-PeCDF	32:31	8.22e7	5.39e7	2.31e7	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	32:50	3.03e7	1.91e7	8.27e6	5.23e6	-----	-----	1.59	
1,2,3,7,8-PeCDD	32:51	3.63e7	5.72e7	9.65e6	1.60e7	-----	-----	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	35:24	1.83e7	3.66e7	6.29e6	1.26e7	-----	-----	0.50	
1,2,3,6,7,8-HxCDF-13C	35:30	2.26e7	4.34e7	7.13e6	1.34e7	-----	-----	0.52	
2,3,4,6,7,8-HxCDF-13C	36:01	2.02e7	3.83e7	6.59e6	1.29e7	-----	-----	0.53	
1,2,3,7,8,9-HxCDF-13C	36:45	1.67e7	3.20e7	4.91e6	1.00e7	-----	-----	0.52	
1,2,3,4,7,8-HxCDF	35:24	6.52e7	5.34e7	2.25e7	1.85e7	-----	-----	1.22	
1,2,3,6,7,8-HxCDF	35:31	7.94e7	6.47e7	2.51e7	2.04e7	-----	-----	1.23	
2,3,4,6,7,8-HxCDF	36:02	7.18e7	5.75e7	2.39e7	1.95e7	-----	-----	1.25	
1,2,3,7,8,9-HxCDF	36:46	5.34e7	4.59e7	1.77e7	1.46e7	-----	-----	1.16	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Client Name	Asset Laboratories		
Client ID		Injected By	SMT
Lab ID	CS4-20-123-018	Instrument ID	10MSHR06 (U)
Filename	U210629B_06	GC Column ID	US1175211H
Analyzed	06/29/2021 15:12	ICAL ID	U210629

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	36:09	2.61e7	2.04e7	9.42e6	7.40e6	-----	-----	1.28	
1,2,3,6,7,8-HxCDD-13C	36:15	3.12e7	2.50e7	9.54e6	7.75e6	-----	-----	1.25	
1,2,3,7,8,9-HxCDD-13C	36:28	2.95e7	2.32e7	8.67e6	7.18e6	-----	-----	1.27	
1,2,3,4,7,8-HxCDD	36:09	5.18e7	3.84e7	1.80e7	1.50e7	-----	-----	1.35	
1,2,3,6,7,8-HxCDD	36:15	5.82e7	(M)5.04e7	1.81e7	1.51e7	-----	-----	1.15	
1,2,3,7,8,9-HxCDD	36:28	5.38e7	(M)4.39e7	1.75e7	1.42e7	-----	-----	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	37:58	1.73e7	3.76e7	5.60e6	1.23e7	-----	-----	0.46	
1,2,3,4,7,8,9-HpCDF-13C	39:24	1.28e7	3.00e7	3.62e6	8.28e6	-----	-----	0.43	
1,2,3,4,6,7,8-HpCDF	37:59	6.99e7	6.96e7	2.34e7	2.28e7	-----	-----	1.00	
1,2,3,4,7,8,9-HpCDF	39:24	5.44e7	5.03e7	1.55e7	1.47e7	-----	-----	1.08	

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	38:55	2.37e7	2.25e7	6.81e6	6.58e6	-----	-----	1.05	
1,2,3,4,6,7,8-HpCDD	38:55	(M)4.76e7	(M)4.62e7	1.29e7	1.28e7	-----	-----	1.03	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	41:55	7.49e7	8.73e7	1.93e7	2.16e7	-----	-----	0.86	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	41:42	3.38e7	3.80e7	8.08e6	8.82e6	-----	-----	0.89	
OCDD	41:43	6.71e7	(M)7.58e7	1.57e7	1.78e7	-----	-----	0.89	

REPORT OF LABORATORY ANALYSIS

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

ReviewedBy _____ Date _____

Client Name	Asset Laboratories		
Client ID		Injected By	SMT
Lab ID	CS5-20-123-019	Instrument ID	10MSHR06 (U)
Filename	U210629B_05	GC Column ID	US1175211H
Analyzed	06/29/2021 14:28	ICAL ID	U210629

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	24:42	4.83e7	6.14e7	6.48e6	8.18e6	-----	-----	0.79	
2,3,7,8-TCDF	24:44	9.00e7	1.16e8	1.21e7	1.57e7	-----	-----	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	25:01	3.49e7	4.42e7	4.77e6	6.06e6	-----	-----	0.79	
2,3,7,8-TCDD-13C	26:03	3.72e7	4.85e7	4.67e6	6.23e6	-----	-----	0.77	
2,3,7,8-TCDD-37Cl4	26:05	1.70e8		2.16e7		-----	-----		
2,3,7,8-TCDD	26:05	7.71e7	9.92e7	9.83e6	1.26e7	-----	-----	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	31:25	5.74e7	3.78e7	1.37e7	8.75e6	-----	-----	1.52	
2,3,4,7,8-PeCDF-13C	32:32	5.67e7	3.62e7	1.55e7	9.80e6	-----	-----	1.56	
1,2,3,7,8-PeCDF	31:25	5.32e8	3.51e8	1.30e8	8.48e7	-----	-----	1.52	
2,3,4,7,8-PeCDF	32:32	5.62e8	3.73e8	1.59e8	1.03e8	-----	-----	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	32:51	4.22e7	2.65e7	1.18e7	7.29e6	-----	-----	1.59	
1,2,3,7,8-PeCDD	32:52	2.49e8	3.96e8	7.20e7	1.10e8	-----	-----	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	35:25	2.69e7	5.18e7	8.92e6	1.65e7	-----	-----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:31	3.22e7	6.10e7	1.04e7	2.07e7	-----	-----	0.53	
2,3,4,6,7,8-HxCDF-13C	36:02	2.77e7	5.41e7	9.81e6	1.87e7	-----	-----	0.51	
1,2,3,7,8,9-HxCDF-13C	36:47	2.34e7	4.50e7	7.49e6	1.43e7	-----	-----	0.52	
1,2,3,4,7,8-HxCDF	35:26	4.72e8	3.85e8	1.61e8	1.29e8	-----	-----	1.23	
1,2,3,6,7,8-HxCDF	35:32	5.41e8	4.36e8	1.81e8	1.49e8	-----	-----	1.24	
2,3,4,6,7,8-HxCDF	36:03	5.02e8	4.04e8	1.76e8	1.39e8	-----	-----	1.24	
1,2,3,7,8,9-HxCDF	36:47	4.02e8	3.21e8	1.27e8	1.04e8	-----	-----	1.25	

REPORT OF LABORATORY ANALYSIS

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Client Name	Asset Laboratories		
Client ID		Injected By	SMT
Lab ID	CS5-20-123-019	Instrument ID	10MSHR06 (U)
Filename	U210629B_05	GC Column ID	US1175211H
Analyzed	06/29/2021 14:28	ICAL ID	U210629

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	36:10	3.67e7	(M)2.91e7	1.40e7	1.12e7	-----	-----	1.26	
1,2,3,6,7,8-HxCDD-13C	36:15	4.40e7	(M)3.53e7	1.52e7	1.23e7	-----	-----	1.25	
1,2,3,7,8,9-HxCDD-13C	36:29	4.38e7	3.21e7	1.41e7	1.07e7	-----	-----	1.36	
1,2,3,4,7,8-HxCDD	36:11	3.68e8	2.97e8	1.38e8	1.10e8	-----	-----	1.24	
1,2,3,6,7,8-HxCDD	36:16	4.36e8	3.51e8	1.49e8	1.18e8	-----	-----	1.24	
1,2,3,7,8,9-HxCDD	36:29	3.99e8	3.19e8	1.23e8	1.01e8	-----	-----	1.25	

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	38:00	2.48e7	(M)5.47e7	7.92e6	1.76e7	-----	-----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	39:25	(M)1.93e7	4.28e7	5.67e6	1.27e7	-----	-----	0.45	
1,2,3,4,6,7,8-HpCDF	38:00	5.17e8	4.94e8	1.77e8	1.70e8	-----	-----	1.05	
1,2,3,4,7,8,9-HpCDF	39:26	3.83e8	3.71e8	1.13e8	1.06e8	-----	-----	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	38:56	3.44e7	(M)3.34e7	1.06e7	1.02e7	-----	-----	1.03	
1,2,3,4,6,7,8-HpCDD	38:57	3.44e8	3.25e8	1.15e8	1.10e8	-----	-----	1.06	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	41:56	6.13e8	6.77e8	1.54e8	1.75e8	-----	-----	0.91	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	41:43	5.17e7	5.68e7	1.32e7	1.47e7	-----	-----	0.91	
OCDD	41:44	5.06e8	5.70e8	1.30e8	1.47e8	-----	-----	0.89	

REPORT OF LABORATORY ANALYSIS

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

ReviewedBy _____ Date _____

Client ID		Injected By	SMT
Lab ID	CS3/CPM-20-123-052	Instrument ID	10MSHR06 (U)
Filename	U210630B_01	GC Column ID	US1175211H
Analyzed	06/30/2021 22:06	ICAL ID	U210629

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	24:42	5.17e7	6.57e7	7.21e6	9.00e6	-----	-----	0.79	
2,3,7,8-TCDF	24:43	4.98e6	6.37e6	6.71e5	8.30e5	-----	-----	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	25:00	3.83e7	4.80e7	5.19e6	6.39e6	-----	-----	0.80	
2,3,7,8-TCDD-13C	26:02	4.27e7	5.55e7	5.52e6	7.10e6	-----	-----	0.77	
2,3,7,8-TCDD-37Cl4	26:05	8.93e6		1.19e6		-----	-----		
2,3,7,8-TCDD	26:04	4.39e6	5.47e6	5.89e5	7.03e5	-----	-----	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	31:23	5.60e7	3.75e7	1.45e7	9.18e6	-----	-----	1.49	
2,3,4,7,8-PeCDF-13C	32:31	5.64e7	3.61e7	1.54e7	9.97e6	-----	-----	1.56	
1,2,3,7,8-PeCDF	31:25	2.60e7	1.65e7	5.86e6	3.86e6	-----	-----	1.58	
2,3,4,7,8-PeCDF	32:32	2.75e7	1.82e7	7.71e6	5.06e6	-----	-----	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	32:51	4.17e7	2.66e7	1.19e7	7.72e6	-----	-----	1.57	
1,2,3,7,8-PeCDD	32:51	1.22e7	1.95e7	3.50e6	5.53e6	-----	-----	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	35:24	2.51e7	4.96e7	9.00e6	1.79e7	-----	-----	0.51	
1,2,3,6,7,8-HxCDF-13C	35:31	2.82e7	5.36e7	9.24e6	1.78e7	-----	-----	0.53	
2,3,4,6,7,8-HxCDF-13C	36:02	2.50e7	4.91e7	9.23e6	1.83e7	-----	-----	0.51	
1,2,3,7,8,9-HxCDF-13C	36:46	2.22e7	4.34e7	8.04e6	1.56e7	-----	-----	0.51	
1,2,3,4,7,8-HxCDF	35:25	2.21e7	1.84e7	7.77e6	6.40e6	-----	-----	1.21	
1,2,3,6,7,8-HxCDF	35:32	2.37e7	1.95e7	8.04e6	6.38e6	-----	-----	1.22	
2,3,4,6,7,8-HxCDF	36:02	2.25e7	1.80e7	8.33e6	6.85e6	-----	-----	1.25	
1,2,3,7,8,9-HxCDF	36:47	1.87e7	1.46e7	6.57e6	5.40e6	-----	-----	1.28	

REPORT OF LABORATORY ANALYSIS

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Client ID		Injected By	SMT
Lab ID	CS3/CPM-20-123-052	Instrument ID	10MSHR06 (U)
Filename	U210630B_01	GC Column ID	US1175211H
Analyzed	06/30/2021 22:06	ICAL ID	U210629

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	36:09	3.54e7	2.73e7	1.44e7	1.13e7	-----	-----	1.30	
1,2,3,6,7,8-HxCDD-13C	36:15	4.07e7	3.19e7	1.44e7	1.15e7	-----	-----	1.28	
1,2,3,7,8,9-HxCDD-13C	36:28	3.99e7	3.15e7	1.39e7	1.12e7	-----	-----	1.27	
1,2,3,4,7,8-HxCDD	36:10	1.66e7	1.32e7	6.61e6	5.34e6	-----	-----	1.25	
1,2,3,6,7,8-HxCDD	36:15	1.87e7	1.47e7	7.14e6	5.57e6	-----	-----	1.27	
1,2,3,7,8,9-HxCDD	36:29	1.75e7	1.41e7	6.10e6	4.87e6	-----	-----	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	37:59	2.28e7	5.09e7	8.30e6	1.82e7	-----	-----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	39:24	1.87e7	3.91e7	5.81e6	1.28e7	-----	-----	0.48	
1,2,3,4,6,7,8-HpCDF	37:59	2.29e7	2.18e7	7.87e6	7.47e6	-----	-----	1.05	
1,2,3,4,7,8,9-HpCDF	39:25	1.79e7	1.70e7	5.87e6	5.46e6	-----	-----	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	38:55	3.34e7	3.05e7	1.07e7	1.01e7	-----	-----	1.09	
1,2,3,4,6,7,8-HpCDD	38:56	1.73e7	1.61e7	5.66e6	5.55e6	-----	-----	1.07	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	41:56	2.53e7	2.84e7	6.98e6	7.70e6	-----	-----	0.89	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	41:43	4.90e7	5.35e7	1.32e7	1.46e7	-----	-----	0.92	
OCDD	41:43	2.51e7	2.96e7	6.90e6	7.87e6	-----	-----	0.85	

REPORT OF LABORATORY ANALYSIS

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

ReviewedBy _____ Date _____

Client ID		Injected By	SMT
Lab ID	CS3/CPM-20-123-052	Instrument ID	10MSHR06 (U)
Filename	U210630B_17	GC Column ID	US1175211H
Analyzed	07/01/2021 11:01	ICAL ID	U210629

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	24:47	7.78e7	9.85e7	9.38e6	1.19e7	-----	-----	0.79	
2,3,7,8-TCDF	24:49	7.24e6	9.23e6	9.07e5	1.14e6	-----	-----	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	25:06	5.47e7	6.84e7	6.70e6	8.76e6	-----	-----	0.80	
2,3,7,8-TCDD-13C	26:08	6.31e7	7.85e7	7.83e6	9.68e6	-----	-----	0.80	
2,3,7,8-TCDD-37Cl4	26:09	1.33e7		1.62e6		-----	-----		
2,3,7,8-TCDD	26:10	6.37e6	8.07e6	7.92e5	9.25e5	-----	-----	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	31:27	8.08e7	5.08e7	1.92e7	1.20e7	-----	-----	1.59	
2,3,4,7,8-PeCDF-13C	32:33	(M)7.88e7	(M)5.05e7	2.18e7	1.39e7	-----	-----	1.56	
1,2,3,7,8-PeCDF	31:28	3.62e7	2.37e7	8.29e6	5.41e6	-----	-----	1.53	
2,3,4,7,8-PeCDF	32:34	(M)3.93e7	2.59e7	1.06e7	6.97e6	-----	-----	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	32:53	(M)5.65e7	(M)3.58e7	1.64e7	1.05e7	-----	-----	1.58	
1,2,3,7,8-PeCDD	32:54	(M)1.62e7	(M)2.65e7	4.61e6	7.93e6	-----	-----	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	35:27	3.30e7	6.55e7	1.16e7	2.25e7	-----	-----	0.50	
1,2,3,6,7,8-HxCDF-13C	35:34	3.57e7	6.77e7	1.17e7	2.29e7	-----	-----	0.53	
2,3,4,6,7,8-HxCDF-13C	36:04	3.19e7	6.09e7	1.14e7	2.16e7	-----	-----	0.52	
1,2,3,7,8,9-HxCDF-13C	36:48	2.60e7	4.89e7	8.98e6	1.66e7	-----	-----	0.53	
1,2,3,4,7,8-HxCDF	35:28	2.81e7	2.33e7	1.03e7	8.21e6	-----	-----	1.21	
1,2,3,6,7,8-HxCDF	35:34	2.95e7	2.40e7	9.99e6	8.10e6	-----	-----	1.23	
2,3,4,6,7,8-HxCDF	36:05	2.82e7	2.27e7	1.06e7	8.33e6	-----	-----	1.24	
1,2,3,7,8,9-HxCDF	36:48	(M)2.17e7	1.70e7	7.23e6	5.83e6	-----	-----	1.28	

REPORT OF LABORATORY ANALYSIS

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Client ID		Injected By	SMT
Lab ID	CS3/CPM-20-123-052	Instrument ID	10MSHR06 (U)
Filename	U210630B_17	GC Column ID	US1175211H
Analyzed	07/01/2021 11:01	ICAL ID	U210629

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	36:12	(M)4.36e7	(M)3.40e7	1.83e7	1.38e7	-----	-----	1.28	
1,2,3,6,7,8-HxCDD-13C	36:17	(M)4.77e7	(M)3.71e7	1.77e7	1.41e7	-----	-----	1.29	
1,2,3,7,8,9-HxCDD-13C	36:31	(M)4.71e7	(M)3.82e7	1.61e7	1.22e7	-----	-----	1.23	
1,2,3,4,7,8-HxCDD	36:13	(M)2.12e7	(M)1.73e7	8.02e6	6.40e6	-----	-----	1.23	
1,2,3,6,7,8-HxCDD	36:18	(M)2.29e7	(M)1.81e7	8.23e6	6.69e6	-----	-----	1.26	
1,2,3,7,8,9-HxCDD	36:31	(M)2.16e7	(M)1.76e7	7.21e6	5.85e6	-----	-----	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	38:02	2.38e7	5.20e7	8.32e6	1.78e7	-----	-----	0.46	
1,2,3,4,7,8,9-HpCDF-13C	39:27	(M)1.72e7	(M)3.86e7	5.39e6	1.20e7	-----	-----	0.44	
1,2,3,4,6,7,8-HpCDF	38:02	2.38e7	2.28e7	8.54e6	8.10e6	-----	-----	1.04	
1,2,3,4,7,8,9-HpCDF	39:28	(M)1.74e7	1.65e7	5.72e6	5.31e6	-----	-----	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	38:57	(M)3.15e7	(M)3.07e7	1.04e7	1.02e7	-----	-----	1.02	
1,2,3,4,6,7,8-HpCDD	38:58	(M)1.60e7	1.60e7	5.60e6	5.53e6	-----	-----	1.00	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	41:58	2.09e7	(M)2.26e7	5.68e6	6.21e6	-----	-----	0.92	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	41:45	4.08e7	4.55e7	1.13e7	1.24e7	-----	-----	0.90	
OCDD	41:46	1.94e7	2.12e7	5.33e6	5.97e6	-----	-----	0.92	

REPORT OF LABORATORY ANALYSIS

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

ReviewedBy _____ Date _____

Client ID		Injected By	JRH
Lab ID	CS3/CPM-20-123-052	Instrument ID	10MSHR06 (U)
Filename	U210703B_01	GC Column ID	US1175211H
Analyzed	07/03/2021 11:49	ICAL ID	U210629

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	24:31	4.66e7	5.97e7	6.59e6	8.37e6	-----	-----	0.78	
2,3,7,8-TCDF	24:33	4.36e6	5.64e6	5.80e5	7.55e5	-----	-----	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	24:50	4.32e7	5.55e7	6.19e6	7.88e6	-----	-----	0.78	
2,3,7,8-TCDD-13C	25:51	4.08e7	5.30e7	5.55e6	7.03e6	-----	-----	0.77	
2,3,7,8-TCDD-37Cl4	25:52	8.66e6		1.14e6		-----	-----		
2,3,7,8-TCDD	25:53	3.98e6	5.07e6	5.50e5	6.77e5	-----	-----	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	31:18	5.07e7	3.17e7	1.22e7	7.88e6	-----	-----	1.60	
2,3,4,7,8-PeCDF-13C	32:26	4.97e7	3.22e7	1.36e7	8.69e6	-----	-----	1.54	
1,2,3,7,8-PeCDF	31:19	2.22e7	1.45e7	5.37e6	3.40e6	-----	-----	1.53	
2,3,4,7,8-PeCDF	32:27	2.44e7	1.60e7	6.94e6	4.52e6	-----	-----	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	32:45	3.92e7	2.42e7	1.17e7	7.36e6	-----	-----	1.62	
1,2,3,7,8-PeCDD	32:47	(M)1.09e7	1.76e7	3.03e6	4.95e6	-----	-----	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	35:21	2.32e7	4.56e7	8.62e6	1.64e7	-----	-----	0.51	
1,2,3,6,7,8-HxCDF-13C	35:28	2.45e7	4.67e7	7.98e6	1.61e7	-----	-----	0.52	
2,3,4,6,7,8-HxCDF-13C	35:58	2.30e7	4.17e7	8.40e6	1.59e7	-----	-----	0.55	
1,2,3,7,8,9-HxCDF-13C	36:42	(M)2.14e7	4.28e7	7.55e6	1.52e7	-----	-----	0.50	
1,2,3,4,7,8-HxCDF	35:22	2.01e7	1.60e7	7.30e6	5.68e6	-----	-----	1.25	
1,2,3,6,7,8-HxCDF	35:29	(M)2.09e7	(M)1.67e7	7.13e6	5.56e6	-----	-----	1.25	
2,3,4,6,7,8-HxCDF	35:59	2.02e7	1.61e7	7.53e6	6.01e6	-----	-----	1.25	
1,2,3,7,8,9-HxCDF	36:43	1.76e7	1.37e7	6.18e6	4.92e6	-----	-----	1.29	

REPORT OF LABORATORY ANALYSIS

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Client ID		Injected By	JRH
Lab ID	CS3/CPM-20-123-052	Instrument ID	10MSHR06 (U)
Filename	U210703B_01	GC Column ID	US1175211H
Analyzed	07/03/2021 11:49	ICAL ID	U210629

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	36:06	(M)3.10e7	(M)2.50e7	1.23e7	1.02e7	-----	-----	1.24	
1,2,3,6,7,8-HxCDD-13C	36:11	(M)3.52e7	(M)2.91e7	1.24e7	1.04e7	-----	-----	1.21	
1,2,3,7,8,9-HxCDD-13C	36:25	(M)3.49e7	(M)2.81e7	1.37e7	1.11e7	-----	-----	1.24	
1,2,3,4,7,8-HxCDD	36:07	(M)1.49e7	1.21e7	6.04e6	4.81e6	-----	-----	1.23	
1,2,3,6,7,8-HxCDD	36:12	(M)1.69e7	1.40e7	5.99e6	5.11e6	-----	-----	1.20	
1,2,3,7,8,9-HxCDD	36:26	(M)1.45e7	(M)1.21e7	5.10e6	4.13e6	-----	-----	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	37:56	(M)2.05e7	(M)4.53e7	7.61e6	1.62e7	-----	-----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	39:20	1.61e7	3.62e7	5.26e6	1.17e7	-----	-----	0.45	
1,2,3,4,6,7,8-HpCDF	37:56	(M)2.08e7	(M)2.00e7	7.03e6	6.99e6	-----	-----	1.04	
1,2,3,4,7,8,9-HpCDF	39:21	1.63e7	1.58e7	5.31e6	5.18e6	-----	-----	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	38:51	(M)3.02e7	2.78e7	1.02e7	9.28e6	-----	-----	1.09	
1,2,3,4,6,7,8-HpCDD	38:52	1.44e7	1.42e7	4.86e6	4.70e6	-----	-----	1.01	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	41:51	2.02e7	2.31e7	5.56e6	6.11e6	-----	-----	0.87	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	41:38	(M)3.79e7	(M)4.35e7	1.00e7	1.11e7	-----	-----	0.87	
OCDD	41:39	(M)1.81e7	(M)2.04e7	4.76e6	5.19e6	-----	-----	0.89	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Minneapolis, MN 55414

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Fax: 612- 607-6444

PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

ReviewedBy _____ Date _____

Client ID		Injected By	JRH
Lab ID	CS3/CPM-20-123-052	Instrument ID	10MSHR06 (U)
Filename	U210703B_17	GC Column ID	US1175211H
Analyzed	07/04/2021 00:18	ICAL ID	U210629

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	24:31	5.00e7	6.25e7	6.91e6	8.53e6	-----	-----	0.80	
2,3,7,8-TCDF	24:33	4.62e6	6.01e6	6.13e5	7.78e5	-----	-----	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	24:50	3.81e7	4.83e7	5.19e6	6.49e6	-----	-----	0.79	
2,3,7,8-TCDD-13C	25:51	4.48e7	5.76e7	5.99e6	7.55e6	-----	-----	0.78	
2,3,7,8-TCDD-37Cl4	25:52	9.69e6		1.27e6		-----	-----		
2,3,7,8-TCDD	25:53	4.44e6	5.69e6	6.07e5	7.21e5	-----	-----	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	31:18	6.13e7	3.93e7	1.52e7	9.82e6	-----	-----	1.56	
2,3,4,7,8-PeCDF-13C	32:25	(M)6.19e7	3.93e7	1.76e7	1.15e7	-----	-----	1.58	
1,2,3,7,8-PeCDF	31:18	2.74e7	1.80e7	6.68e6	4.27e6	-----	-----	1.53	
2,3,4,7,8-PeCDF	32:26	(M)2.98e7	(M)1.98e7	8.92e6	5.81e6	-----	-----	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	32:45	4.69e7	3.02e7	1.41e7	8.96e6	-----	-----	1.55	
1,2,3,7,8-PeCDD	32:46	(M)1.33e7	2.16e7	4.15e6	6.60e6	-----	-----	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	35:20	3.11e7	6.23e7	1.15e7	2.34e7	-----	-----	0.50	
1,2,3,6,7,8-HxCDF-13C	35:27	3.52e7	6.73e7	1.30e7	2.49e7	-----	-----	0.52	
2,3,4,6,7,8-HxCDF-13C	35:58	3.21e7	6.14e7	1.18e7	2.20e7	-----	-----	0.52	
1,2,3,7,8,9-HxCDF-13C	36:41	2.75e7	5.27e7	9.60e6	1.90e7	-----	-----	0.52	
1,2,3,4,7,8-HxCDF	35:21	2.75e7	2.17e7	1.01e7	8.04e6	-----	-----	1.27	
1,2,3,6,7,8-HxCDF	35:28	2.91e7	2.42e7	1.10e7	8.99e6	-----	-----	1.20	
2,3,4,6,7,8-HxCDF	35:59	2.71e7	2.20e7	9.99e6	7.99e6	-----	-----	1.23	
1,2,3,7,8,9-HxCDF	36:42	2.18e7	1.81e7	7.68e6	6.58e6	-----	-----	1.21	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Client ID		Injected By	JRH
Lab ID	CS3/CPM-20-123-052	Instrument ID	10MSHR06 (U)
Filename	U210703B_17	GC Column ID	US1175211H
Analyzed	07/04/2021 00:18	ICAL ID	U210629

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	36:06	(M)4.41e7	(M)3.45e7	1.80e7	1.40e7	-----	-----	1.28	
1,2,3,6,7,8-HxCDD-13C	36:11	(M)4.96e7	(M)3.86e7	1.88e7	1.46e7	-----	-----	1.29	
1,2,3,7,8,9-HxCDD-13C	36:25	(M)5.03e7	(M)3.92e7	1.88e7	1.42e7	-----	-----	1.28	
1,2,3,4,7,8-HxCDD	36:07	(M)2.15e7	(M)1.76e7	8.35e6	6.71e6	-----	-----	1.22	
1,2,3,6,7,8-HxCDD	36:12	(M)2.29e7	(M)1.87e7	8.47e6	6.76e6	-----	-----	1.23	
1,2,3,7,8,9-HxCDD	36:25	(M)2.18e7	(M)1.79e7	8.50e6	7.08e6	-----	-----	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	37:55	2.85e7	6.41e7	1.02e7	2.32e7	-----	-----	0.44	
1,2,3,4,7,8,9-HpCDF-13C	39:20	2.32e7	5.06e7	8.06e6	1.77e7	-----	-----	0.46	
1,2,3,4,6,7,8-HpCDF	37:56	2.92e7	2.82e7	1.10e7	1.10e7	-----	-----	1.04	
1,2,3,4,7,8,9-HpCDF	39:21	2.28e7	2.15e7	8.08e6	7.60e6	-----	-----	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	38:51	4.09e7	4.12e7	1.48e7	1.44e7	-----	-----	0.99	
1,2,3,4,6,7,8-HpCDD	38:52	2.08e7	2.01e7	7.19e6	7.06e6	-----	-----	1.03	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	41:50	3.18e7	3.56e7	9.38e6	1.06e7	-----	-----	0.89	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	41:38	7.03e7	(M)7.98e7	1.96e7	2.30e7	-----	-----	0.88	
OCDD	41:38	(M)3.31e7	(M)3.65e7	9.62e6	1.07e7	-----	-----	0.91	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
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Tel: 612-607-1700
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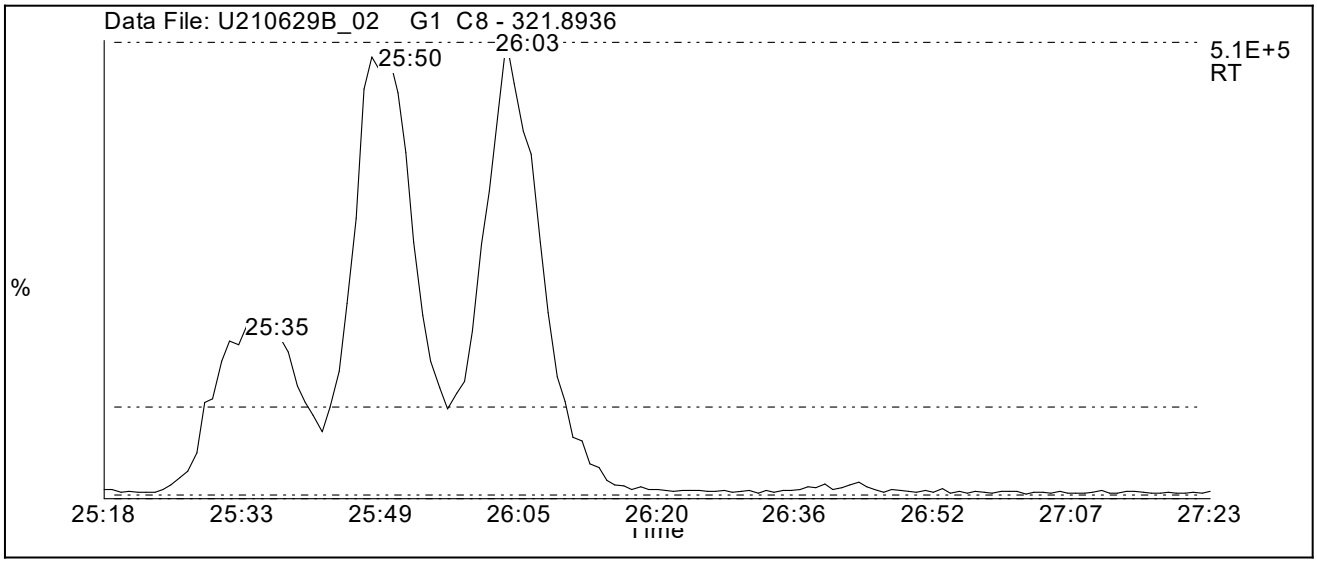
Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID:	CS3/CPM-20-123-052	Injected By:	CVS
Raw Data File:	U210629B_02	Instrument ID:	10MSHR06 (U)
Date Analyzed:	6/29/2021	GC Column	DB-5MS
Time Analyzed:	11:44	GC Column S/N:	US1175211H

Resolution: 19.3%



Group	Msss	First Eluter	Last Eluter
TCDF	305.8987	19:28	28:00
PeCDF	341.8567	27:53	33:33
HxCDF	373.8207	34:15	36:47
HpCDF	407.7818	38:00	39:25
OCDF	441.7428	41:56	41:56
TCDD	321.8936	21:17	27:43
PeCDD	357.8517	30:14	33:16
HxCDD	391.8127	34:48	36:29
HpCDD	425.7737	38:15	38:56
OCDD	459.7347	41:43	41:43
1234-TCDD-13	331.9367	25:02	25:02
123789-HxCD	401.8559	36:28	36:28

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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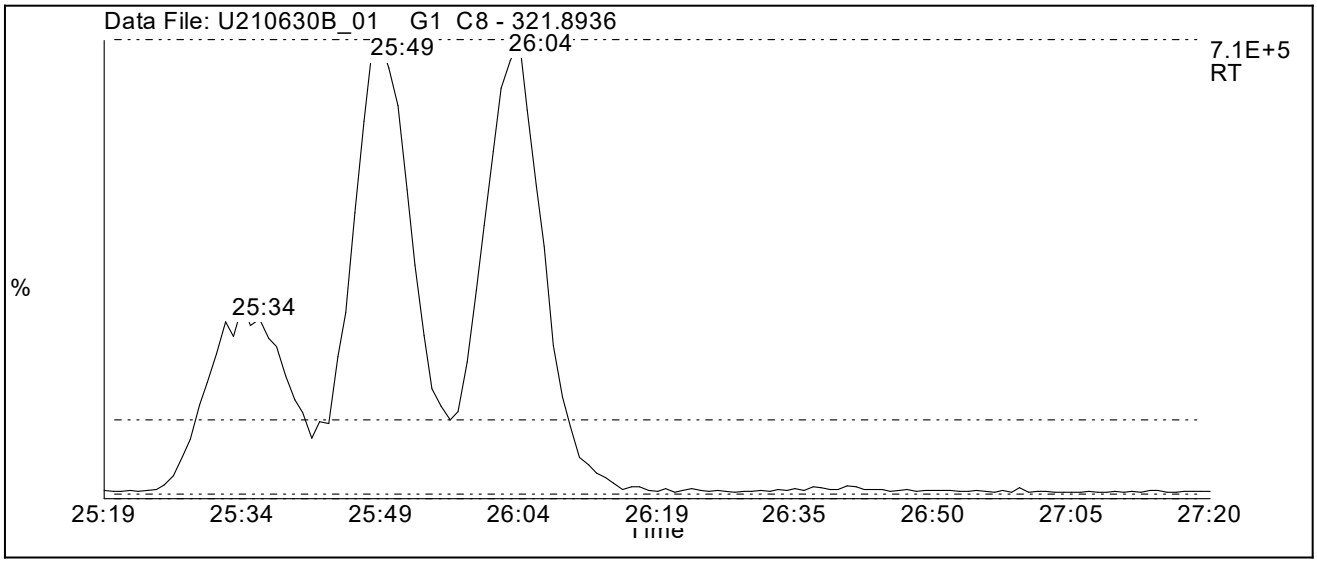
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID:	CS3/CPM-20-123-052	Injected By:	SMT
Raw Data File:	U210630B_01	Instrument ID:	10MSHR06 (U)
Date Analyzed:	6/30/2021	GC Column	DB-5MS
Time Analyzed:	22:06	GC Column S/N:	US1175211H

Resolution: 16.3%



Group	Msss	First Eluter	Last Eluter
TCDF	305.8987	19:27	27:59
PeCDF	341.8567	27:53	33:33
HxCDF	373.8207	34:15	36:47
HpCDF	407.7818	37:59	39:25
OCDF	441.7428	41:56	
TCDD	321.8936	21:16	27:43
PeCDD	357.8517	30:13	33:16
HxCDD	391.8127	34:48	36:29
HpCDD	425.7737	38:15	38:56
OCDD	459.7347	41:43	
1234-TCDD-13	331.9367	25:00	
123789-HxCD	401.8559	36:28	

REPORT OF LABORATORY ANALYSIS

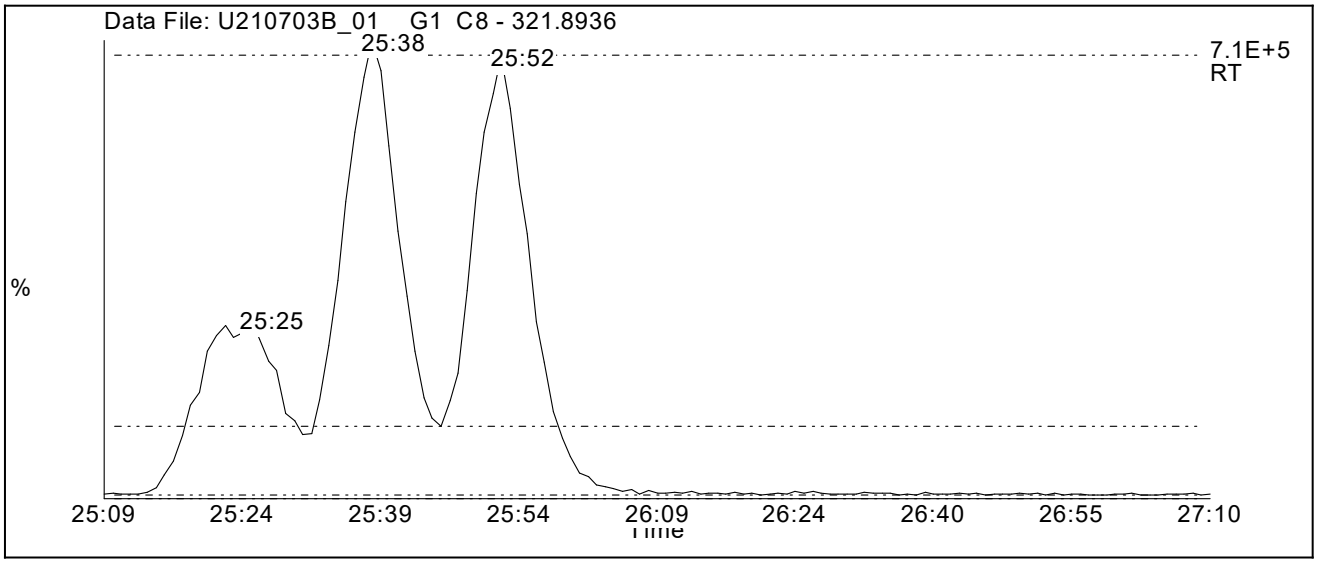
Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID:	CS3/CPM-20-123-052	Injected By:	JRH
Raw Data File:	U210703B_01	Instrument ID:	10MSHR06 (U)
Date Analyzed:	7/3/2021	GC Column	DB-5MS
Time Analyzed:	11:49	GC Column S/N:	US1175211H

Resolution: 15.5%



Group	Msss	First Eluter	Last Eluter
TCDF	305.8987	19:20	27:50
PeCDF	341.8567	27:44	33:28
HxCDF	373.8207	34:11	36:43
HpCDF	407.7818	37:56	39:21
OCDF	441.7428	41:51	
TCDD	321.8936	21:08	27:33
PeCDD	357.8517	30:07	33:12
HxCDD	391.8127	34:44	36:26
HpCDD	425.7737	38:11	38:52
OCDD	459.7347	41:39	
1234-TCDD-13	331.9367	24:50	
123789-HxCD	401.8559	36:25	

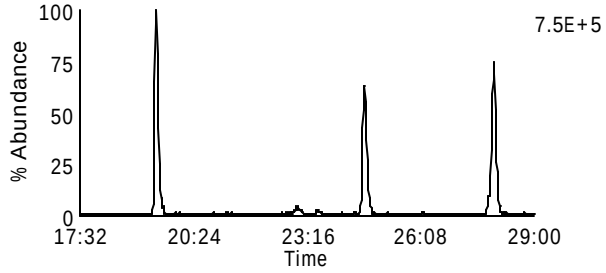
REPORT OF LABORATORY ANALYSIS

Homologue Group: Tetras

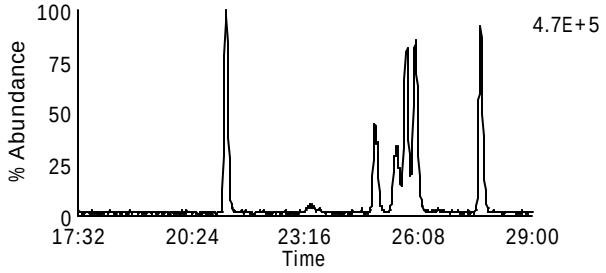
Data File Name: U210629B_02
Date Acquired: 6/29/2021
Sample Description: CAL CS3/CPM-20-123-052 - CVS TC US1175211H

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

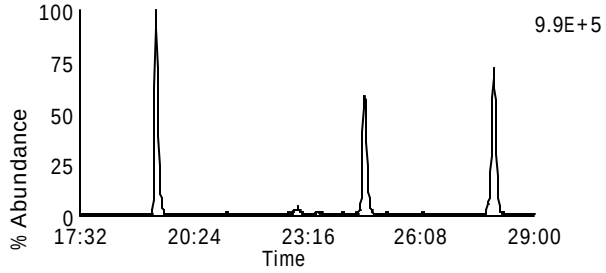
Data File: U210629B_02 G1 C1 - 303.9016
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



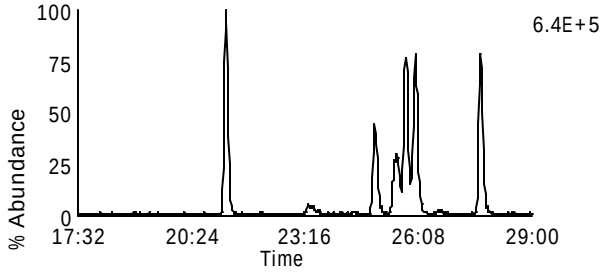
Data File: U210629B_02 G1 C7 - 319.8965
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



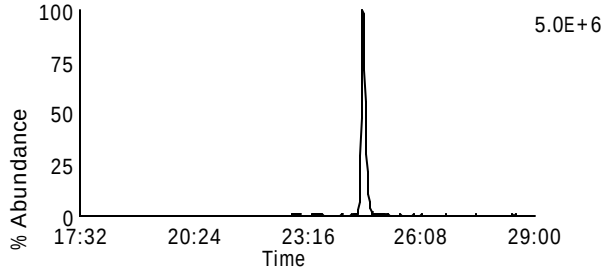
Data File: U210629B_02 G1 C2 - 305.8987
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



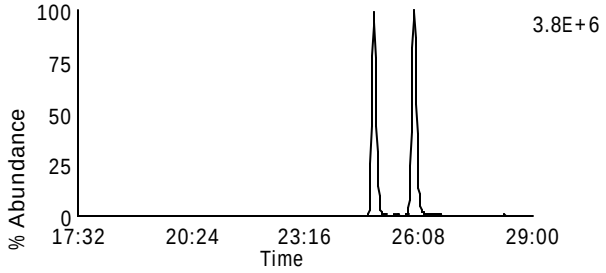
Data File: U210629B_02 G1 C8 - 321.8936
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



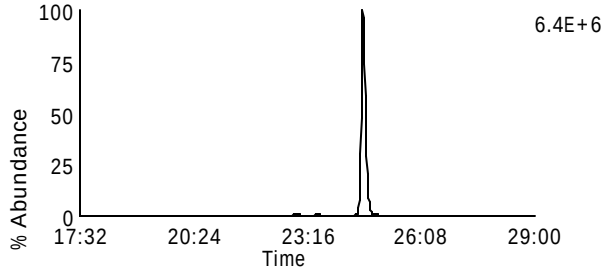
Data File: U210629B_02 G1 C3 - 315.9418
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



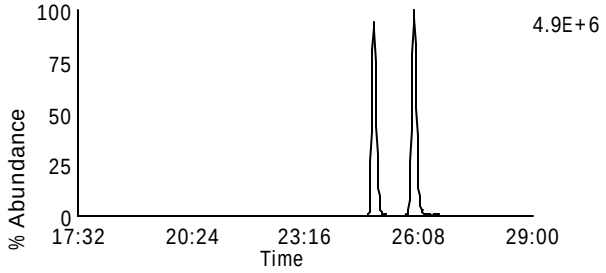
Data File: U210629B_02 G1 C10 - 331.9367
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



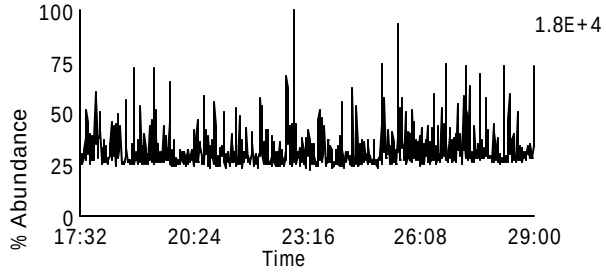
Data File: U210629B_02 G1 C4 - 317.9389
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



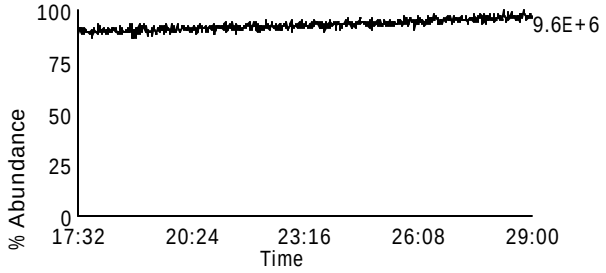
Data File: U210629B_02 G1 C11 - 333.9338
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



Data File: U210629B_02 G1 C14 - 375.8364
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



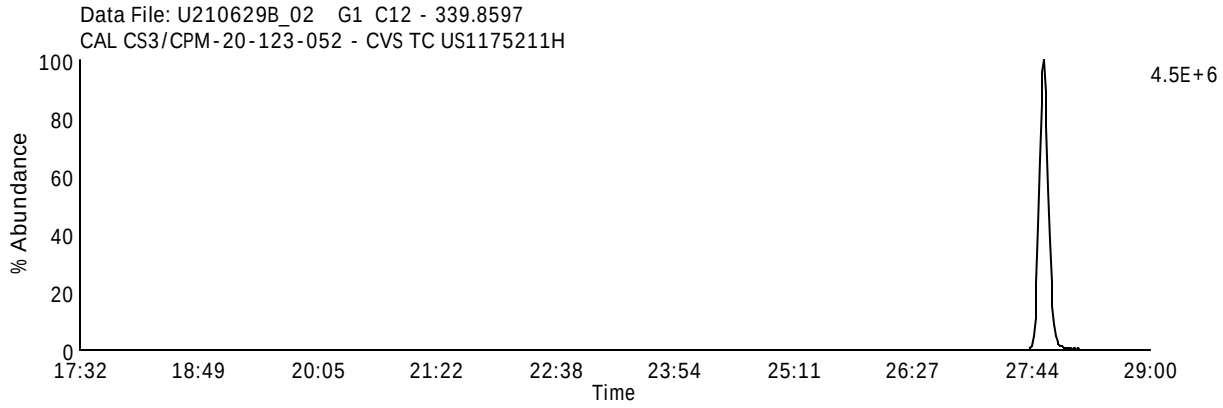
Data File: U210629B_02 G1 C5 - 318.9792
CAL CS3/CPM-20-123-052 - CVS TC US1175211H

