284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922



# LAB CHRONICLE

| | | | |
|---|---|---|---|
| **OrderID:** | Q1773 | **OrderDate:** | 4/10/2025 10:14:00 AM |
| **Client:** | Tetra Tech NUS, Inc. | **Project:** | CTO WE13 |
| **Contact:** | Ernie Wu | **Location:** | F11,VOA Ref. #3 Water |

| LabID | ClientID | Matrix | Test | Method | Sample Date | Prep Date | Anal Date | Received |
|---|---|---|---|---|---|---|---|---|
| **Q1773-02** | **BP-TT190D2-GW-20250407** | **Water** | | | **04/07/25** | | | **04/10/25** |
| | | | SVOC-SIMGroup1 | 8270-Modified | | 04/11/25 | 04/11/25 | |
| **Q1773-03** | **BP-TT190D1-GW-20250409** | **Water** | | | **04/09/25** | | | **04/10/25** |
| | | | SVOC-SIMGroup1 | 8270-Modified | | 04/11/25 | 04/11/25 | |

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# Hit Summary Sheet
**SW-846**

**SDG No.:** Q1773

**Client:** Tetra Tech NUS, Inc.

| Sample ID | Client ID | Parameter | Concentration | C | MDL | LOD | RDL | Units |
|---|---|---|---|---|---|---|---|---|
| **Client ID :** | **BP-TT190D2-GW-20250407** | | | | | | | |
| Q1773-02 | BP-TT190D2-GW-20250 WATER | 1,4-Dioxane | 2.500 | | 0.07 | 0.21 | 0.21 | ug/L |
| | | **Total Svoc :** | | | **2.50** | | | |
| | | **Total Concentration:** | | | **2.50** | | | |
| **Client ID :** | **BP-TT190D1-GW-20250409** | | | | | | | |
| Q1773-03 | BP-TT190D1-GW-20250 WATER | 1,4-Dioxane | 2.100 | | 0.07 | 0.2 | 0.2 | ug/L |
| | | **Total Svoc :** | | | **2.10** | | | |
| | | **Total Concentration:** | | | **2.10** | | | |

# SAMPLE DATA

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# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | Tetra Tech NUS, Inc. | Date Collected: | 04/07/25 |
| Project: | CTO WE13 | Date Received: | 04/10/25 |
| Client Sample ID: | BP-TT190D2-GW-20250407 | SDG No.: | Q1773 |
| Lab Sample ID: | Q1773-02 | Matrix: | Water |
| Analytical Method: | SW8270ESIM | % Solid: | 0 |
| Sample Wt/Vol: | 970 Units: mL | Final Vol: | 1000 uL |
| Soil Aliquot Vol: | uL | Test: | SVOC-SIMGroup1 |
| Extraction Type : | Decanted : N | Level : | LOW |
| Injection Volume : | GPC Factor : 1.0 | GPC Cleanup : | N PH : |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| BN036889.D | 1 | 04/11/25 09:20 | 04/11/25 21:46 | PB167565 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOD | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | | |
| 123-91-1 | 1,4-Dioxane | 2.50 | | 0.070 | 0.21 | 0.21 | ug/L |
| **SURROGATES** | | | | | | | |
| 7297-45-2 | 2-Methylnaphthalene-d10 | 0.41 | | 30 - 150 | | 102% | SPK: 0.4 |
| 93951-69-0 | Fluoranthene-d10 | 0.51 | | 30 - 150 | | 128% | SPK: 0.4 |
| 4165-60-0 | Nitrobenzene-d5 | 0.40 | | 55 - 111 | | 100% | SPK: 0.4 |
| 321-60-8 | 2-Fluorobiphenyl | 0.43 | * | 53 - 106 | | 108% | SPK: 0.4 |
| 1718-51-0 | Terphenyl-d14 | 0.57 | * | 58 - 132 | | 143% | SPK: 0.4 |
| **INTERNAL STANDARDS** | | | | | | | |
| 3855-82-1 | 1,4-Dichlorobenzene-d4 | 223 | 7.64 | | | | |
| 1146-65-2 | Naphthalene-d8 | 582 | 10.426 | | | | |
| 15067-26-2 | Acenaphthene-d10 | 355 | 14.288 | | | | |
| 1517-22-2 | Phenanthrene-d10 | 872 | 17.033 | | | | |
| 1719-03-5 | Chrysene-d12 | 1200 | 21.233 | | | | |
| 1520-96-3 | Perylene-d12 | 1560 | 23.447 | | | | |

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | Tetra Tech NUS, Inc. | Date Collected: | 04/09/25 |
| Project: | CTO WE13 | Date Received: | 04/10/25 |
| Client Sample ID: | BP-TT190D1-GW-20250409 | SDG No.: | Q1773 |
| Lab Sample ID: | Q1773-03 | Matrix: | Water |
| Analytical Method: | SW8270ESIM | % Solid: | 0 |
| Sample Wt/Vol: | 980 Units: mL | Final Vol: | 1000 uL |
| Soil Aliquot Vol: | uL | Test: | SVOC-SIMGroup1 |
| Extraction Type : | Decanted : N | Level : | LOW |
| Injection Volume : | GPC Factor : 1.0 | GPC Cleanup : | N PH : |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| BN036890.D | 1 | 04/11/25 09:20 | 04/11/25 22:22 | PB167565 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOD | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | | |
| 123-91-1 | 1,4-Dioxane | 2.10 | | 0.070 | 0.20 | 0.20 | ug/L |
| **SURROGATES** | | | | | | | |
| 7297-45-2 | 2-Methylnaphthalene-d10 | 0.38 | | 30 - 150 | | 96% | SPK: 0.4 |
| 93951-69-0 | Fluoranthene-d10 | 0.47 | | 30 - 150 | | 117% | SPK: 0.4 |
| 4165-60-0 | Nitrobenzene-d5 | 0.37 | | 55 - 111 | | 94% | SPK: 0.4 |
| 321-60-8 | 2-Fluorobiphenyl | 0.40 | | 53 - 106 | | 99% | SPK: 0.4 |
| 1718-51-0 | Terphenyl-d14 | 0.51 | | 58 - 132 | | 128% | SPK: 0.4 |
| **INTERNAL STANDARDS** | | | | | | | |
| 3855-82-1 | 1,4-Dichlorobenzene-d4 | 423 | 7.64 | | | | |
| 1146-65-2 | Naphthalene-d8 | 1030 | 10.426 | | | | |
| 15067-26-2 | Acenaphthene-d10 | 590 | 14.288 | | | | |
| 1517-22-2 | Phenanthrene-d10 | 1360 | 17.033 | | | | |
| 1719-03-5 | Chrysene-d12 | 1640 | 21.233 | | | | |
| 1520-96-3 | Perylene-d12 | 2050 | 23.447 | | | | |