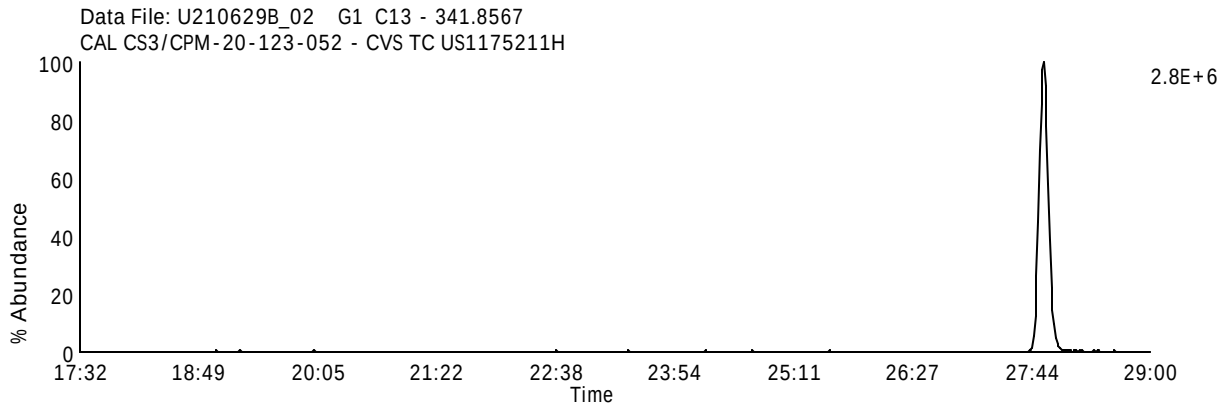


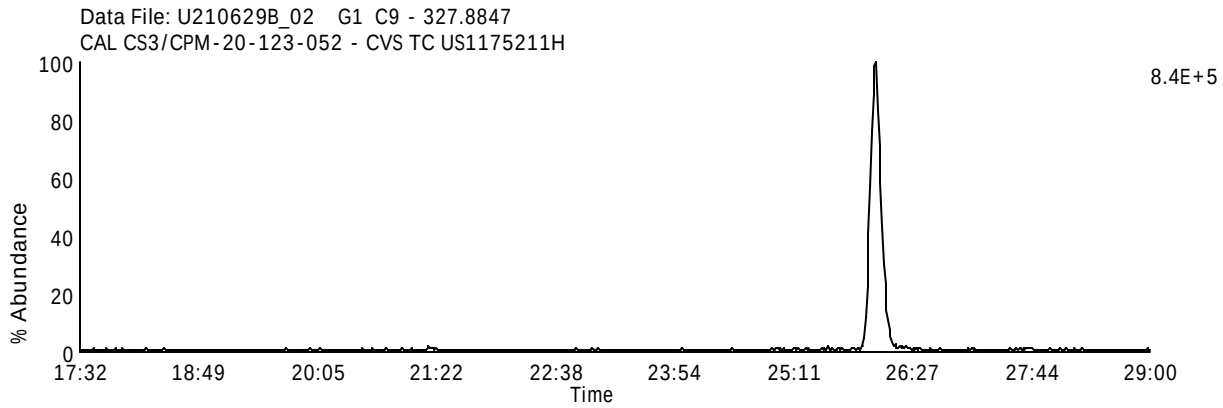
Homologue Group: Penta & Cleanup

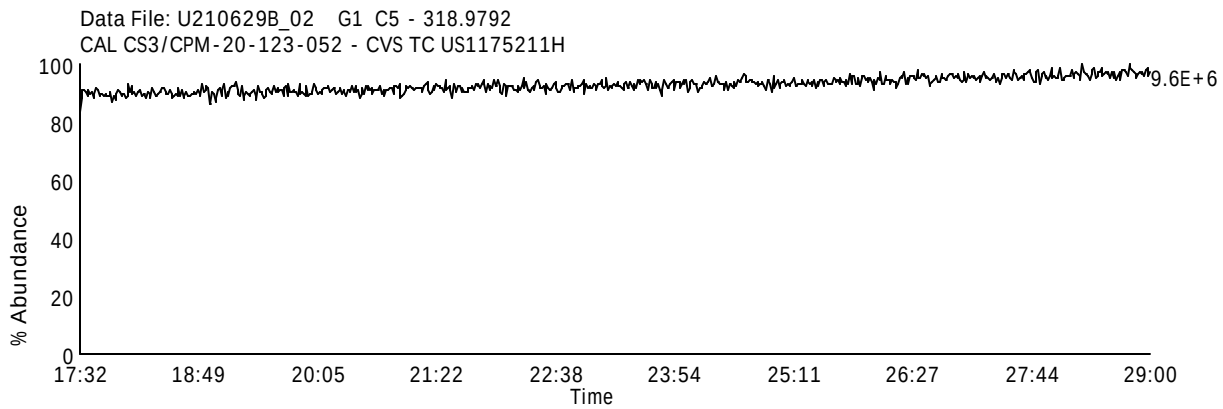
Data File Name: U210629B_02
Date Acquired: 6/29/2021
Sample Description: CAL CS3/CPM-20-123-052 - CVS TC US1175211H

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)







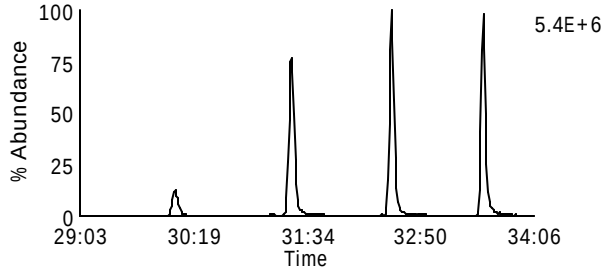


Homologue Group: Pentas

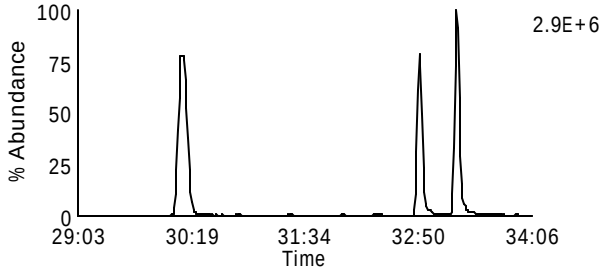
Data File Name: U210629B_02
Date Acquired: 6/29/2021
Sample Description: CAL CS3/CPM-20-123-052 - CVS TC US1175211H

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

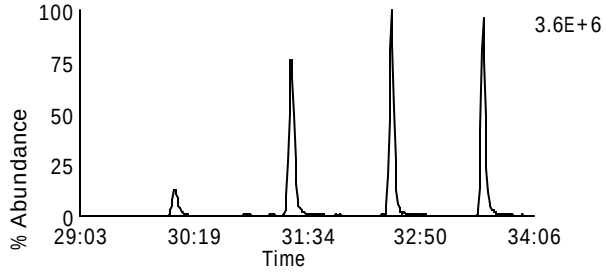
Data File: U210629B_02 G2 C1 - 339.8597
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



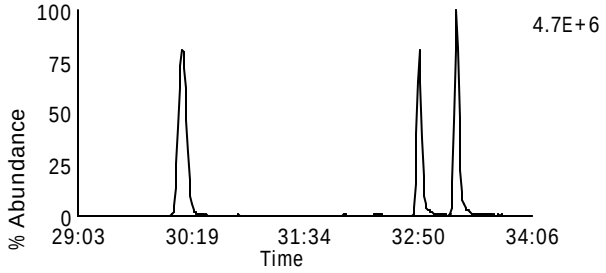
Data File: U210629B_02 G2 C4 - 353.8576
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



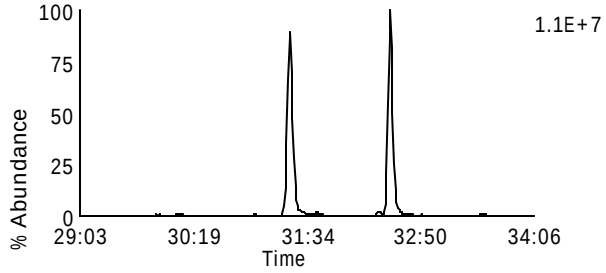
Data File: U210629B_02 G2 C2 - 341.8567
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



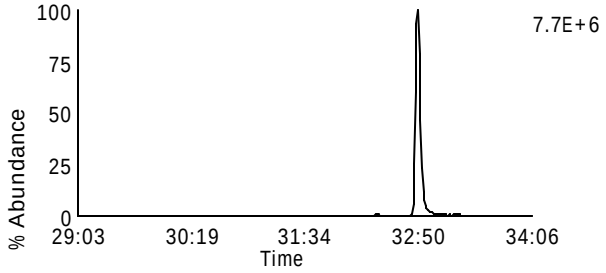
Data File: U210629B_02 G2 C8 - 355.8546
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



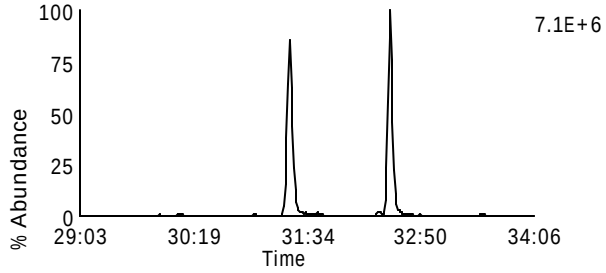
Data File: U210629B_02 G2 C3 - 351.8999
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



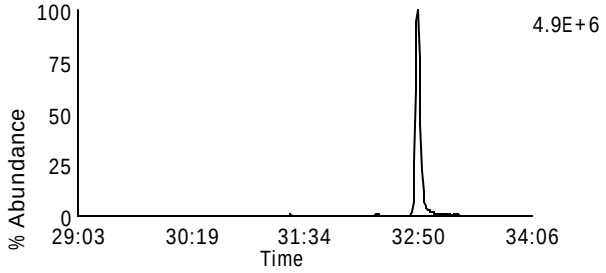
Data File: U210629B_02 G2 C10 - 367.8948
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



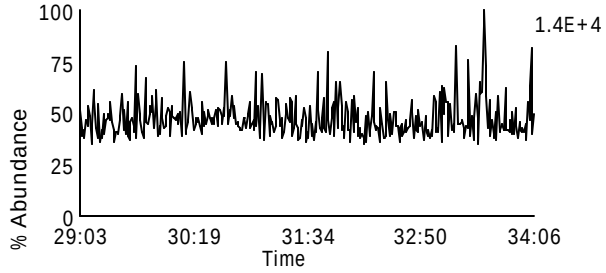
Data File: U210629B_02 G2 C5 - 353.8969
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



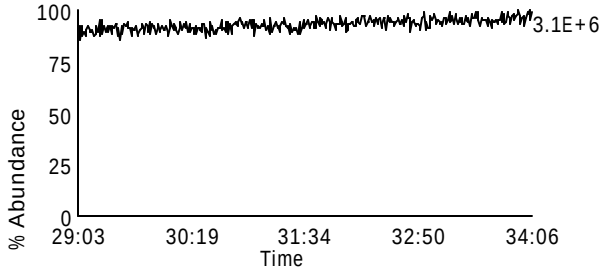
Data File: U210629B_02 G2 C11 - 369.8918
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



Data File: U210629B_02 G2 C12 - 409.7974
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



Data File: U210629B_02 G2 C6 - 354.9792
CAL CS3/CPM-20-123-052 - CVS TC US1175211H

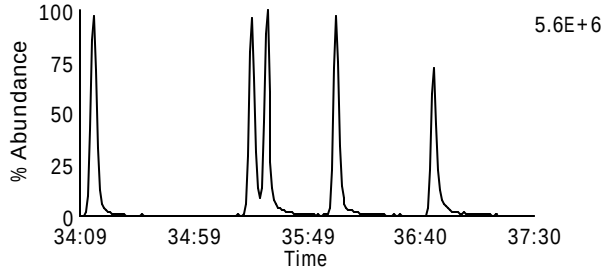


Homologue Group: Hexas

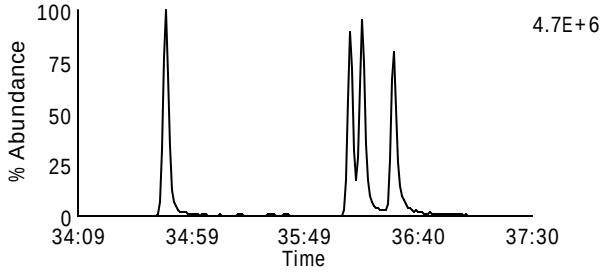
Data File Name: U210629B_02
Date Acquired: 6/29/2021
Sample Description: CAL CS3/CPM-20-123-052 - CVS TC US1175211H

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

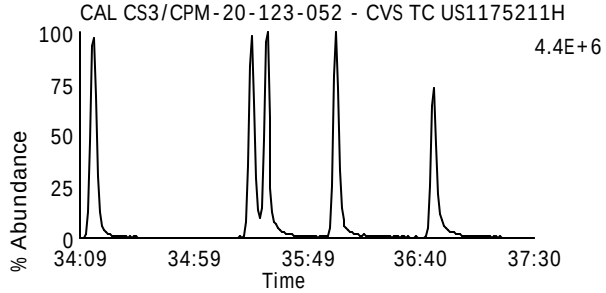
Data File: U210629B_02 G3 C1 - 373.8207
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



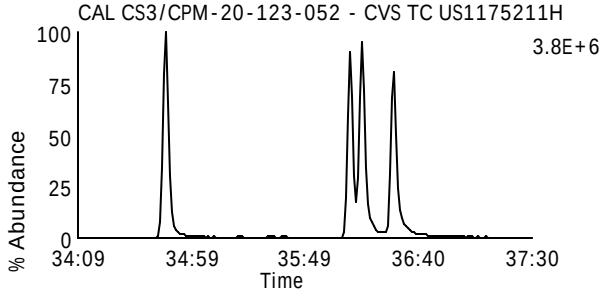
Data File: U210629B_02 G3 C7 - 389.8156
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



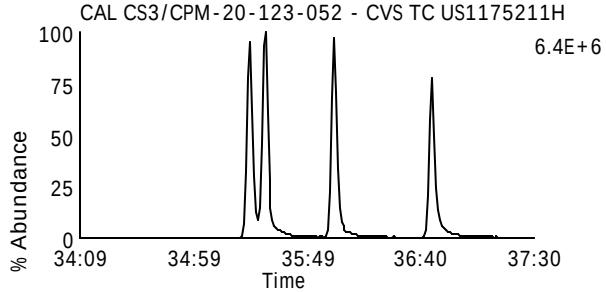
Data File: U210629B_02 G3 C2 - 375.8178
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



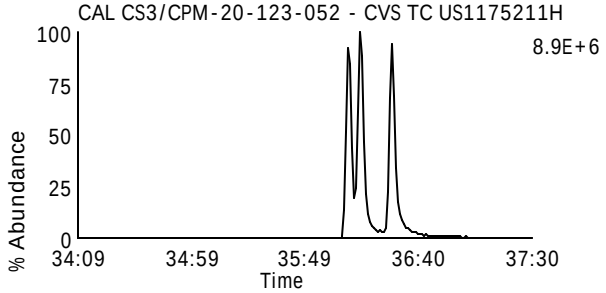
Data File: U210629B_02 G3 C8 - 391.8127
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



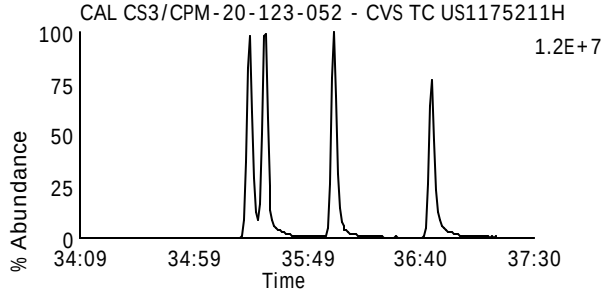
Data File: U210629B_02 G3 C5 - 383.8639
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



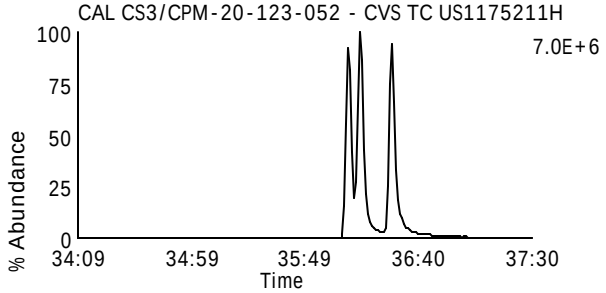
Data File: U210629B_02 G3 C9 - 401.8559
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



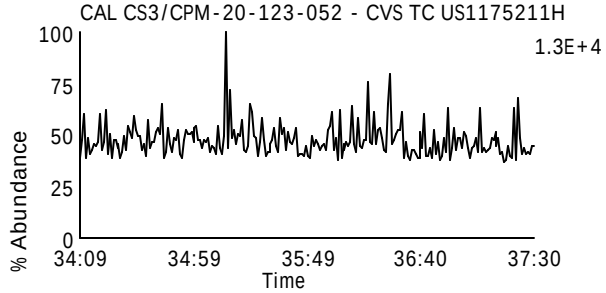
Data File: U210629B_02 G3 C6 - 385.861
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



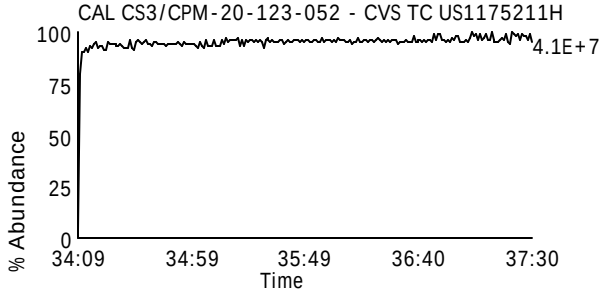
Data File: U210629B_02 G3 C10 - 403.8529
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



Data File: U210629B_02 G3 C11 - 445.7555
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



Data File: U210629B_02 G3 C3 - 380.976
CAL CS3/CPM-20-123-052 - CVS TC US1175211H

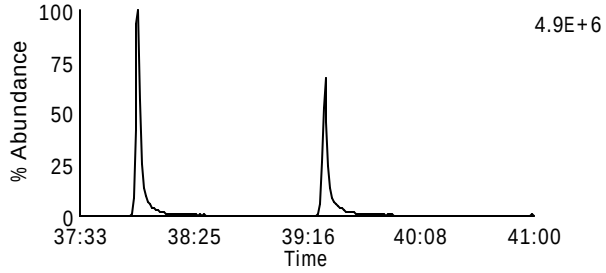


Homologue Group: Heptas

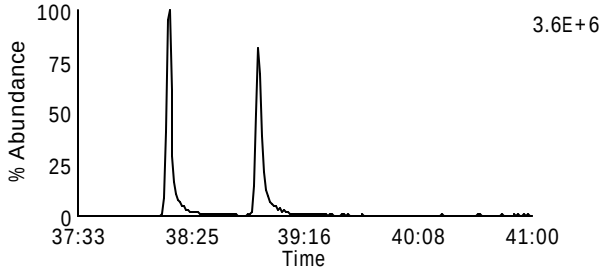
Data File Name: U210629B_02
Date Acquired: 6/29/2021
Sample Description: CAL CS3/CPM-20-123-052 - CVS TC US1175211H

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

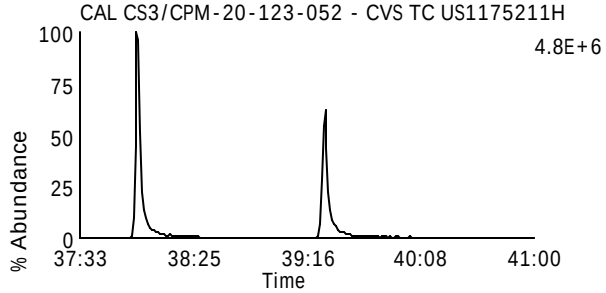
Data File: U210629B_02 G4 C3 - 407.7818
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



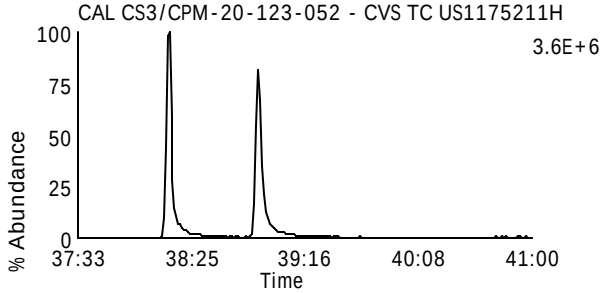
Data File: U210629B_02 G4 C8 - 423.7767
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



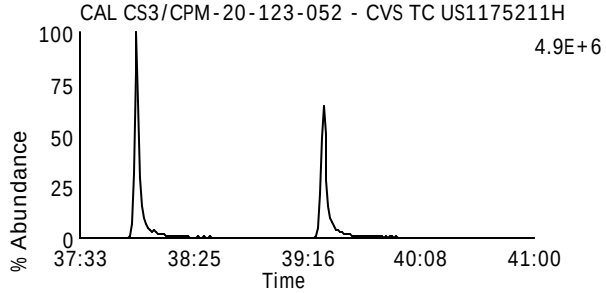
Data File: U210629B_02 G4 C4 - 409.7788
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



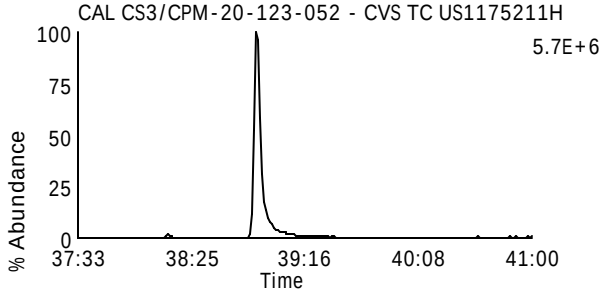
Data File: U210629B_02 G4 C9 - 425.7737
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



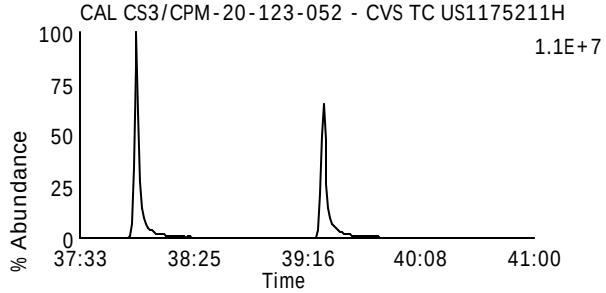
Data File: U210629B_02 G4 C6 - 417.825
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



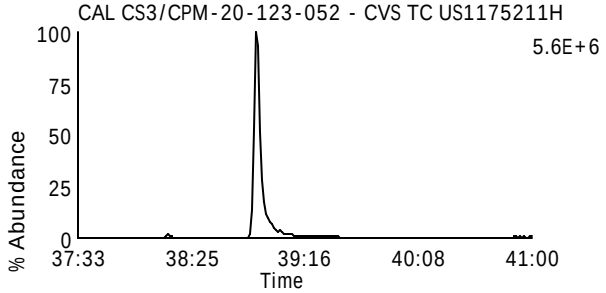
Data File: U210629B_02 G4 C11 - 435.8169
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



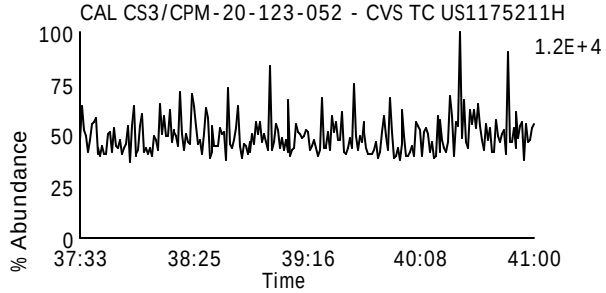
Data File: U210629B_02 G4 C7 - 419.822
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



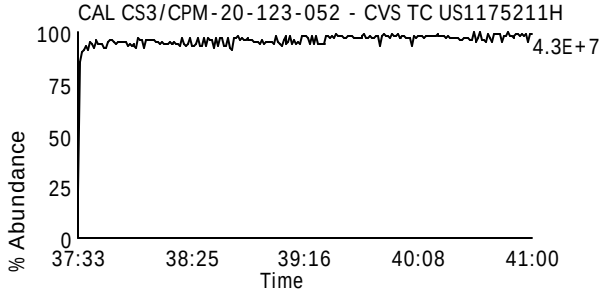
Data File: U210629B_02 G4 C12 - 437.814
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



Data File: U210629B_02 G4 C13 - 479.7165
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



Data File: U210629B_02 G4 C1 - 380.976
CAL CS3/CPM-20-123-052 - CVS TC US1175211H

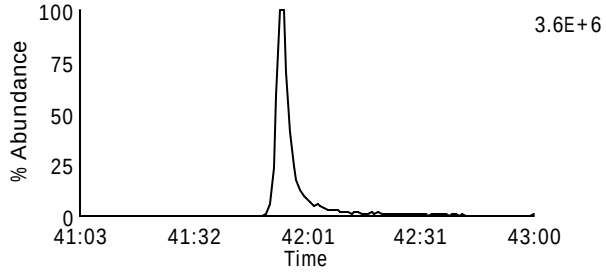


Homologue Group: Octas

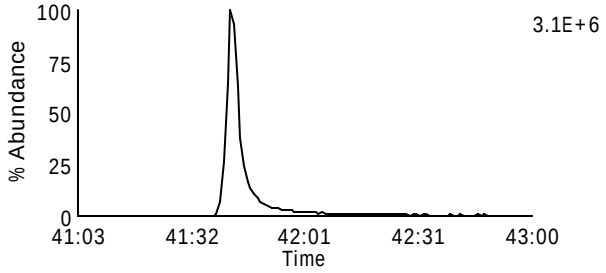
Data File Name: U210629B_02
Date Acquired: 6/29/2021
Sample Description: CAL CS3/CPM-20-123-052 - CVS TC US1175211H

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

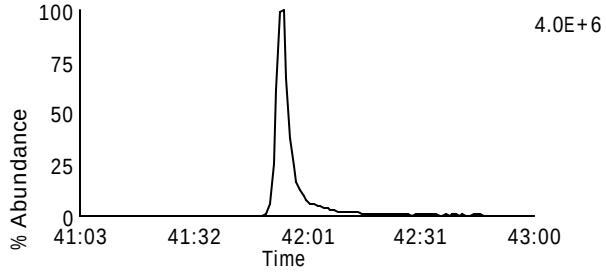
Data File: U210629B_02 G5 C4 - 441.7428
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



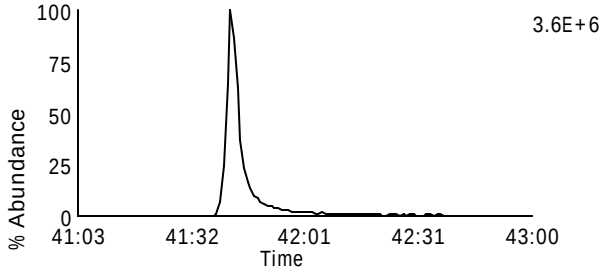
Data File: U210629B_02 G5 C8 - 457.7377
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



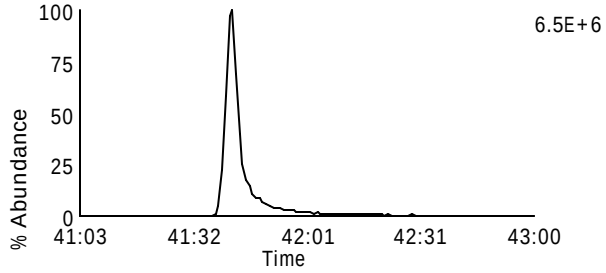
Data File: U210629B_02 G5 C5 - 443.7398
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



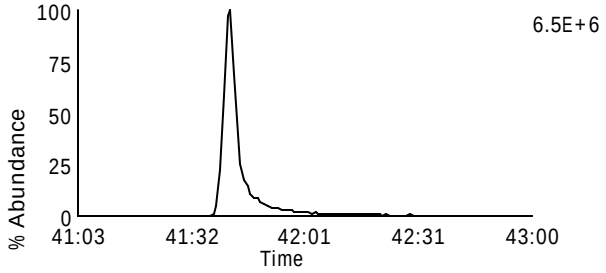
Data File: U210629B_02 G5 C9 - 459.7347
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



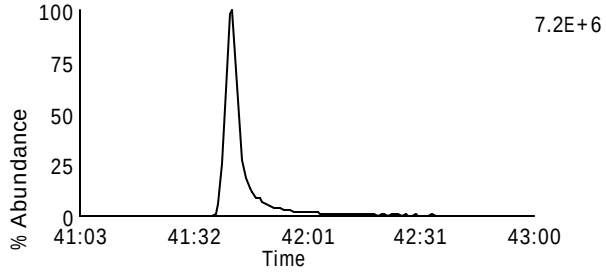
Data File: U210629B_02 G5 C11 - 469.7779
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



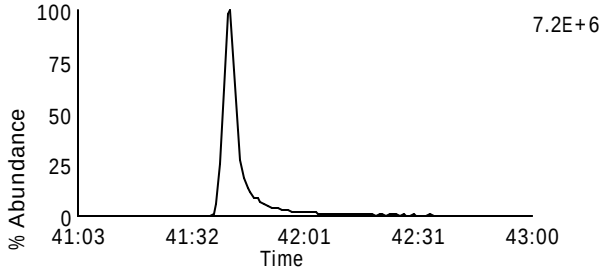
Data File: U210629B_02 G5 C11 - 469.7779
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



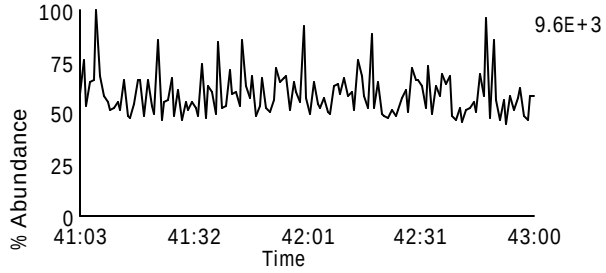
Data File: U210629B_02 G5 C12 - 471.7749
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



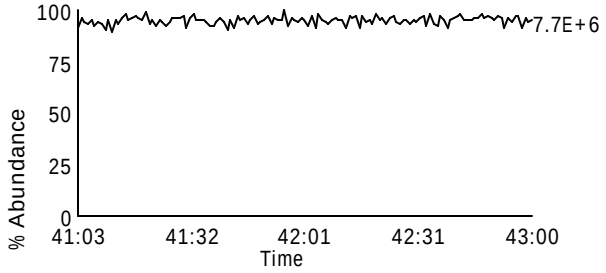
Data File: U210629B_02 G5 C12 - 471.7749
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



Data File: U210629B_02 G5 C13 - 513.6775
CAL CS3/CPM-20-123-052 - CVS TC US1175211H



Data File: U210629B_02 G5 C2 - 430.9728
CAL CS3/CPM-20-123-052 - CVS TC US1175211H

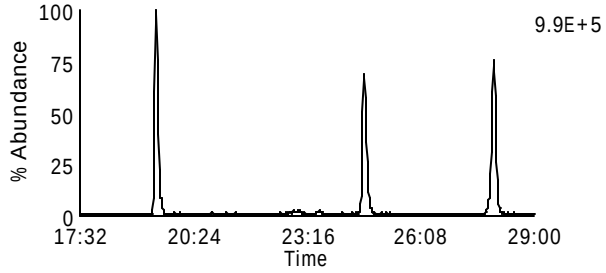


Homologue Group: Tetras

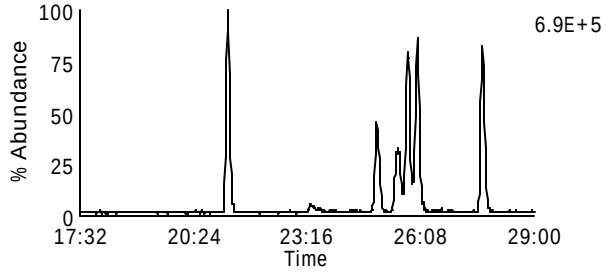
Data File Name: U210630B_01
Date Acquired: 6/30/2021
Sample Description: CAL CS3/CPM-20-123-052 - SMT

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

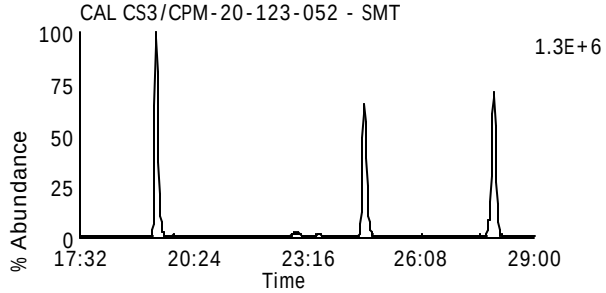
Data File: U210630B_01 G1 C1 - 303.9016
CAL CS3/CPM-20-123-052 - SMT



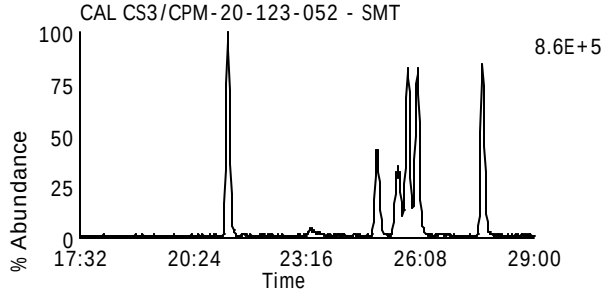
Data File: U210630B_01 G1 C7 - 319.8965
CAL CS3/CPM-20-123-052 - SMT



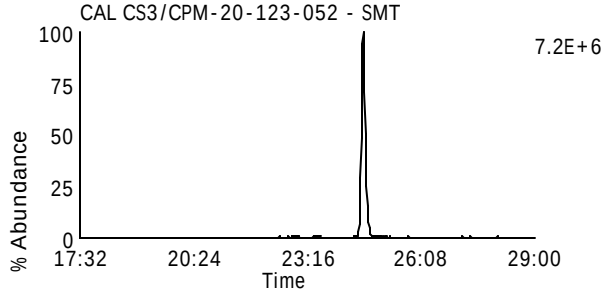
Data File: U210630B_01 G1 C2 - 305.8987
CAL CS3/CPM-20-123-052 - SMT



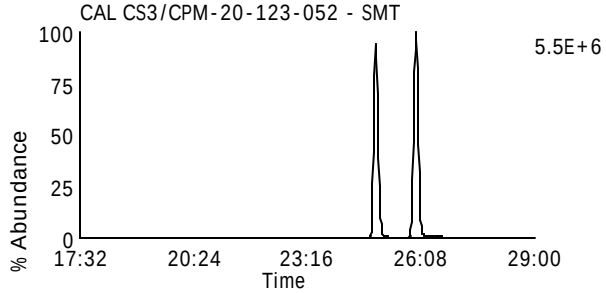
Data File: U210630B_01 G1 C8 - 321.8936
CAL CS3/CPM-20-123-052 - SMT



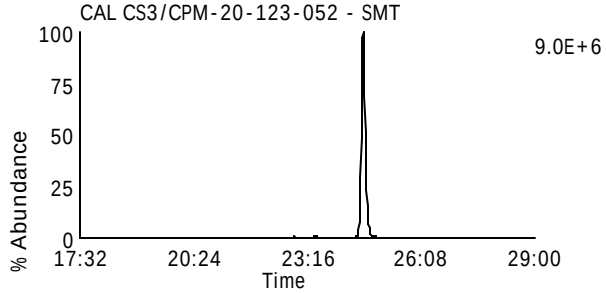
Data File: U210630B_01 G1 C3 - 315.9418
CAL CS3/CPM-20-123-052 - SMT



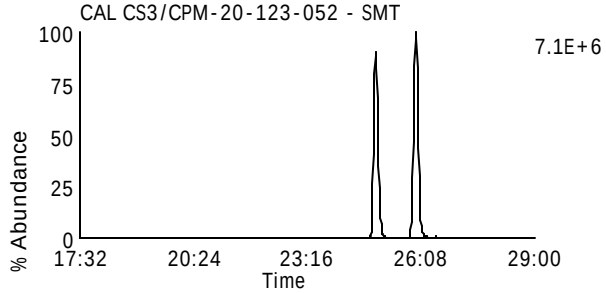
Data File: U210630B_01 G1 C10 - 331.9367
CAL CS3/CPM-20-123-052 - SMT



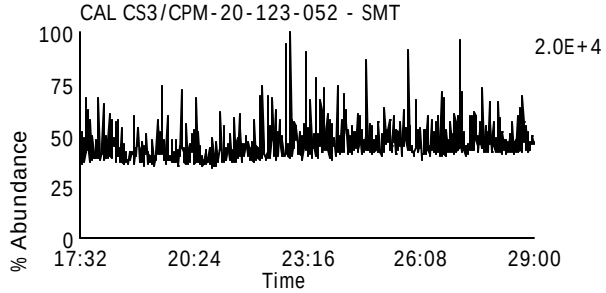
Data File: U210630B_01 G1 C4 - 317.9389
CAL CS3/CPM-20-123-052 - SMT



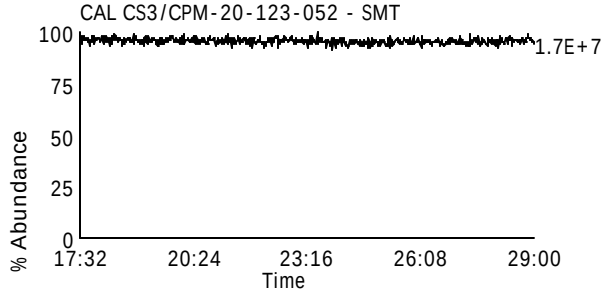
Data File: U210630B_01 G1 C11 - 333.9338
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_01 G1 C14 - 375.8364
CAL CS3/CPM-20-123-052 - SMT



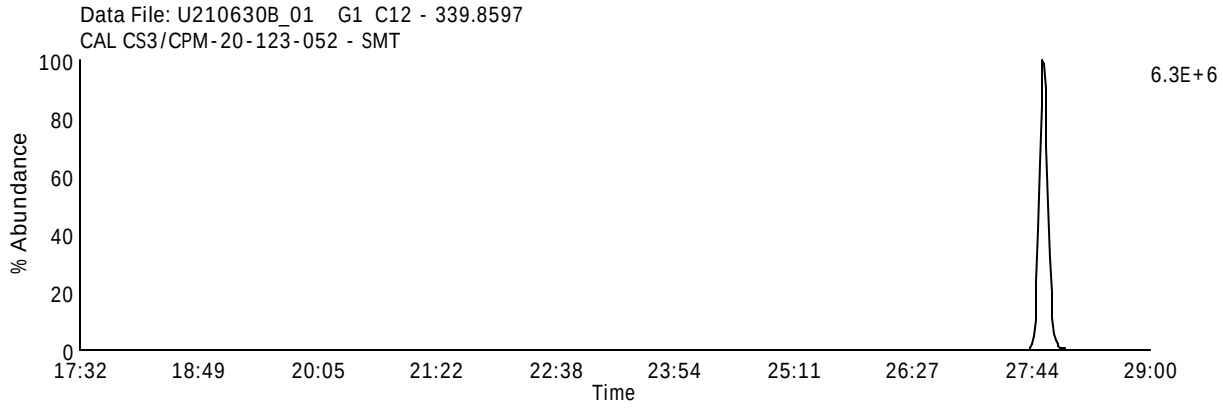
Data File: U210630B_01 G1 C5 - 318.9792
CAL CS3/CPM-20-123-052 - SMT

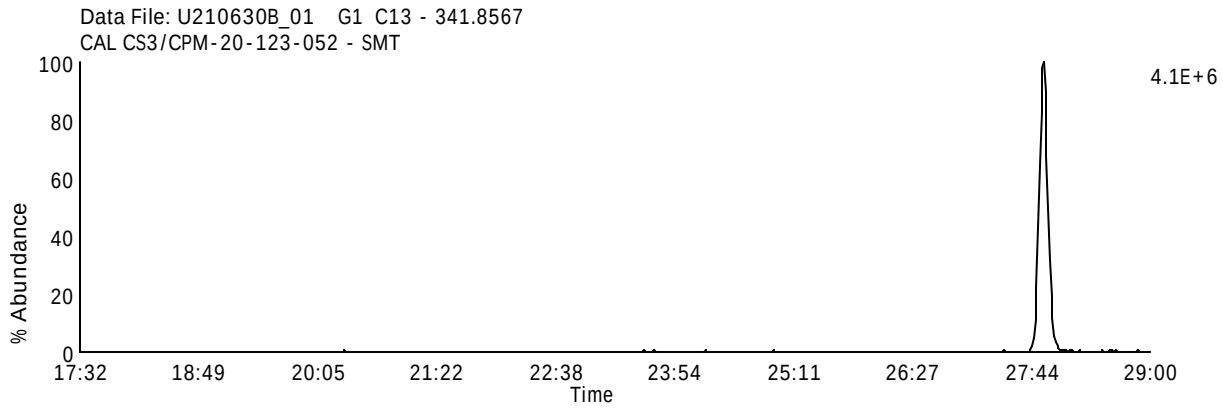


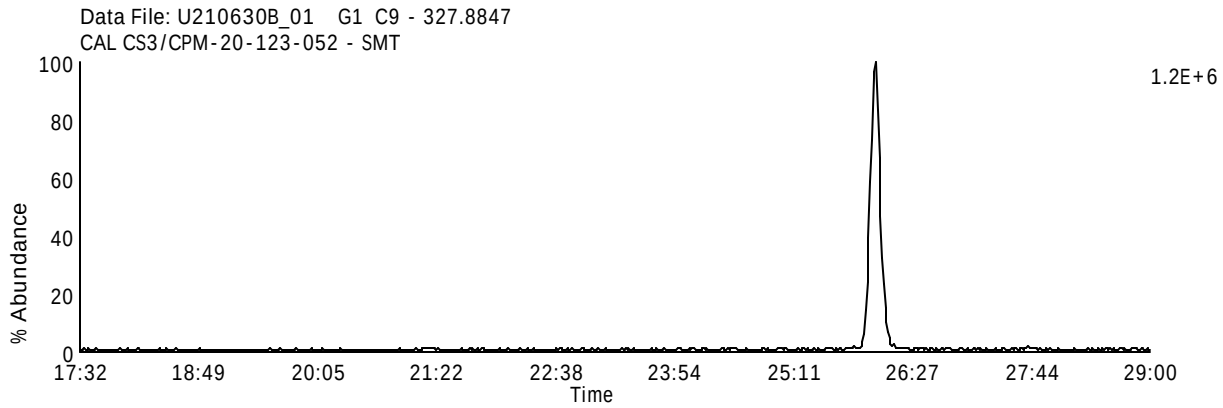
Homologue Group: Penta & Cleanup

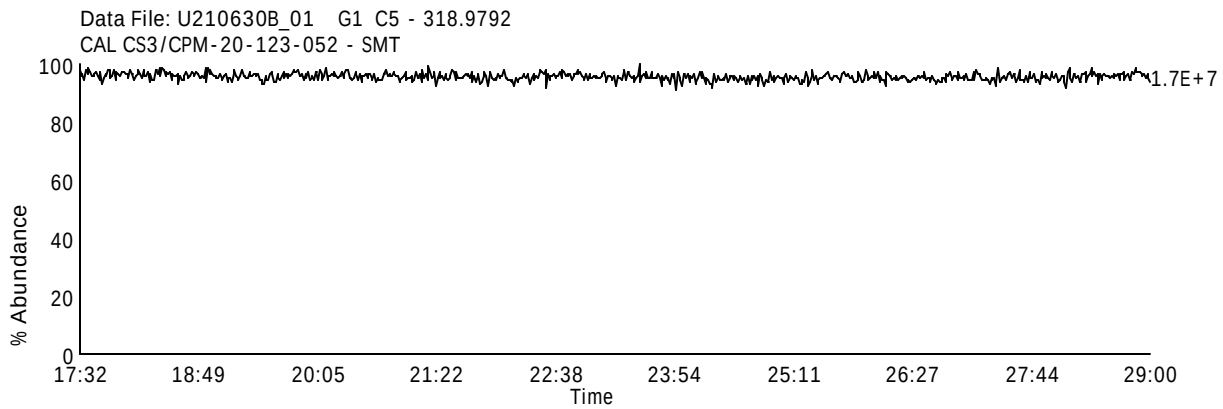
Data File Name: U210630B_01
Date Acquired: 6/30/2021
Sample Description: CAL CS3/CPM-20-123-052 - SMT

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)







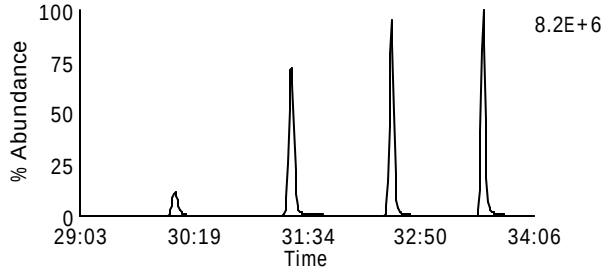


Homologue Group: Pentas

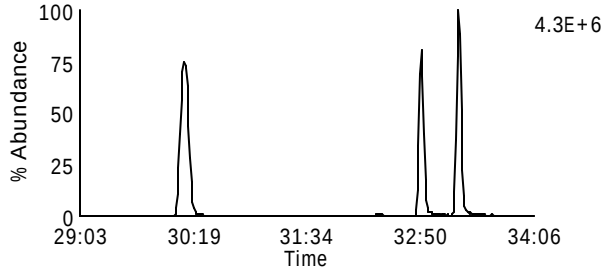
Data File Name: U210630B_01
Date Acquired: 6/30/2021
Sample Description: CAL CS3/CPM-20-123-052 - SMT

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

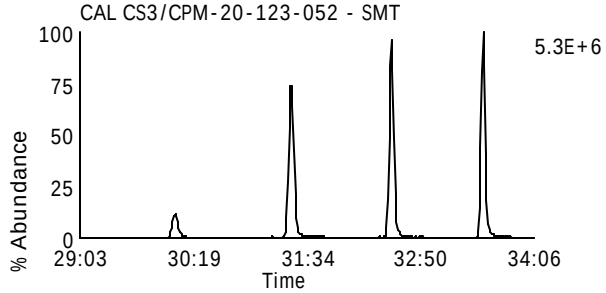
Data File: U210630B_01 G2 C1 - 339.8597
CAL CS3/CPM-20-123-052 - SMT



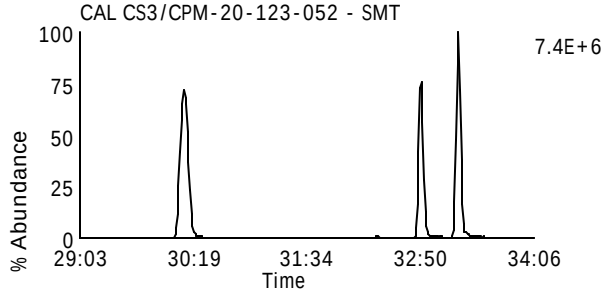
Data File: U210630B_01 G2 C4 - 353.8576
CAL CS3/CPM-20-123-052 - SMT



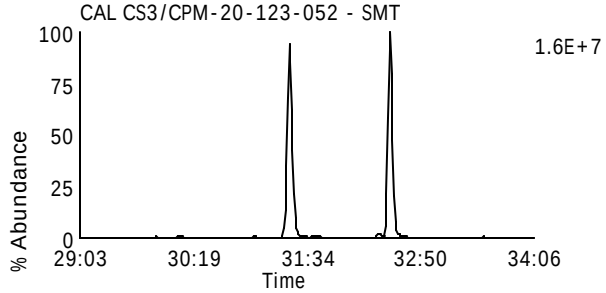
Data File: U210630B_01 G2 C2 - 341.8567
CAL CS3/CPM-20-123-052 - SMT



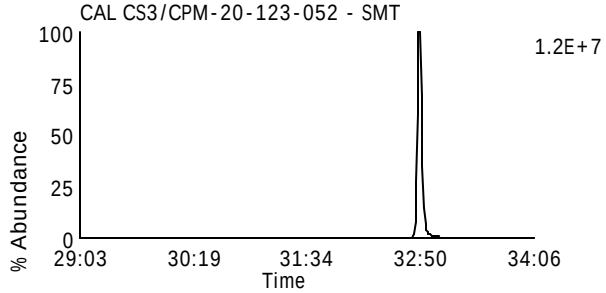
Data File: U210630B_01 G2 C8 - 355.8546
CAL CS3/CPM-20-123-052 - SMT



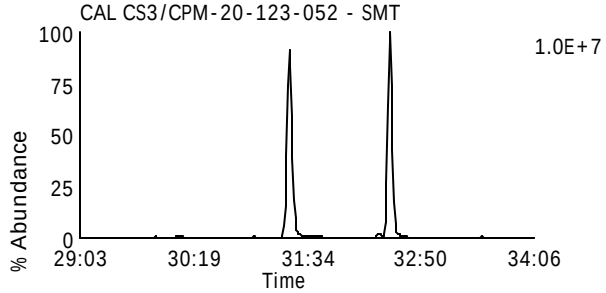
Data File: U210630B_01 G2 C3 - 351.8999
CAL CS3/CPM-20-123-052 - SMT



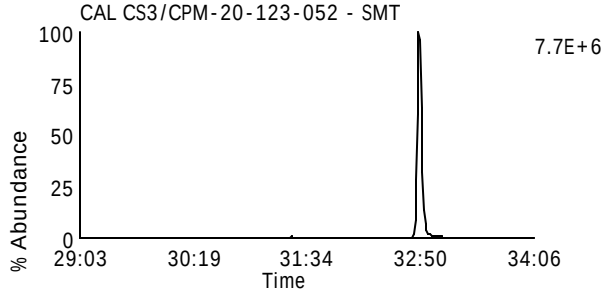
Data File: U210630B_01 G2 C10 - 367.8948
CAL CS3/CPM-20-123-052 - SMT



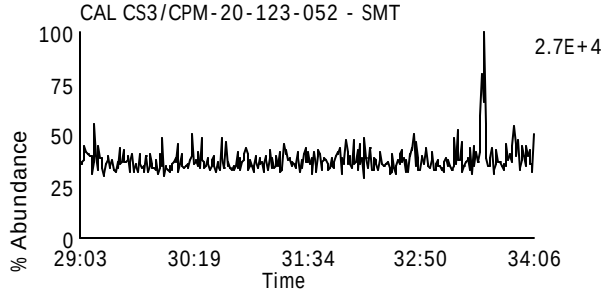
Data File: U210630B_01 G2 C5 - 353.8969
CAL CS3/CPM-20-123-052 - SMT