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

# QC SUMMARY

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# Surrogate Summary

**SW-846**

**SDG No.:** Q1773

**Client:** Tetra Tech NUS, Inc.

**Analytical Method:** 8270-Modified

| Lab Sample ID | Client ID | Parameter | Spike (PPM) | Result (PPM) | Recovery (%) | Qual | Limits (%) Low | Limits (%) High |
|---|---|---|---|---|---|---|---|---|
| PB167565BL | PB167565BL | 2-Methylnaphthalene-d10 | 0.4 | 0.35 | 87 | | 30 | 150 |
| | | Fluoranthene-d10 | 0.4 | 0.46 | 114 | | 30 | 150 |
| | | Nitrobenzene-d5 | 0.4 | 0.38 | 94 | | 55 | 111 |
| | | 2-Fluorobiphenyl | 0.4 | 0.40 | 100 | | 53 | 106 |
| | | Terphenyl-d14 | 0.4 | 0.39 | 97 | | 58 | 132 |
| PB167565BS | PB167565BS | 2-Methylnaphthalene-d10 | 0.4 | 0.46 | 116 | | 30 | 150 |
| | | Fluoranthene-d10 | 0.4 | 0.46 | 115 | | 30 | 150 |
| | | Nitrobenzene-d5 | 0.4 | 0.38 | 96 | | 55 | 111 |
| | | 2-Fluorobiphenyl | 0.4 | 0.38 | 96 | | 53 | 106 |
| | | Terphenyl-d14 | 0.4 | 0.40 | 100 | | 58 | 132 |
| PB167565BSD | PB167565BSD | 2-Methylnaphthalene-d10 | 0.4 | 0.44 | 111 | | 30 | 150 |
| | | Fluoranthene-d10 | 0.4 | 0.44 | 111 | | 30 | 150 |
| | | Nitrobenzene-d5 | 0.4 | 0.37 | 93 | | 55 | 111 |
| | | 2-Fluorobiphenyl | 0.4 | 0.45 | 113 | * | 53 | 106 |
| | | Terphenyl-d14 | 0.4 | 0.43 | 108 | | 58 | 132 |
| Q1773-02 | BP-TT190D2-GW-20250407 | 2-Methylnaphthalene-d10 | 0.4 | 0.41 | 102 | | 30 | 150 |
| | | Fluoranthene-d10 | 0.4 | 0.51 | 128 | | 30 | 150 |
| | | Nitrobenzene-d5 | 0.4 | 0.40 | 100 | | 55 | 111 |
| | | 2-Fluorobiphenyl | 0.4 | 0.43 | 108 | * | 53 | 106 |
| | | Terphenyl-d14 | 0.4 | 0.57 | 143 | * | 58 | 132 |
| Q1773-03 | BP-TT190D1-GW-20250409 | 2-Methylnaphthalene-d10 | 0.4 | 0.38 | 96 | | 30 | 150 |
| | | Fluoranthene-d10 | 0.4 | 0.47 | 117 | | 30 | 150 |
| | | Nitrobenzene-d5 | 0.4 | 0.37 | 94 | | 55 | 111 |
| | | 2-Fluorobiphenyl | 0.4 | 0.40 | 99 | | 53 | 106 |
| | | Terphenyl-d14 | 0.4 | 0.51 | 128 | | 58 | 132 |

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# Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

**SW-846**

**SDG No.:** Q1773

**Client:** Tetra Tech NUS, Inc.

**Analytical Method:** 8270-Modified **DataFile:** BN036891.D

| Lab Sample ID | Parameter | Spike | Result | Unit | Rec | RPD | Qual | RPD Qual | Limits Low | Limits High | Limits RPD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PB167565BS | 1,4-Dioxane | 0.4 | 0.35 | ug/L | 88 | | | | 70 | 130 | |

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# Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

**SW-846**

**SDG No.:** Q1773

**Client:** Tetra Tech NUS, Inc.

**Analytical Method:** 8270-Modified **DataFile:** BN036892.D

| Lab Sample ID | Parameter | Spike | Result | Unit | Rec | RPD | Qual | RPD Qual | Limits Low | Limits High | Limits RPD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PB167565BSD | 1,4-Dioxane | 0.4 | 0.41 | ug/L | 103 | 16 | | | 70 | 130 | 20 |

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB167565BL

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1773 SAS No.: Q1773 SDG NO.: Q1773

Lab File ID: BN036885.D Lab Sample ID: PB167565BL

Instrument ID: BNA_N Date Extracted: 04/11/2025

Matrix: (soil/water) Water Date Analyzed: 04/11/2025

Level: (low/med) LOW Time Analyzed: 19:21

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| PB167565BS | PB167565BS | BN036891.D | 04/11/2025 |
| BP-TT190D2-GW-20250407 | Q1773-02 | BN036889.D | 04/11/2025 |
| BP-TT190D1-GW-20250409 | Q1773-03 | BN036890.D | 04/11/2025 |
| PB167565BSD | PB167565BSD | BN036892.D | 04/11/2025 |

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM SAS No.: Q1773 SDG NO.: Q1773