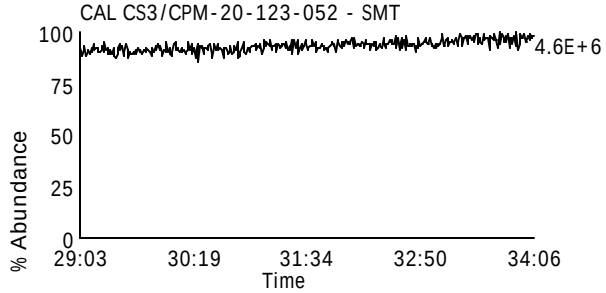
Data File: U210630B_01 G2 C11 - 369.8918
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_01 G2 C12 - 409.7974
CAL CS3/CPM-20-123-052 - SMT



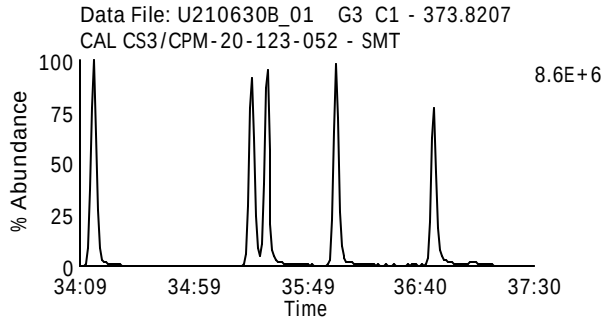
Data File: U210630B_01 G2 C6 - 354.9792
CAL CS3/CPM-20-123-052 - SMT

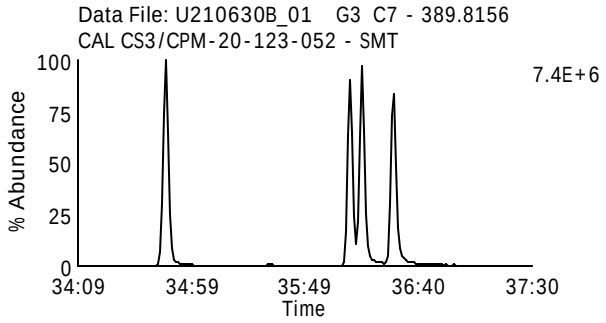


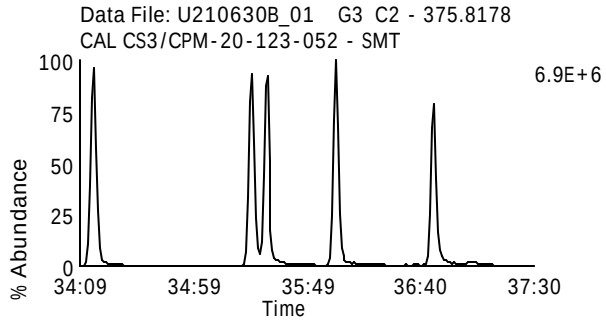
Homologue Group: Hexas

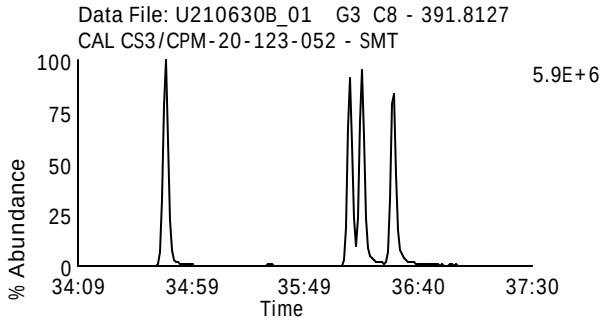
Data File Name: U210630B_01
Date Acquired: 6/30/2021
Sample Description: CAL CS3/CPM-20-123-052 - SMT

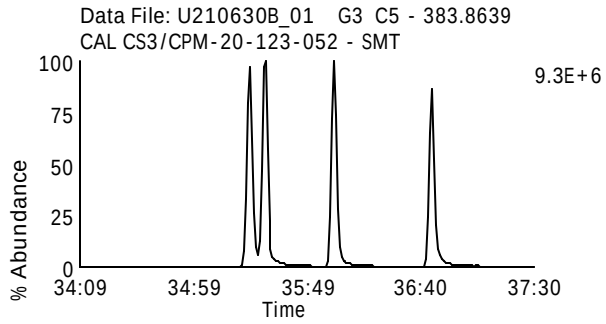
Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

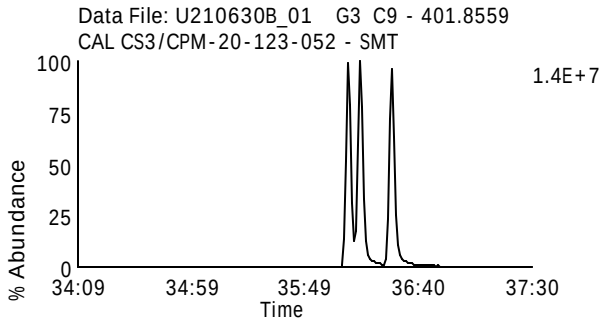


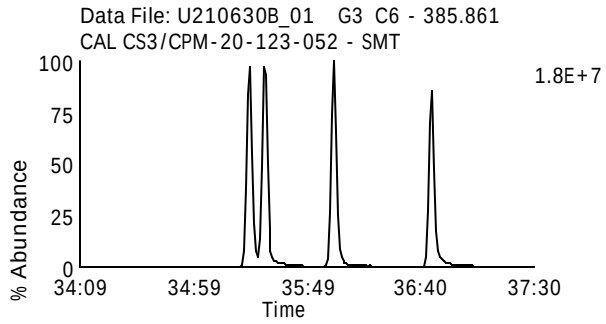


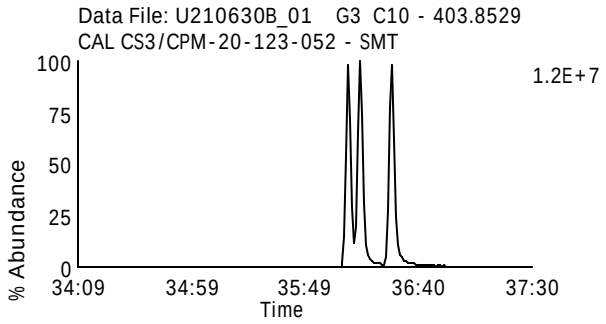


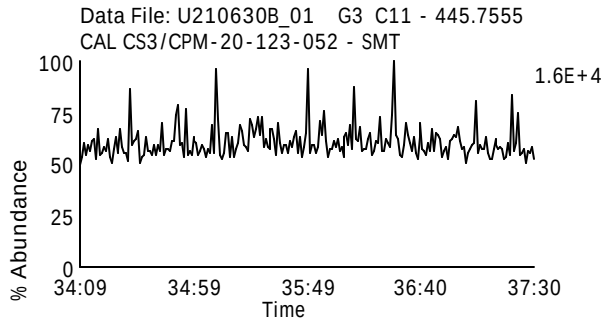


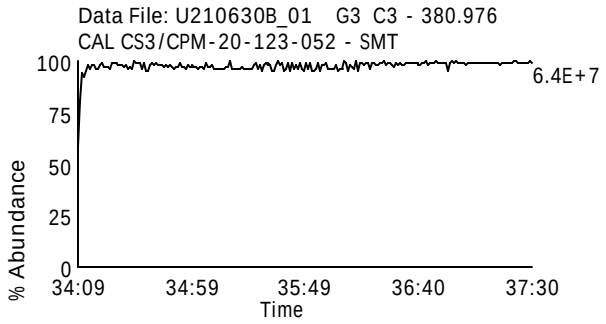










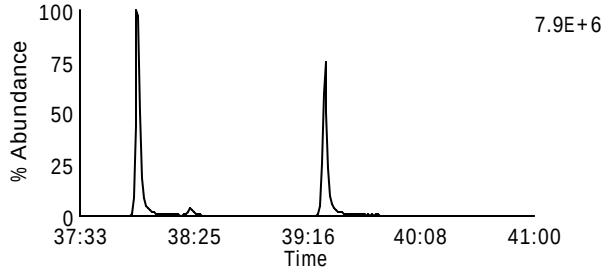


Homologue Group: Heptas

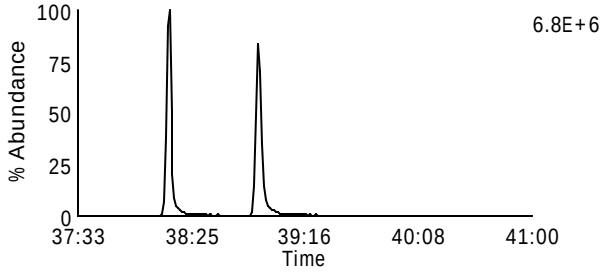
Data File Name: U210630B_01
Date Acquired: 6/30/2021
Sample Description: CAL CS3/CPM-20-123-052 - SMT

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

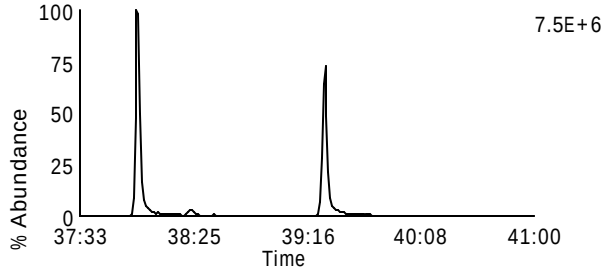
Data File: U210630B_01 G4 C3 - 407.7818
CAL CS3/CPM-20-123-052 - SMT



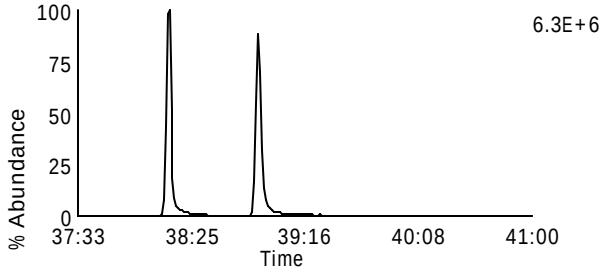
Data File: U210630B_01 G4 C8 - 423.7767
CAL CS3/CPM-20-123-052 - SMT



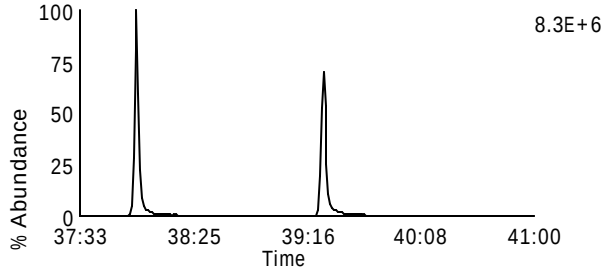
Data File: U210630B_01 G4 C4 - 409.7788
CAL CS3/CPM-20-123-052 - SMT



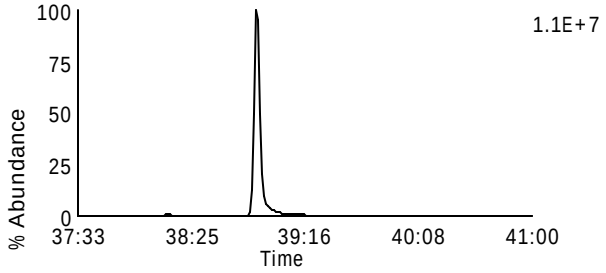
Data File: U210630B_01 G4 C9 - 425.7737
CAL CS3/CPM-20-123-052 - SMT



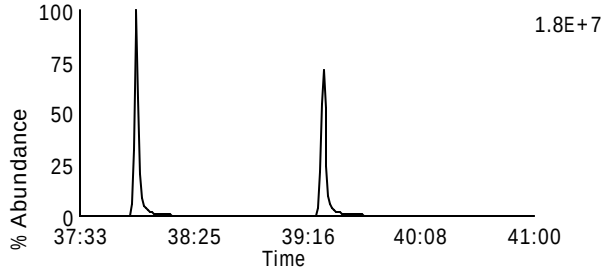
Data File: U210630B_01 G4 C6 - 417.825
CAL CS3/CPM-20-123-052 - SMT



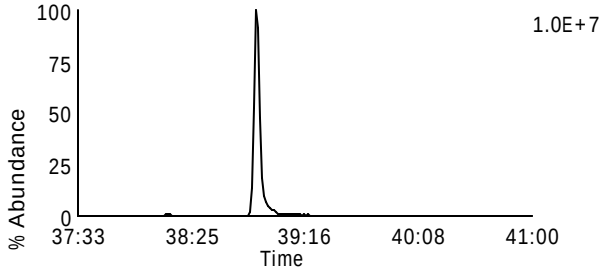
Data File: U210630B_01 G4 C11 - 435.8169
CAL CS3/CPM-20-123-052 - SMT



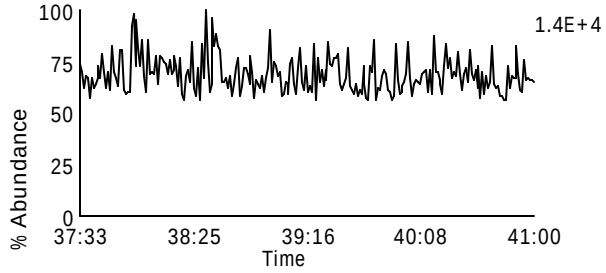
Data File: U210630B_01 G4 C7 - 419.822
CAL CS3/CPM-20-123-052 - SMT



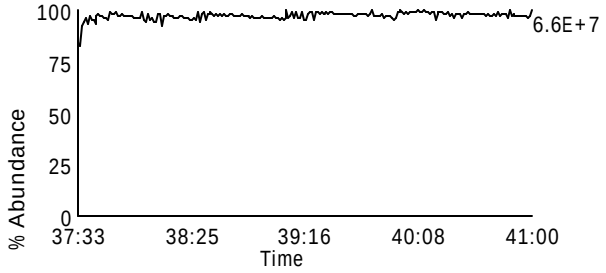
Data File: U210630B_01 G4 C12 - 437.814
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_01 G4 C13 - 479.7165
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_01 G4 C1 - 380.976
CAL CS3/CPM-20-123-052 - SMT

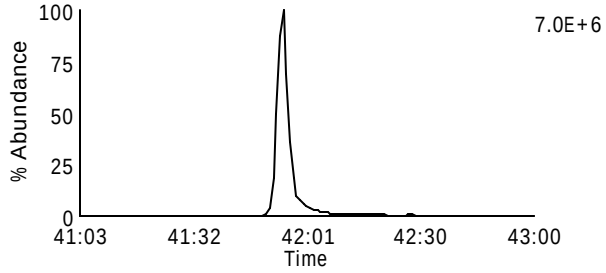


Homologue Group: Octas

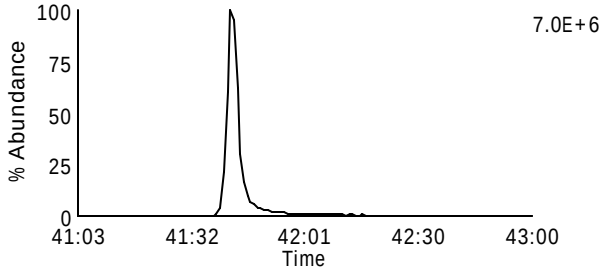
Data File Name: U210630B_01
Date Acquired: 6/30/2021
Sample Description: CAL CS3/CPM-20-123-052 - SMT

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

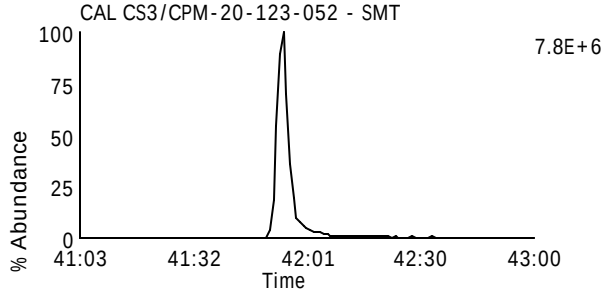
Data File: U210630B_01 G5 C4 - 441.7428
CAL CS3/CPM-20-123-052 - SMT



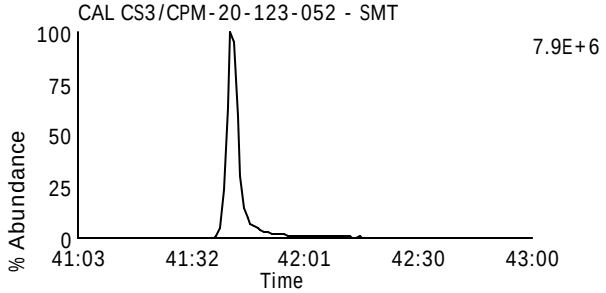
Data File: U210630B_01 G5 C8 - 457.7377
CAL CS3/CPM-20-123-052 - SMT



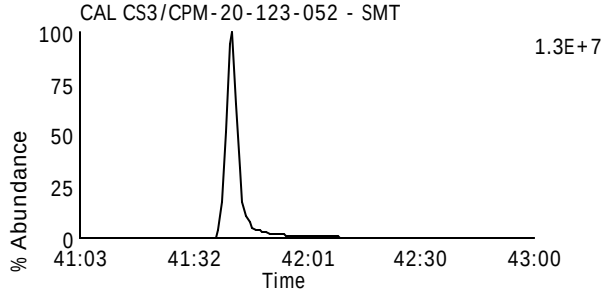
Data File: U210630B_01 G5 C5 - 443.7398
CAL CS3/CPM-20-123-052 - SMT



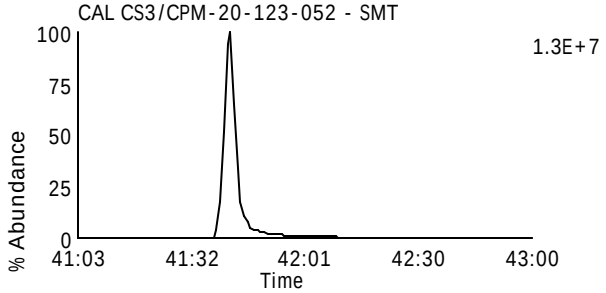
Data File: U210630B_01 G5 C9 - 459.7347
CAL CS3/CPM-20-123-052 - SMT



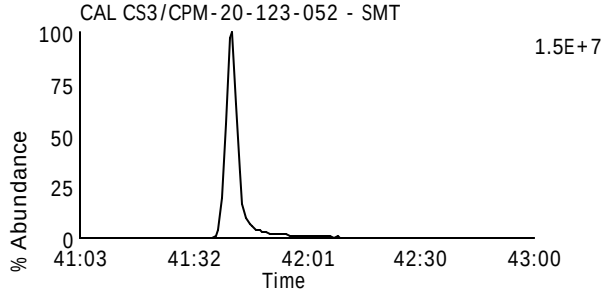
Data File: U210630B_01 G5 C11 - 469.7779
CAL CS3/CPM-20-123-052 - SMT



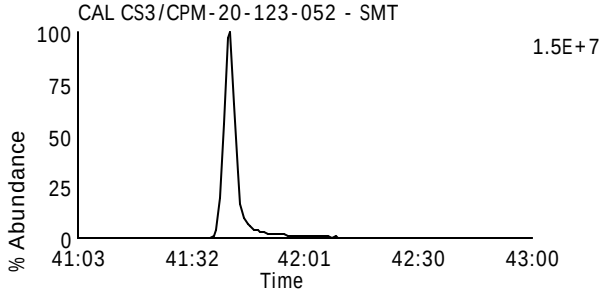
Data File: U210630B_01 G5 C11 - 469.7779
CAL CS3/CPM-20-123-052 - SMT



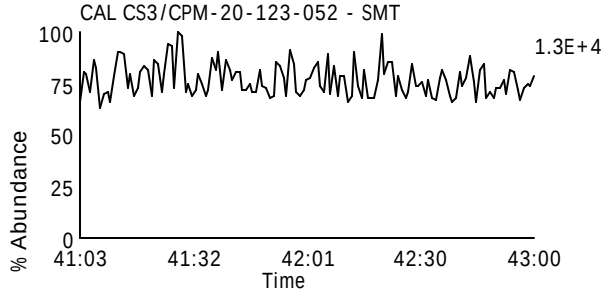
Data File: U210630B_01 G5 C12 - 471.7749
CAL CS3/CPM-20-123-052 - SMT



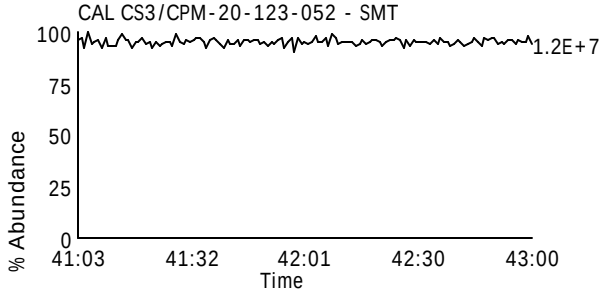
Data File: U210630B_01 G5 C12 - 471.7749
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_01 G5 C13 - 513.6775
CAL CS3/CPM-20-123-052 - SMT



Data File: U210630B_01 G5 C2 - 430.9728
CAL CS3/CPM-20-123-052 - SMT

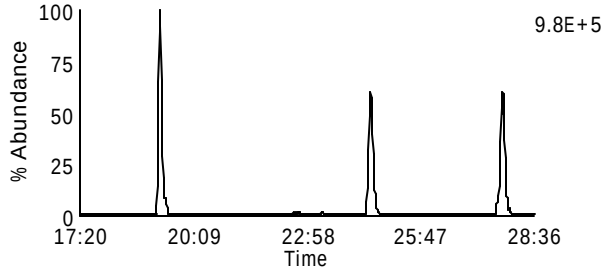


Homologue Group: Tetras

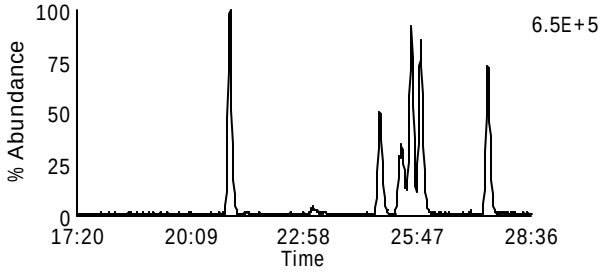
Data File Name: U210703B_01
Date Acquired: 7/3/2021
Sample Description: CAL CS3/CPM-20-123-052 - JRH FE CC15" TC

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

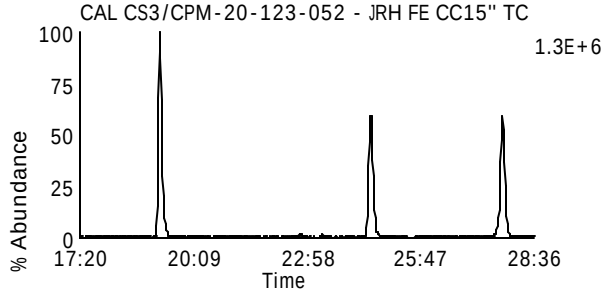
Data File: U210703B_01 G1 C1 - 303.9016
CAL CS3/CPM-20-123-052 - JRH FE CC15" TC



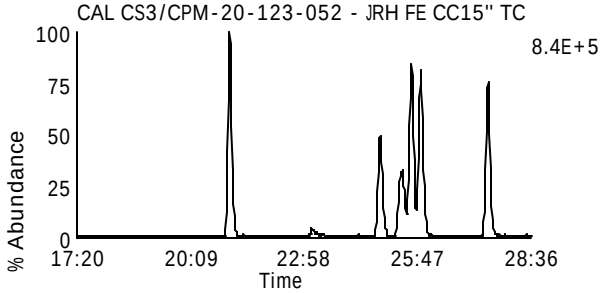
Data File: U210703B_01 G1 C7 - 319.8965
CAL CS3/CPM-20-123-052 - JRH FE CC15" TC



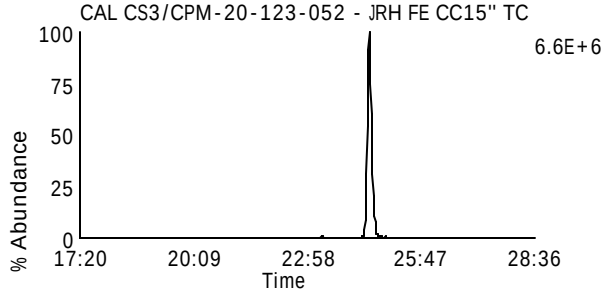
Data File: U210703B_01 G1 C2 - 305.8987
CAL CS3/CPM-20-123-052 - JRH FE CC15" TC



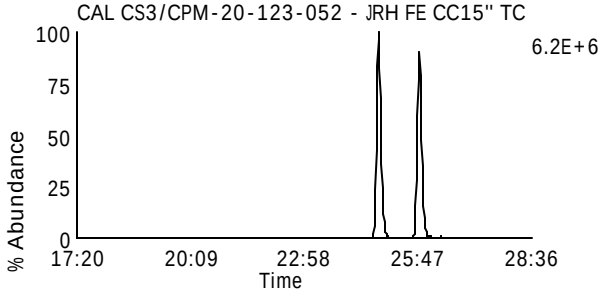
Data File: U210703B_01 G1 C8 - 321.8936
CAL CS3/CPM-20-123-052 - JRH FE CC15" TC



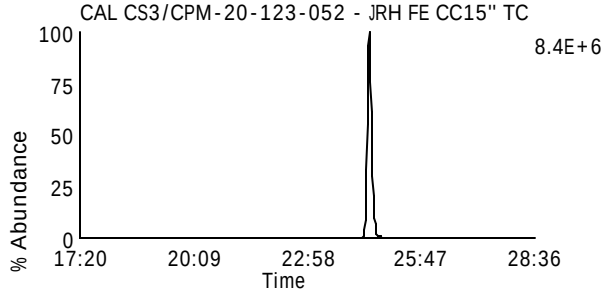
Data File: U210703B_01 G1 C3 - 315.9418
CAL CS3/CPM-20-123-052 - JRH FE CC15" TC



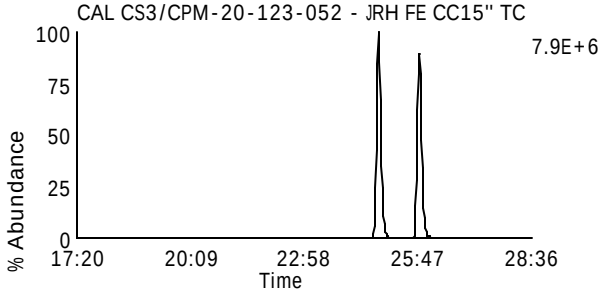
Data File: U210703B_01 G1 C10 - 331.9367
CAL CS3/CPM-20-123-052 - JRH FE CC15" TC



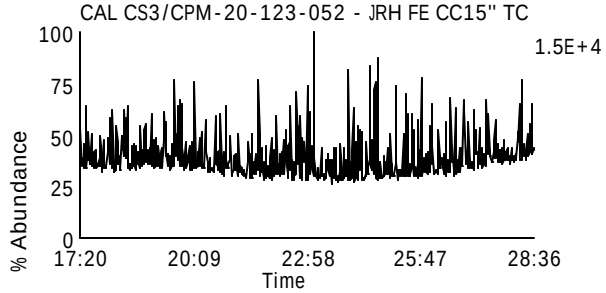
Data File: U210703B_01 G1 C4 - 317.9389
CAL CS3/CPM-20-123-052 - JRH FE CC15" TC



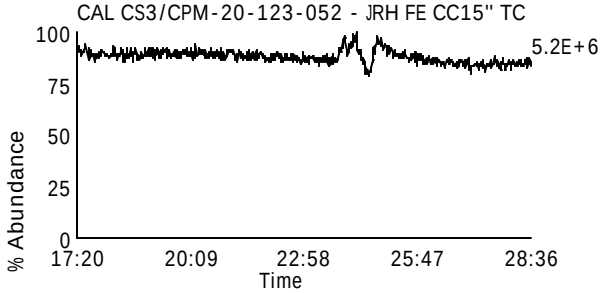
Data File: U210703B_01 G1 C11 - 333.9338
CAL CS3/CPM-20-123-052 - JRH FE CC15" TC



Data File: U210703B_01 G1 C14 - 375.8364
CAL CS3/CPM-20-123-052 - JRH FE CC15" TC



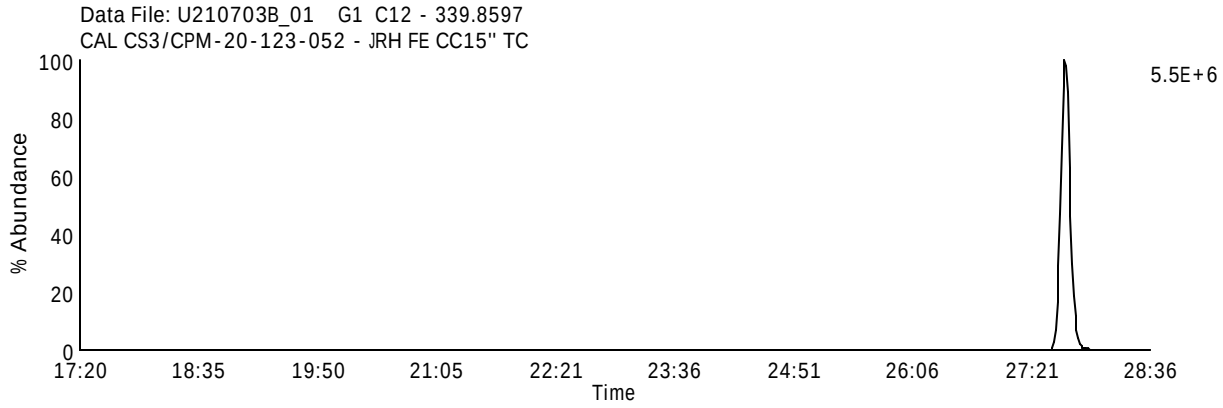
Data File: U210703B_01 G1 C5 - 318.9792
CAL CS3/CPM-20-123-052 - JRH FE CC15" TC

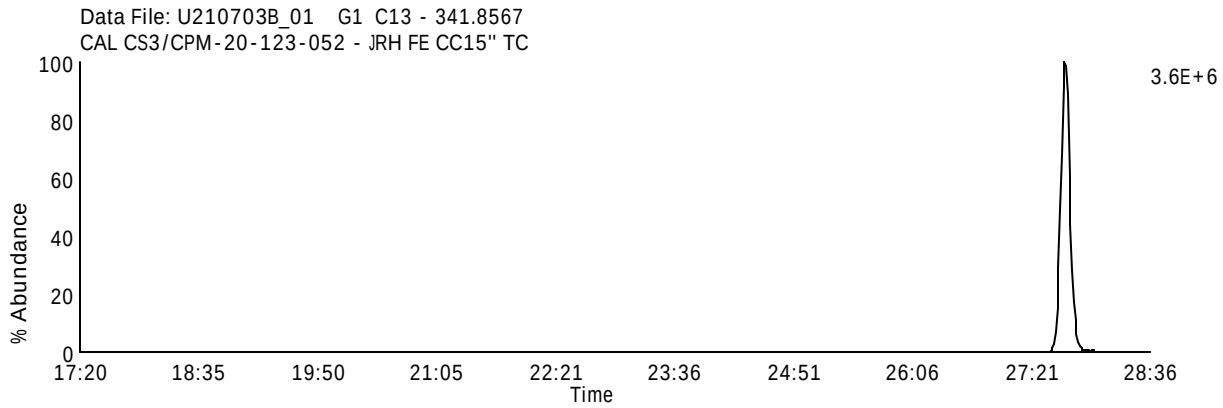


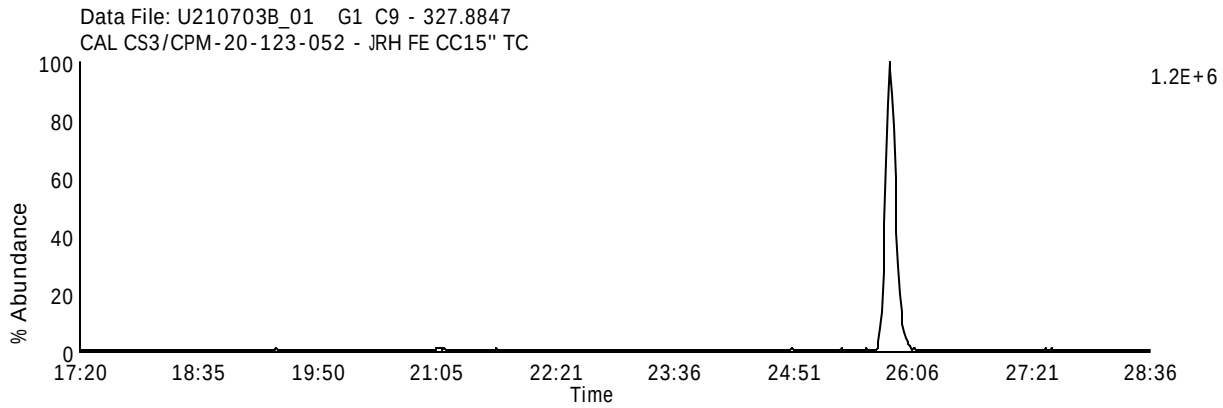
Homologue Group: Penta & Cleanup

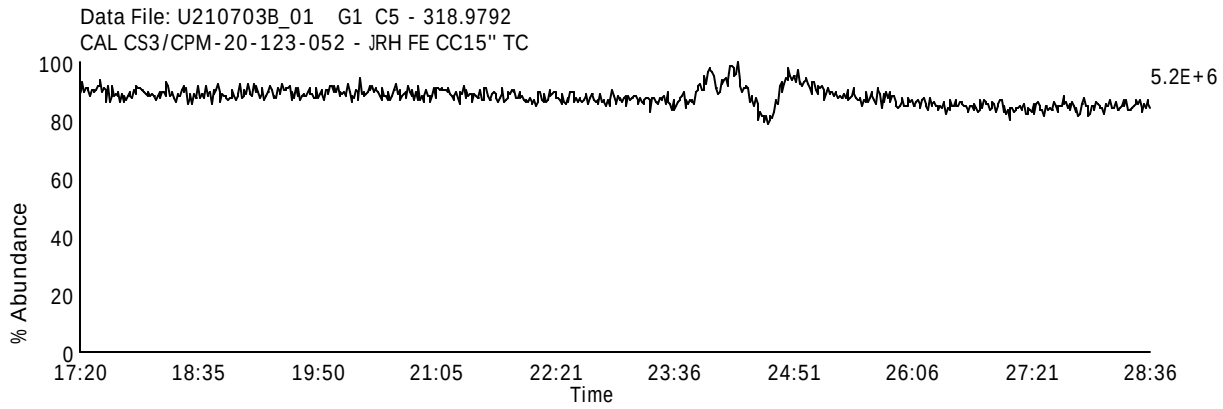
Data File Name: U210703B_01
Date Acquired: 7/3/2021
Sample Description: CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)







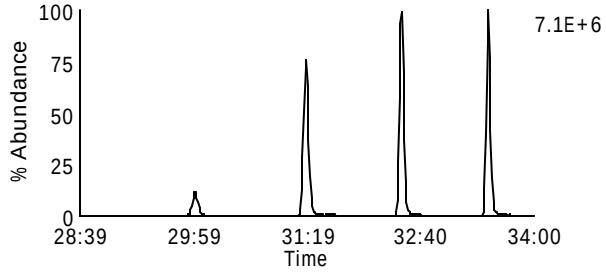


Homologue Group: Pentas

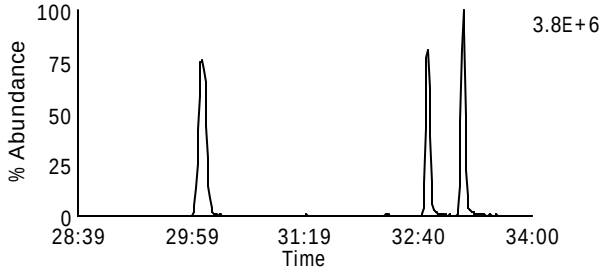
Data File Name: U210703B_01
Date Acquired: 7/3/2021
Sample Description: CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

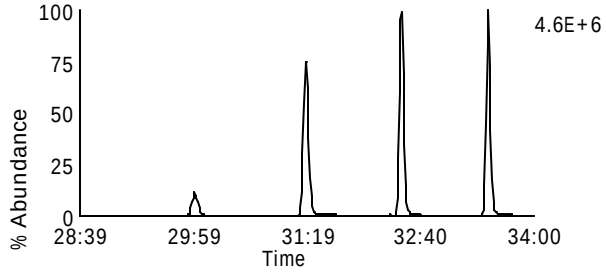
Data File: U210703B_01 G2 C1 - 339.8597
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



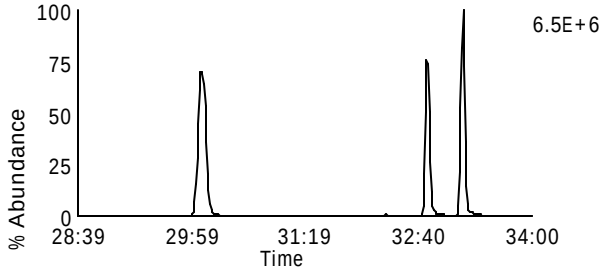
Data File: U210703B_01 G2 C4 - 353.8576
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



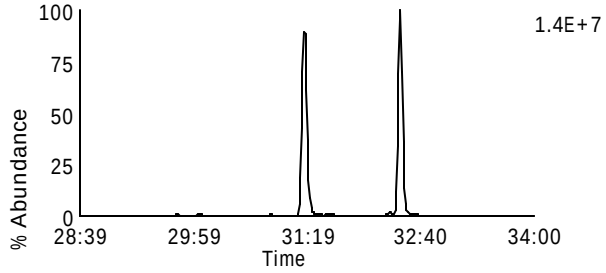
Data File: U210703B_01 G2 C2 - 341.8567
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



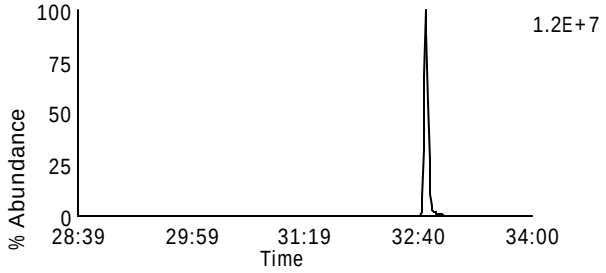
Data File: U210703B_01 G2 C8 - 355.8546
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



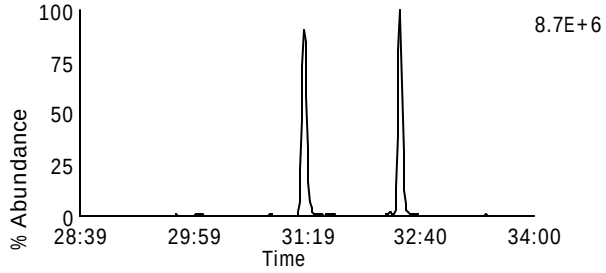
Data File: U210703B_01 G2 C3 - 351.8999
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



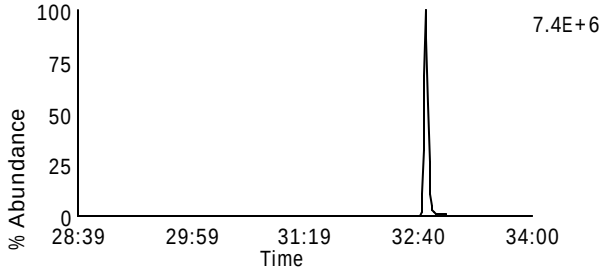
Data File: U210703B_01 G2 C10 - 367.8948
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



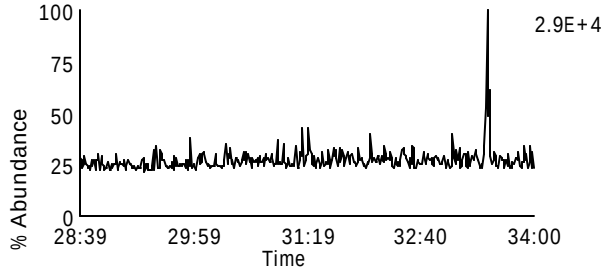
Data File: U210703B_01 G2 C5 - 353.8969
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



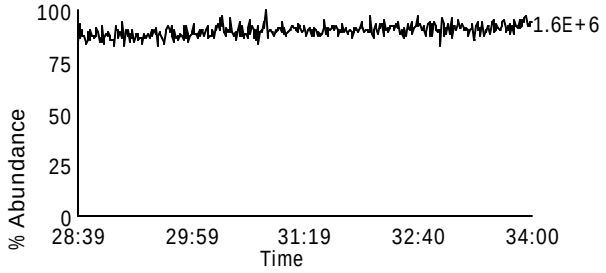
Data File: U210703B_01 G2 C11 - 369.8918
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



Data File: U210703B_01 G2 C12 - 409.7974
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



Data File: U210703B_01 G2 C6 - 354.9792
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC

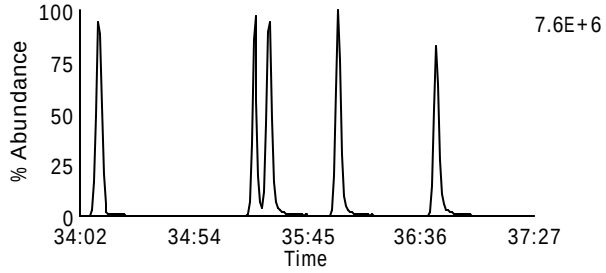


Homologue Group: Hexas

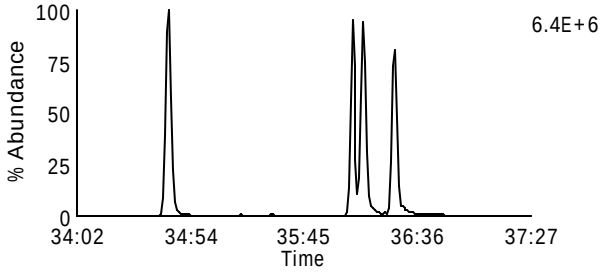
Data File Name: U210703B_01
Date Acquired: 7/3/2021
Sample Description: CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

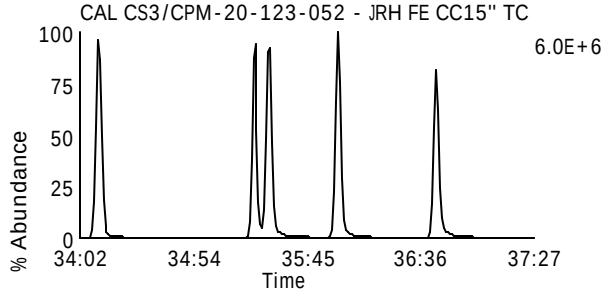
Data File: U210703B_01 G3 C1 - 373.8207
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



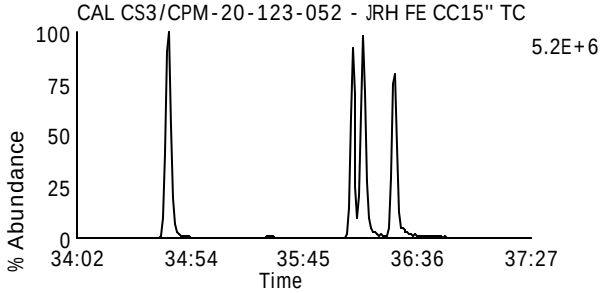
Data File: U210703B_01 G3 C7 - 389.8156
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



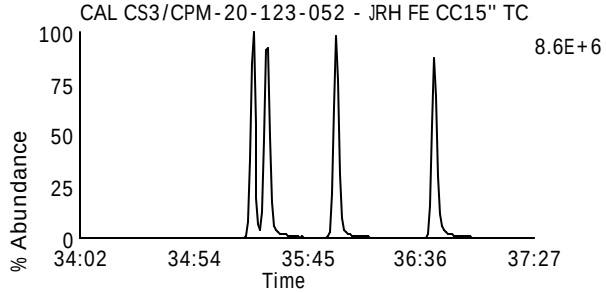
Data File: U210703B_01 G3 C2 - 375.8178
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



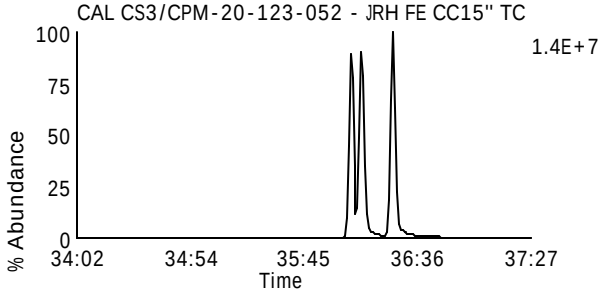
Data File: U210703B_01 G3 C8 - 391.8127
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



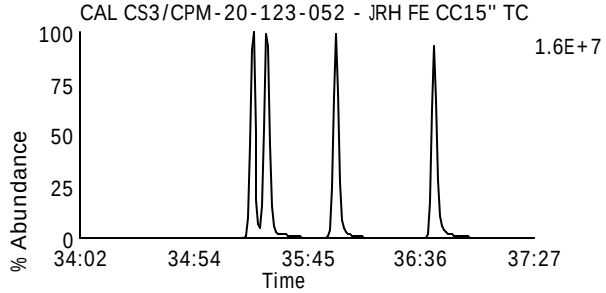
Data File: U210703B_01 G3 C5 - 383.8639
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



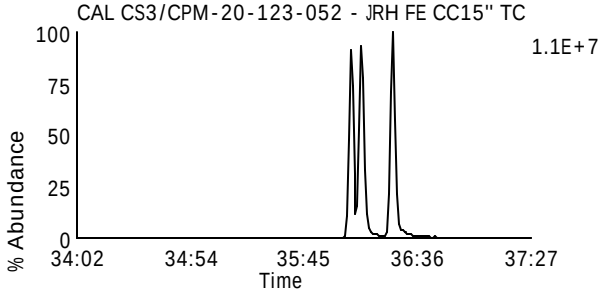
Data File: U210703B_01 G3 C9 - 401.8559
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



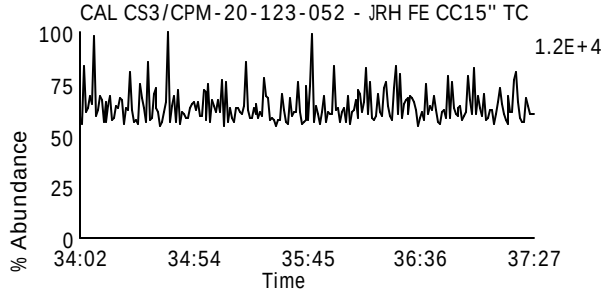
Data File: U210703B_01 G3 C6 - 385.861
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



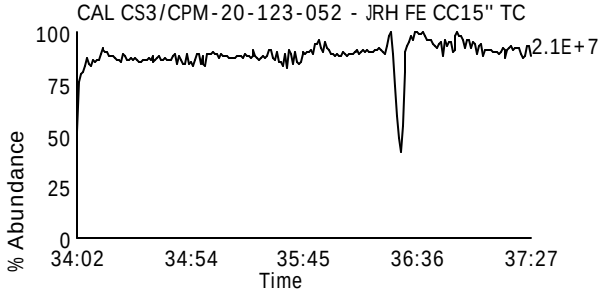
Data File: U210703B_01 G3 C10 - 403.8529
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



Data File: U210703B_01 G3 C11 - 445.7555
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



Data File: U210703B_01 G3 C3 - 380.976
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC

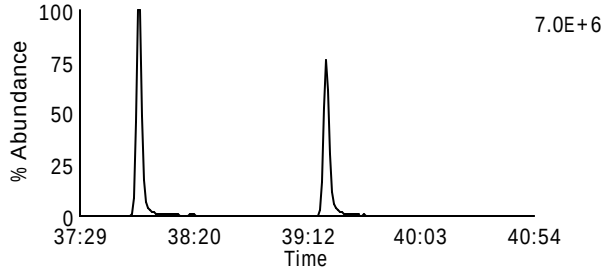


Homologue Group: Heptas

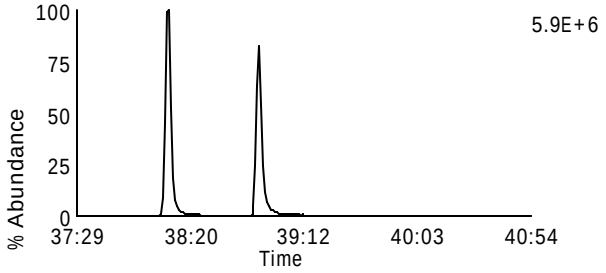
Data File Name: U210703B_01
Date Acquired: 7/3/2021
Sample Description: CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