Lab File ID: BN036872.D DFTPP Injection Date: 04/11/2025

Instrument ID: BNA_N DFTPP Injection Time: 11:03

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 10.0 - 80.0% of mass 198 | 64.6 |
| 68 | Less than 2.0% of mass 69 | 0.9 ( 1.6 ) 1 |
| 69 | Mass 69 relative abundance | 54 |
| 70 | Less than 2.0% of mass 69 | 0.0 ( 0.0 ) 1 |
| 127 | 10.0 - 80.0% of mass 198 | 50.2 |
| 197 | Less than 2.0% of mass 198 | 0.0 |
| 198 | Base Peak, 100% relative abundance | 100 |
| 199 | 5.0 to 9.0% of mass 198 | 6.4 |
| 275 | 10.0 - 60.0% of mass 198 | 25.4 |
| 365 | Greater than 1% of mass 198 | 3.9 |
| 441 | Present, but less than mass 443 | 10.8 |
| 442 | Greater than 50% of mass 198 | 100 |
| 443 | 15.0 - 24.0% of mass 442 | 11.3 (21.3) 2 |

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| SSTDICC0.1 | SSTDICC0.1 | BN036873.D | 04/11/2025 | 11:42 |
| SSTDICC0.2 | SSTDICC0.2 | BN036874.D | 04/11/2025 | 12:37 |
| SSTDICCC0.4 | SSTDICCC0.4 | BN036875.D | 04/11/2025 | 13:17 |
| SSTDICC0.8 | SSTDICC0.8 | BN036876.D | 04/11/2025 | 13:53 |
| SSTDICC1.6 | SSTDICC1.6 | BN036877.D | 04/11/2025 | 14:30 |
| SSTDICC3.2 | SSTDICC3.2 | BN036878.D | 04/11/2025 | 15:06 |
| SSTDICC5.0 | SSTDICC5.0 | BN036879.D | 04/11/2025 | 15:42 |

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM SAS No.: Q1773 SDG NO.: Q1773

Lab File ID: BN036883.D DFTPP Injection Date: 04/11/2025

Instrument ID: BNA_N DFTPP Injection Time: 18:06

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 10.0 - 80.0% of mass 198 | 68.5 |
| 68 | Less than 2.0% of mass 69 | 0.5 ( 0.9 ) 1 |
| 69 | Mass 69 relative abundance | 55.2 |
| 70 | Less than 2.0% of mass 69 | 0.0 ( 0.0 ) 1 |
| 127 | 10.0 - 80.0% of mass 198 | 53.5 |
| 197 | Less than 2.0% of mass 198 | 0.0 |
| 198 | Base Peak, 100% relative abundance | 100 |
| 199 | 5.0 to 9.0% of mass 198 | 6.5 |
| 275 | 10.0 - 60.0% of mass 198 | 21.7 |
| 365 | Greater than 1% of mass 198 | 2.5 |
| 441 | Present, but less than mass 443 | 10.2 |
| 442 | Greater than 50% of mass 198 | 100 |
| 443 | 15.0 - 24.0% of mass 442 | 10.9 (19.6) 2 |

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| SSTDCCC0.4 | SSTDCCC0.4 | BN036884.D | 04/11/2025 | 18:45 |
| PB167565BL | PB167565BL | BN036885.D | 04/11/2025 | 19:21 |
| BP-TT190D2-GW-20250407 | Q1773-02 | BN036889.D | 04/11/2025 | 21:46 |
| BP-TT190D1-GW-20250409 | Q1773-03 | BN036890.D | 04/11/2025 | 22:22 |
| PB167565BS | PB167565BS | BN036891.D | 04/11/2025 | 22:57 |
| PB167565BSD | PB167565BSD | BN036892.D | 04/11/2025 | 23:33 |
| SSTDCCC0.4EC | SSTDCCC0.4 | BN036895.D | 04/12/2025 | 01:21 |

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1773 SAS No.: Q1773 SDG NO.: Q1773