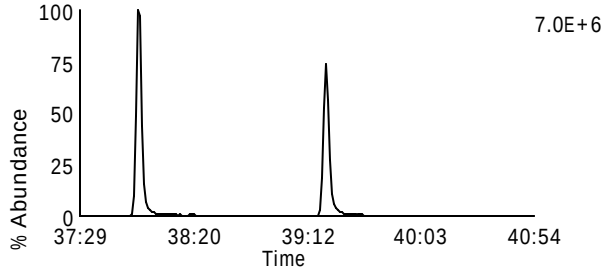
Data File: U210703B_01 G4 C3 - 407.7818
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



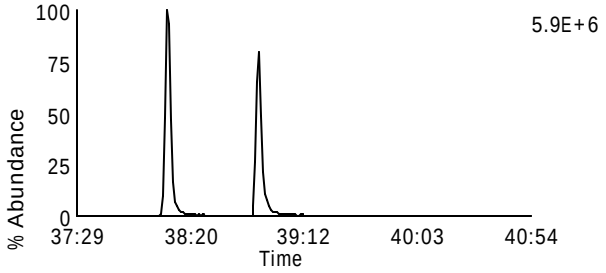
Data File: U210703B_01 G4 C8 - 423.7767
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



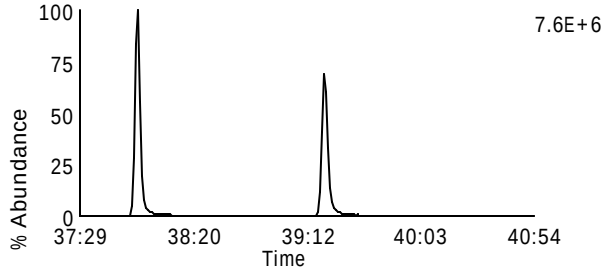
Data File: U210703B_01 G4 C4 - 409.7788
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



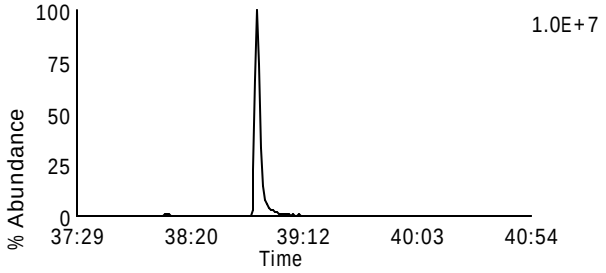
Data File: U210703B_01 G4 C9 - 425.7737
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



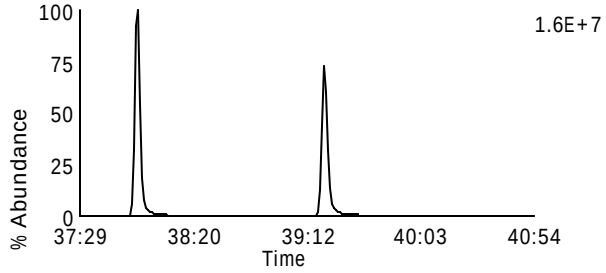
Data File: U210703B_01 G4 C6 - 417.825
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



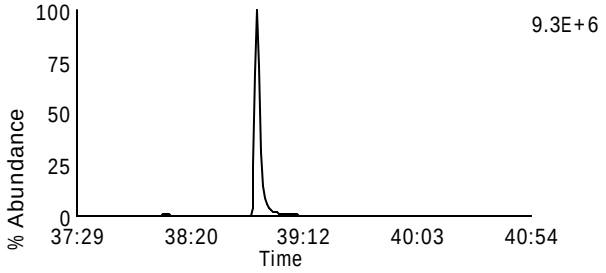
Data File: U210703B_01 G4 C11 - 435.8169
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



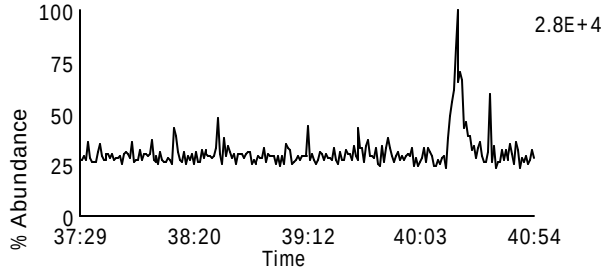
Data File: U210703B_01 G4 C7 - 419.822
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



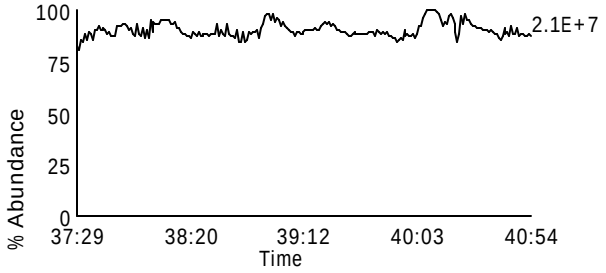
Data File: U210703B_01 G4 C12 - 437.814
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



Data File: U210703B_01 G4 C13 - 479.7165
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



Data File: U210703B_01 G4 C1 - 380.976
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC

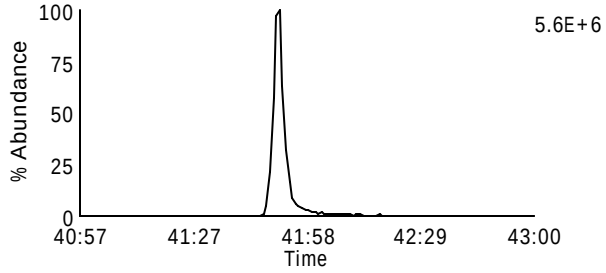


Homologue Group: Octas

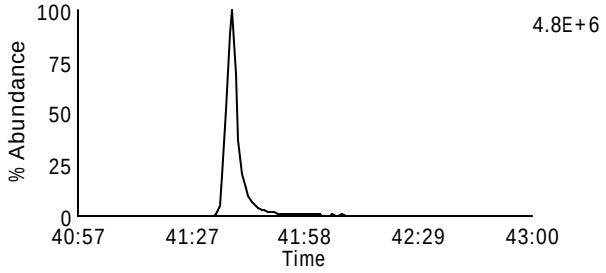
Data File Name: U210703B_01
Date Acquired: 7/3/2021
Sample Description: CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC

Lab Sample ID: CS3/CPM-20-123-052
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)

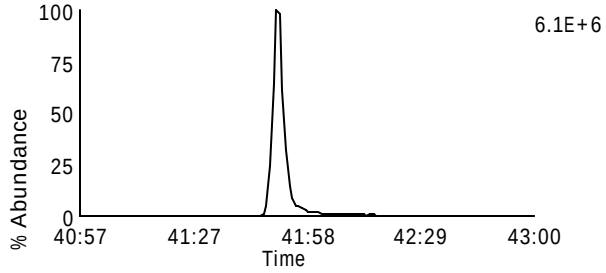
Data File: U210703B_01 G5 C4 - 441.7428
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



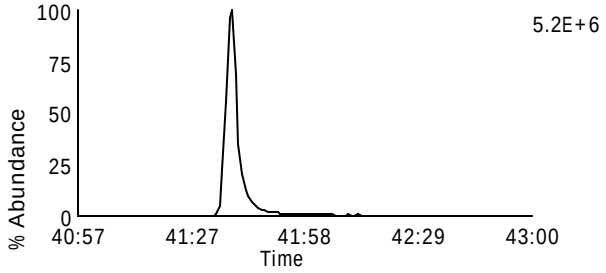
Data File: U210703B_01 G5 C8 - 457.7377
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



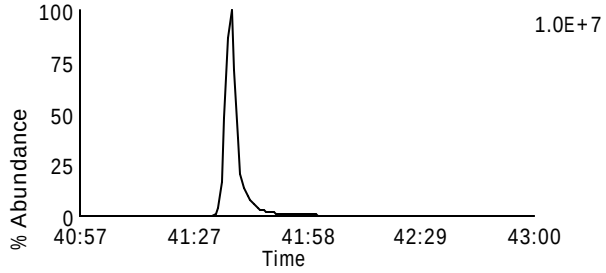
Data File: U210703B_01 G5 C5 - 443.7398
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



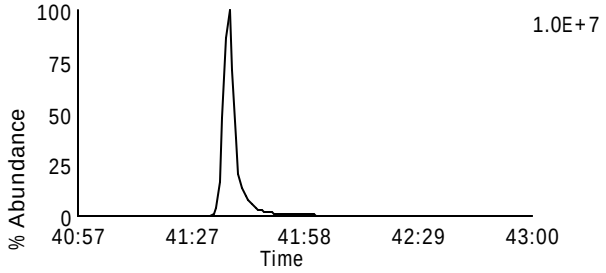
Data File: U210703B_01 G5 C9 - 459.7347
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



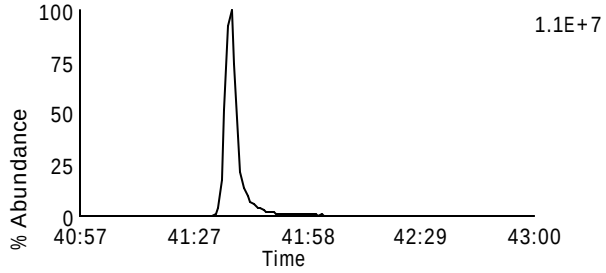
Data File: U210703B_01 G5 C11 - 469.7779
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



Data File: U210703B_01 G5 C11 - 469.7779
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



Data File: U210703B_01 G5 C12 - 471.7749
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



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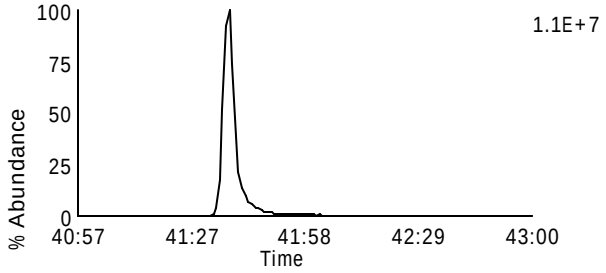

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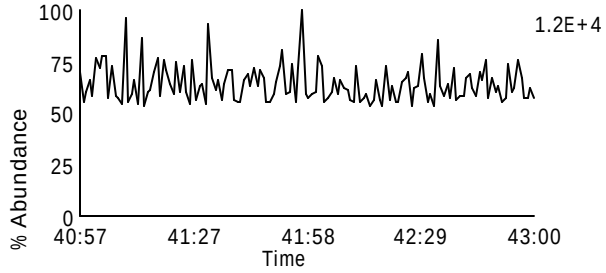
CAL CS3/CPM-20-123-052 - JRH FE CC15'' TC



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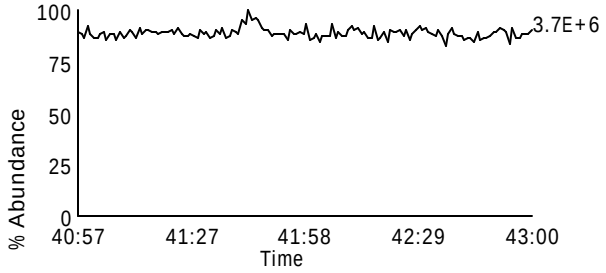

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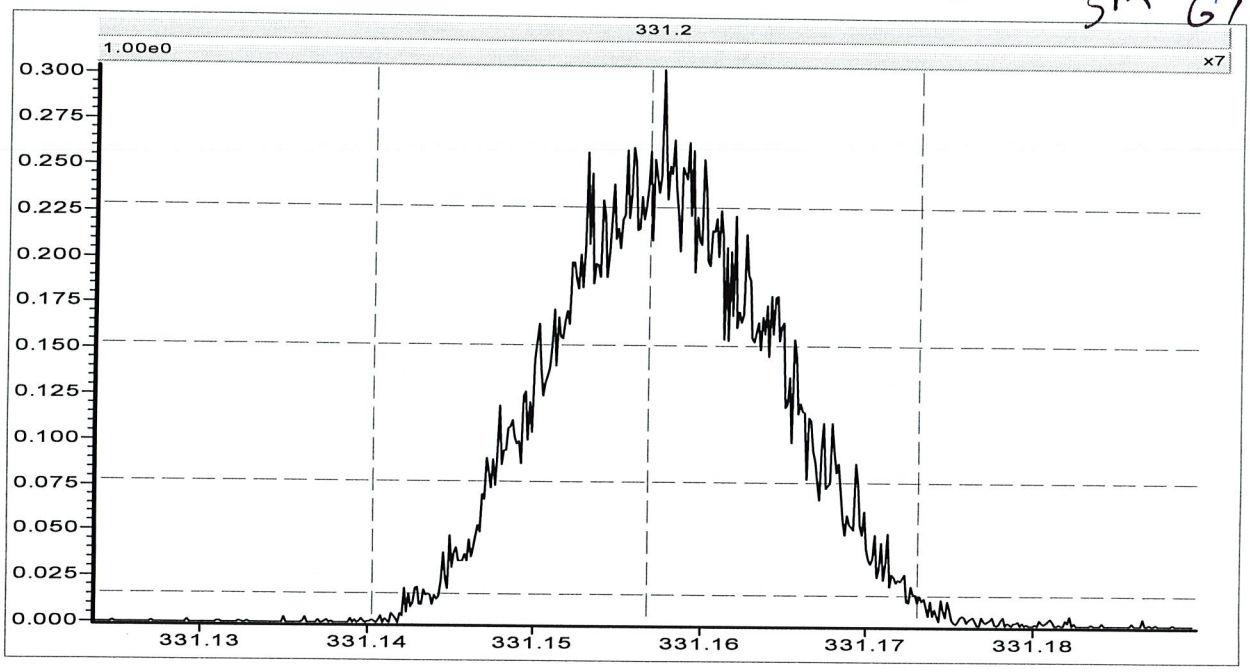
Printed: Tuesday, June 29, 2021 11:44:01 Central Daylight Time

06/29/21
SM 6/29/21



Source (EI+)

Ion Repeller (V)	-5.75
Focus 1	377
Beam Centre	-17.2
Focus 2	4395
Temperature (C)	280
Elec Energy (eV)	34.4
Trap Current (uA)	500.0
Y Deflect 1	3.3
Z Deflect 1	-94.0
Z Deflect 2	0.5
Z Focus 2	2424
Z Focus 3	0
Z Deflect 3	-11.0
Y Focus	3372
Rotate 2	-11.8
Curve 2	-7.2
Curve 3	0.0
Rotate 3	2.7
Rotate 4	0.0
V Acc (V)	6989.35
Magnet Mass	331.2
Source Slit	24.72
Collector Slit	14.31
MIKES Slit	100.00
Alpha	70.00
Detector Voltage	350
Ion Energy	-15.30
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

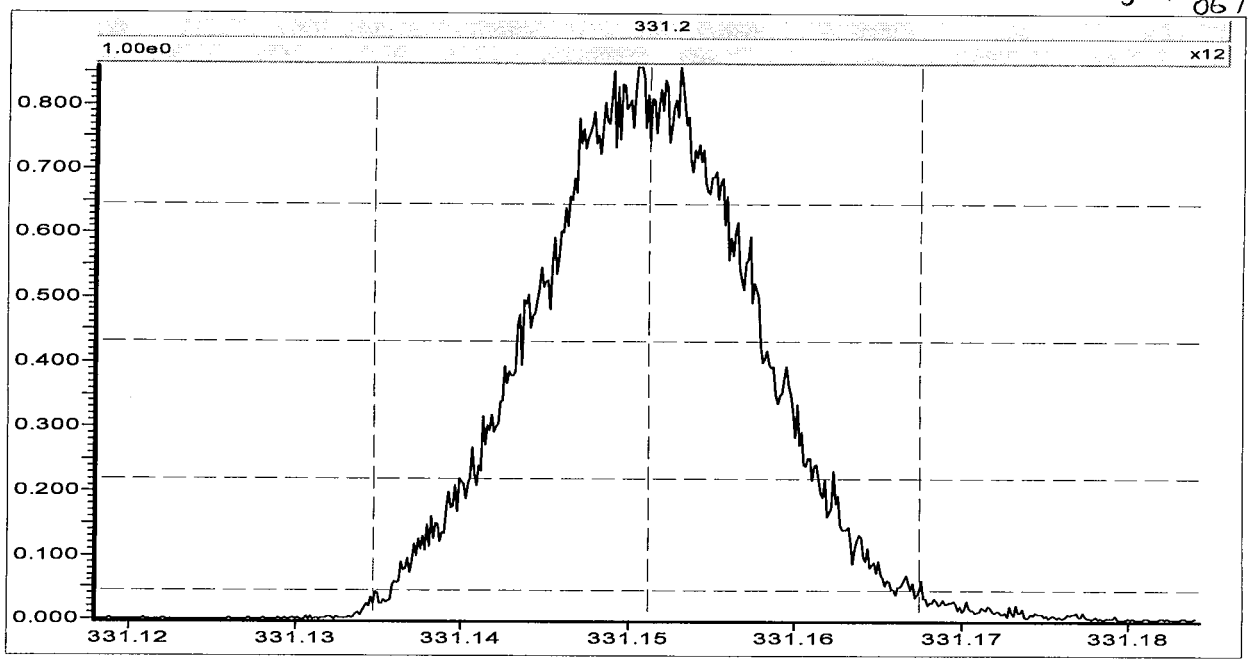
Engineer
No information

File: C:\MassLynx\Default.pro\Acqudb\U10MSHR06.IPR

Printed: Wednesday, June 30, 2021 09:41:14 Central Daylight Time

06/30/21

06/30/21



Source (EI+)

Ion Repeller (V)	-5.75
Focus 1	377
Beam Centre	-17.2
Focus 2	4395
Temperature (C)	280
Elec Energy (eV)	34.4
Trap Current (uA)	500.0
Y Deflect 1	3.3
Z Deflect 1	-94.0
Z Deflect 2	0.5
Z Focus 2	2424
Z Focus 3	0
Z Deflect 3	-11.0
Y Focus	3372
Rotate 2	-11.8
Curve 2	-7.2
Curve 3	0.0
Rotate 3	2.7
Rotate 4	0.0
V Acc (V)	6989.30
Magnet Mass	331.2
Source Slit	24.72
Collector Slit	14.31
MIKES Slit	100.00
Alpha	70.00
Detector Voltage	350
Ion Energy	-15.30
Z4 Restrictor	Off
Vacc Limit	8000

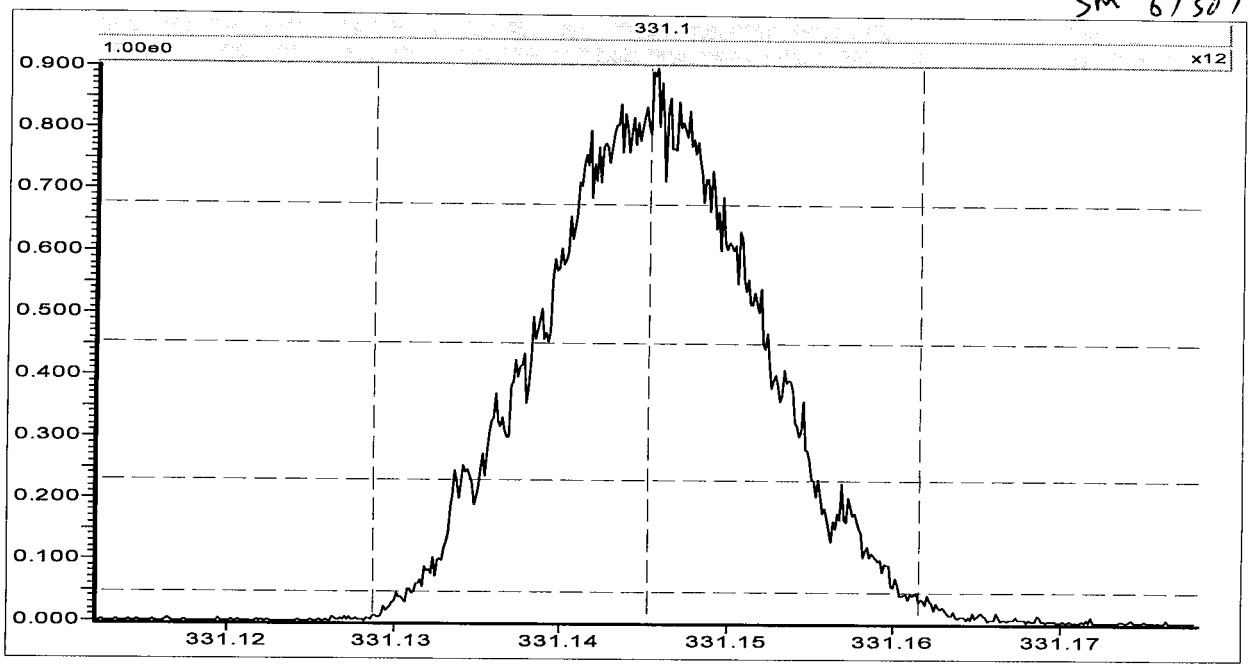
Analyser
No information

Engineer
No information

File: C:\MassLynx\Default.pro\Acqudb\U10MSHR06.IPR

Printed: Wednesday, June 30, 2021 09:44:00 Central Daylight Time

SM 6/30/21



Source (EI+)

Ion Repeller (V)	-5.75
Focus 1	377
Beam Centre	-17.2
Focus 2	4395
Temperature (C)	280
Elec Energy (eV)	34.4
Trap Current (uA)	500.0
Y Deflect 1	3.3
Z Deflect 1	-94.0
Z Deflect 2	0.5
Z Focus 2	2424
Z Focus 3	0
Z Deflect 3	-11.0
Y Focus	3506
Rotate 2	-11.8
Curve 2	-7.2
Curve 3	0.0
Rotate 3	2.7
Rotate 4	0.0
V Acc (V)	6989.58
Magnet Mass	331.1
Source Slit	24.72
Collector Slit	14.31
MIKES Slit	100.00
Alpha	70.00
Detector Voltage	350
Ion Energy	-15.30
Z4 Restrictor	Off
Vacc Limit	8000

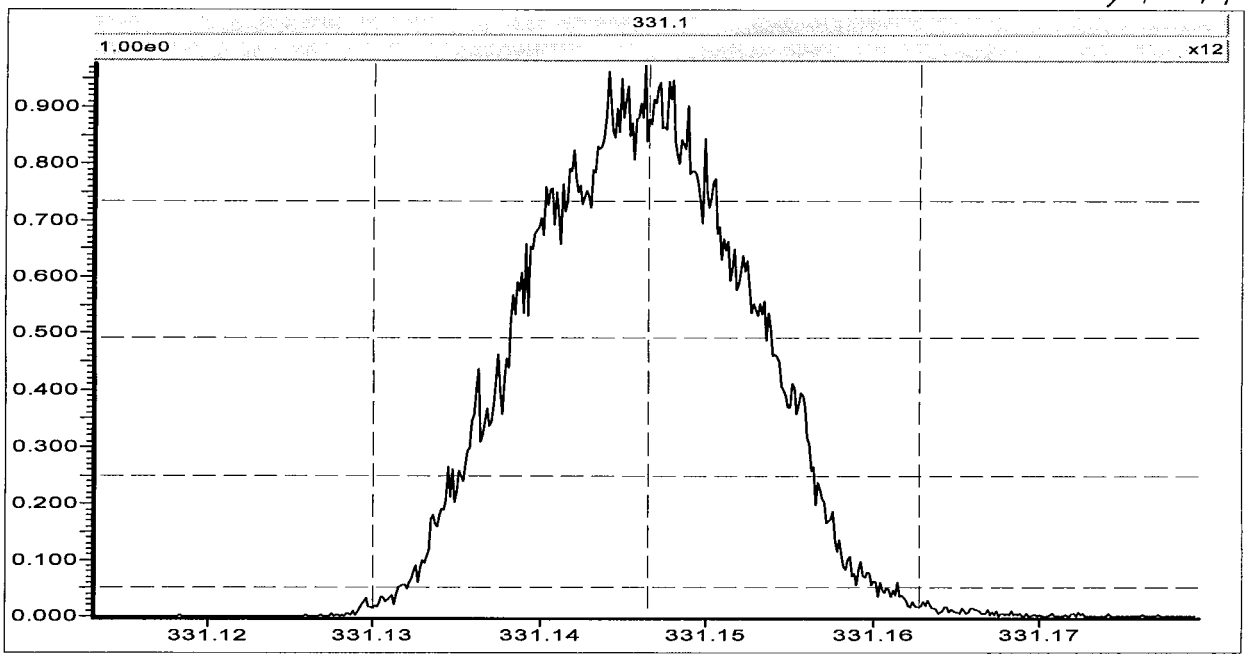
Analyser
No information

Engineer
No information

File: C:\MassLynx\DEFAULT.PRO\ACQUDB\U10MSHR06.IPR

Printed: Thursday, July 01, 2021 11:51:42 Central Daylight Time

SM 7/2/21



Source (EI+)

Ion Repeller (V)	-5.75
Focus 1	377
Beam Centre	-17.2
Focus 2	4395
Temperature (C)	280
Elec Energy (eV)	34.4
Trap Current (uA)	500.0
Y Deflect 1	3.3
Z Deflect 1	-94.0
Z Deflect 2	0.5
Z Focus 2	2424
Z Focus 3	0
Z Deflect 3	-11.0
Y Focus	3506
Rotate 2	-11.8
Curve 2	-7.2
Curve 3	0.0
Rotate 3	2.7
Rotate 4	0.0
V Acc (V)	6989.57
Magnet Mass	331.1
Source Slit	24.72
Collector Slit	14.31
MIKES Slit	100.00
Alpha	70.00
Detector Voltage	350
Ion Energy	-15.30
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

Engineer
No information

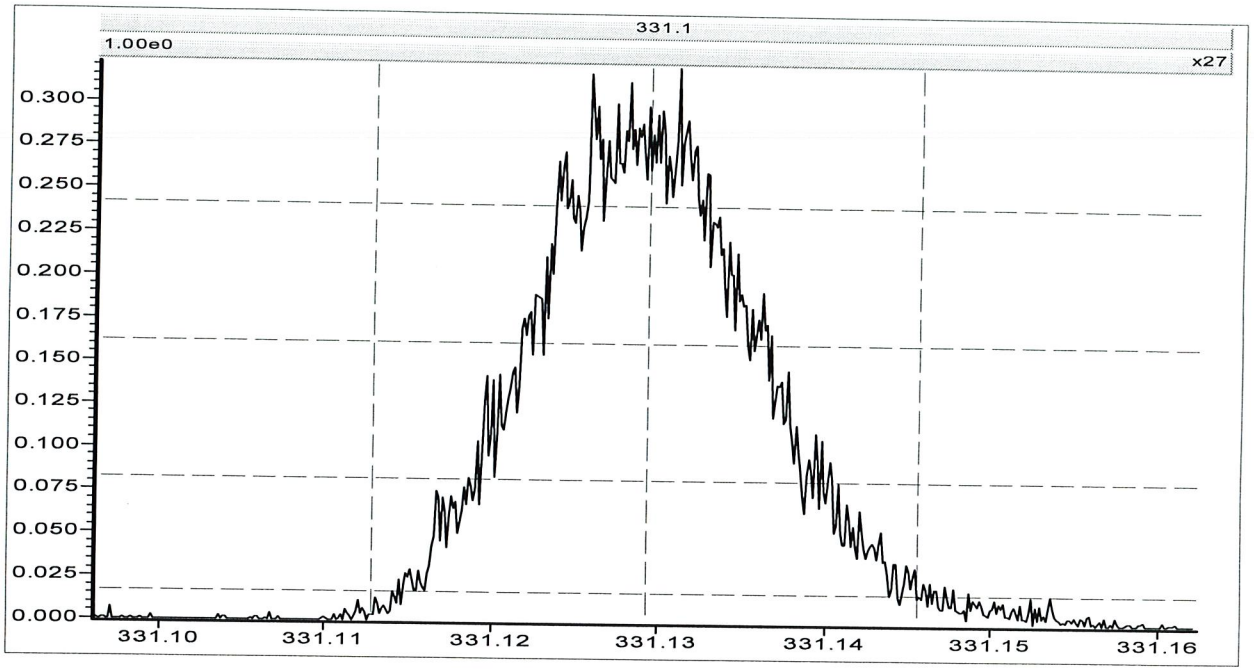
JHH 7/3/21

AutoSpec Tune Parameters **MassLynx 4.1 SCN 881**

File: C:\MassLynx\Default.pro\Acqudb\U10MSHR06.IPR

Printed: Saturday, July 03, 2021 11:39:40 Central Daylight Time

SM 7/6/21



Source (EI+)

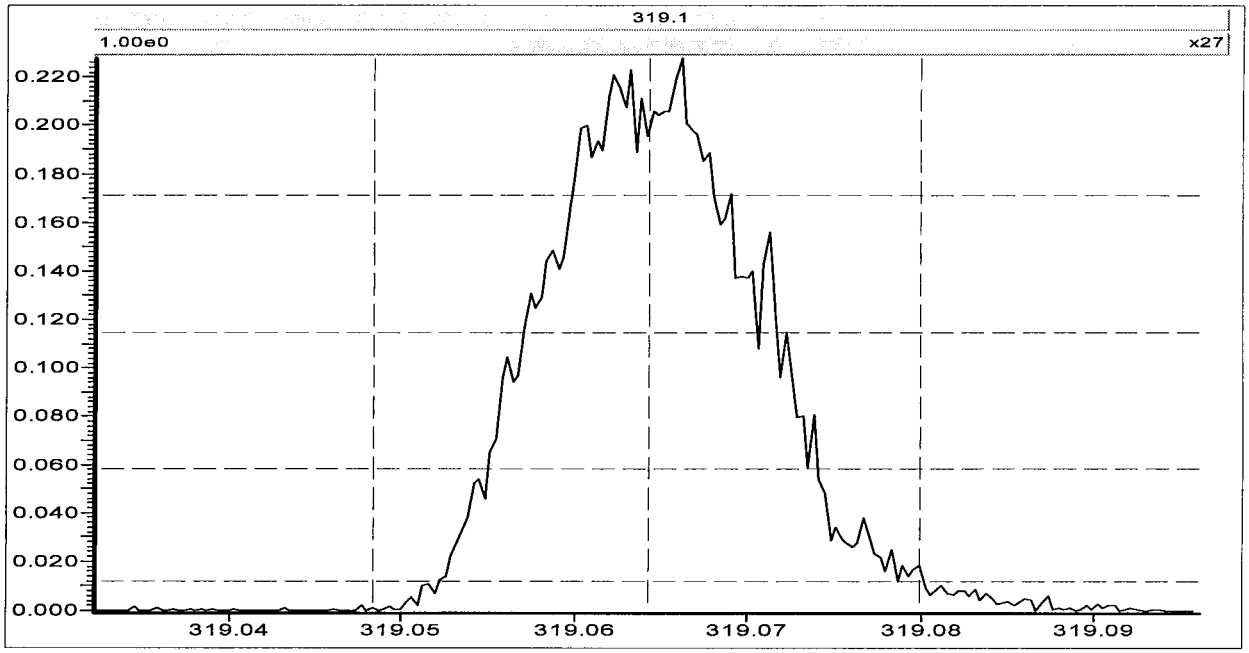
Ion Repeller (V)	-5.22
Focus 1	432
Beam Centre	-16.5
Focus 2	4395
Temperature (C)	280
Elec Energy (eV)	34.4
Trap Current (uA)	500.0
Y Deflect 1	3.3
Z Deflect 1	-94.0
Z Deflect 2	0.5
Z Focus 2	2384
Z Focus 3	0
Z Deflect 3	-11.0
Y Focus	3683
Rotate 2	-11.2
Curve 2	-7.2
Curve 3	0.0
Rotate 3	2.7
Rotate 4	0.0
V Acc (V)	7991.07
Magnet Mass	331.1
Source Slit	24.72
Collector Slit	14.31
MIKES Slit	100.00
Alpha	70.00
Detector Voltage	350
Ion Energy	-15.30
Z4 Restrictor	Off
Vacc Limit	8000

Analyser

No information

Engineer

No information



Source (EI+)

Ion Repeller (V)	-5.22
Focus 1	432
Beam Centre	-16.5
Focus 2	4395
Temperature (C)	280
Elec Energy (eV)	34.4
Trap Current (uA)	500.0
Y Deflect 1	3.3
Z Deflect 1	-94.0
Z Deflect 2	0.5
Z Focus 2	2384
Z Focus 3	0
Z Deflect 3	-11.0
Y Focus	3683
Rotate 2	-11.2
Curve 2	-7.2
Curve 3	0.0
Rotate 3	2.7
Rotate 4	0.0
V Acc (V)	7991.07
Magnet Mass	331.1
Source Slit	24.72
Collector Slit	14.31
MIKES Slit	100.00
Alpha	70.00
Detector Voltage	350
Ion Energy	-15.30
Z4 Restrictor	Off
Vacc Limit	8000

Analyser

No information

Engineer

No information

Appendix F

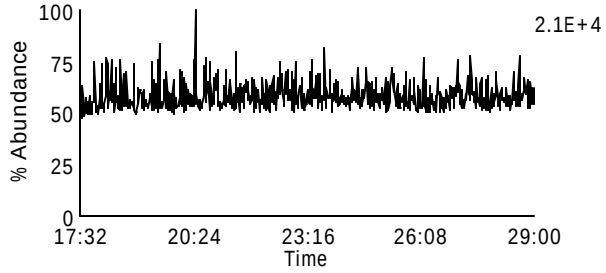
QC Raw Data

Homologue Group: Tetras

Data File Name: U210630B_08
Date Acquired: 7/1/2021
Sample Description: BLANK BLANK-91164 - SMT

Lab Sample ID: BLANK-91164
Client Sample ID: DFBLKSV
Instrument: 10MSHR06 (U)

Data File: U210630B_08 G1 C1 - 303.9016
BLANK BLANK-91164 - SMT



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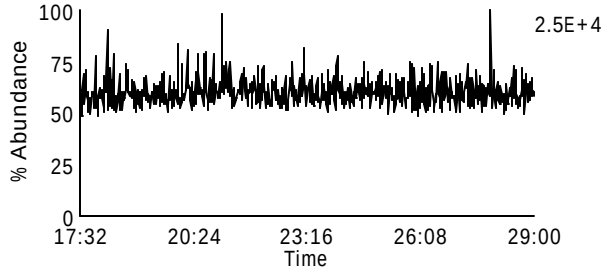
BLANK BLANK-91164 - SMT



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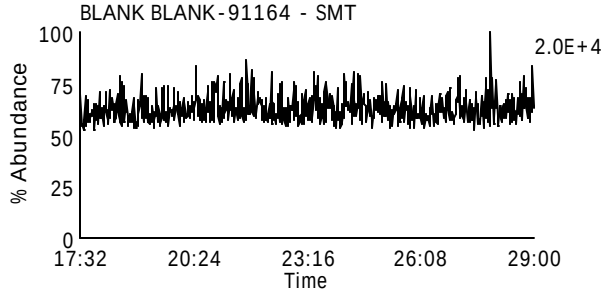
BLANK BLANK-91164 - SMT



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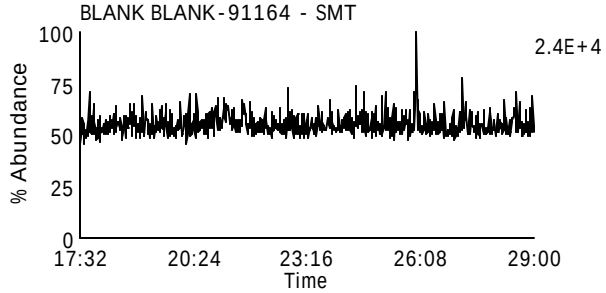
BLANK BLANK-91164 - SMT



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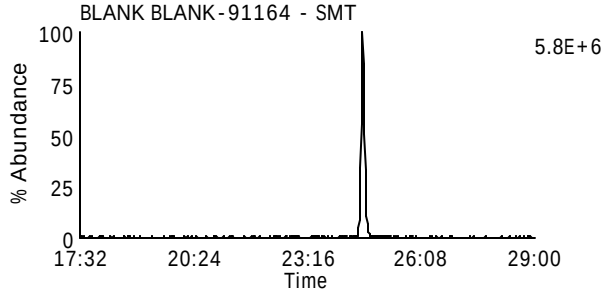
BLANK BLANK-91164 - SMT



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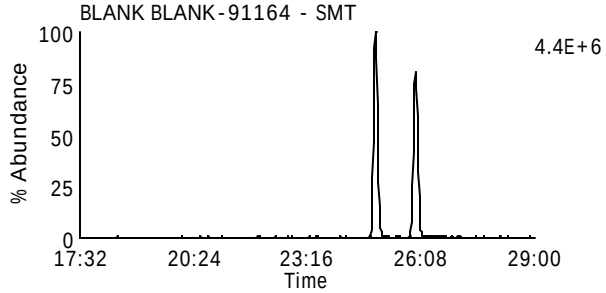
BLANK BLANK-91164 - SMT



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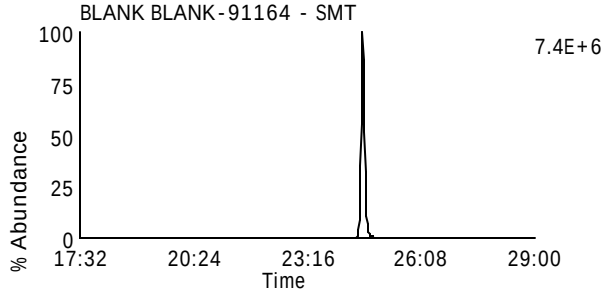
BLANK BLANK-91164 - SMT



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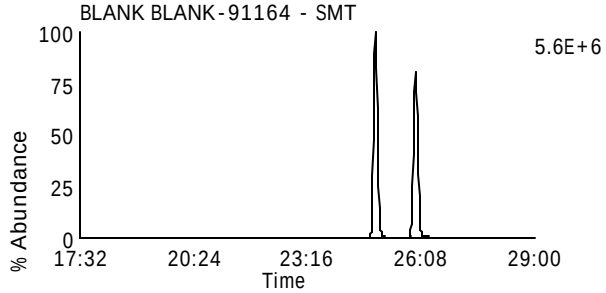
BLANK BLANK-91164 - SMT



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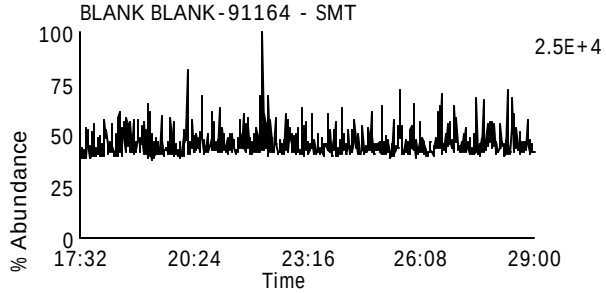
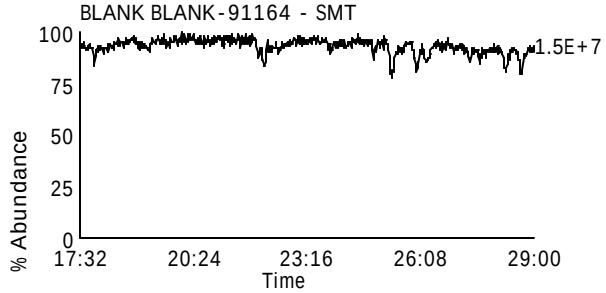
BLANK BLANK-91164 - SMT



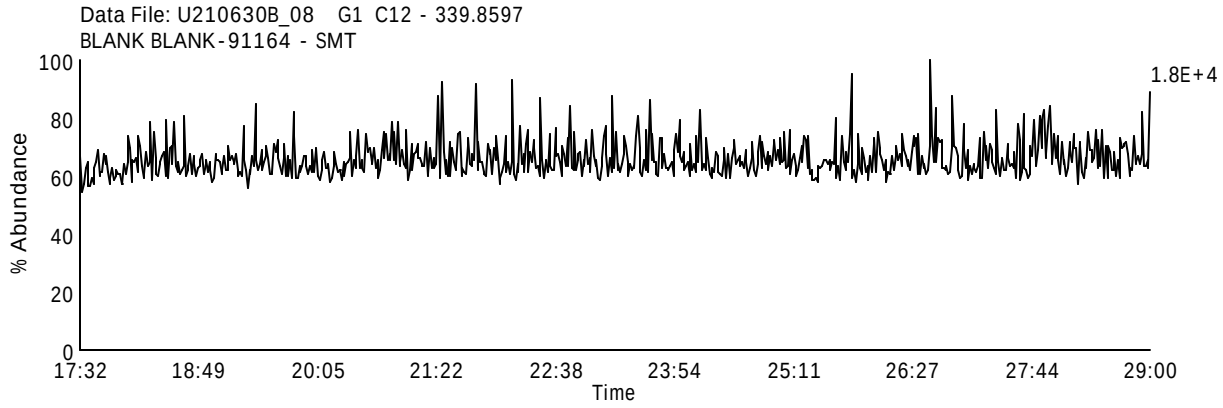
Data File: U210630B_08 G1 C5 - 318.9792
BLANK BLANK-91164 - SMT

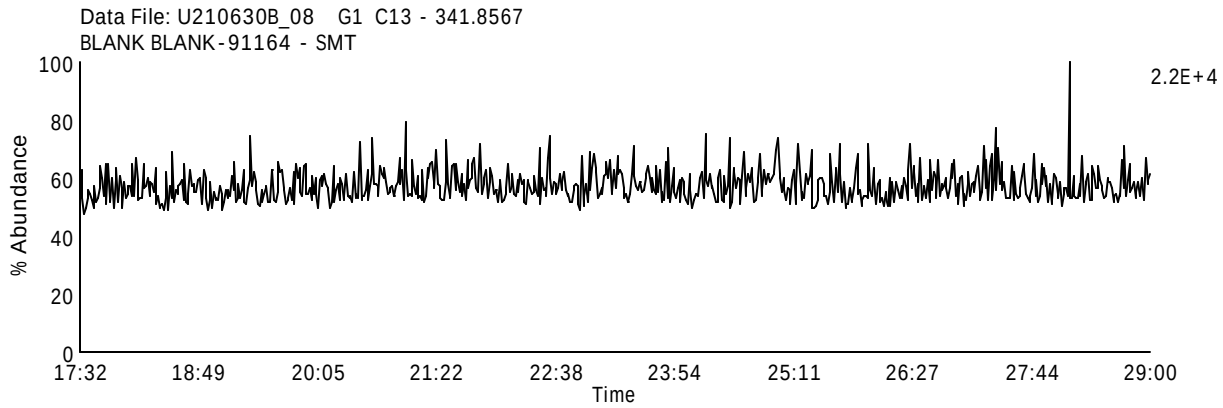


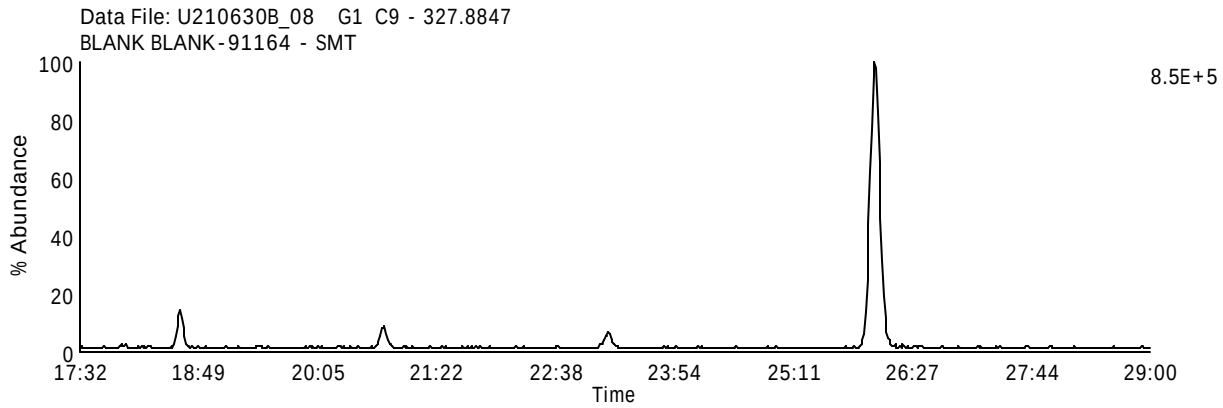
Homologue Group: Penta & Cleanup

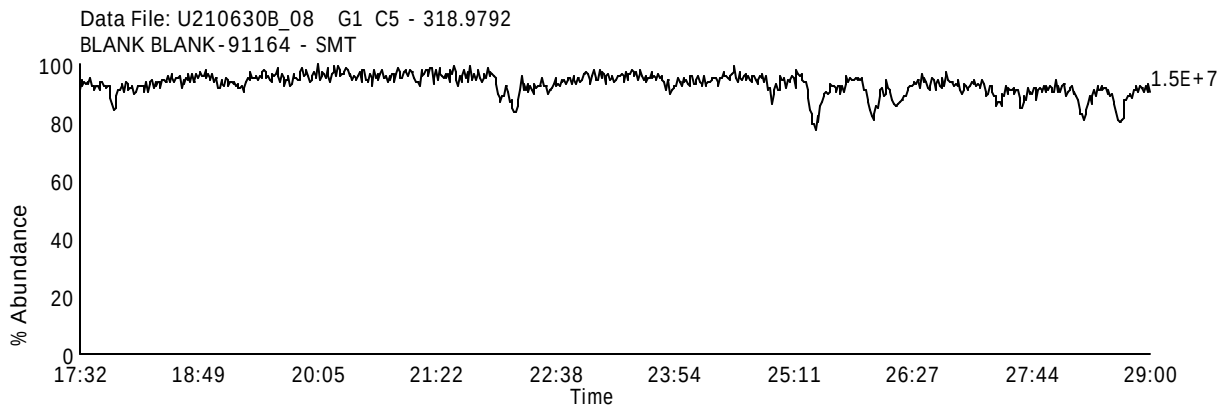
Data File Name: U210630B_08
Date Acquired: 7/1/2021
Sample Description: BLANK BLANK-91164 - SMT

Lab Sample ID: BLANK-91164
Client Sample ID: DFBLKSV
Instrument: 10MSHR06 (U)







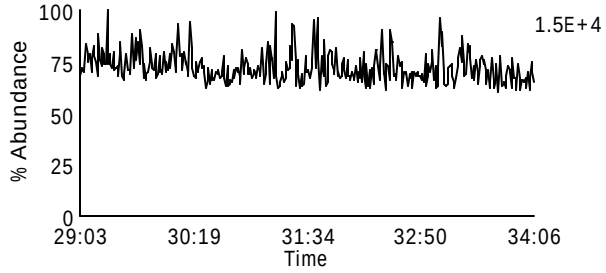


Homologue Group: Pentas

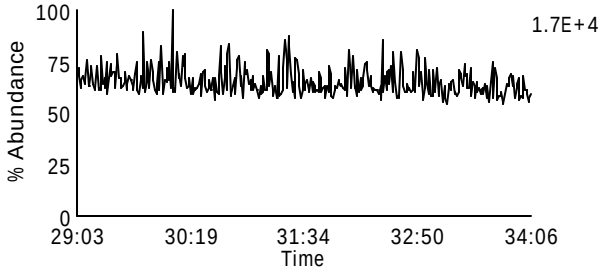
Data File Name: U210630B_08
Date Acquired: 7/1/2021
Sample Description: BLANK BLANK-91164 - SMT

Lab Sample ID: BLANK-91164
Client Sample ID: DFBLKSV
Instrument: 10MSHR06 (U)

Data File: U210630B_08 G2 C1 - 339.8597
BLANK BLANK-91164 - SMT



Data File: U210630B_08 G2 C4 - 353.8576
BLANK BLANK-91164 - SMT



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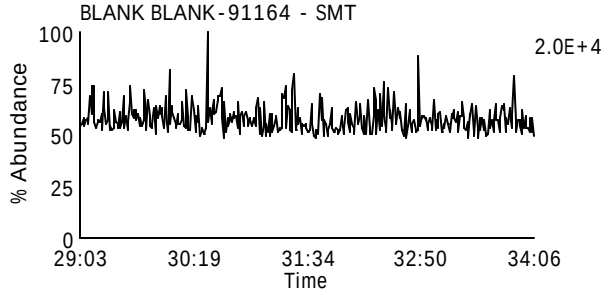
BLANK BLANK-91164 - SMT



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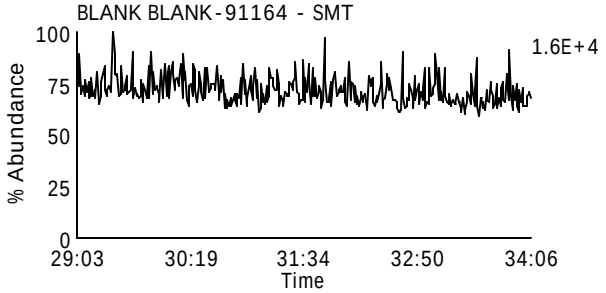
BLANK BLANK-91164 - SMT



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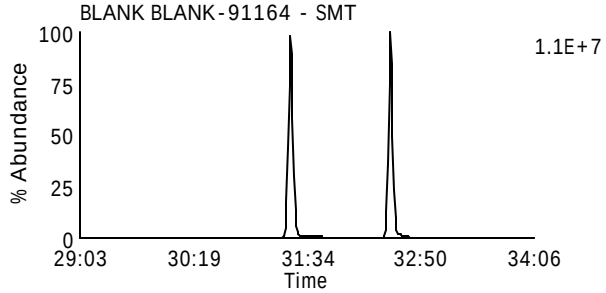
BLANK BLANK-91164 - SMT



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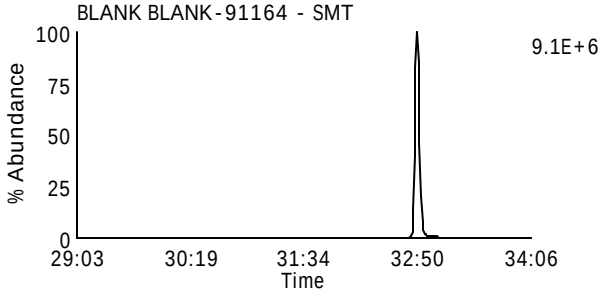

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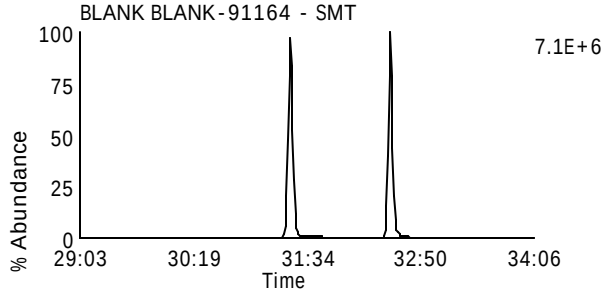

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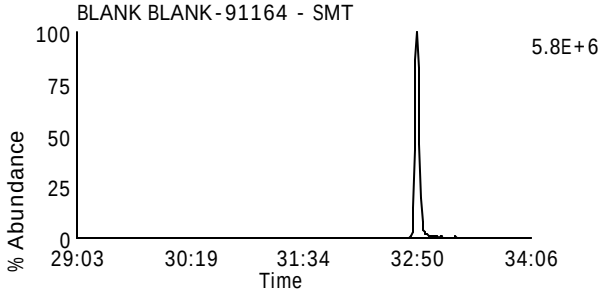

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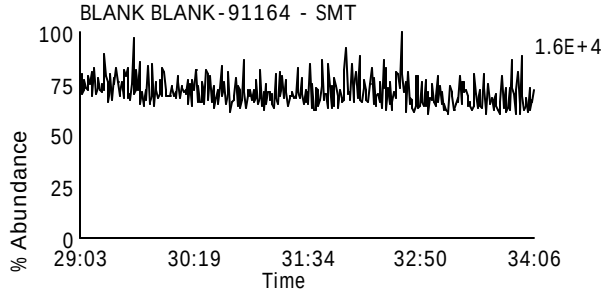

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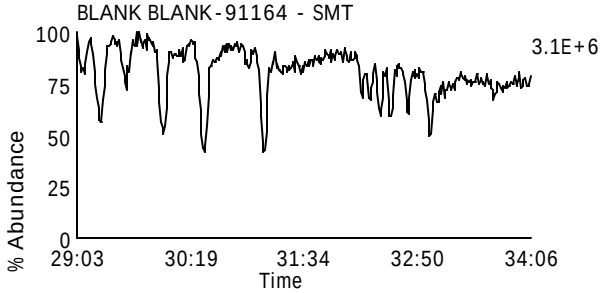
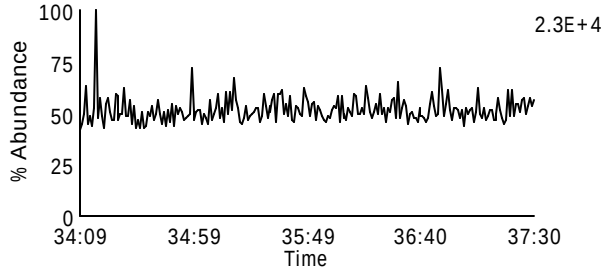


Homologue Group: Hexas

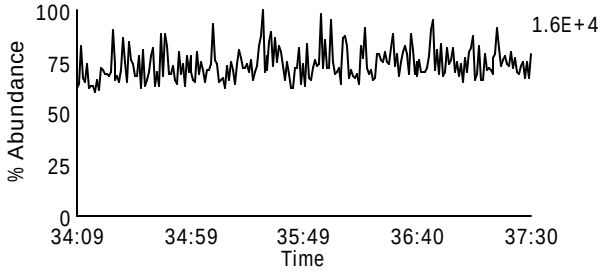
Data File Name: U210630B_08
Date Acquired: 7/1/2021
Sample Description: BLANK BLANK-91164 - SMT

Lab Sample ID: BLANK-91164
Client Sample ID: DFBLKSV
Instrument: 10MSHR06 (U)

Data File: U210630B_08 G3 C1 - 373.8207
BLANK BLANK-91164 - SMT



Data File: U210630B_08 G3 C7 - 389.8156
BLANK BLANK-91164 - SMT



Data File: U210630B_08 G3 C2 - 375.8178
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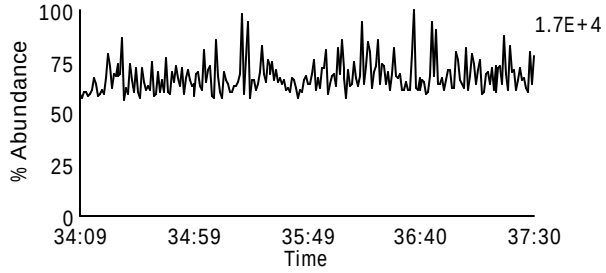
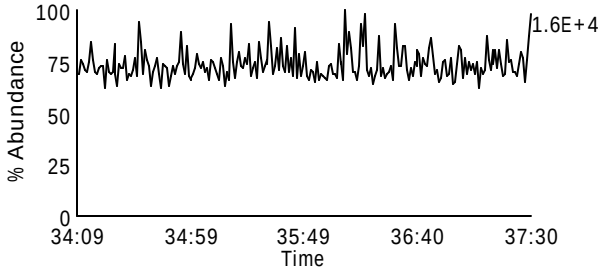
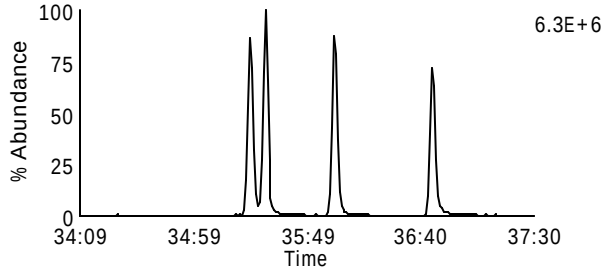


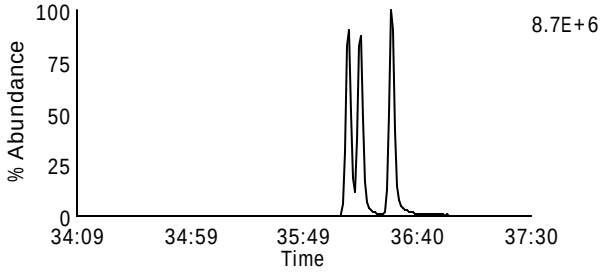
Data File: U210630B_08 G3 C8 - 391.8127
BLANK BLANK-91164 - SMT



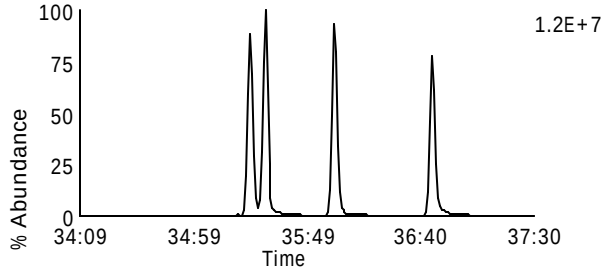
Data File: U210630B_08 G3 C5 - 383.8639
BLANK BLANK-91164 - SMT



Data File: U210630B_08 G3 C9 - 401.8559
BLANK BLANK-91164 - SMT



Data File: U210630B_08 G3 C6 - 385.861
BLANK BLANK-91164 - SMT



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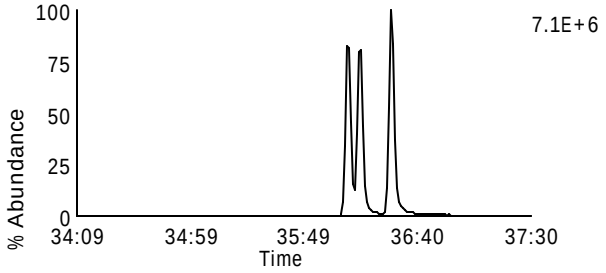

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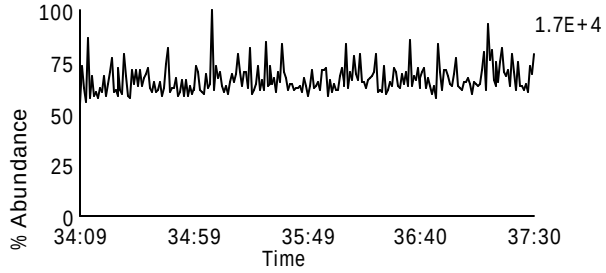
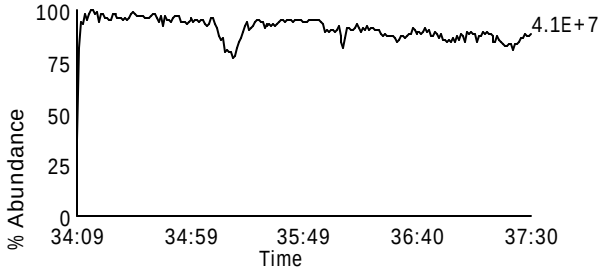
BLANK BLANK-91164 - SMT



Data File: U210630B_08 G3 C3 - 380.976
BLANK BLANK-91164 - SMT

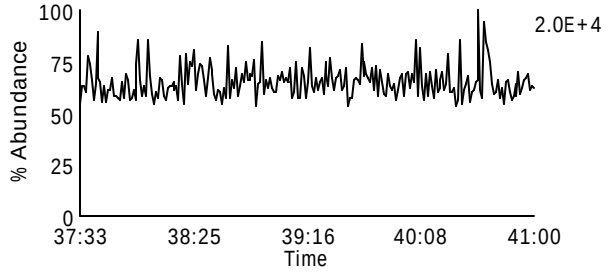


Homologue Group: Heptas

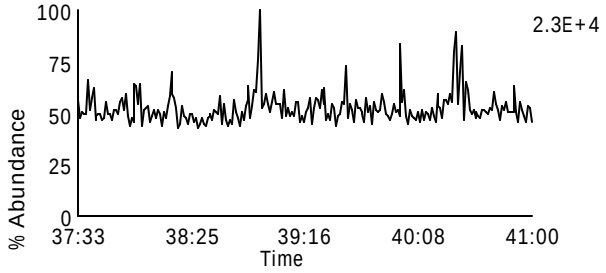
Data File Name: U210630B_08
Date Acquired: 7/1/2021
Sample Description: BLANK BLANK-91164 - SMT

Lab Sample ID: BLANK-91164
Client Sample ID: DFBLKSV
Instrument: 10MSHR06 (U)

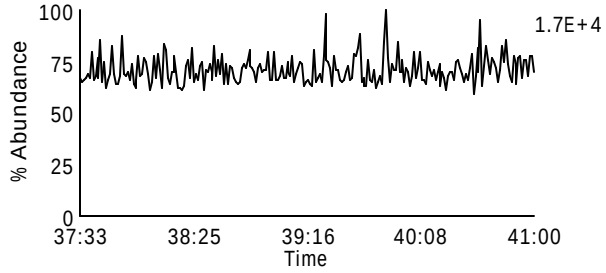
Data File: U210630B_08 G4 C3 - 407.7818
BLANK BLANK-91164 - SMT



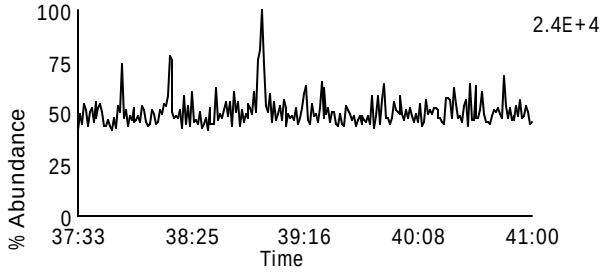
Data File: U210630B_08 G4 C8 - 423.7767
BLANK BLANK-91164 - SMT



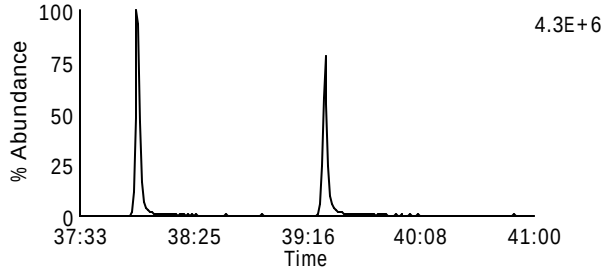
Data File: U210630B_08 G4 C4 - 409.7788
BLANK BLANK-91164 - SMT



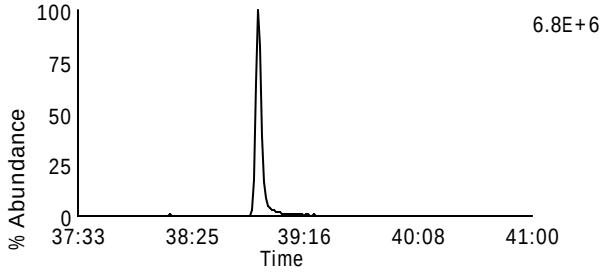
Data File: U210630B_08 G4 C9 - 425.7737
BLANK BLANK-91164 - SMT



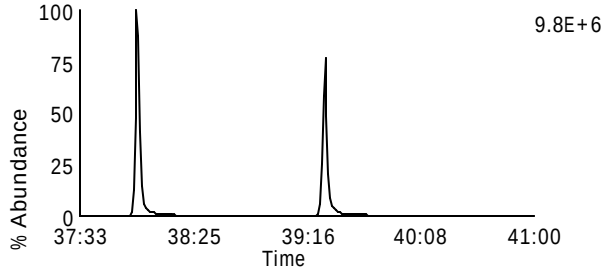
Data File: U210630B_08 G4 C6 - 417.825
BLANK BLANK-91164 - SMT



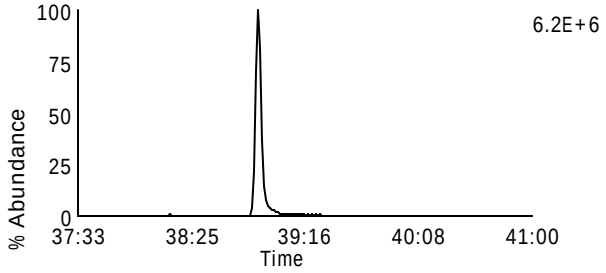
Data File: U210630B_08 G4 C11 - 435.8169
BLANK BLANK-91164 - SMT



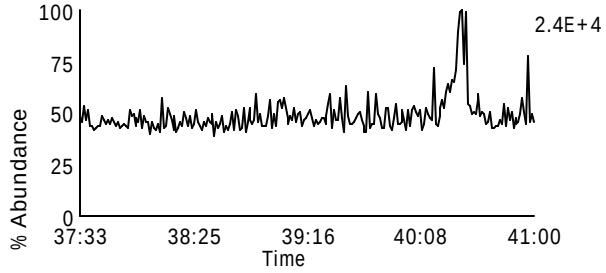
Data File: U210630B_08 G4 C7 - 419.822
BLANK BLANK-91164 - SMT



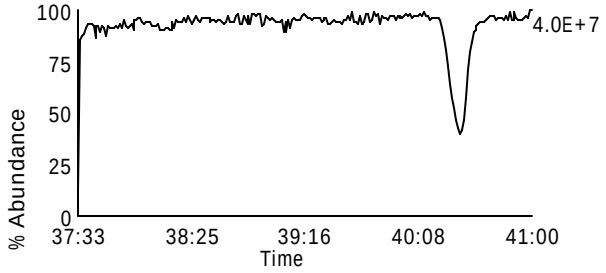
Data File: U210630B_08 G4 C12 - 437.814
BLANK BLANK-91164 - SMT



Data File: U210630B_08 G4 C13 - 479.7165
BLANK BLANK-91164 - SMT



Data File: U210630B_08 G4 C1 - 380.976
BLANK BLANK-91164 - SMT

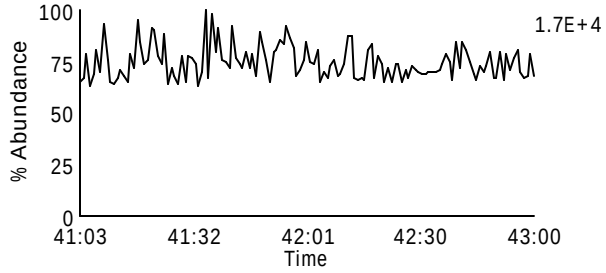


Homologue Group: Octas

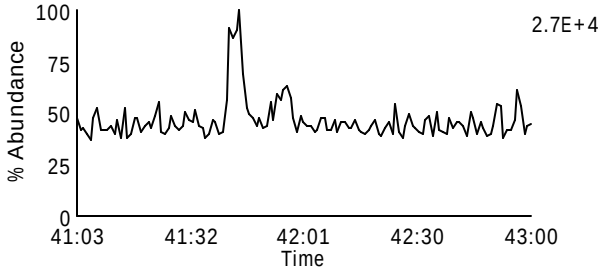
Data File Name: U210630B_08
Date Acquired: 7/1/2021
Sample Description: BLANK BLANK-91164 - SMT

Lab Sample ID: BLANK-91164
Client Sample ID: DFBLKSV
Instrument: 10MSHR06 (U)

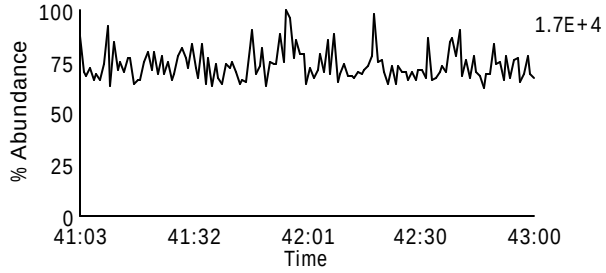
Data File: U210630B_08 G5 C4 - 441.7428
BLANK BLANK-91164 - SMT



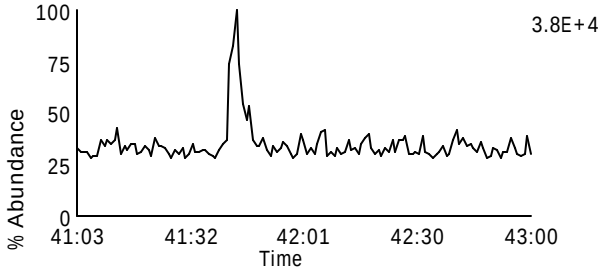
Data File: U210630B_08 G5 C8 - 457.7377
BLANK BLANK-91164 - SMT



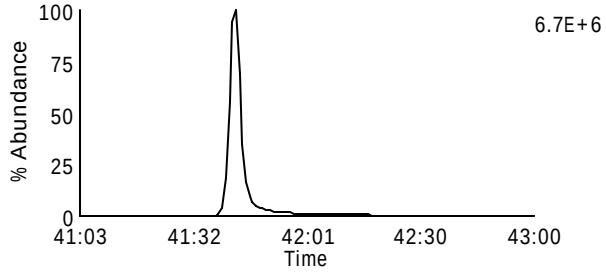
Data File: U210630B_08 G5 C5 - 443.7398
BLANK BLANK-91164 - SMT



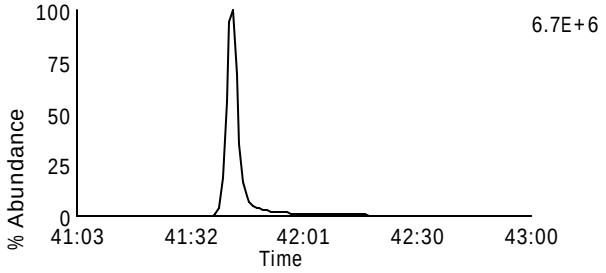
Data File: U210630B_08 G5 C9 - 459.7347
BLANK BLANK-91164 - SMT



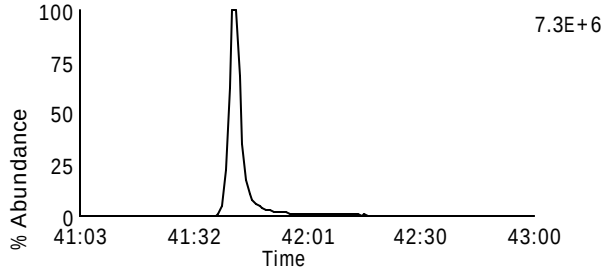
Data File: U210630B_08 G5 C11 - 469.7779
BLANK BLANK-91164 - SMT



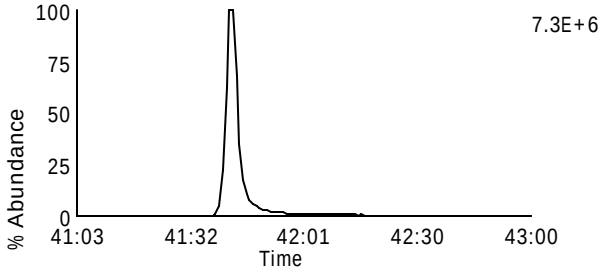
Data File: U210630B_08 G5 C11 - 469.7779
BLANK BLANK-91164 - SMT



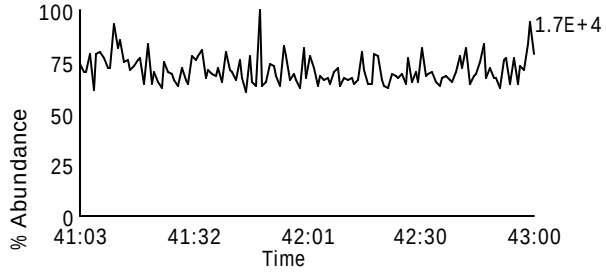
Data File: U210630B_08 G5 C12 - 471.7749
BLANK BLANK-91164 - SMT



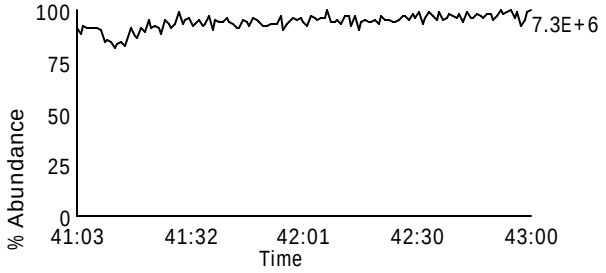
Data File: U210630B_08 G5 C12 - 471.7749
BLANK BLANK-91164 - SMT



Data File: U210630B_08 G5 C13 - 513.6775
BLANK BLANK-91164 - SMT



Data File: U210630B_08 G5 C2 - 430.9728
BLANK BLANK-91164 - SMT

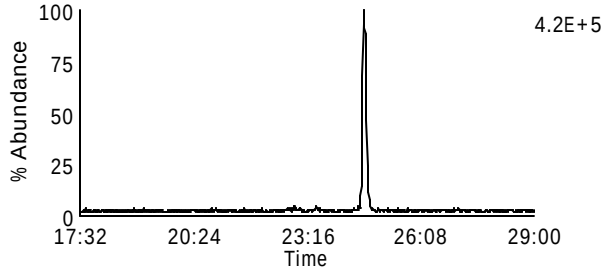


Homologue Group: Tetras

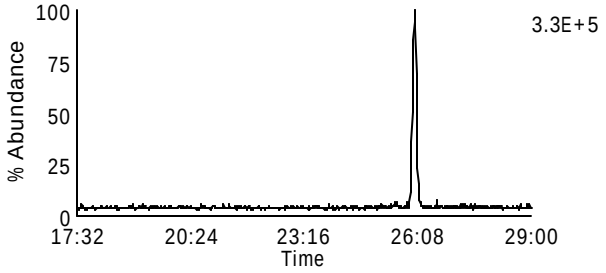
Data File Name: U210630B_03
Date Acquired: 6/30/2021
Sample Description: LCS LCS-91165 - SMT

Lab Sample ID: LCS-91165
Client Sample ID: DLCSFN
Instrument: 10MSHR06 (U)

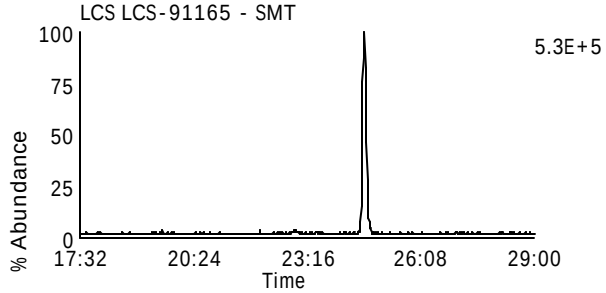
Data File: U210630B_03 G1 C1 - 303.9016
LCS LCS-91165 - SMT



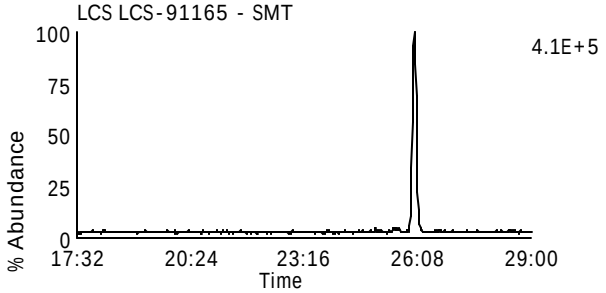
Data File: U210630B_03 G1 C7 - 319.8965
LCS LCS-91165 - SMT



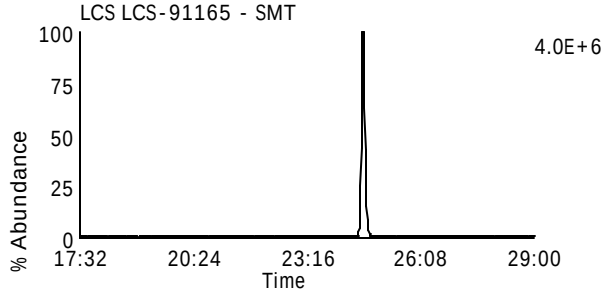
Data File: U210630B_03 G1 C2 - 305.8987
LCS LCS-91165 - SMT



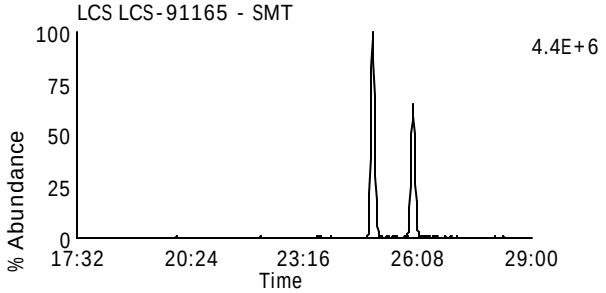
Data File: U210630B_03 G1 C8 - 321.8936
LCS LCS-91165 - SMT



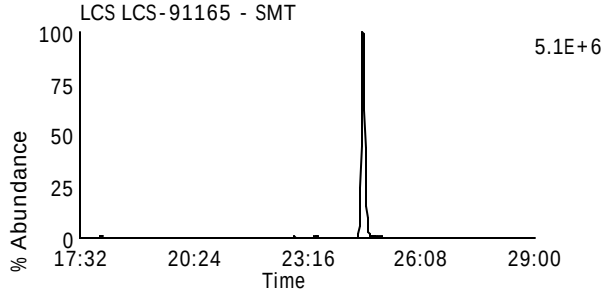
Data File: U210630B_03 G1 C3 - 315.9418
LCS LCS-91165 - SMT



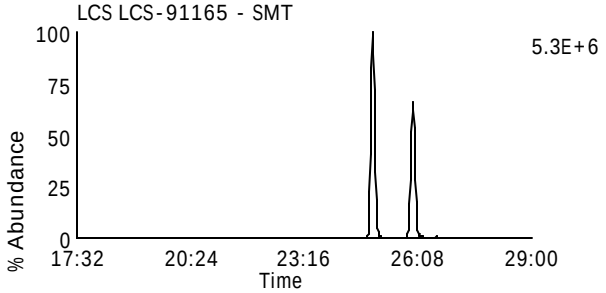
Data File: U210630B_03 G1 C10 - 331.9367
LCS LCS-91165 - SMT



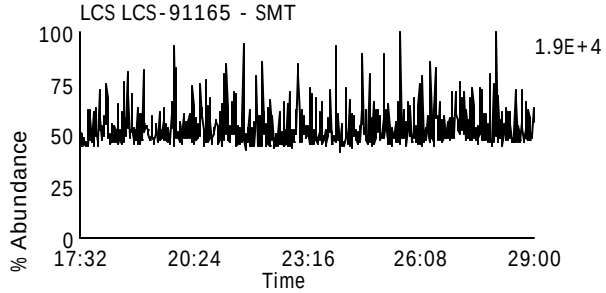
Data File: U210630B_03 G1 C4 - 317.9389
LCS LCS-91165 - SMT



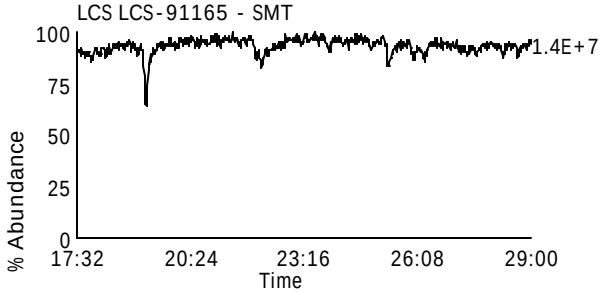
Data File: U210630B_03 G1 C11 - 333.9338
LCS LCS-91165 - SMT



Data File: U210630B_03 G1 C14 - 375.8364
LCS LCS-91165 - SMT



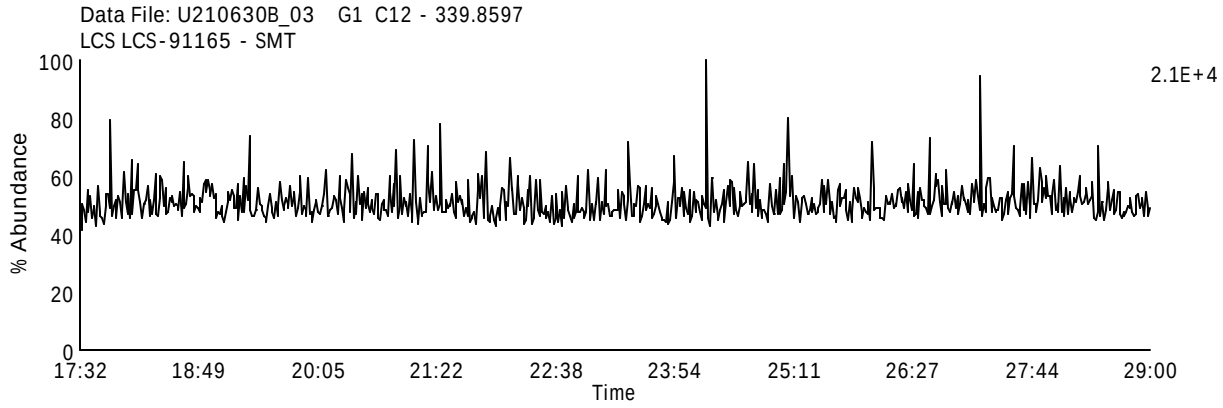
Data File: U210630B_03 G1 C5 - 318.9792
LCS LCS-91165 - SMT

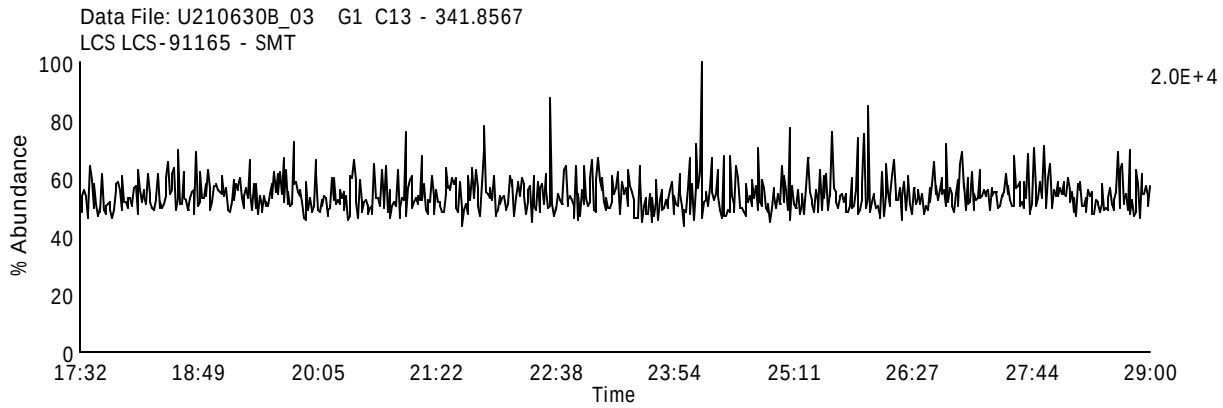


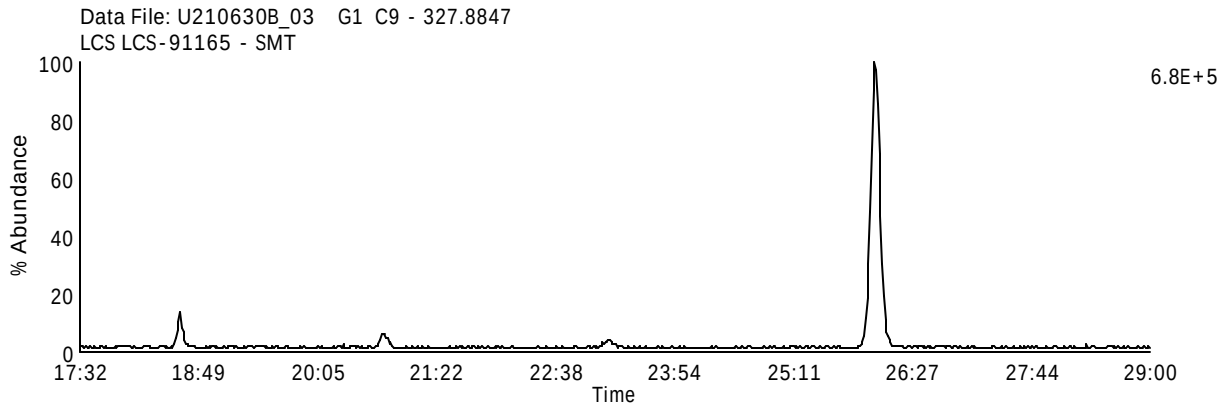
Homologue Group: Penta & Cleanup

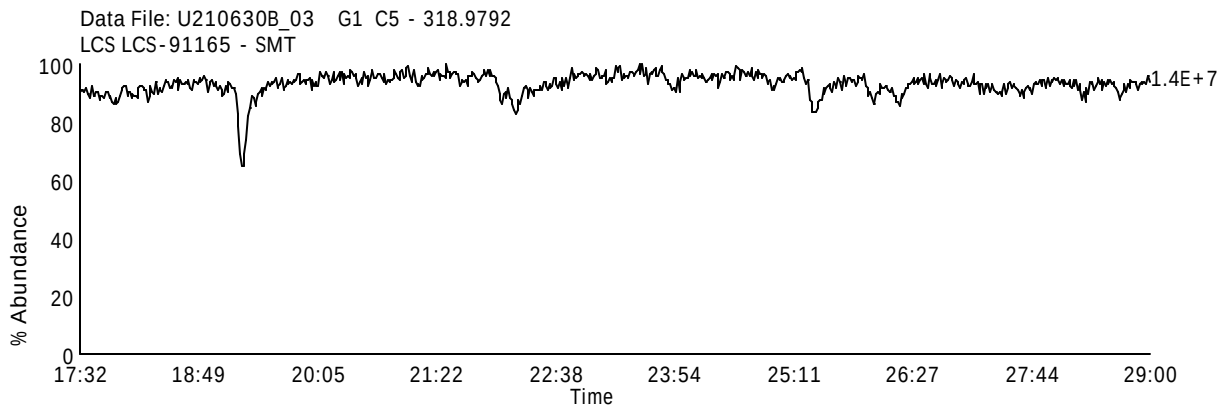
Data File Name: U210630B_03
Date Acquired: 6/30/2021
Sample Description: LCS LCS-91165 - SMT

Lab Sample ID: LCS-91165
Client Sample ID: DLCSFN
Instrument: 10MSHR06 (U)







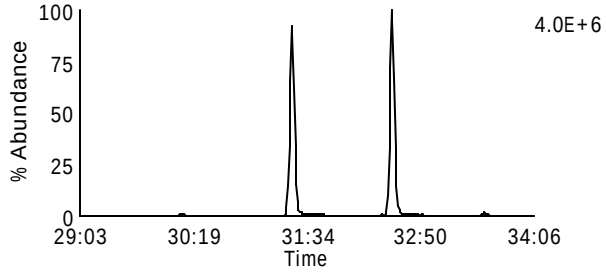


Homologue Group: Pentas

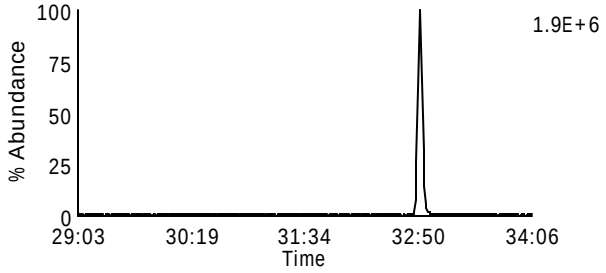
Data File Name: U210630B_03
Date Acquired: 6/30/2021
Sample Description: LCS LCS-91165 - SMT

Lab Sample ID: LCS-91165
Client Sample ID: DLCSFN
Instrument: 10MSHR06 (U)

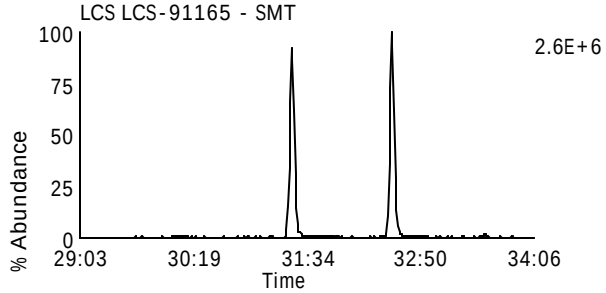
Data File: U210630B_03 G2 C1 - 339.8597
LCS LCS-91165 - SMT



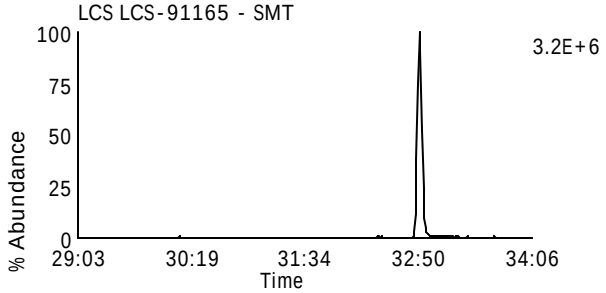
Data File: U210630B_03 G2 C4 - 353.8576
LCS LCS-91165 - SMT



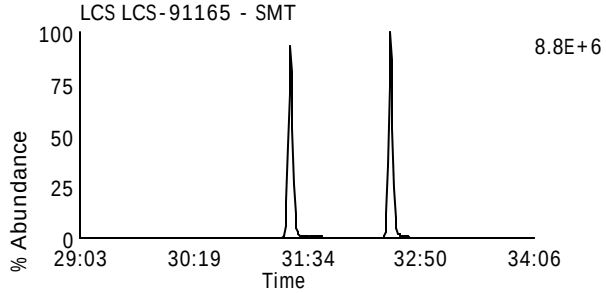
Data File: U210630B_03 G2 C2 - 341.8567
LCS LCS-91165 - SMT



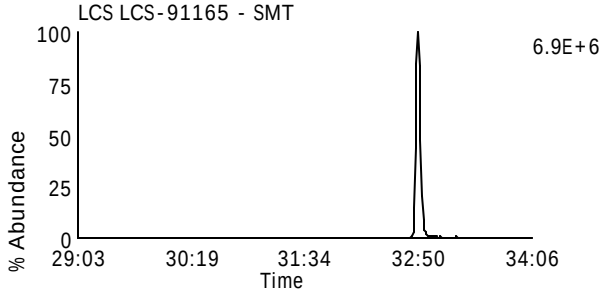
Data File: U210630B_03 G2 C8 - 355.8546
LCS LCS-91165 - SMT



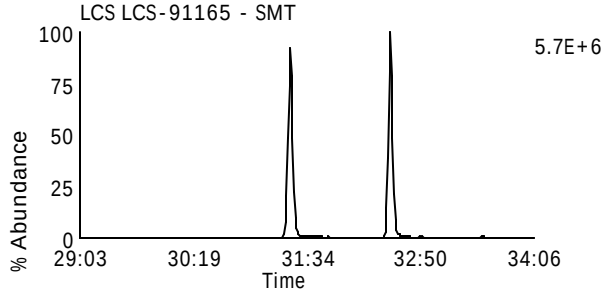
Data File: U210630B_03 G2 C3 - 351.8999
LCS LCS-91165 - SMT



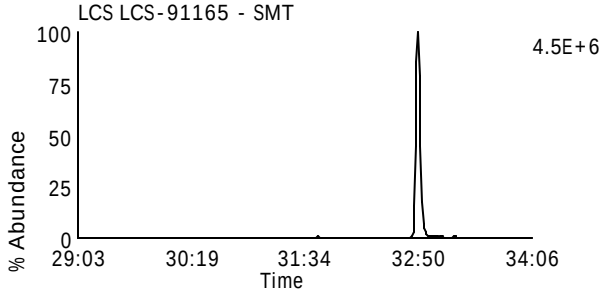
Data File: U210630B_03 G2 C10 - 367.8948
LCS LCS-91165 - SMT



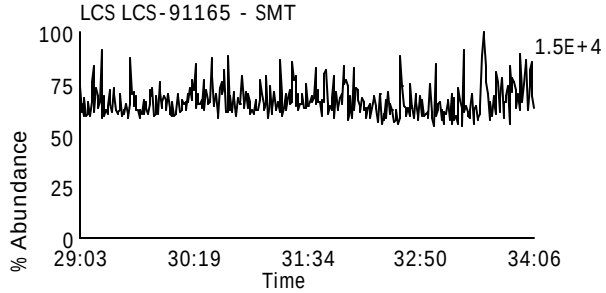
Data File: U210630B_03 G2 C5 - 353.8969
LCS LCS-91165 - SMT



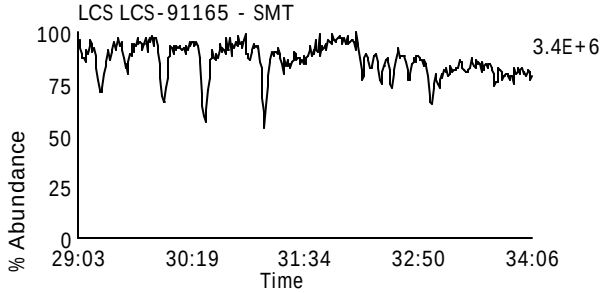
Data File: U210630B_03 G2 C11 - 369.8918
LCS LCS-91165 - SMT



Data File: U210630B_03 G2 C12 - 409.7974
LCS LCS-91165 - SMT



Data File: U210630B_03 G2 C6 - 354.9792
LCS LCS-91165 - SMT

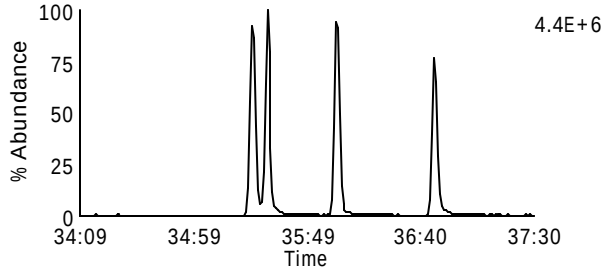


Homologue Group: Hexas

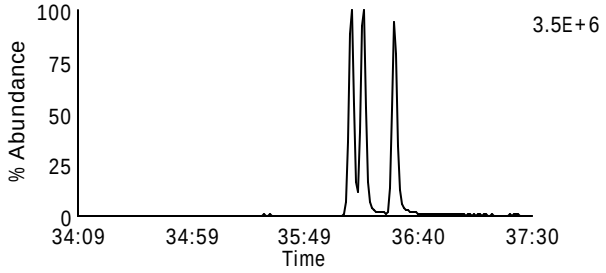
Data File Name: U210630B_03
Date Acquired: 6/30/2021
Sample Description: LCS LCS-91165 - SMT

Lab Sample ID: LCS-91165
Client Sample ID: DLCSFN
Instrument: 10MSHR06 (U)

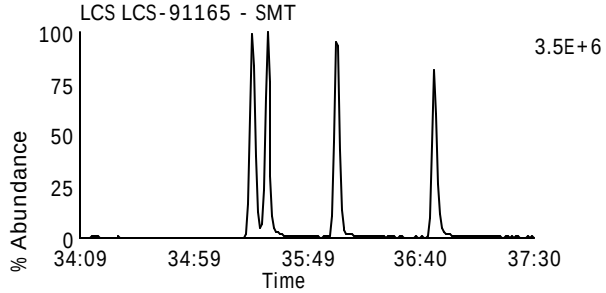
Data File: U210630B_03 G3 C1 - 373.8207
LCS LCS-91165 - SMT



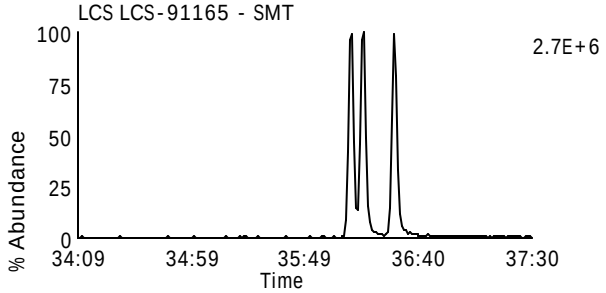
Data File: U210630B_03 G3 C7 - 389.8156
LCS LCS-91165 - SMT



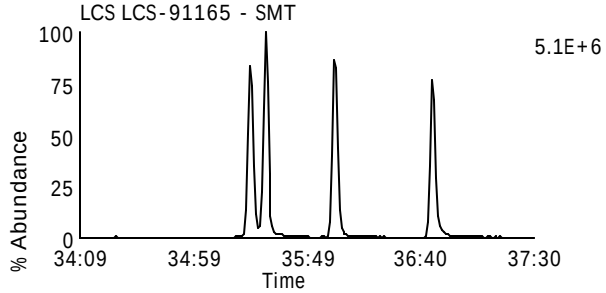
Data File: U210630B_03 G3 C2 - 375.8178
LCS LCS-91165 - SMT



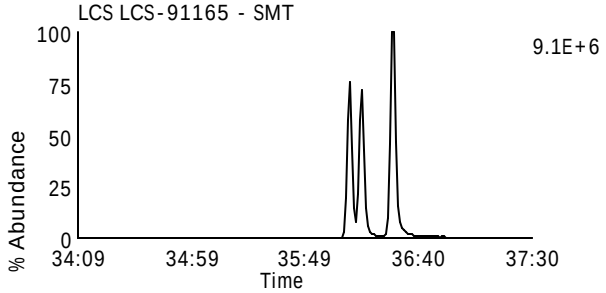
Data File: U210630B_03 G3 C8 - 391.8127
LCS LCS-91165 - SMT



Data File: U210630B_03 G3 C5 - 383.8639
LCS LCS-91165 - SMT



Data File: U210630B_03 G3 C9 - 401.8559
LCS LCS-91165 - SMT



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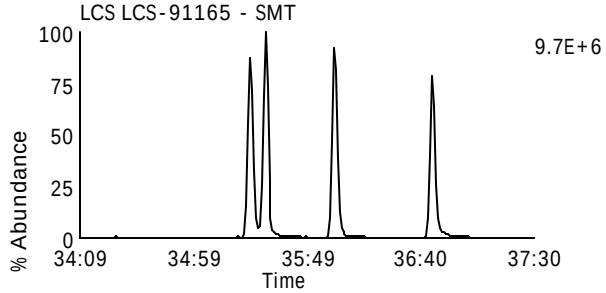
LCS LCS-91165 - SMT



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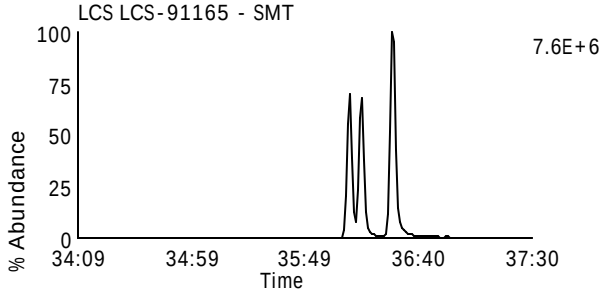
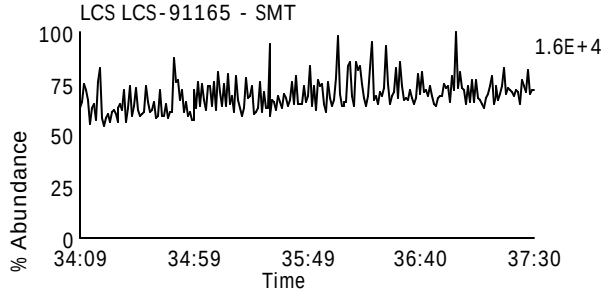
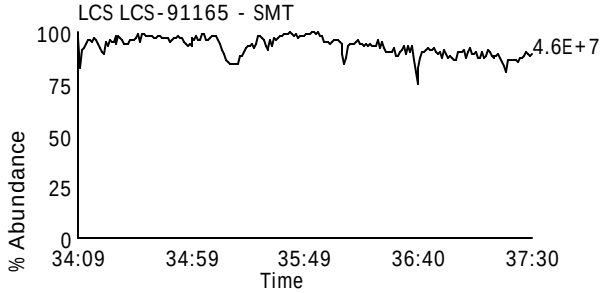
LCS LCS-91165 - SMT



Data File: U210630B_03 G3 C11 - 445.7555
LCS LCS-91165 - SMT



Data File: U210630B_03 G3 C3 - 380.976
LCS LCS-91165 - SMT

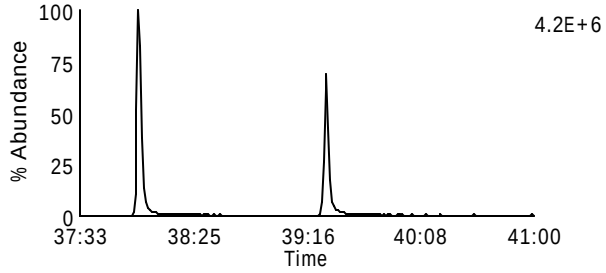


Homologue Group: Heptas

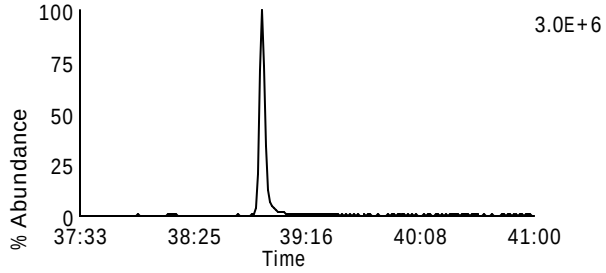
Data File Name: U210630B_03
Date Acquired: 6/30/2021
Sample Description: LCS LCS-91165 - SMT

Lab Sample ID: LCS-91165
Client Sample ID: DLCSFN
Instrument: 10MSHR06 (U)

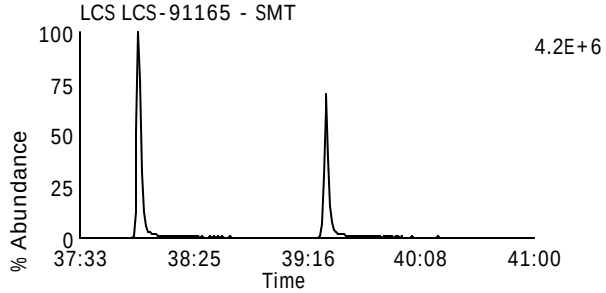
Data File: U210630B_03 G4 C3 - 407.7818
LCS LCS-91165 - SMT



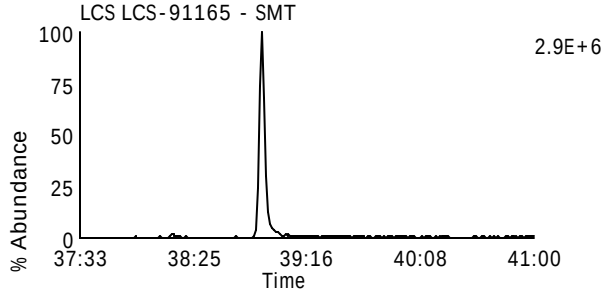
Data File: U210630B_03 G4 C8 - 423.7767
LCS LCS-91165 - SMT



Data File: U210630B_03 G4 C4 - 409.7788
LCS LCS-91165 - SMT



Data File: U210630B_03 G4 C9 - 425.7737
LCS LCS-91165 - SMT



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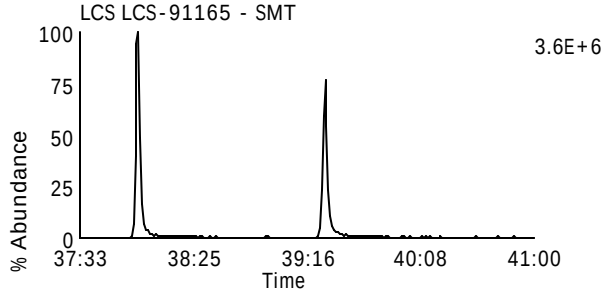
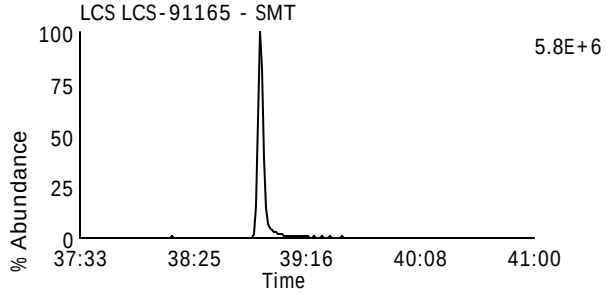
LCS LCS-91165 - SMT



Data File: U210630B_03 G4 C11 - 435.8169
LCS LCS-91165 - SMT



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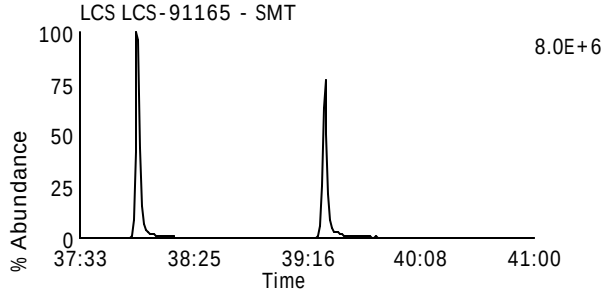
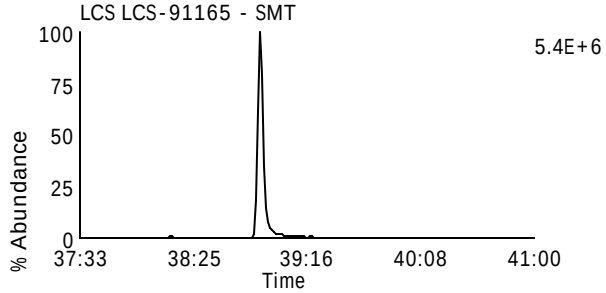
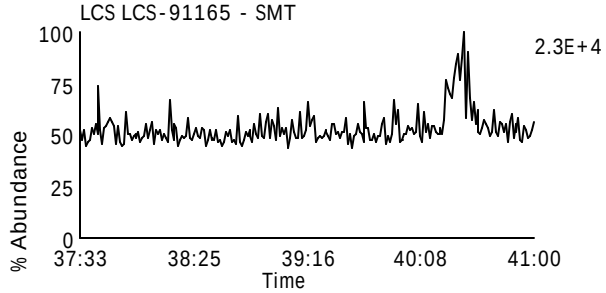
LCS LCS-91165 - SMT



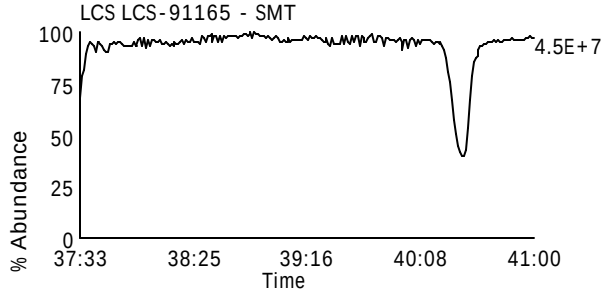
Data File: U210630B_03 G4 C12 - 437.814
LCS LCS-91165 - SMT



Data File: U210630B_03 G4 C13 - 479.7165
LCS LCS-91165 - SMT



Data File: U210630B_03 G4 C1 - 380.976
LCS LCS-91165 - SMT

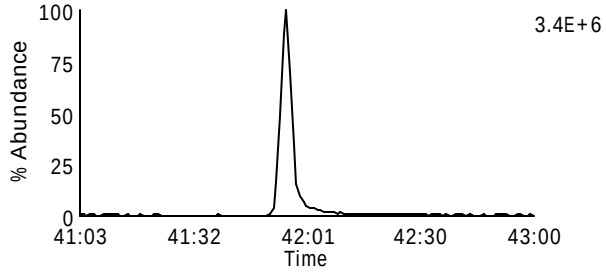


Homologue Group: Octas

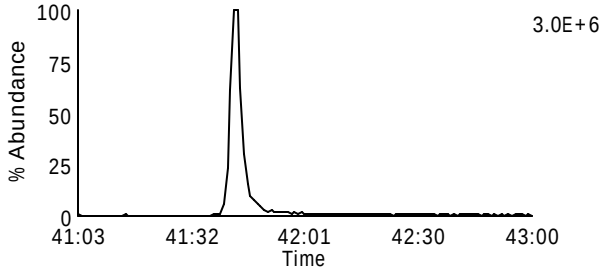
Data File Name: U210630B_03
Date Acquired: 6/30/2021
Sample Description: LCS LCS-91165 - SMT

Lab Sample ID: LCS-91165
Client Sample ID: DLCSFN
Instrument: 10MSHR06 (U)

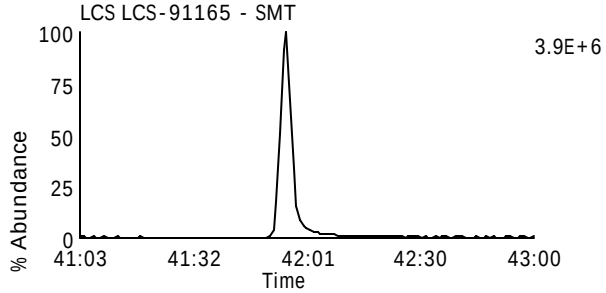
Data File: U210630B_03 G5 C4 - 441.7428
LCS LCS-91165 - SMT



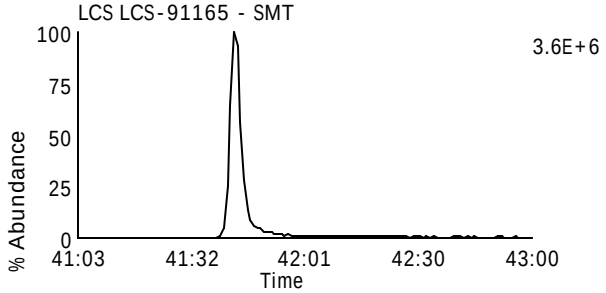
Data File: U210630B_03 G5 C8 - 457.7377
LCS LCS-91165 - SMT



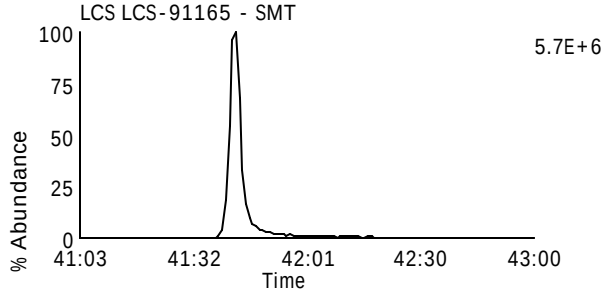
Data File: U210630B_03 G5 C5 - 443.7398
LCS LCS-91165 - SMT



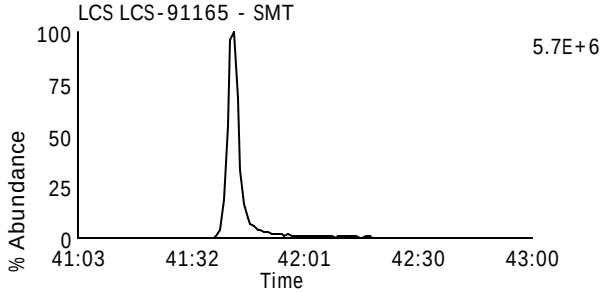
Data File: U210630B_03 G5 C9 - 459.7347
LCS LCS-91165 - SMT



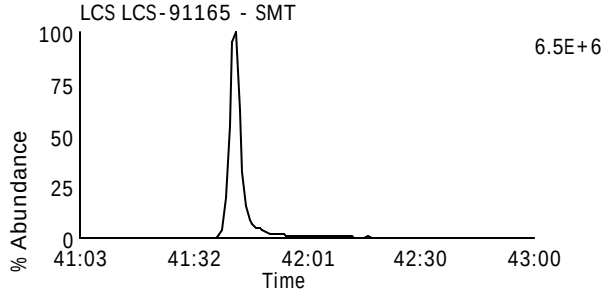
Data File: U210630B_03 G5 C11 - 469.7779
LCS LCS-91165 - SMT



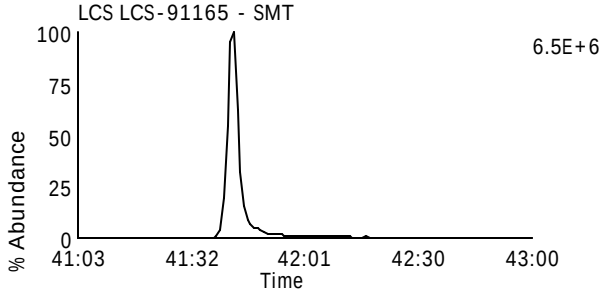
Data File: U210630B_03 G5 C11 - 469.7779
LCS LCS-91165 - SMT



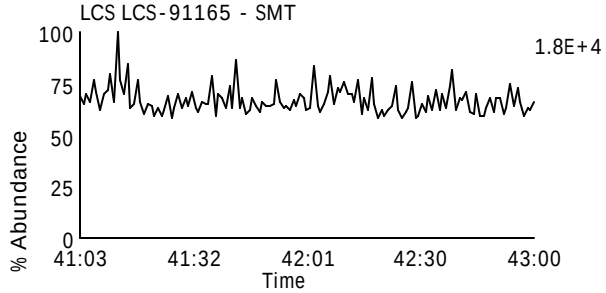
Data File: U210630B_03 G5 C12 - 471.7749
LCS LCS-91165 - SMT



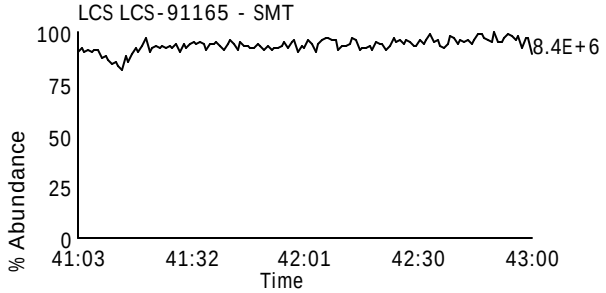
Data File: U210630B_03 G5 C12 - 471.7749
LCS LCS-91165 - SMT



Data File: U210630B_03 G5 C13 - 513.6775
LCS LCS-91165 - SMT



Data File: U210630B_03 G5 C2 - 430.9728
LCS LCS-91165 - SMT

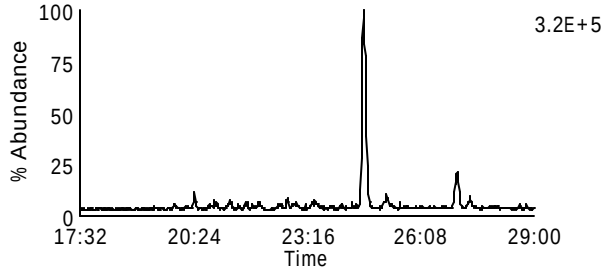


Homologue Group: Tetras

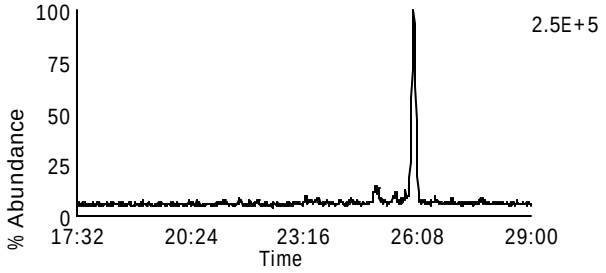
Data File Name: U210630B_04
Date Acquired: 7/1/2021
Sample Description: SAMP 10566487001-MS - SMT ASSET

Lab Sample ID: 10566487001-MS
Client Sample ID: N045954-001F/ AOC4-Gabion-WC-MS
Instrument: 10MSHR06 (U)

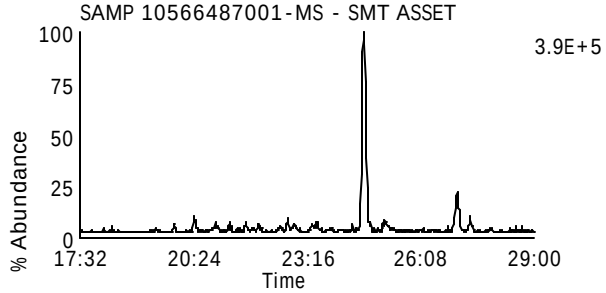
Data File: U210630B_04 G1 C1 - 303.9016
SAMP 10566487001-MS - SMT ASSET



Data File: U210630B_04 G1 C7 - 319.8965
SAMP 10566487001-MS - SMT ASSET



Data File: U210630B_04 G1 C2 - 305.8987
SAMP 10566487001-MS - SMT ASSET



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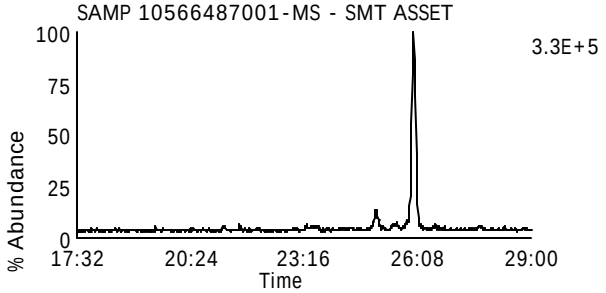
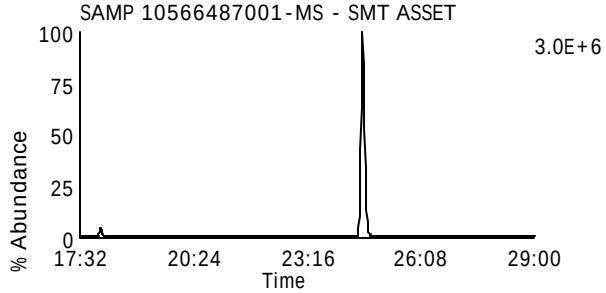
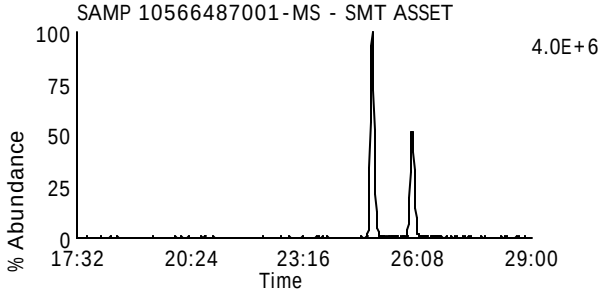
SAMP 10566487001-MS - SMT ASSET



Data File: U210630B_04 G1 C3 - 315.9418
SAMP 10566487001-MS - SMT ASSET



Data File: U210630B_04 G1 C10 - 331.9367
SAMP 10566487001-MS - SMT ASSET



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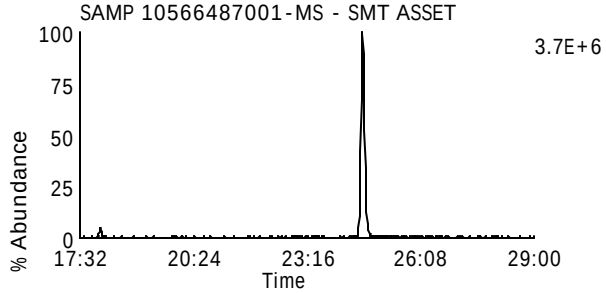
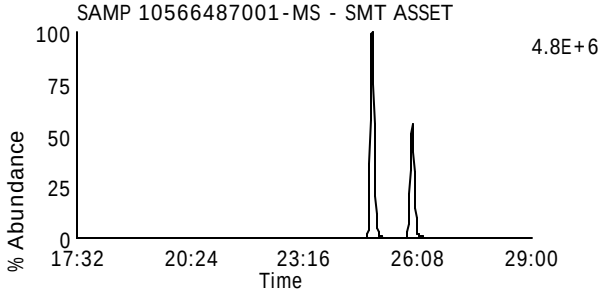
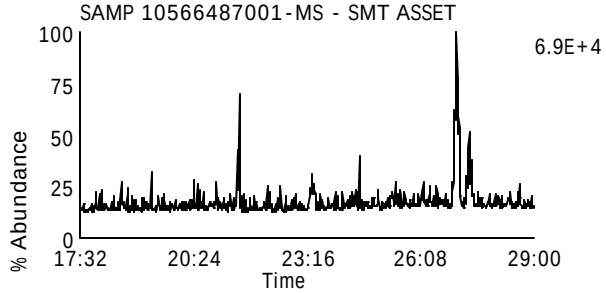
SAMP 10566487001-MS - SMT ASSET



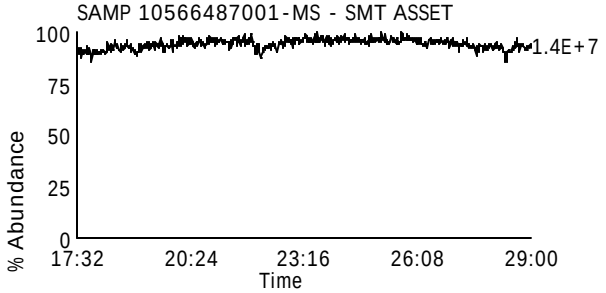
Data File: U210630B_04 G1 C11 - 333.9338
SAMP 10566487001-MS - SMT ASSET



Data File: U210630B_04 G1 C14 - 375.8364
SAMP 10566487001-MS - SMT ASSET



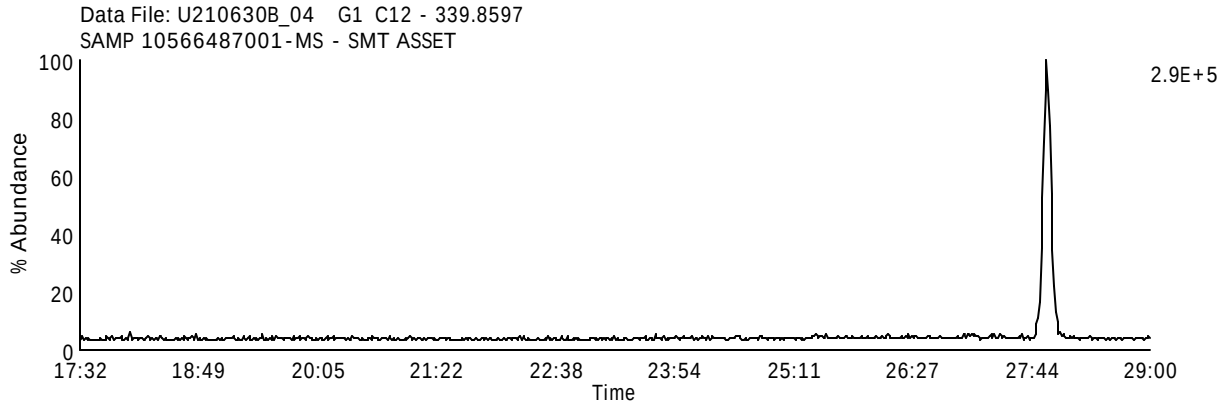
Data File: U210630B_04 G1 C5 - 318.9792
SAMP 10566487001-MS - SMT ASSET

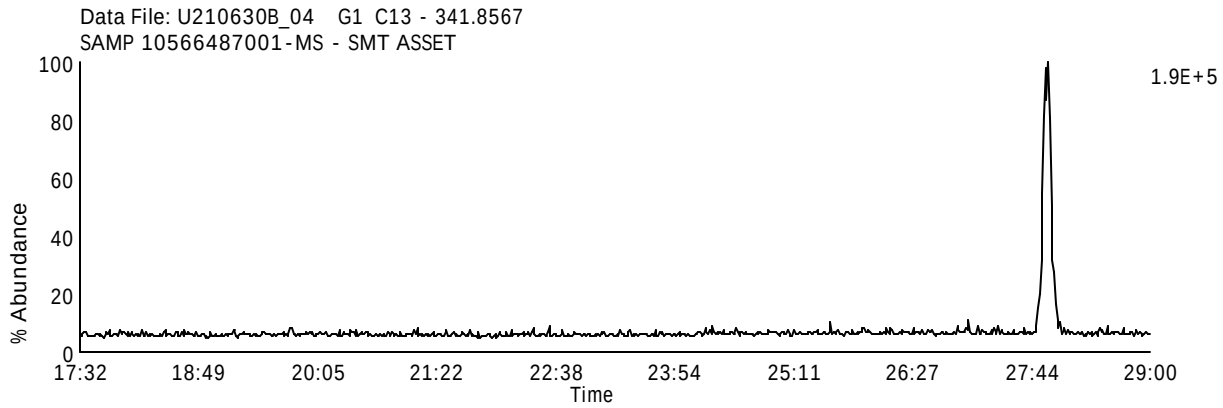


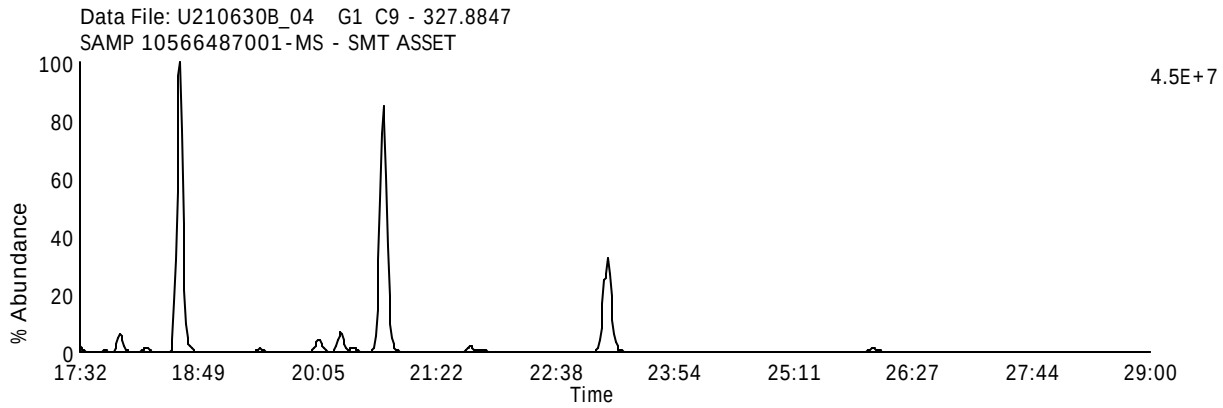
Homologue Group: Penta & Cleanup

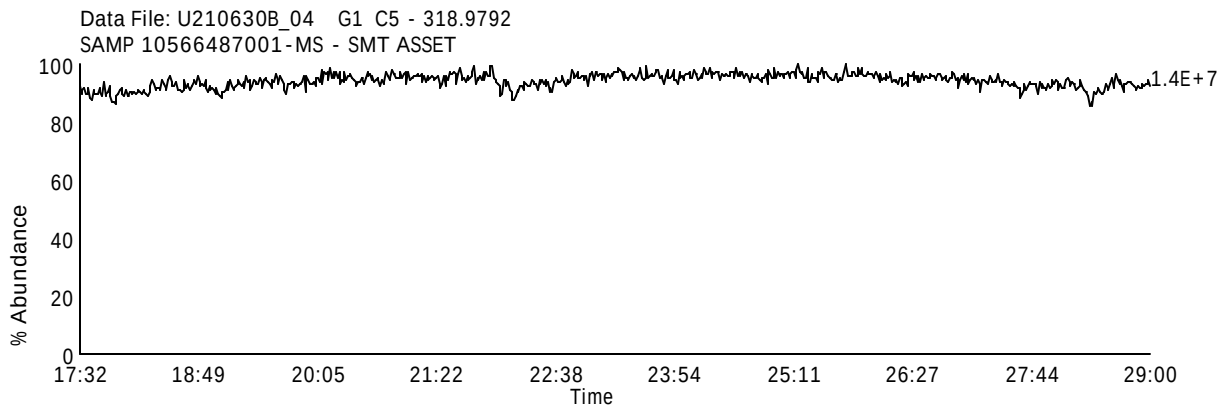
Data File Name: U210630B_04
Date Acquired: 7/1/2021
Sample Description: SAMP 10566487001-MS - SMT ASSET

Lab Sample ID: 10566487001-MS
Client Sample ID: N045954-001F/ AOC4-Gabion-WC-MS
Instrument: 10MSHR06 (U)







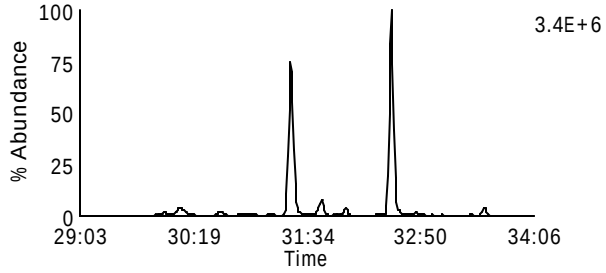


Homologue Group: Pentas

Data File Name: U210630B_04
Date Acquired: 7/1/2021
Sample Description: SAMP 10566487001-MS - SMT ASSET

Lab Sample ID: 10566487001-MS
Client Sample ID: N045954-001F/ AOC4-Gabion-WC-MS
Instrument: 10MSHR06 (U)

Data File: U210630B_04 G2 C1 - 339.8597
SAMP 10566487001-MS - SMT ASSET



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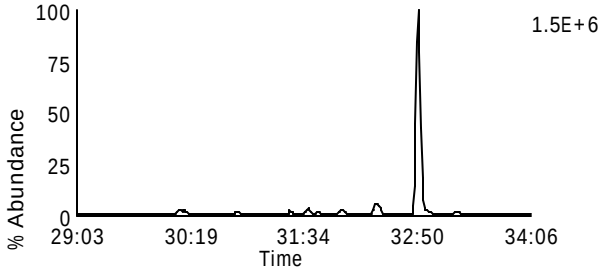
SAMP 10566487001-MS - SMT ASSET



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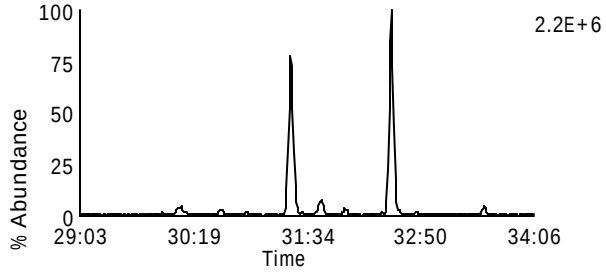
SAMP 10566487001-MS - SMT ASSET



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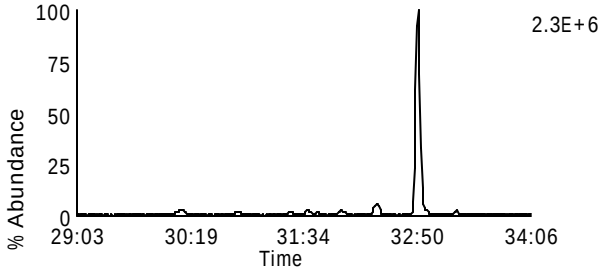
SAMP 10566487001-MS - SMT ASSET



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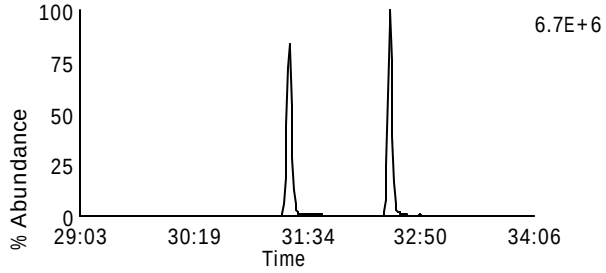
SAMP 10566487001-MS - SMT ASSET



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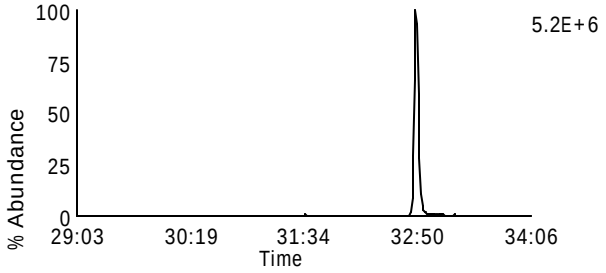
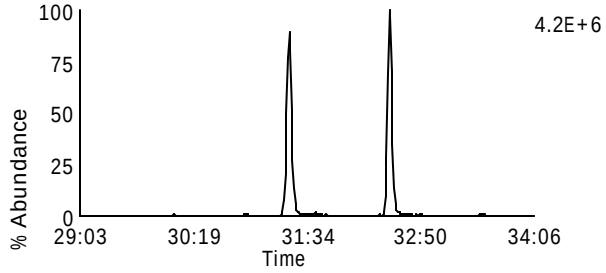
SAMP 10566487001-MS - SMT ASSET



Data File: U210630B_04 G2 C5 - 353.8969
SAMP 10566487001-MS - SMT ASSET



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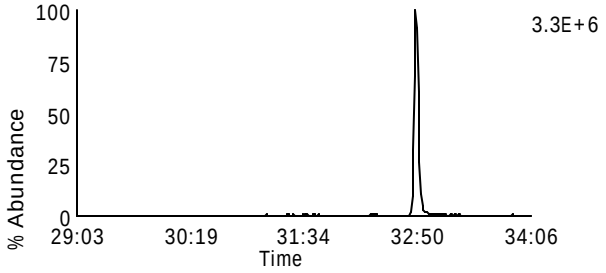
SAMP 10566487001-MS - SMT ASSET



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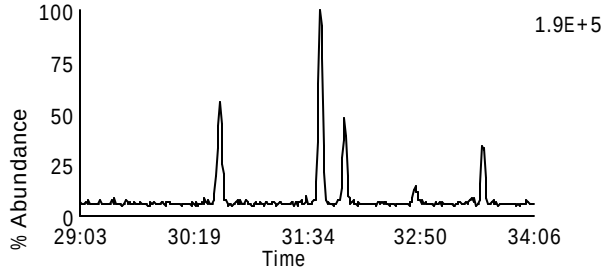
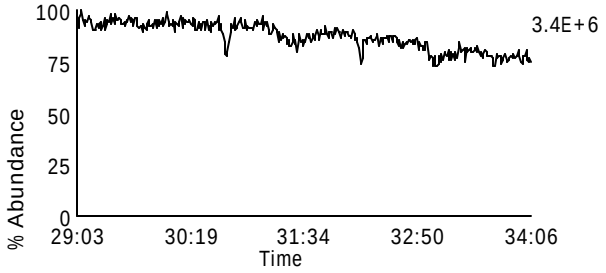
SAMP 10566487001-MS - SMT ASSET



Data File: U210630B_04 G2 C6 - 354.9792
SAMP 10566487001-MS - SMT ASSET

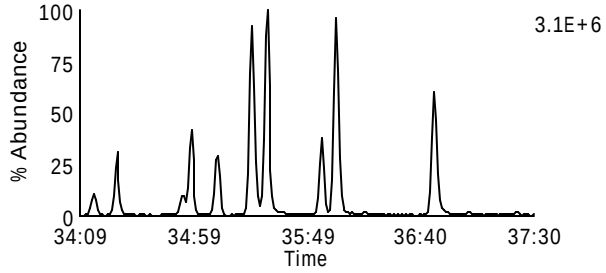


Homologue Group: Hexas

Data File Name: U210630B_04
Date Acquired: 7/1/2021
Sample Description: SAMP 10566487001-MS - SMT ASSET

Lab Sample ID: 10566487001-MS
Client Sample ID: N045954-001F/ AOC4-Gabion-WC-MS
Instrument: 10MSHR06 (U)

Data File: U210630B_04 G3 C1 - 373.8207
SAMP 10566487001-MS - SMT ASSET



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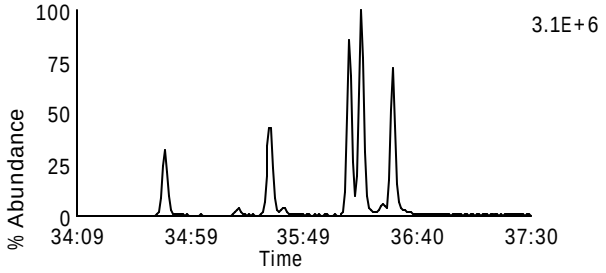
SAMP 10566487001-MS - SMT ASSET



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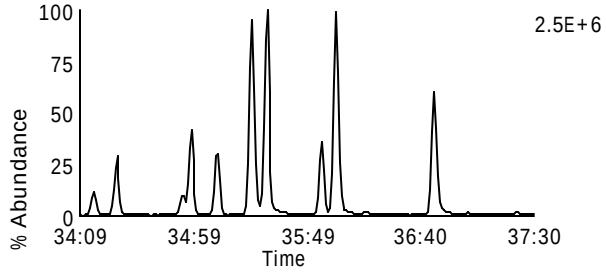
SAMP 10566487001-MS - SMT ASSET



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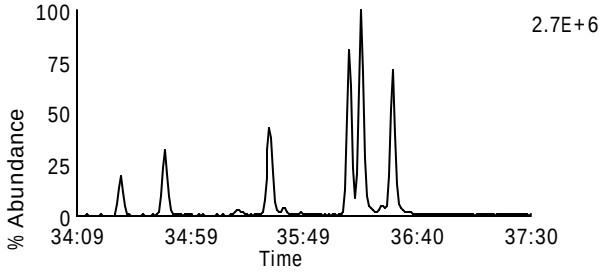
SAMP 10566487001-MS - SMT ASSET



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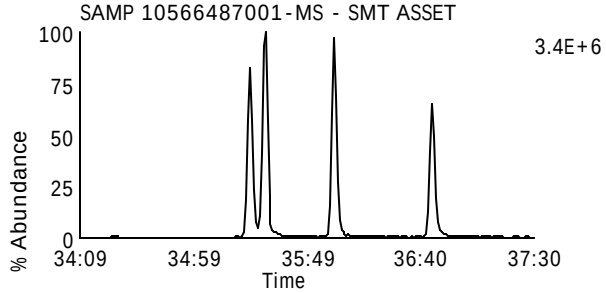
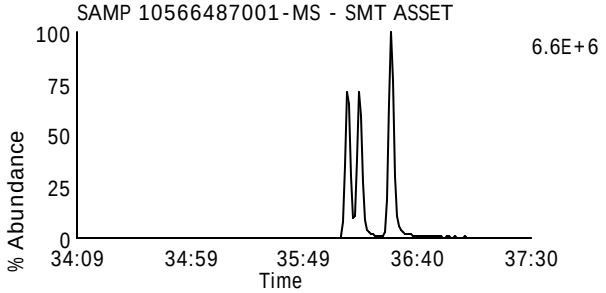
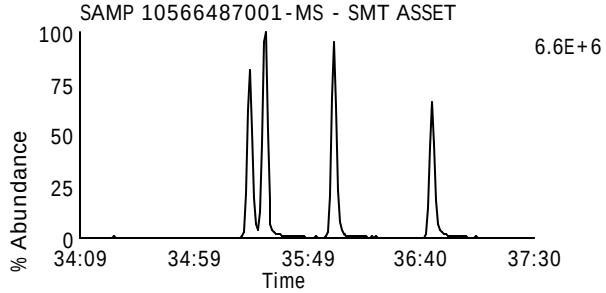
SAMP 10566487001-MS - SMT ASSET



Data File: U210630B_04 G3 C9 - 401.8559
SAMP 10566487001-MS - SMT ASSET



Data File: U210630B_04 G3 C6 - 385.861
SAMP 10566487001-MS - SMT ASSET



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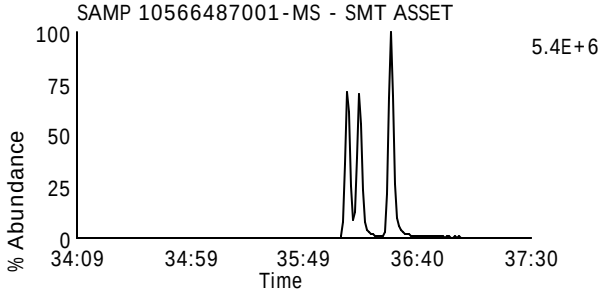
SAMP 10566487001-MS - SMT ASSET



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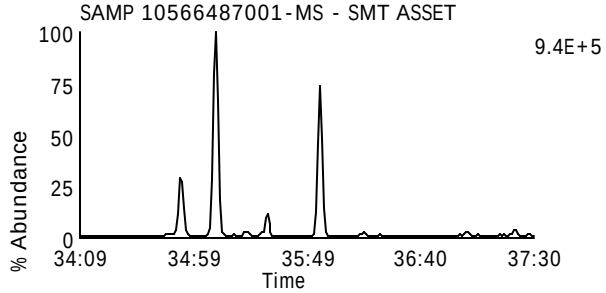
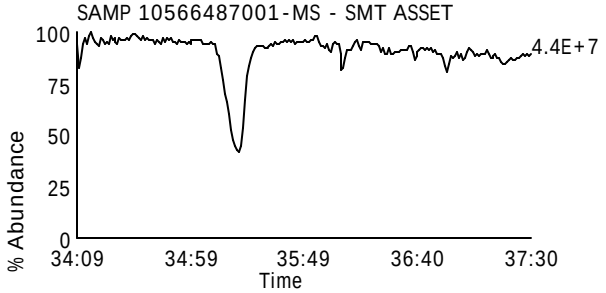
SAMP 10566487001-MS - SMT ASSET



Data File: U210630B_04 G3 C3 - 380.976
SAMP 10566487001-MS - SMT ASSET

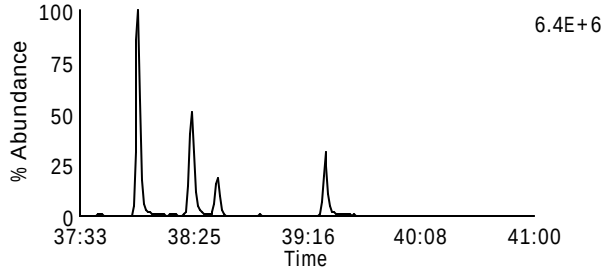


Homologue Group: Heptas

Data File Name: U210630B_04
Date Acquired: 7/1/2021
Sample Description: SAMP 10566487001-MS - SMT ASSET

Lab Sample ID: 10566487001-MS
Client Sample ID: N045954-001F/ AOC4-Gabion-WC-MS
Instrument: 10MSHR06 (U)

Data File: U210630B_04 G4 C3 - 407.7818
SAMP 10566487001-MS - SMT ASSET



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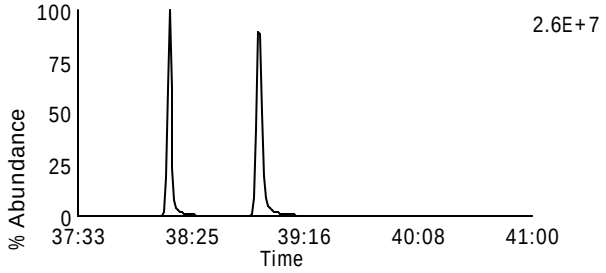
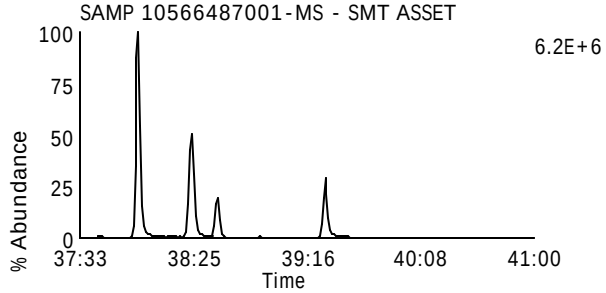
SAMP 10566487001-MS - SMT ASSET



Data File: U210630B_04 G4 C4 - 409.7788
SAMP 10566487001-MS - SMT ASSET



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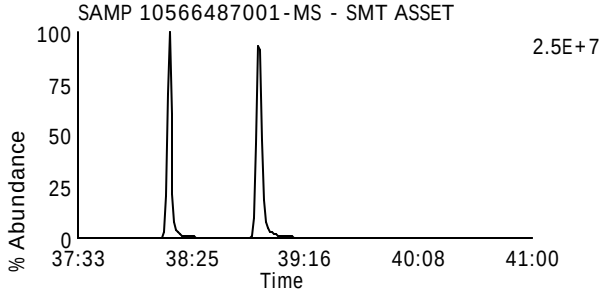
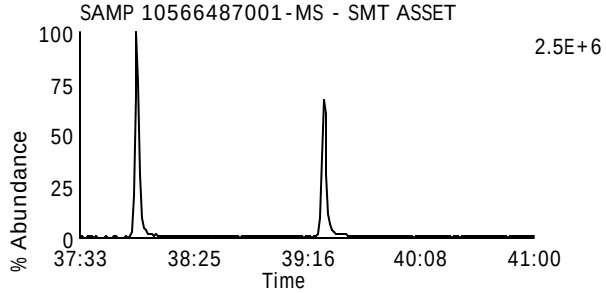
SAMP 10566487001-MS - SMT ASSET



Data File: U210630B_04 G4 C6 - 417.825
SAMP 10566487001-MS - SMT ASSET



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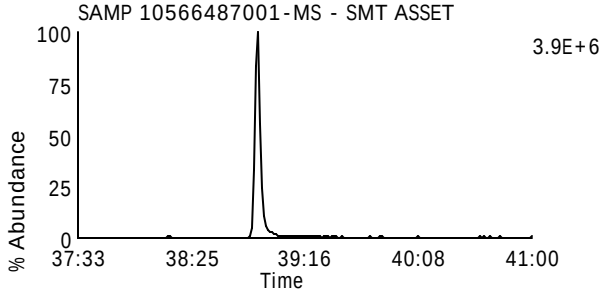
SAMP 10566487001-MS - SMT ASSET



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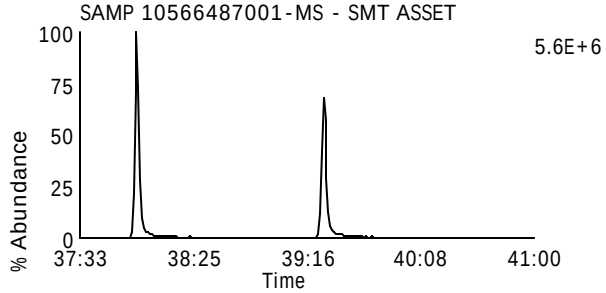
SAMP 10566487001-MS - SMT ASSET



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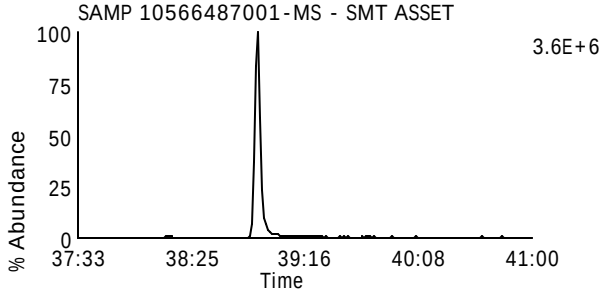
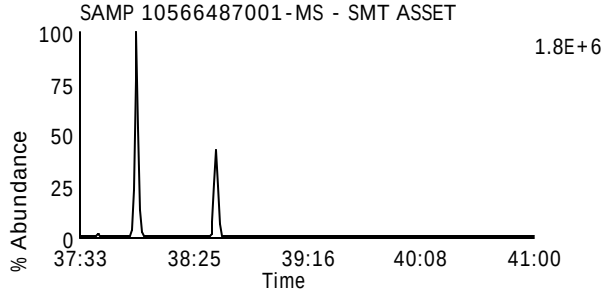
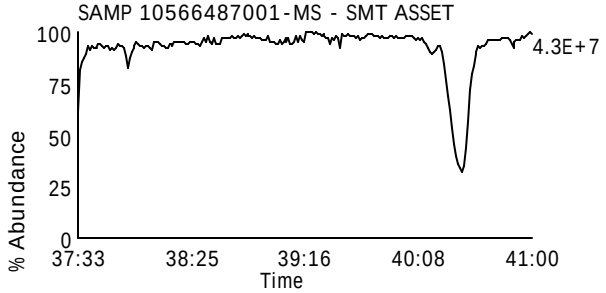
SAMP 10566487001-MS - SMT ASSET



Data File: U210630B_04 G4 C13 - 479.7165
SAMP 10566487001-MS - SMT ASSET



Data File: U210630B_04 G4 C1 - 380.976
SAMP 10566487001-MS - SMT ASSET

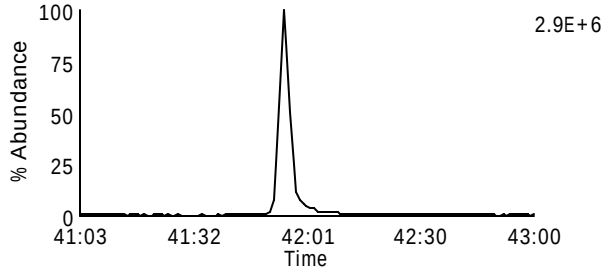


Homologue Group: Octas

Data File Name: U210630B_04
Date Acquired: 7/1/2021
Sample Description: SAMP 10566487001-MS - SMT ASSET

Lab Sample ID: 10566487001-MS
Client Sample ID: N045954-001F/ AOC4-Gabion-WC-MS
Instrument: 10MSHR06 (U)

Data File: U210630B_04 G5 C4 - 441.7428
SAMP 10566487001-MS - SMT ASSET



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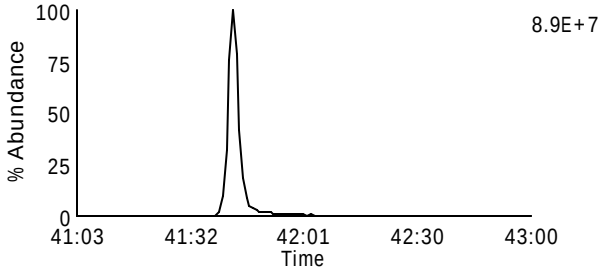
SAMP 10566487001-MS - SMT ASSET



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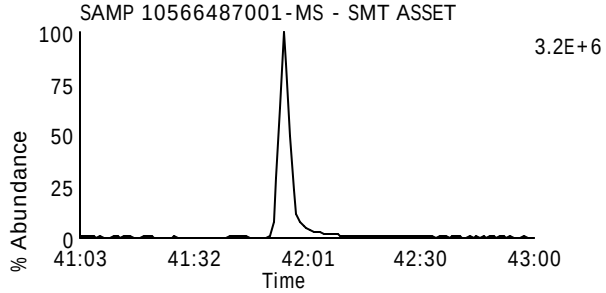
SAMP 10566487001-MS - SMT ASSET



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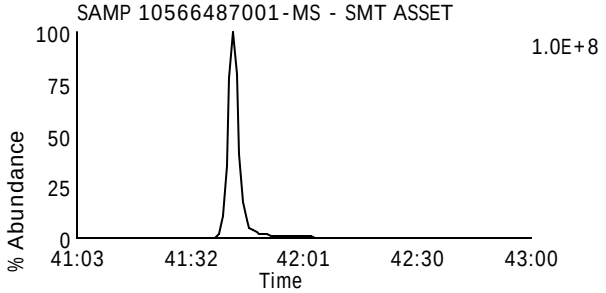
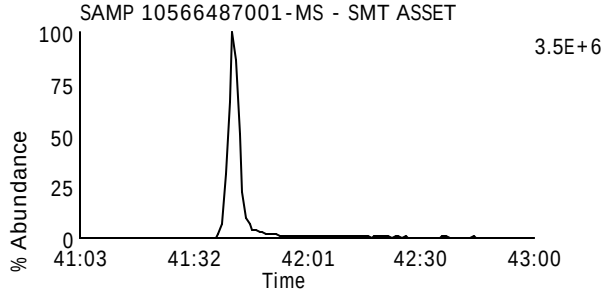
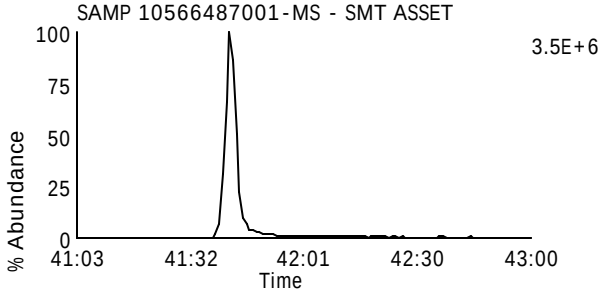
SAMP 10566487001-MS - SMT ASSET



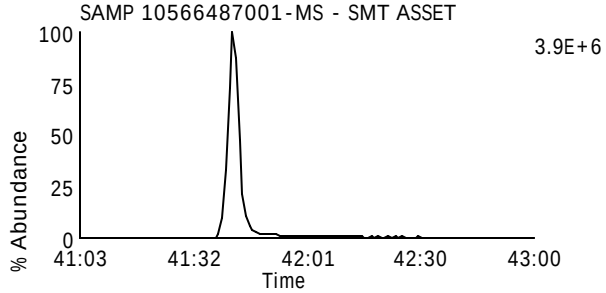
Data File: U210630B_04 G5 C11 - 469.7779
SAMP 10566487001-MS - SMT ASSET



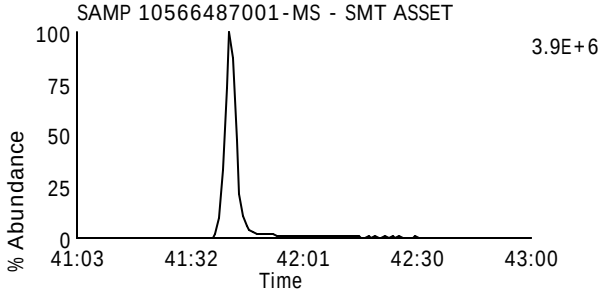
Data File: U210630B_04 G5 C11 - 469.7779
SAMP 10566487001-MS - SMT ASSET



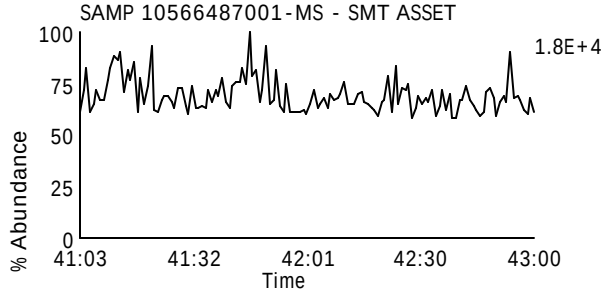
Data File: U210630B_04 G5 C12 - 471.7749
SAMP 10566487001-MS - SMT ASSET



Data File: U210630B_04 G5 C12 - 471.7749
SAMP 10566487001-MS - SMT ASSET



Data File: U210630B_04 G5 C13 - 513.6775
SAMP 10566487001-MS - SMT ASSET



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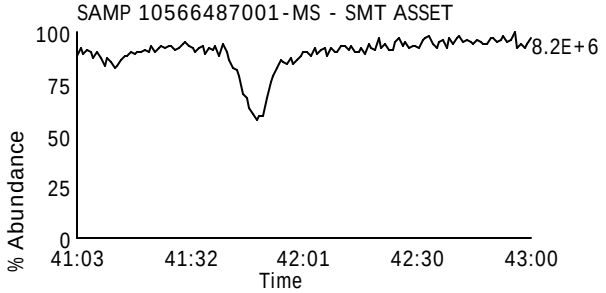
SAMP 10566487001-MS - SMT ASSET

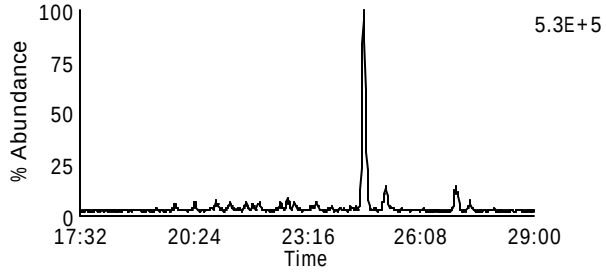


Homologue Group: Tetras

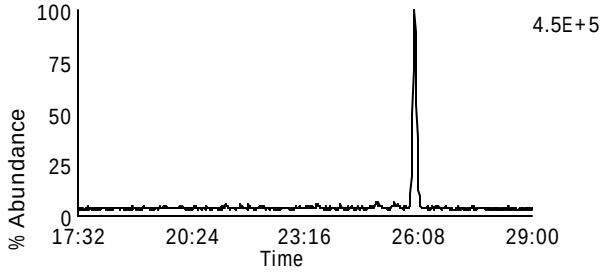
Data File Name: U210630B_05
Date Acquired: 7/1/2021
Sample Description: SAMP 10566487001-MSD - SMT ASSET

Lab Sample ID: 10566487001-MSD
Client Sample ID: N045954-001F/ AOC4-Gabion-WC-MSD
Instrument: 10MSHR06 (U)

Data File: U210630B_05 G1 C1 - 303.9016
SAMP 10566487001-MSD - SMT ASSET



Data File: U210630B_05 G1 C7 - 319.8965
SAMP 10566487001-MSD - SMT ASSET



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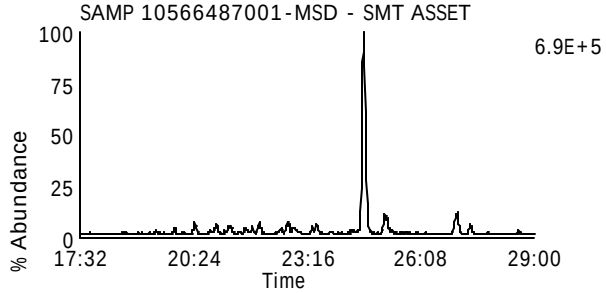
SAMP 10566487001-MSD - SMT ASSET



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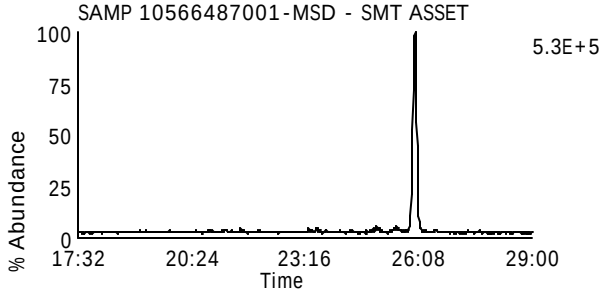
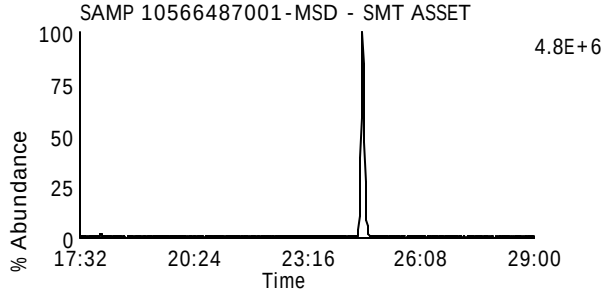
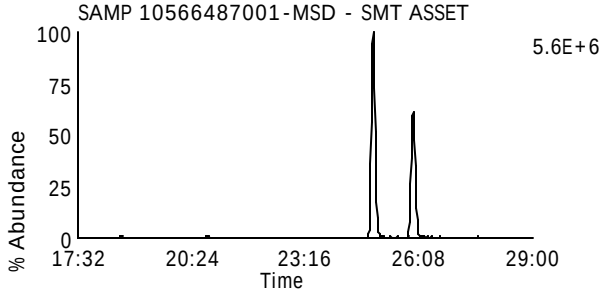
SAMP 10566487001-MSD - SMT ASSET



Data File: U210630B_05 G1 C3 - 315.9418
SAMP 10566487001-MSD - SMT ASSET



Data File: U210630B_05 G1 C10 - 331.9367
SAMP 10566487001-MSD - SMT ASSET



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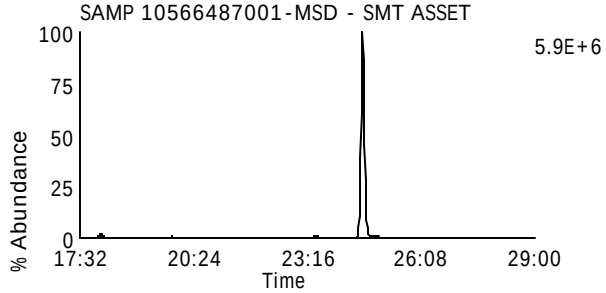
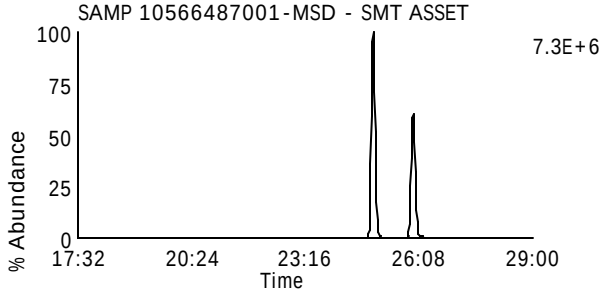
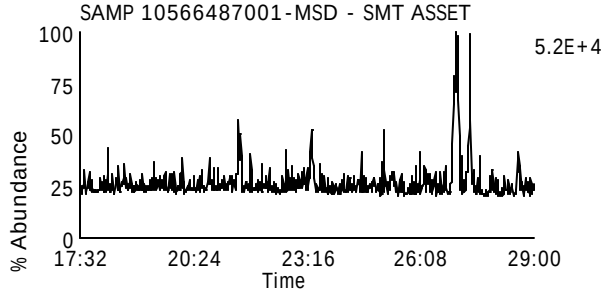
SAMP 10566487001-MSD - SMT ASSET



Data File: U210630B_05 G1 C11 - 333.9338
SAMP 10566487001-MSD - SMT ASSET



Data File: U210630B_05 G1 C14 - 375.8364
SAMP 10566487001-MSD - SMT ASSET



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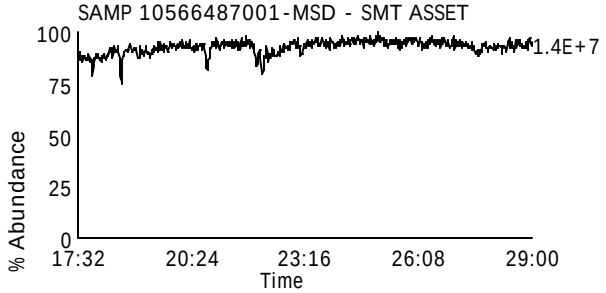
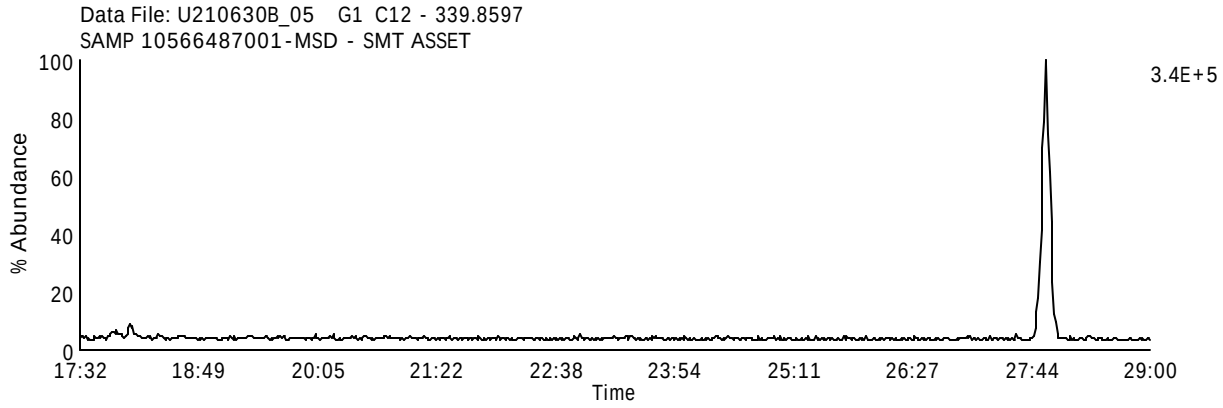
SAMP 10566487001-MSD - SMT ASSET

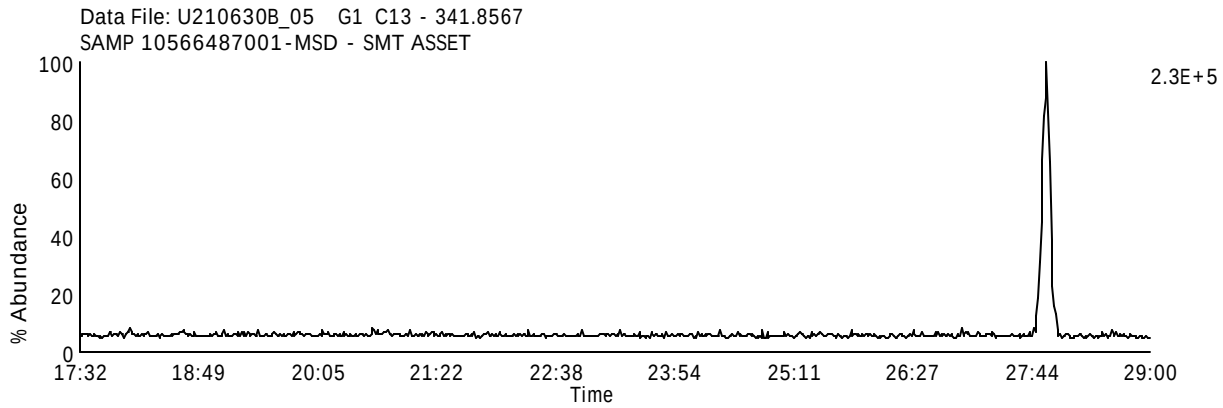


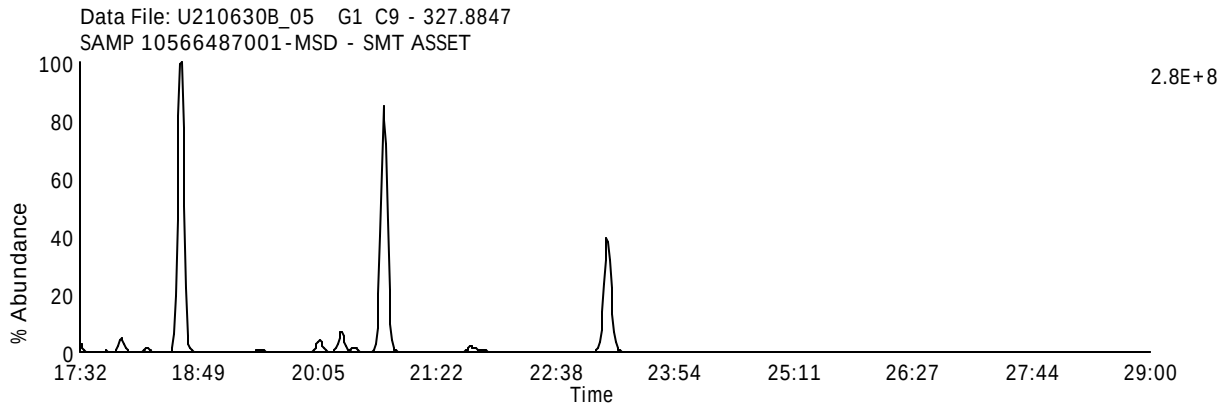
Homologue Group: Penta & Cleanup

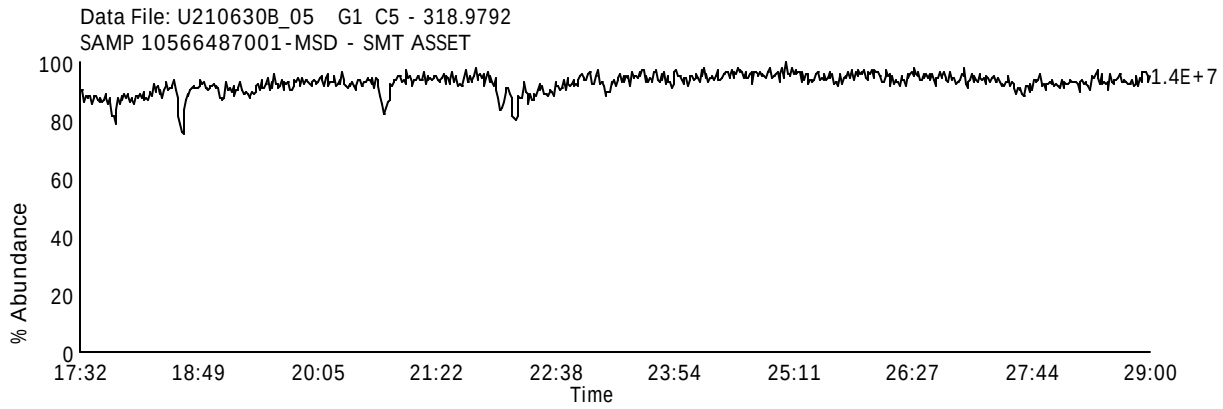
Data File Name: U210630B_05
Date Acquired: 7/1/2021
Sample Description: SAMP 10566487001-MSD - SMT ASSET

Lab Sample ID: 10566487001-MSD
Client Sample ID: N045954-001F/ AOC4-Gabion-WC-MSD
Instrument: 10MSHR06 (U)







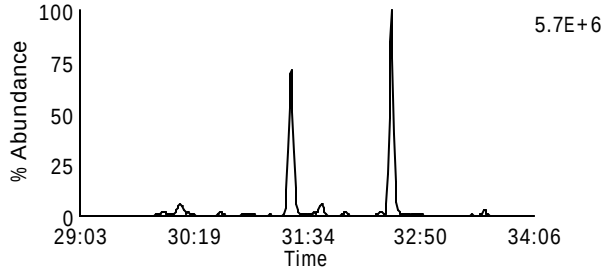


Homologue Group: Pentas

Data File Name: U210630B_05
Date Acquired: 7/1/2021
Sample Description: SAMP 10566487001-MSD - SMT ASSET

Lab Sample ID: 10566487001-MSD
Client Sample ID: N045954-001F/ AOC4-Gabion-WC-MSD
Instrument: 10MSHR06 (U)

Data File: U210630B_05 G2 C1 - 339.8597
SAMP 10566487001-MSD - SMT ASSET



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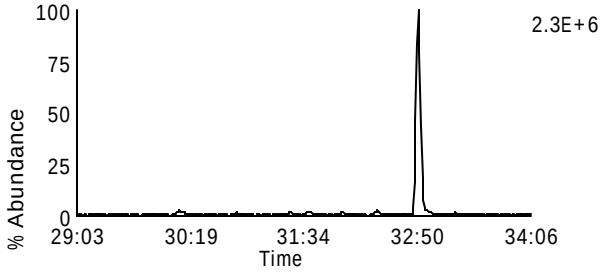
SAMP 10566487001-MSD - SMT ASSET



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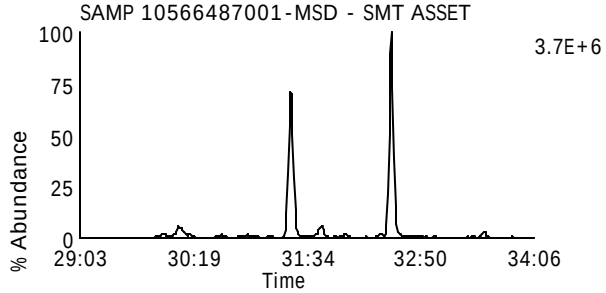
SAMP 10566487001-MSD - SMT ASSET



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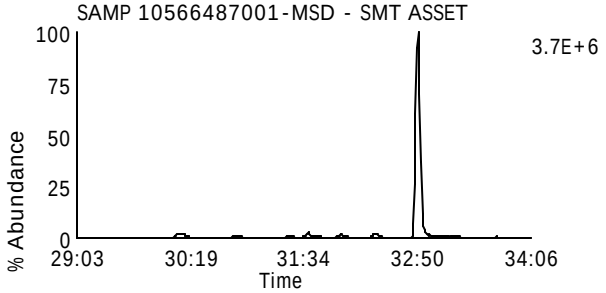
SAMP 10566487001-MSD - SMT ASSET



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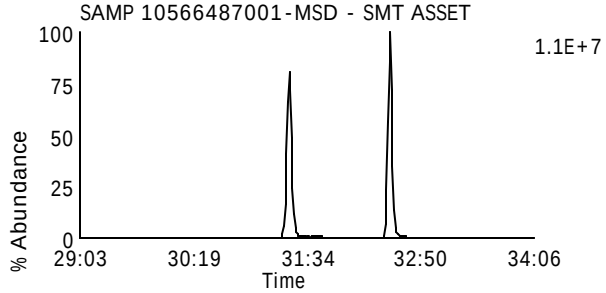
SAMP 10566487001-MSD - SMT ASSET



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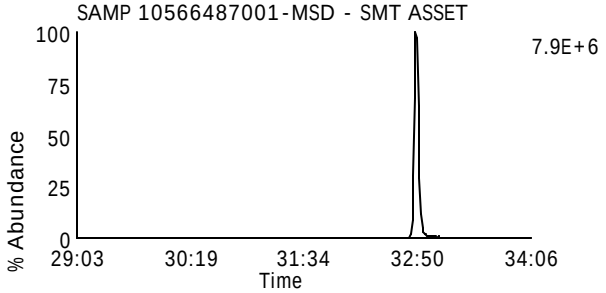
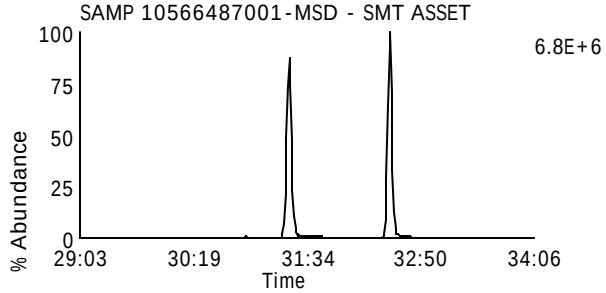
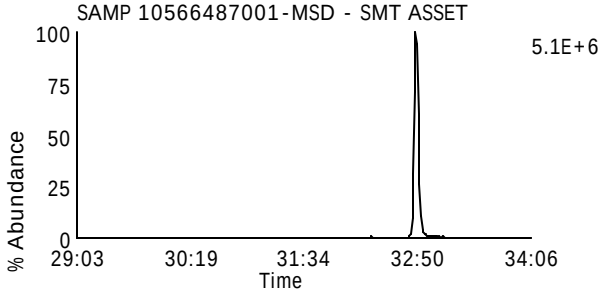
SAMP 10566487001-MSD - SMT ASSET



Data File: U210630B_05 G2 C5 - 353.8969
SAMP 10566487001-MSD - SMT ASSET



Data File: U210630B_05 G2 C11 - 369.8918
SAMP 10566487001-MSD - SMT ASSET



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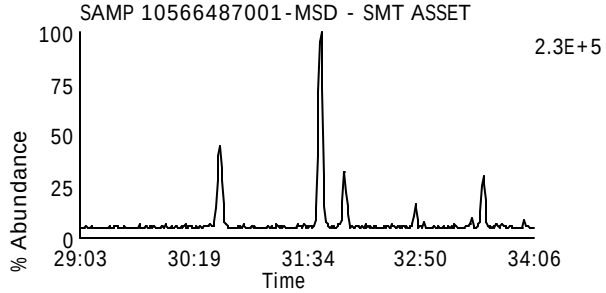
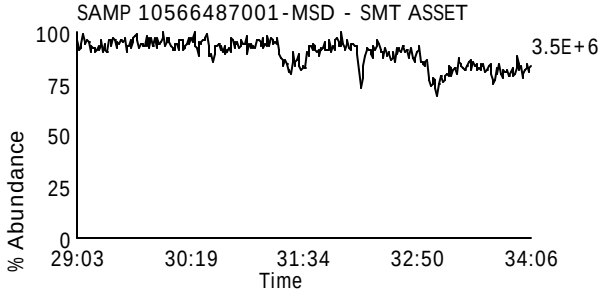
SAMP 10566487001-MSD - SMT ASSET



Data File: U210630B_05 G2 C6 - 354.9792
SAMP 10566487001-MSD - SMT ASSET

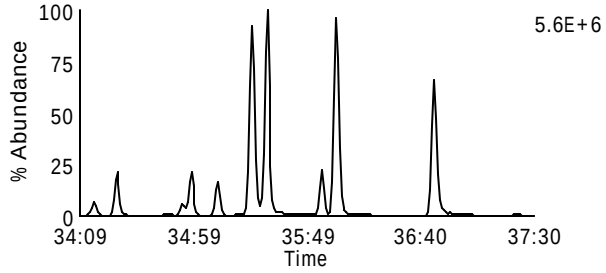


Homologue Group: Hexas

Data File Name: U210630B_05
Date Acquired: 7/1/2021
Sample Description: SAMP 10566487001-MSD - SMT ASSET

Lab Sample ID: 10566487001-MSD
Client Sample ID: N045954-001F/ AOC4-Gabion-WC-MSD
Instrument: 10MSHR06 (U)

Data File: U210630B_05 G3 C1 - 373.8207
SAMP 10566487001-MSD - SMT ASSET



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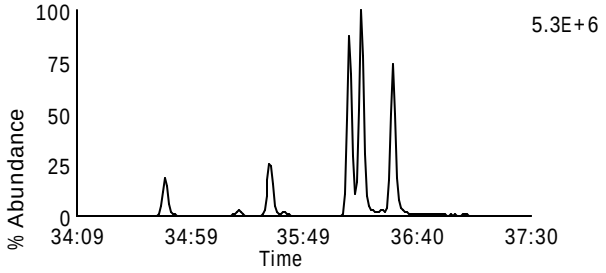
SAMP 10566487001-MSD - SMT ASSET



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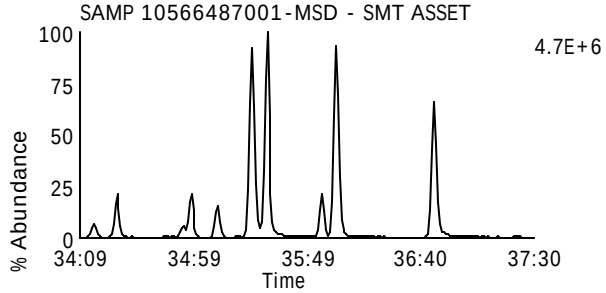
SAMP 10566487001-MSD - SMT ASSET



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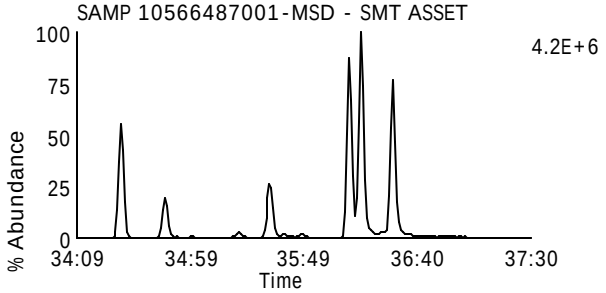
SAMP 10566487001-MSD - SMT ASSET



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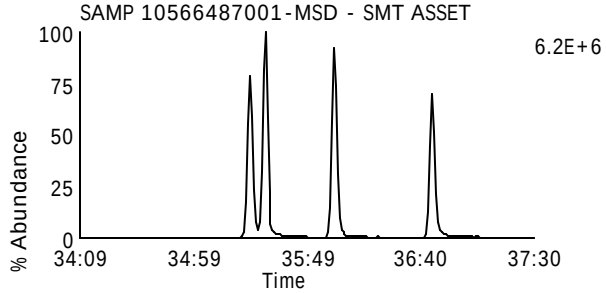
SAMP 10566487001-MSD - SMT ASSET



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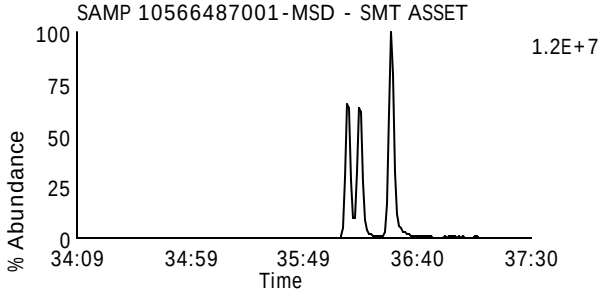
SAMP 10566487001-MSD - SMT ASSET



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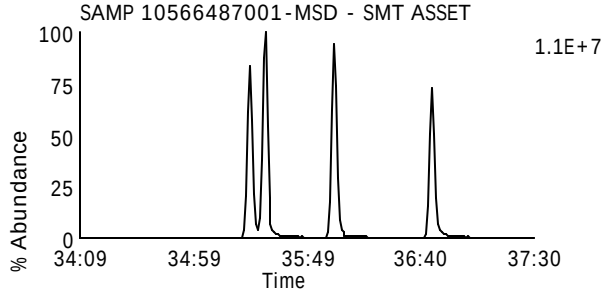
SAMP 10566487001-MSD - SMT ASSET



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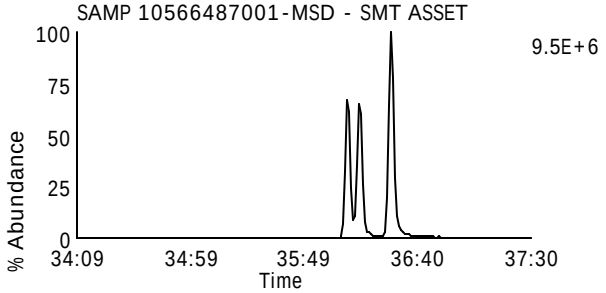
SAMP 10566487001-MSD - SMT ASSET



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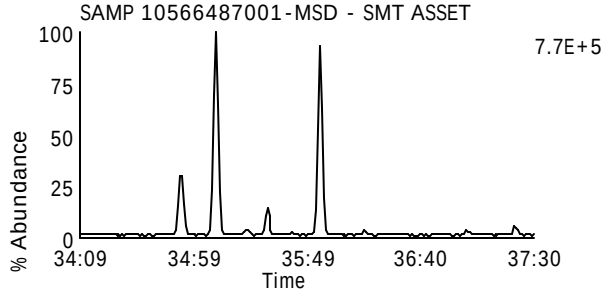
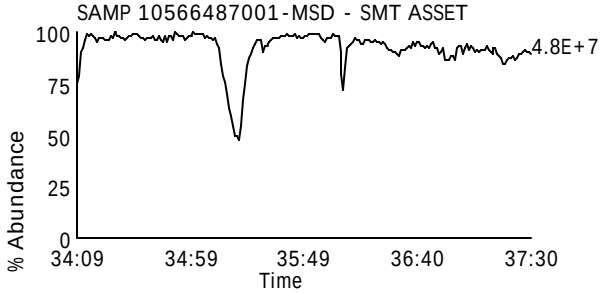
SAMP 10566487001-MSD - SMT ASSET



Data File: U210630B_05 G3 C3 - 380.976
SAMP 10566487001-MSD - SMT ASSET

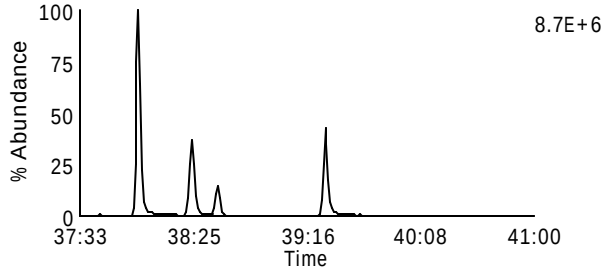


Homologue Group: Heptas

Data File Name: U210630B_05
Date Acquired: 7/1/2021
Sample Description: SAMP 10566487001-MSD - SMT ASSET

Lab Sample ID: 10566487001-MSD
Client Sample ID: N045954-001F/ AOC4-Gabion-WC-MSD
Instrument: 10MSHR06 (U)

Data File: U210630B_05 G4 C3 - 407.7818
SAMP 10566487001-MSD - SMT ASSET



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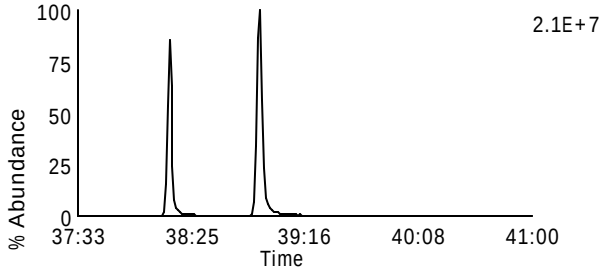
SAMP 10566487001-MSD - SMT ASSET



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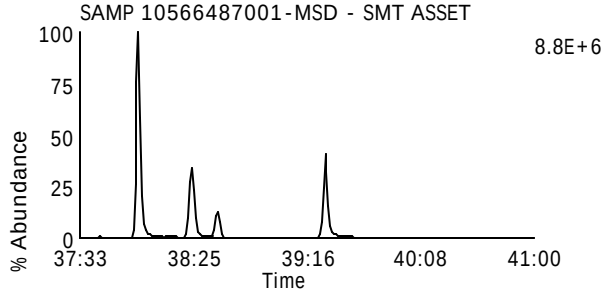
SAMP 10566487001-MSD - SMT ASSET



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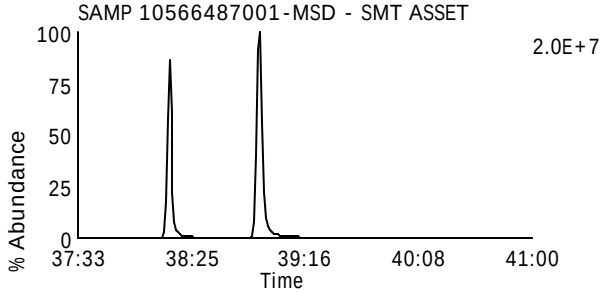
SAMP 10566487001-MSD - SMT ASSET



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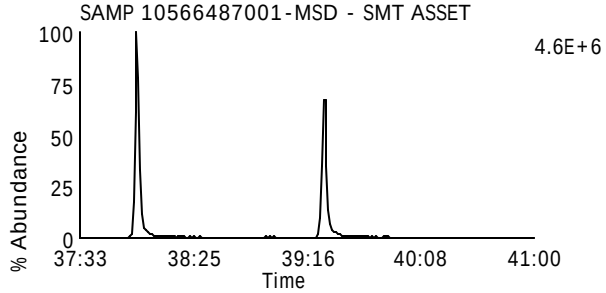
SAMP 10566487001-MSD - SMT ASSET



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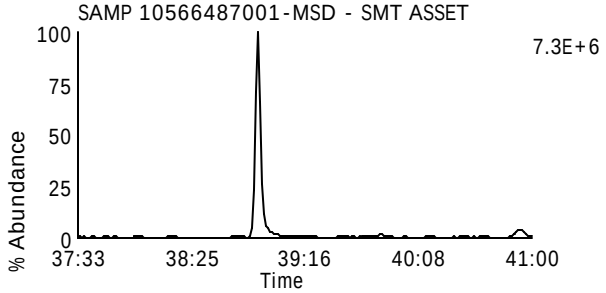
SAMP 10566487001-MSD - SMT ASSET



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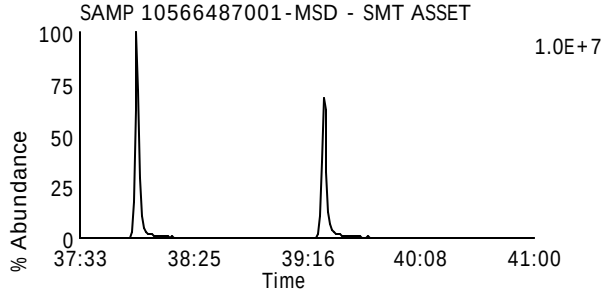
SAMP 10566487001-MSD - SMT ASSET



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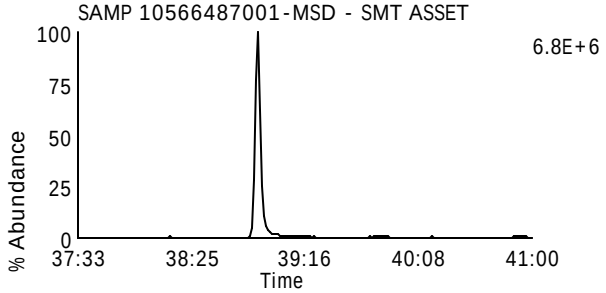

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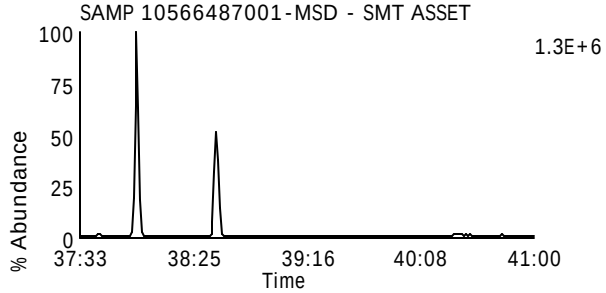
SAMP 10566487001-MSD - SMT ASSET



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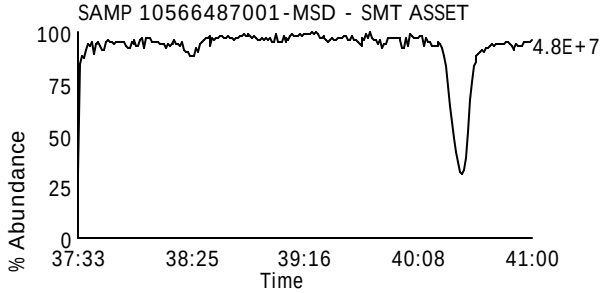
SAMP 10566487001-MSD - SMT ASSET

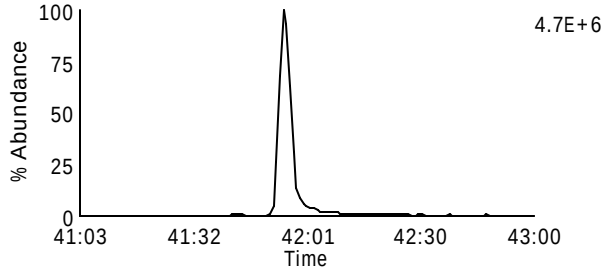


Homologue Group: Octas

Data File Name: U210630B_05
Date Acquired: 7/1/2021
Sample Description: SAMP 10566487001-MSD - SMT ASSET

Lab Sample ID: 10566487001-MSD
Client Sample ID: N045954-001F/ AOC4-Gabion-WC-MSD
Instrument: 10MSHR06 (U)

Data File: U210630B_05 G5 C4 - 441.7428
SAMP 10566487001-MSD - SMT ASSET



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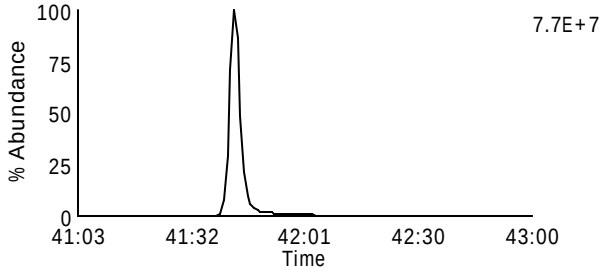
SAMP 10566487001-MSD - SMT ASSET



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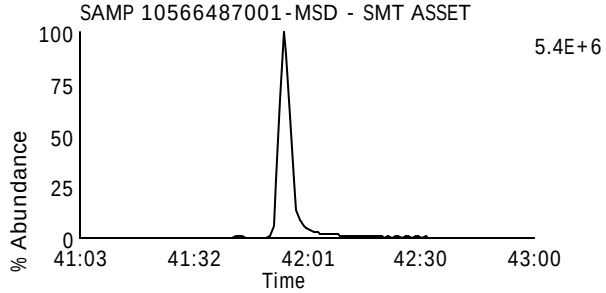

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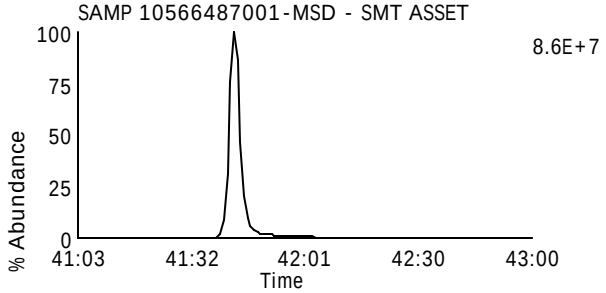
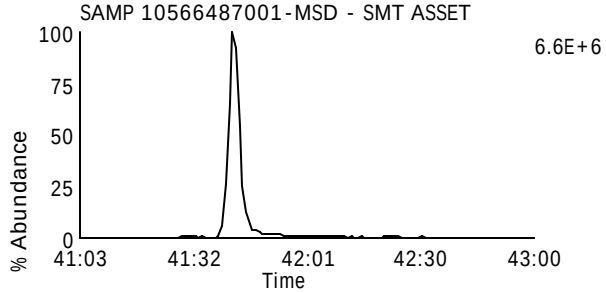
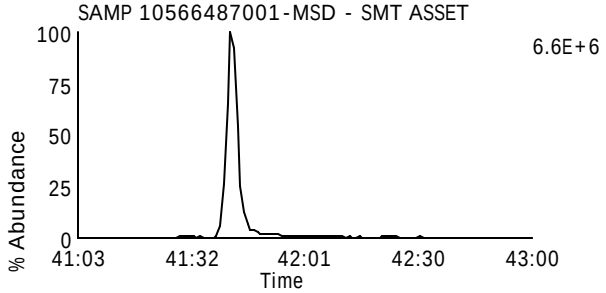
SAMP 10566487001-MSD - SMT ASSET



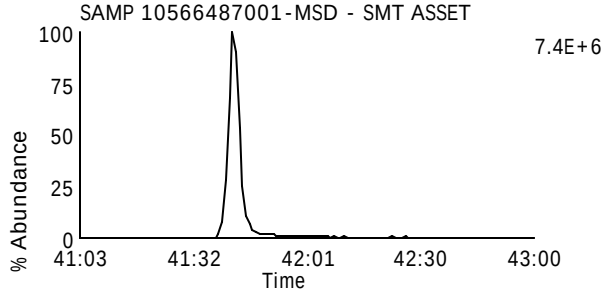
Data File: U210630B_05 G5 C11 - 469.7779
SAMP 10566487001-MSD - SMT ASSET



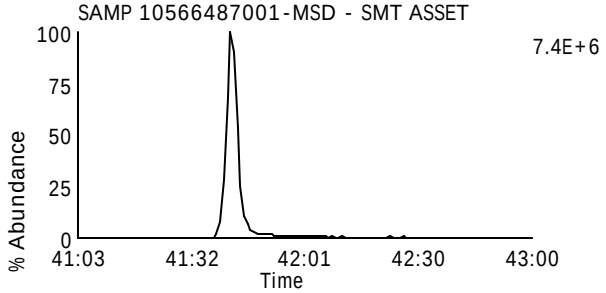
Data File: U210630B_05 G5 C11 - 469.7779
SAMP 10566487001-MSD - SMT ASSET



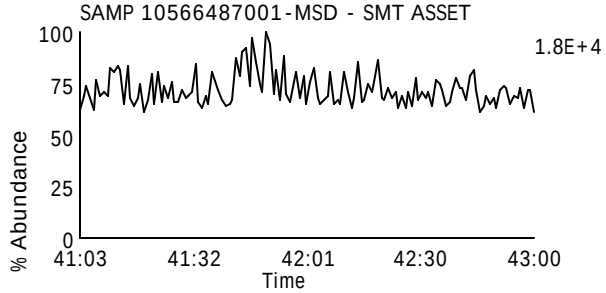
Data File: U210630B_05 G5 C12 - 471.7749
SAMP 10566487001-MSD - SMT ASSET



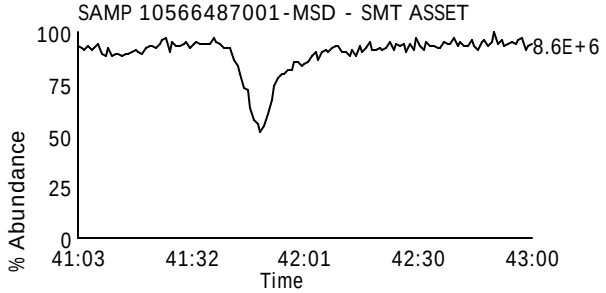
Data File: U210630B_05 G5 C12 - 471.7749
SAMP 10566487001-MSD - SMT ASSET



Data File: U210630B_05 G5 C13 - 513.6775
SAMP 10566487001-MSD - SMT ASSET



Data File: U210630B_05 G5 C2 - 430.9728
SAMP 10566487001-MSD - SMT ASSET



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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

ReviewedBy_____ Date _____

Client ID	DFBLKSV	Injected By	SMT
Lab ID	BLANK-91164	Instrument ID	10MSHR06 (U)
Filename	U210630B_08	GC Column ID	US1175211H
Analyzed	07/01/2021 03:30	ICAL ID	U210629

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	24:41	3.70e7	4.74e7	5.81e6	7.40e6	7.556e3	7.703e3	0.78	
2,3,7,8-TCDF	24:42	ND	ND	ND	ND	2.087e3	2.577e3		

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	25:00	2.97e7	3.77e7	4.38e6	5.62e6	9.576e3	4.513e3	0.79	
2,3,7,8-TCDD-13C	26:01	2.67e7	3.36e7	3.55e6	4.51e6	5.797e3	4.482e3	0.79	
2,3,7,8-TCDD-37Cl4	26:04	6.17e6		8.36e5		4.336e3	-----		
2,3,7,8-TCDD	26:03	ND	ND	ND	ND	2.916e3	2.320e3		

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	31:24	3.90e7	2.56e7	1.07e7	6.89e6	2.166e4	1.686e4	1.52	
2,3,4,7,8-PeCDF-13C	32:31	3.63e7	2.27e7	1.09e7	7.09e6	6.700e3	1.811e4	1.60	
1,2,3,7,8-PeCDF	31:25	ND	ND	ND	ND	1.683e3	2.058e3		
2,3,4,7,8-PeCDF	32:32	ND	ND	ND	ND	1.230e3	2.321e3		

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:51	3.05e7	1.97e7	9.13e6	5.77e6	1.263e4	3.211e3	1.55	
1,2,3,7,8-PeCDD	32:51	ND	ND	ND	ND	1.840e3	1.905e3		

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	35:24	1.43e7	2.83e7	5.39e6	1.04e7	1.252e3	2.554e3	0.51	
1,2,3,6,7,8-HxCDF-13C	35:31	1.67e7	3.31e7	6.26e6	1.18e7	1.076e3	1.879e3	0.51	
2,3,4,6,7,8-HxCDF-13C	36:02	1.50e7	2.97e7	5.49e6	1.10e7	7.882e2	2.618e3	0.51	
1,2,3,7,8,9-HxCDF-13C	36:46	1.24e7	2.51e7	4.47e6	9.18e6	8.569e3	1.003e4	0.50	
1,2,3,4,7,8-HxCDF	35:25	ND	ND	ND	ND	2.144e3	2.394e3		
1,2,3,6,7,8-HxCDF	35:32	ND	ND	ND	ND	2.144e3	1.996e3		
2,3,4,6,7,8-HxCDF	36:02	ND	ND	ND	ND	2.086e3	1.823e3		
1,2,3,7,8,9-HxCDF	36:47	ND	ND	ND	ND	1.871e3	2.550e3		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Client ID	DFBLKSV	Injected By	SMT
Lab ID	BLANK-91164	Instrument ID	10MSHR06 (U)
Filename	U210630B_08	GC Column ID	US1175211H
Analyzed	07/01/2021 03:30	ICAL ID	U210629

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	36:10	(M)2.10e7	(M)1.65e7	7.84e6	5.85e6	3.452e3	5.399e3	1.28	
1,2,3,6,7,8-HxCDD-13C	36:15	(M)2.20e7	(M)1.70e7	7.59e6	5.75e6	4.715e3	4.927e3	1.29	
1,2,3,7,8,9-HxCDD-13C	36:28	(M)2.47e7	(M)2.01e7	8.68e6	7.10e6	4.936e3	1.737e4	1.23	
1,2,3,4,7,8-HxCDD	36:11	ND	ND	ND	ND	2.118e3	2.868e3		
1,2,3,6,7,8-HxCDD	36:16	ND	ND	ND	ND	1.602e3	2.132e3		
1,2,3,7,8,9-HxCDD	36:29	ND	ND	ND	ND	1.987e3	2.592e3		

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	37:59	1.21e7	2.70e7	4.25e6	9.74e6	4.041e3	9.109e3	0.45	
1,2,3,4,7,8,9-HpCDF-13C	39:25	9.96e6	2.16e7	3.31e6	7.51e6	4.041e3	9.109e3	0.46	
1,2,3,4,6,7,8-HpCDF	37:59	ND	ND	ND	ND	1.786e3	2.157e3		
1,2,3,4,7,8,9-HpCDF	39:26	ND	ND	ND	ND	1.990e3	1.585e3		

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	38:56	2.05e7	1.86e7	6.77e6	6.21e6	1.368e3	2.147e4	1.10	
1,2,3,4,6,7,8-HpCDD	38:56	(M)2.61e4	(M)2.85e4	1.09e4	1.19e4	2.269e3	1.641e3	0.91	
Other HpCDD 1	38:16	2.01e4	2.02e4					1.00	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	41:56	ND	ND	ND	ND	2.929e3	1.370e3		

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	41:43	2.53e7	2.78e7	6.65e6	7.29e6	2.470e4	2.308e4	0.91	
OCDD	41:45	7.11e4	(M)9.52e4	1.57e4	2.59e4	1.724e3	2.129e3	0.75	I

REPORT OF LABORATORY ANALYSIS

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

ReviewedBy _____ Date _____

Client ID	DLCSFN	Injected By	SMT
Lab ID	LCS-91165	Instrument ID	10MSHR06 (U)
Filename	U210630B_03	GC Column ID	US1175211H
Analyzed	06/30/2021 23:39	ICAL ID	U210629

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	24:42	2.69e7	3.38e7	4.01e6	5.09e6	-----	-----	0.80	
2,3,7,8-TCDF	24:43	2.74e6	3.53e6	4.10e5	5.19e5	-----	-----	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	25:01	2.84e7	3.47e7	4.34e6	5.25e6	-----	-----	0.82	
2,3,7,8-TCDD-13C	26:02	1.96e7	2.48e7	2.83e6	3.48e6	-----	-----	0.79	
2,3,7,8-TCDD-37Cl4	26:04	4.67e6		6.66e5		-----	-----		
2,3,7,8-TCDD	26:05	2.34e6	2.85e6	3.23e5	3.96e5	-----	-----	0.82	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	31:24	2.95e7	1.94e7	8.14e6	5.20e6	-----	-----	1.53	
2,3,4,7,8-PeCDF-13C	32:31	2.93e7	1.85e7	8.74e6	5.61e6	-----	-----	1.59	
1,2,3,7,8-PeCDF	31:25	1.37e7	9.07e6	3.67e6	2.42e6	-----	-----	1.51	
2,3,4,7,8-PeCDF	32:32	1.42e7	9.23e6	3.98e6	2.61e6	-----	-----	1.53	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:51	2.33e7	1.50e7	6.88e6	4.48e6	-----	-----	1.55	
1,2,3,7,8-PeCDD	32:52	6.67e6	1.09e7	1.91e6	3.18e6	-----	-----	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	35:24	1.15e7	2.29e7	4.18e6	8.38e6	-----	-----	0.50	
1,2,3,6,7,8-HxCDF-13C	35:31	1.37e7	2.71e7	5.02e6	9.64e6	-----	-----	0.50	
2,3,4,6,7,8-HxCDF-13C	36:02	1.25e7	2.46e7	4.40e6	8.92e6	-----	-----	0.51	
1,2,3,7,8,9-HxCDF-13C	36:46	1.03e7	1.99e7	3.85e6	7.51e6	-----	-----	0.52	
1,2,3,4,7,8-HxCDF	35:25	1.17e7	9.32e6	4.05e6	3.43e6	-----	-----	1.25	
1,2,3,6,7,8-HxCDF	35:32	1.25e7	9.45e6	4.38e6	3.46e6	-----	-----	1.33	
2,3,4,6,7,8-HxCDF	36:02	1.18e7	9.33e6	4.12e6	3.31e6	-----	-----	1.26	
1,2,3,7,8,9-HxCDF	36:47	9.01e6	7.25e6	3.37e6	2.82e6	-----	-----	1.24	

REPORT OF LABORATORY ANALYSIS

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Client ID	DLCSFN	Injected By	SMT
Lab ID	LCS-91165	Instrument ID	10MSHR06 (U)
Filename	U210630B_03	GC Column ID	US1175211H
Analyzed	06/30/2021 23:39	ICAL ID	U210629

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	36:10	(M)1.69e7	(M)1.33e7	6.90e6	5.29e6	-----	-----	1.27	
1,2,3,6,7,8-HxCDD-13C	36:15	(M)1.74e7	(M)1.42e7	6.49e6	5.09e6	-----	-----	1.23	
1,2,3,7,8,9-HxCDD-13C	36:29	(M)2.67e7	(M)2.18e7	9.09e6	7.49e6	-----	-----	1.23	
1,2,3,4,7,8-HxCDD	36:11	(M)9.16e6	(M)7.26e6	3.45e6	2.66e6	-----	-----	1.26	
1,2,3,6,7,8-HxCDD	36:16	(M)9.59e6	(M)7.65e6	3.45e6	2.70e6	-----	-----	1.25	
1,2,3,7,8,9-HxCDD	36:29	8.66e6	7.14e6	3.23e6	2.68e6	-----	-----	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	38:00	9.82e6	(M)2.25e7	3.55e6	7.96e6	-----	-----	0.44	
1,2,3,4,7,8,9-HpCDF-13C	39:25	8.34e6	1.89e7	2.72e6	6.13e6	-----	-----	0.44	
1,2,3,4,6,7,8-HpCDF	38:00	1.14e7	1.06e7	4.22e6	4.13e6	-----	-----	1.07	
1,2,3,4,7,8,9-HpCDF	39:26	9.07e6	8.51e6	2.90e6	2.88e6	-----	-----	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	38:56	1.64e7	1.52e7	5.78e6	5.38e6	-----	-----	1.08	
1,2,3,4,6,7,8-HpCDD	38:57	8.54e6	8.27e6	3.03e6	2.88e6	-----	-----	1.03	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	41:56	1.21e7	1.36e7	3.40e6	3.86e6	-----	-----	0.89	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	41:43	2.06e7	2.34e7	5.62e6	6.46e6	-----	-----	0.88	
OCDD	41:43	1.14e7	1.34e7	2.99e6	3.62e6	-----	-----	0.85	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

ReviewedBy_____ Date _____

Client Name	Asset Laboratories		
Client ID	N045954-001F/ AOC4-Gabion-WC-MS	Injected By	SMT
Lab ID	10566487001-MS	Instrument ID	10MSHR06 (U)
Filename	U210630B_04	GC Column ID	US1175211H
Analyzed	07/01/2021 00:25	ICAL ID	U210629

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	24:41	2.02e7	2.58e7	3.01e6	3.70e6	-----	-----	0.78	
2,3,7,8-TCDF	24:43	2.13e6	2.67e6	3.11e5	3.73e5	-----	-----	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	25:00	2.55e7	3.23e7	3.94e6	4.82e6	-----	-----	0.79	
2,3,7,8-TCDD-13C	26:01	1.49e7	1.84e7	2.01e6	2.64e6	-----	-----	0.81	
2,3,7,8-TCDD-37Cl4	26:02	3.54e6		4.74e5		-----	-----		
2,3,7,8-TCDD	26:03	1.65e6	2.19e6	2.33e5	3.14e5	-----	-----	0.75	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	31:23	2.27e7	1.45e7	5.53e6	3.71e6	-----	-----	1.56	
2,3,4,7,8-PeCDF-13C	32:31	2.34e7	1.48e7	6.66e6	4.15e6	-----	-----	1.58	
1,2,3,7,8-PeCDF	31:24	1.01e7	6.56e6	2.56e6	1.72e6	-----	-----	1.54	
2,3,4,7,8-PeCDF	32:32	1.14e7	7.48e6	3.41e6	2.22e6	-----	-----	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	32:50	1.72e7	1.12e7	5.14e6	3.30e6	-----	-----	1.53	
1,2,3,7,8-PeCDD	32:51	4.57e6	7.73e6	1.43e6	2.27e6	-----	-----	0.59	

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	35:24	7.29e6	1.38e7	2.80e6	5.31e6	-----	-----	0.53	
1,2,3,6,7,8-HxCDF-13C	35:31	9.94e6	1.89e7	3.41e6	6.51e6	-----	-----	0.53	
2,3,4,6,7,8-HxCDF-13C	36:02	8.48e6	1.58e7	3.32e6	6.17e6	-----	-----	0.54	
1,2,3,7,8,9-HxCDF-13C	36:46	6.15e6	1.14e7	2.22e6	4.25e6	-----	-----	0.54	
1,2,3,4,7,8-HxCDF	35:25	7.68e6	6.28e6	2.87e6	2.37e6	-----	-----	1.22	
1,2,3,6,7,8-HxCDF	35:32	9.04e6	7.21e6	3.12e6	2.47e6	-----	-----	1.25	
2,3,4,6,7,8-HxCDF	36:02	7.87e6	6.32e6	2.98e6	2.46e6	-----	-----	1.25	
1,2,3,7,8,9-HxCDF	36:47	5.15e6	4.04e6	1.86e6	1.48e6	-----	-----	1.27	

REPORT OF LABORATORY ANALYSIS

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Client Name	Asset Laboratories		
Client ID	N045954-001F/ AOC4-Gabion-WC-MS	Injected By	SMT
Lab ID	10566487001-MS	Instrument ID	10MSHR06 (U)
Filename	U210630B_04	GC Column ID	US1175211H
Analyzed	07/01/2021 00:25	ICAL ID	U210629

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	36:09	1.19e7	9.46e6	4.63e6	3.80e6	-----	-----	1.26	
1,2,3,6,7,8-HxCDD-13C	36:15	1.24e7	1.03e7	4.60e6	3.76e6	-----	-----	1.21	
1,2,3,7,8,9-HxCDD-13C	36:28	1.78e7	1.45e7	6.51e6	5.40e6	-----	-----	1.23	
1,2,3,4,7,8-HxCDD	36:10	6.61e6	5.32e6	2.65e6	2.14e6	-----	-----	1.24	
1,2,3,6,7,8-HxCDD	36:15	8.35e6	6.70e6	3.12e6	2.64e6	-----	-----	1.25	
1,2,3,7,8,9-HxCDD	36:29	5.78e6	(M)5.00e6	2.23e6	1.90e6	-----	-----	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	37:59	7.03e6	1.49e7	2.53e6	5.54e6	-----	-----	0.47	
1,2,3,4,7,8,9-HpCDF-13C	39:24	5.24e6	1.12e7	1.69e6	3.74e6	-----	-----	0.47	
1,2,3,4,6,7,8-HpCDF	38:00	(M)1.24e7	(M)1.17e7	6.32e6	6.17e6	-----	-----	1.06	
1,2,3,4,7,8,9-HpCDF	39:25	5.44e6	5.26e6	1.93e6	1.80e6	-----	-----	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	38:56	1.09e7	1.03e7	3.85e6	3.59e6	-----	-----	1.06	
1,2,3,4,6,7,8-HpCDD	38:56	7.04e7	7.12e7	2.31e7	2.30e7	-----	-----	0.99	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	41:56	9.81e6	1.05e7	2.84e6	3.13e6	-----	-----	0.94	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	41:43	1.22e7	1.34e7	3.45e6	3.88e6	-----	-----	0.91	
OCDD	41:43	2.93e8	3.33e8	8.90e7	1.00e8	-----	-----	0.88	

REPORT OF LABORATORY ANALYSIS

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

ReviewedBy _____ Date _____

Client Name	Asset Laboratories		
Client ID	N045954-001F/ AOC4-Gabion-WC-MSD	Injected By	SMT
Lab ID	10566487001-MSD	Instrument ID	10MSHR06 (U)
Filename	U210630B_05	GC Column ID	US1175211H
Analyzed	07/01/2021 01:11	ICAL ID	U210629

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	24:41	3.03e7	3.80e7	4.81e6	5.93e6	-----	-----	0.80	
2,3,7,8-TCDF	24:43	3.34e6	4.16e6	5.14e5	6.70e5	-----	-----	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	25:00	3.61e7	4.65e7	5.61e6	7.27e6	-----	-----	0.78	
2,3,7,8-TCDD-13C	26:01	2.43e7	3.04e7	3.41e6	4.38e6	-----	-----	0.80	
2,3,7,8-TCDD-37Cl4	26:03	5.88e6		8.26e5		-----	-----		
2,3,7,8-TCDD	26:03	2.76e6	3.53e6	4.37e5	5.14e5	-----	-----	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	31:23	3.53e7	2.22e7	8.94e6	5.90e6	-----	-----	1.59	
2,3,4,7,8-PeCDF-13C	32:31	3.70e7	2.32e7	1.11e7	6.74e6	-----	-----	1.59	
1,2,3,7,8-PeCDF	31:25	1.63e7	1.04e7	4.01e6	2.62e6	-----	-----	1.57	
2,3,4,7,8-PeCDF	32:32	1.86e7	1.26e7	5.64e6	3.72e6	-----	-----	1.47	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:50	(M)2.72e7	(M)1.73e7	7.85e6	5.09e6	-----	-----	1.57	
1,2,3,7,8-PeCDD	32:51	7.50e6	1.25e7	2.30e6	3.71e6	-----	-----	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	35:24	1.30e7	2.50e7	4.87e6	9.48e6	-----	-----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:31	1.71e7	3.22e7	6.20e6	1.14e7	-----	-----	0.53	
2,3,4,6,7,8-HxCDF-13C	36:02	1.53e7	2.91e7	5.69e6	1.07e7	-----	-----	0.53	
1,2,3,7,8,9-HxCDF-13C	36:46	1.15e7	2.25e7	4.31e6	8.24e6	-----	-----	0.51	
1,2,3,4,7,8-HxCDF	35:25	1.41e7	1.13e7	5.14e6	4.27e6	-----	-----	1.25	
1,2,3,6,7,8-HxCDF	35:32	1.55e7	1.22e7	5.60e6	4.64e6	-----	-----	1.27	
2,3,4,6,7,8-HxCDF	36:02	1.45e7	1.16e7	5.38e6	4.37e6	-----	-----	1.24	
1,2,3,7,8,9-HxCDF	36:47	1.01e7	7.80e6	3.71e6	3.06e6	-----	-----	1.30	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Client Name	Asset Laboratories		
Client ID	N045954-001F/ AOC4-Gabion-WC-MSD	Injected By	SMT
Lab ID	10566487001-MSD	Instrument ID	10MSHR06 (U)
Filename	U210630B_05	GC Column ID	US1175211H
Analyzed	07/01/2021 01:11	ICAL ID	U210629

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	36:09	2.05e7	1.60e7	7.92e6	6.34e6	-----	-----	1.29	
1,2,3,6,7,8-HxCDD-13C	36:15	2.17e7	1.73e7	7.60e6	6.11e6	-----	-----	1.26	
1,2,3,7,8,9-HxCDD-13C	36:28	3.33e7	2.54e7	1.21e7	9.45e6	-----	-----	1.31	
1,2,3,4,7,8-HxCDD	36:10	(M)1.11e7	8.88e6	4.57e6	3.62e6	-----	-----	1.25	
1,2,3,6,7,8-HxCDD	36:15	(M)1.32e7	1.04e7	5.21e6	4.15e6	-----	-----	1.27	
1,2,3,7,8,9-HxCDD	36:29	9.60e6	7.93e6	3.78e6	3.14e6	-----	-----	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	37:59	1.25e7	2.72e7	4.62e6	1.04e7	-----	-----	0.46	
1,2,3,4,7,8,9-HpCDF-13C	39:24	9.68e6	2.16e7	3.09e6	7.02e6	-----	-----	0.45	
1,2,3,4,6,7,8-HpCDF	38:00	(M)1.73e7	(M)1.70e7	8.57e6	8.72e6	-----	-----	1.02	
1,2,3,4,7,8,9-HpCDF	39:25	1.08e7	1.03e7	3.66e6	3.53e6	-----	-----	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	38:56	2.01e7	1.91e7	7.27e6	6.76e6	-----	-----	1.05	
1,2,3,4,6,7,8-HpCDD	38:57	5.93e7	5.78e7	2.07e7	1.96e7	-----	-----	1.03	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	41:56	1.70e7	1.99e7	4.60e6	5.40e6	-----	-----	0.86	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	41:43	2.32e7	2.52e7	6.61e6	7.33e6	-----	-----	0.92	
OCDD	41:43	2.58e8	2.84e8	7.68e7	8.50e7	-----	-----	0.91	

REPORT OF LABORATORY ANALYSIS

Appendix C

August 13, 2021

Eli Ludwig
Groundwater Partners
4410 Hawkins St. NE Unit D
Albuquerque, NM 87107

TEL: (505) 999-7535
FAX:

Workorder No.: N046596

RE: PG&E, PMO-Waste Characterization

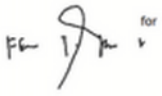
Attention: Eli Ludwig

Enclosed are the results for sample(s) received on August 05, 2021 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,



Nancy Sibucao
Laboratory Director

CLIENT: Groundwater Partners
Project: PG&E, PMO-Waste Characterization
Lab Order: N046596

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Results were J-Flag. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" Flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

CLIENT: Groundwater Partners
Project: PG&E, PMO-Waste Characterization
Lab Order: N046596
Contract No: 2021 AOC4 Low

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N046596-001A	AOC4-Gabion-WC1	Soil	8/5/2021 1:30:00 PM	8/5/2021	8/13/2021
N046596-001B	AOC4-Gabion-WC1	Soil	8/5/2021 1:30:00 PM	8/5/2021	8/13/2021
N046596-001C	AOC4-Gabion-WC1	Soil	8/5/2021 1:30:00 PM	8/5/2021	8/13/2021
N046596-001D	AOC4-Gabion-WC1	Soil	8/5/2021 1:30:00 PM	8/5/2021	8/13/2021
N046596-001E	AOC4-Gabion-WC1	Soil	8/5/2021 1:30:00 PM	8/5/2021	8/13/2021
N046596-002A	AOC4-Gabion-WC2	Soil	8/5/2021 1:30:00 PM	8/5/2021	8/13/2021
N046596-002B	AOC4-Gabion-WC2	Soil	8/5/2021 1:30:00 PM	8/5/2021	8/13/2021
N046596-002C	AOC4-Gabion-WC2	Soil	8/5/2021 1:30:00 PM	8/5/2021	8/13/2021
N046596-002D	AOC4-Gabion-WC2	Soil	8/5/2021 1:30:00 PM	8/5/2021	8/13/2021
N046596-002E	AOC4-Gabion-WC2	Soil	8/5/2021 1:30:00 PM	8/5/2021	8/13/2021
N046596-003A	Trip Blank	Trip Blank	8/5/2021 1:30:00 PM	8/5/2021	8/13/2021

CLIENT: Groundwater Partners
Lab Order: N046596
Project: PG&E, PMO-Waste Characterization
Lab ID: N046596-001

Client Sample ID: AOC4-Gabion-WC1
Collection Date: 8/5/2021 1:30:00 PM
Matrix: SOIL

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
EPA 8260B							
RunID: **CA01638-MS08_210812B** QC Batch: **R21VS036**					PrepDate: **8/12/2021**		Analyst: **AW**
Acetone	24	18	70	J	ug/Kg	1	8/13/2021 06:52 AM
Acetone	46	22	87	J	ug/Kg	1	8/12/2021 01:38 PM
Surr: 1,2-Dichloroethane-d4	132	0	52-149		%REC	1	8/13/2021 06:52 AM
Surr: 1,2-Dichloroethane-d4	131	0	52-149		%REC	1	8/12/2021 01:38 PM
Surr: 4-Bromofluorobenzene	96.0	0	65-135		%REC	1	8/13/2021 06:52 AM
Surr: 4-Bromofluorobenzene	99.9	0	65-135		%REC	1	8/12/2021 01:38 PM
Surr: Dibromofluoromethane	120	0	65-135		%REC	1	8/13/2021 06:52 AM
Surr: Dibromofluoromethane	119	0	65-135		%REC	1	8/12/2021 01:38 PM
Surr: Toluene-d8	108	0	75-125		%REC	1	8/13/2021 06:52 AM
Surr: Toluene-d8	111	0	75-125		%REC	1	8/12/2021 01:38 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified	DO	Surrogate Diluted Out

CLIENT:	Groundwater Partners	**Client Sample ID:**	AOC4-Gabion-WC2
Lab Order:	N046596	**Collection Date:**	8/5/2021 1:30:00 PM
Project:	PG&E, PMO-Waste Characterization	**Matrix:**	SOIL
Lab ID:	N046596-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
EPA 8260B							
RunID: **CA01638-MS08_210812A** QC Batch: **R21VS035**				PrepDate:		**8/12/2021**	Analyst: **AG**
Acetone	17	17	65	J	ug/Kg	1	8/12/2021 02:02 PM
Surr: 1,2-Dichloroethane-d4	133	0	52-149		%REC	1	8/12/2021 02:02 PM
Surr: 4-Bromofluorobenzene	101	0	65-135		%REC	1	8/12/2021 02:02 PM
Surr: Dibromofluoromethane	127	0	65-135		%REC	1	8/12/2021 02:02 PM
Surr: Toluene-d8	111	0	75-125		%REC	1	8/12/2021 02:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified	DO	Surrogate Diluted Out

CLIENT:	Groundwater Partners	**Client Sample ID:**	Trip Blank
Lab Order:	N046596	**Collection Date:**	8/5/2021 1:30:00 PM
Project:	PG&E, PMO-Waste Characterization	**Matrix:**	TRIP BLANK
Lab ID:	N046596-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
EPA 8260B							
RunID: **CA01638-MS08_210810A** QC Batch: **R21VW102** PrepDate: Analyst: **AG**							
Acetone	ND	4.6	10		ug/L	1	8/10/2021 03:20 PM
Surr: 1,2-Dichloroethane-d4	108	0	72-119		%REC	1	8/10/2021 03:20 PM
Surr: 4-Bromofluorobenzene	98.9	0	76-119		%REC	1	8/10/2021 03:20 PM
Surr: Dibromofluoromethane	107	0	85-115		%REC	1	8/10/2021 03:20 PM
Surr: Toluene-d8	102	0	81-120		%REC	1	8/10/2021 03:20 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: Groundwater Partners
Work Order: N046596
Project: PG&E, PMO-Waste Characterization

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035PGE

Sample ID: **R210812-LCS** SampType: **LCS** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **155792**
Client ID: **LCSS** Batch ID: **R21VS035** TestNo: **EPA 8260B** Analysis Date: **8/12/2021** SeqNo: **4310100**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	370.270	50	400.0	0	92.6	40	141				
Surr: 1,2-Dichloroethane-d4	56.580		50.00		113	52	149				
Surr: 4-Bromofluorobenzene	50.910		50.00		102	65	135				
Surr: Dibromofluoromethane	57.160		50.00		114	65	135				
Surr: Toluene-d8	51.680		50.00		103	75	125				

Sample ID: **R210812-MB2** SampType: **MBLK** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **155792**
Client ID: **PBS** Batch ID: **R21VS035** TestNo: **EPA 8260B** Analysis Date: **8/12/2021** SeqNo: **4310102**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	ND	50									
Surr: 1,2-Dichloroethane-d4	59.060		50.00		118	52	149				
Surr: 4-Bromofluorobenzene	48.270		50.00		96.5	65	135				
Surr: Dibromofluoromethane	58.140		50.00		116	65	135				
Surr: Toluene-d8	50.790		50.00		102	75	125				

Sample ID: **N046669-003B-MS** SampType: **MS** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **155792**
Client ID: **ZZZZZZ** Batch ID: **R21VS035** TestNo: **EPA 8260B** Analysis Date: **8/12/2021** SeqNo: **4310111**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	240.660	50	400.0	0	60.2	40	141				
Surr: 1,2-Dichloroethane-d4	60.360		50.00		121	52	149				
Surr: 4-Bromofluorobenzene	51.630		50.00		103	65	135				
Surr: Dibromofluoromethane	56.860		50.00		114	65	135				
Surr: Toluene-d8	49.460		50.00		98.9	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N046596
Project: PG&E, PMO-Waste Characterization

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035PGE

Sample ID: **N046669-003B-MSD** SampType: **MSD** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **155792**
Client ID: **ZZZZZZ** Batch ID: **R21VS035** TestNo: **EPA 8260B** Analysis Date: **8/12/2021** SeqNo: **4310112**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	265.460	50	400.0	0	66.4	40	141	240.7	9.80	30	
Surr: 1,2-Dichloroethane-d4	63.250		50.00		127	52	149		0		
Surr: 4-Bromofluorobenzene	51.590		50.00		103	65	135		0		
Surr: Dibromofluoromethane	60.570		50.00		121	65	135		0		
Surr: Toluene-d8	50.990		50.00		102	75	125		0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N046596
Project: PG&E, PMO-Waste Characterization

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035PGE

Sample ID: **R210812-LCS** SampType: **LCS** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **155925**
Client ID: **LCSS** Batch ID: **R21VS036** TestNo: **EPA 8260B** Analysis Date: **8/12/2021** SeqNo: **4310526**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	455.720	50	400.0	0	114	40	141				
Surr: 1,2-Dichloroethane-d4	55.120		50.00		110	52	149				
Surr: 4-Bromofluorobenzene	50.860		50.00		102	65	135				
Surr: Dibromofluoromethane	55.240		50.00		110	65	135				
Surr: Toluene-d8	50.110		50.00		100	75	125				

Sample ID: **N046678-004B-MS** SampType: **MS** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **155925**
Client ID: **ZZZZZZ** Batch ID: **R21VS036** TestNo: **EPA 8260B** Analysis Date: **8/12/2021** SeqNo: **4310527**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	542.620	50	400.0	0	136	40	141				
Surr: 1,2-Dichloroethane-d4	57.030		50.00		114	52	149				
Surr: 4-Bromofluorobenzene	50.860		50.00		102	65	135				
Surr: Dibromofluoromethane	56.310		50.00		113	65	135				
Surr: Toluene-d8	49.360		50.00		98.7	75	125				

Sample ID: **N046678-004B-MSD** SampType: **MSD** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **155925**
Client ID: **ZZZZZZ** Batch ID: **R21VS036** TestNo: **EPA 8260B** Analysis Date: **8/12/2021** SeqNo: **4310528**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	482.120	50	400.0	0	121	40	141	542.6	11.8	30	
Surr: 1,2-Dichloroethane-d4	59.020		50.00		118	52	149		0		
Surr: 4-Bromofluorobenzene	51.780		50.00		104	65	135		0		
Surr: Dibromofluoromethane	58.480		50.00		117	65	135		0		
Surr: Toluene-d8	50.870		50.00		102	75	125		0		

Qualifiers:

B Analyte detected in the associated Method Blank
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike/Surrogate outside of limits due to matrix interference
DO Surrogate Diluted Out
Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N046596
Project: PG&E, PMO-Waste Characterization

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035PGE

Sample ID: **R210812-MB2** SampType: **MBLK** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **155925**
Client ID: **PBS** Batch ID: **R21VS036** TestNo: **EPA 8260B** Analysis Date: **8/12/2021** SeqNo: **4310530**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	ND	50									
Surr: 1,2-Dichloroethane-d4	56.460		50.00		113	52	149				
Surr: 4-Bromofluorobenzene	48.430		50.00		96.9	65	135				
Surr: Dibromofluoromethane	56.200		50.00		112	65	135				
Surr: Toluene-d8	50.430		50.00		101	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N046596
Project: PG&E, PMO-Waste Characterization

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LLPGE

Sample ID: **R210806-LCS** SampType: **LCS** TestCode: **8260_WP_LL** Units: **ug/L** Prep Date: RunNo: **155862**
Client ID: **LCSW** Batch ID: **R21VW102** TestNo: **EPA 8260B** Analysis Date: **8/10/2021** SeqNo: **4307261**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	168.510	10	200.0	0	84.3	40	135				
Surr: 1,2-Dichloroethane-d4	24.480		25.00		97.9	72	119				
Surr: 4-Bromofluorobenzene	25.550		25.00		102	76	119				
Surr: Dibromofluoromethane	25.040		25.00		100	85	115				
Surr: Toluene-d8	25.790		25.00		103	81	120				

Sample ID: **R210810-MB3** SampType: **MBLK** TestCode: **8260_WP_LL** Units: **ug/L** Prep Date: RunNo: **155862**
Client ID: **PBW** Batch ID: **R21VW102** TestNo: **EPA 8260B** Analysis Date: **8/10/2021** SeqNo: **4307262**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	ND	10									
Surr: 1,2-Dichloroethane-d4	27.400		25.00		110	72	119				
Surr: 4-Bromofluorobenzene	24.990		25.00		100	76	119				
Surr: Dibromofluoromethane	27.520		25.00		110	85	115				
Surr: Toluene-d8	25.310		25.00		101	81	120				

Sample ID: **N046605-006D-MS** SampType: **MS** TestCode: **8260_WP_LL** Units: **ug/L** Prep Date: RunNo: **155862**
Client ID: **ZZZZZZ** Batch ID: **R21VW102** TestNo: **EPA 8260B** Analysis Date: **8/10/2021** SeqNo: **4307271**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	108.620	10	200.0	0	54.3	40	135				
Surr: 1,2-Dichloroethane-d4	28.130		25.00		113	72	119				
Surr: 4-Bromofluorobenzene	25.930		25.00		104	76	119				
Surr: Dibromofluoromethane	28.180		25.00		113	85	115				
Surr: Toluene-d8	25.880		25.00		104	81	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: Groundwater Partners
Work Order: N046596
Project: PG&E, PMO-Waste Characterization

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LLPGE

Sample ID: **N046605-006D-MSD** SampType: **MSD** TestCode: **8260_WP_LL** Units: **ug/L** Prep Date: RunNo: **155862**
Client ID: **ZZZZZZ** Batch ID: **R21VW102** TestNo: **EPA 8260B** Analysis Date: **8/10/2021** SeqNo: **4307272**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	107.020	10	200.0	0	53.5	40	135	108.6	1.48	20	
Surr: 1,2-Dichloroethane-d4	27.820		25.00		111	72	119		0		
Surr: 4-Bromofluorobenzene	25.710		25.00		103	76	119		0		
Surr: Dibromofluoromethane	28.470		25.00		114	85	115		0		
Surr: Toluene-d8	26.090		25.00		104	81	120		0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CHAIN OF CUSTODY RECORD

Project Name: PG&E **Project:** 2021 AOC4 Lower Gabion Soil **Project Manager:** Eli Ludwig

Field Manager: Eli Ludwig 505.999.7535
Location: Topock
Turnaround Time: Standard
Project Number: PMO - Waste Characteri
COC Number: 2021-08-05-01

GROUNDWATER PARTNERS

R=Run H=Hold

No.	AOC	Sample ID	Sample Date	Sample Time	Matrix			Hexavalent Chromium (7199-RP)	Metals (6010B/7471A) Title 22 Metals	Asbestos (Carb435)	CLP-Pest, CLP-SVOCs	Dioxins/Furan (8280)	Ignitability, Reactility, Corrosive	SVOCs (8270C)	PAHs (8270Sim)	PCBs (8082)	Acetone: VOCs (8260)	TPH-Purgable (8015B-P)	TPH-Extractable (8015B-E)	pH (EPA 9045)	No. of 8 oz. Jars	No. of 40 oz DIWOAs	No. of 40 oz Methanol VOAs	Total No. of Containers	Comments
		Container Type						8oz Jar	8oz Jar		8oz Jar	3 x 8oz	8oz Jar				5x40ml	5x40ml	8oz Jar	8oz Jar					
		Holding Time						30	180	14	14	30	14	14	14	14	14	14	14	14					
1	NA	AOC4-Gabion-WC1	8/5/21	13:30	Soil												X					4	1	5	N046596-01
1	NA	AOC4-Gabion-WC2	8/5/21	13:30	Soil												X					4	1	5	-02
1	NA	Trip Blank	8/5/21	13:30	TB												X					1		1	-03

	Signatures	Date	Time
Relinquished By		8/5	1600
Received By		8.5.21	1600
Relinquished By		8/5/21	1900
Received By		8/5/21	1900

Shipping
Method drive ship
On Ice? (yes) no 4.8°C IR#2
Lab Name ASSET Lab
Lab Phone # 702.307.2659

0 9 2 11 Total Containers

Special Instructions

Report Copy To

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. 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 instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	8/5/2021	Workorder:	N046596
Rep sample Temp (Deg C):	4.3	IR Gun ID:	2
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☑	No ☐	NA ☐
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☐	No ☐	NA ☑
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments: VOAs for 5035 were placed in the freezer upon receipt.

For:

Checklist Completed By: GGJ YRJ 8/6/2021

Reviewed By: MBC 8/6/2021

ASSET Laboratories

WORK ORDER Summary

06-Aug-21

WorkOrder: N046596

Client ID: GROPA01

Project: PG&E, PMO-Waste Characterization **QC Level:** Level IV **Date Received:** 8/5/2021

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N046596-001A	AOC4-Gabion-WC1	8/5/2021 1:30:00 PM	8/19/2021	Soil	EPA 5035	Closed System Purge and Trap	☐	☐	☐	FRZ1-LV
			8/19/2021		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	☐	☐	☐	FRZ1-LV
N046596-001B							☐	☐	☐	FRZ1-LV
N046596-001C							☐	☐	☐	FRZ1-LV
N046596-001D							☐	☐	☐	FRZ1-LV
N046596-001E							☐	☐	☐	FRZ1-LV
N046596-002A	AOC4-Gabion-WC2		8/19/2021		EPA 5035	Closed System Purge and Trap	☐	☐	☐	FRZ1-LV
			8/19/2021		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	☐	☐	☐	FRZ1-LV
N046596-002B							☐	☐	☐	FRZ1-LV
N046596-002C							☐	☐	☐	FRZ1-LV
N046596-002D							☐	☐	☐	FRZ1-LV
N046596-002E							☐	☐	☐	FRZ1-LV
N046596-003A	Trip Blank		8/19/2021	Trip Blank	EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	☐	☐	☐	VW
N046596-004A	FOLDER	8/19/2021	8/19/2021		Folder	Folder	☐	☐	☐	LAB
			8/19/2021		Folder	Level IV Report	☐	☐	☐	LAB
			8/19/2021		Folder	Folder	☐	☐	☐	LAB

Appendix D

October 29, 2021

Mark Fesler/RDD
CH2M HILL
155 Grand Avenue, Suite 1000
Oakland, CA 94612

TEL: (530) 229-3273
FAX: (510) 622-9129

Workorder No.: N047667

RE: Phase 1 Construction

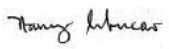
Attention: Mark Fesler/RDD

Enclosed are the results for sample(s) received on October 21, 2021 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,



Nancy Sibucao
Laboratory Director

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

ASSET Laboratories

Date: *29-Oct-21*

CLIENT: CH2M HILL
Project: Phase 1 Construction
Lab Order: N047667
Contract No: Opportunistic So

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N047667-001A	AOC4-Gabion-WC-004	Soil	10/21/2021 11:58:00 AM	10/21/2021	10/29/2021
N047667-001B	AOC4-Gabion-WC-004	Soil	10/21/2021 11:58:00 AM	10/21/2021	10/29/2021
N047667-001C	AOC4-Gabion-WC-004	Soil	10/21/2021 11:58:00 AM	10/21/2021	10/29/2021
N047667-002A	IDW_STK 154 Section 3b-002	Soil	10/21/2021 11:51:00 AM	10/21/2021	10/29/2021
N047667-002B	IDW_STK 154 Section 3b-002	Soil	10/21/2021 11:51:00 AM	10/21/2021	10/29/2021
N047667-002C	IDW_STK 154 Section 3b-002	Soil	10/21/2021 11:51:00 AM	10/21/2021	10/29/2021

CLIENT:	CH2M HILL	**Client Sample ID:**	AOC4-Gabion-WC-004
Lab Order:	N047667	**Collection Date:**	10/21/2021 11:58:00 AM
Project:	Phase 1 Construction	**Matrix:**	SOIL
Lab ID:	N047667-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **NV00922-MS5_211022B**	QC Batch: **P21VS130**				PrepDate: **10/22/2021**		Analyst: **DJ**
Acetone	ND	12	28		ug/Kg	1	10/22/2021 08:46 PM
Surr: 1,2-Dichloroethane-d4	115	0	52-149		%REC	1	10/22/2021 08:46 PM
Surr: 4-Bromofluorobenzene	98.5	0	65-135		%REC	1	10/22/2021 08:46 PM
Surr: Dibromofluoromethane	118	0	65-135		%REC	1	10/22/2021 08:46 PM
Surr: Toluene-d8	105	0	75-125		%REC	1	10/22/2021 08:46 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: CH2M HILL
Lab Order: N047667
Project: Phase 1 Construction
Lab ID: N047667-002

Client Sample ID: IDW_STK 154 Section 3b-002
Collection Date: 10/21/2021 11:51:00 AM
Matrix: SOIL

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
EPA 8260B							
RunID: **NV00922-MS5_211022B** QC Batch: **P21VS130**					PrepDate: **10/22/2021**		Analyst: **DJ**
Acetone	ND	12	28		ug/Kg	1	10/22/2021 09:13 PM
Surr: 1,2-Dichloroethane-d4	126	0	52-149		%REC	1	10/22/2021 09:13 PM
Surr: 4-Bromofluorobenzene	96.7	0	65-135		%REC	1	10/22/2021 09:13 PM
Surr: Dibromofluoromethane	118	0	65-135		%REC	1	10/22/2021 09:13 PM
Surr: Toluene-d8	102	0	75-125		%REC	1	10/22/2021 09:13 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: CH2M HILL
Work Order: N047667
Project: Phase 1 Construction

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035PGE_TPK

Sample ID **P211022LCS2** SampType: **LCS** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **157743**
Client ID: **LCSS** Batch ID: **P21VS130** TestNo: **EPA 8260B** Analysis Date: **10/22/2021** SeqNo: **4406681**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	352.710	30	400.0	0	88.2	40	141				
Surr: 1,2-Dichloroethane-d4	50.740		50.00		101	52	149				
Surr: 4-Bromofluorobenzene	52.360		50.00		105	65	135				
Surr: Dibromofluoromethane	48.780		50.00		97.6	65	135				
Surr: Toluene-d8	51.580		50.00		103	75	125				

Sample ID **N047682-006AMS** SampType: **MS** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **157743**
Client ID: **ZZZZZZ** Batch ID: **P21VS130** TestNo: **EPA 8260B** Analysis Date: **10/22/2021** SeqNo: **4406682**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	358.000	30	400.0	0	89.5	40	141				
Surr: 1,2-Dichloroethane-d4	53.200		50.00		106	52	149				
Surr: 4-Bromofluorobenzene	52.850		50.00		106	65	135				
Surr: Dibromofluoromethane	50.430		50.00		101	65	135				
Surr: Toluene-d8	51.860		50.00		104	75	125				

Sample ID **N047682-006AMSD** SampType: **MSD** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **157743**
Client ID: **ZZZZZZ** Batch ID: **P21VS130** TestNo: **EPA 8260B** Analysis Date: **10/22/2021** SeqNo: **4406683**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	398.740	30	400.0	0	99.7	40	141	358.0	10.8	30	
Surr: 1,2-Dichloroethane-d4	53.050		50.00		106	52	149		0		
Surr: 4-Bromofluorobenzene	52.450		50.00		105	65	135		0		
Surr: Dibromofluoromethane	50.470		50.00		101	65	135		0		
Surr: Toluene-d8	52.330		50.00		105	75	125		0		

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: CH2M HILL
Work Order: N047667
Project: Phase 1 Construction

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035PGE_TPK

Sample ID **P211022MB2** SampType: **MBLK** TestCode: **8260_S_5035** Units: **ug/Kg** Prep Date: RunNo: **157743**
Client ID: **PBS** Batch ID: **P21VS130** TestNo: **EPA 8260B** Analysis Date: **10/22/2021** SeqNo: **4406685**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	ND	30									
Surr: 1,2-Dichloroethane-d4	51.930		50.00		104	52	149				
Surr: 4-Bromofluorobenzene	48.590		50.00		97.2	65	135				
Surr: Dibromofluoromethane	51.790		50.00		104	65	135				
Surr: Toluene-d8	50.260		50.00		101	75	125				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

JACOBS

CHAIN OF CUSTODY RECORD

Project Name: Phase 1 Construction
PO# SWA-ASSET-C9817-053
Project Manager: Christina Hong
QC Manager: Katy Mouzakis
Project Number: N/A
Project: Opportunistic Soil sampling
Turnaround Time: Standard
Shipping Date:
COC Number:

	Container:	Preservatives:	Filtered:	Holding Time:								
	3x40ml Glass VOA	H2O/MeOH 4°C (±2°C)	NA	14 Days								
SAMPLE	DATE	TIME	Matrix	Sample Top Depth	Sample Bottom Depth	Acetone (SW8260B)							Number of Containers	COMMENTS
AOC4-Gabion-WC-004	10-21-21	0958	Soil	0	1'	x							N047667-01	3	
IDW_STK 154 Section 3b-002	10-21-21	1151	Soil	0	1'	x							-02	3	
													TOTAL NUMBER OF CONTAINERS	6	

	Signatures	Date/Time
Approved by	Josh Rosenberg	10-21-21 1240
Sampled by	Josh Rosenberg	10-21-21 1200
Relinquished by	Josh Rosenberg	10-21-21 1455
Received by		10/21/21@1455
Relinquished by		10/21/21@2120
Received by		

Shipping Details
Method of Shipment: ~~FedEx~~ ASSET
On Ice: (yes) / no 4.2°C
Airbill No: ~~1Z~~ 3
Lab Name: Asset Laboratories
Lab Phone:

ATTN:
Sample Custody

Special Instructions:

Report Copy to

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. 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 instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	10/21/2021	Workorder:	N047667
Rep sample Temp (Deg C):	4.2	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	Bubble Wrap
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☐	No ☐	NA ☑
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments: 5035 VOAs were placed in the freezer upon receipt.

For:

Checklist Completed By: MBC GGarcia 10/22/2021

Reviewed By: MBC 10/22/2021

ASSET Laboratories

WORK ORDER Summary

22-Oct-21

WorkOrder: N047667

Client ID: CH2HI01

Project: Phase 1 Construction **QC Level:** Level IV **Date Received:** 10/21/2021

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N047667-001A	AOC4-Gabion-WC-004	10/21/2021 11:58:00 AM	11/4/2021	Soil	EPA 5035	Closed System Purge and Trap	☐	☐	☐	FRZ1-LV
			11/4/2021		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	☐	☐	☐	FRZ1-LV
N047667-001B							☐	☐	☐	FRZ1-LV
N047667-001C							☐	☐	☐	FRZ1-LV
N047667-002A	IDW_STK 154 Section 3b-00 2	10/21/2021 11:51:00 AM	11/4/2021		EPA 5035	Closed System Purge and Trap	☐	☐	☐	FRZ1-LV
			11/4/2021		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	☐	☐	☐	FRZ1-LV
N047667-002B							☐	☐	☐	FRZ1-LV
N047667-002C							☐	☐	☐	FRZ1-LV
N047667-003A	FOLDER	11/4/2021	11/4/2021		Folder	Folder	☐	☐	☐	LAB
			11/4/2021		Folder	Level IV Report	☐	☐	☐	LAB
			11/4/2021		Folder	Folder	☐	☐	☐	LAB