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 04/11/2025

Lab File ID: BN036884.D Time Analyzed: 18:45

Instrument ID: BNA_N GC Column: ZB-GR ID: 0.25 (mm)

| | | IS1 (DCB) AREA # | RT # | IS2 (NPT) AREA # | RT # | IS3 (ANT) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 254 | 7.64 | 679 | 10.43 | 407 | 14.29 |
| | UPPER LIMIT | 508 | 8.14 | 1358 | 10.925 | 814 | 14.788 |
| | LOWER LIMIT | 127 | 7.14 | 339.5 | 9.925 | 203.5 | 13.788 |
| | EPA SAMPLE NO. | | | | | | |
| 01 | PB167565BL | 228 | 7.64 | 558 | 10.43 | 321 | 14.29 |
| 02 | PB167565BS | 208 | 7.64 | 496 | 10.43 | 321 | 14.29 |
| 03 | PB167565BSD | 383 | 7.64 | 935 | 10.43 | 512 | 14.29 |
| 04 | BP-TT190D2-GW-20250407 | 223 | 7.64 | 582 | 10.43 | 355 | 14.29 |
| 05 | BP-TT190D1-GW-20250409 | 423 | 7.64 | 1033 | 10.43 | 590 | 14.29 |

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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

# Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1773 SAS No.: Q1773 SDG NO.: Q1773

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 04/11/2025

Lab File ID: BN036884.D Time Analyzed: 18:45

Instrument ID: BNA_N GC Column: ZB-GR ID: 0.25 (mm)

| | | IS4 (PHN) AREA # | RT # | IS5 (CRY) AREA # | RT # | IS6 (PRY) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 865 | 17.033 | 1015 | 21.233 | 1369 | 23.447 |
| | UPPER LIMIT | 1730 | 17.533 | 2030 | 21.733 | 2738 | 23.947 |
| | LOWER LIMIT | 432.5 | 16.533 | 507.5 | 20.733 | 684.5 | 22.947 |
| | EPA SAMPLE NO. | | | | | | |
| 01 | PB167565BL | 761 | 17.03 | 945 | 21.23 | 1194 | 23.45 |
| 02 | PB167565BS | 731 | 17.03 | 908 | 21.23 | 1138 | 23.45 |
| 03 | PB167565BSD | 1263 | 17.03 | 1400 | 21.22 | 1606 | 23.45 |
| 04 | BP-TT190D2-GW-20250407 | 872 | 17.03 | 1197 | 21.23 | 1560 | 23.45 |
| 05 | BP-TT190D1-GW-20250409 | 1355 | 17.03 | 1635 | 21.23 | 2047 | 23.45 |

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

# Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

# QC SAMPLE DATA

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# Report of Analysis

| | | | | | |
|---|---|---|---|---|---|
| Client: | Tetra Tech NUS, Inc. | | | Date Collected: | |
| Project: | CTO WE13 | | | Date Received: | |
| Client Sample ID: | PB167565BL | | | SDG No.: | Q1773 |
| Lab Sample ID: | PB167565BL | | | Matrix: | Water |
| Analytical Method: | SW8270ESIM | | | % Solid: | 0 |
| Sample Wt/Vol: | 1000 | Units: | mL | Final Vol: | 1000 uL |
| Soil Aliquot Vol: | | | uL | Test: | SVOC-SIMGroup1 |
| Extraction Type : | | | Decanted : N | Level : | LOW |
| Injection Volume : | | | GPC Factor : 1.0 | GPC Cleanup : N | PH : |
| Prep Method : | | | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| BN036885.D | 1 | 04/11/25 09:20 | 04/11/25 19:21 | PB167565 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOD | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | | |
| 123-91-1 | 1,4-Dioxane | 0.20 | U | 0.070 | 0.20 | 0.20 | ug/L |
| **SURROGATES** | | | | | | | |
| 7297-45-2 | 2-Methylnaphthalene-d10 | 0.35 | | 30 - 150 | | 87% | SPK: 0.4 |
| 93951-69-0 | Fluoranthene-d10 | 0.46 | | 30 - 150 | | 114% | SPK: 0.4 |
| 4165-60-0 | Nitrobenzene-d5 | 0.38 | | 55 - 111 | | 94% | SPK: 0.4 |
| 321-60-8 | 2-Fluorobiphenyl | 0.40 | | 53 - 106 | | 100% | SPK: 0.4 |
| 1718-51-0 | Terphenyl-d14 | 0.39 | | 58 - 132 | | 97% | SPK: 0.4 |
| **INTERNAL STANDARDS** | | | | | | | |
| 3855-82-1 | 1,4-Dichlorobenzene-d4 | 228 | 7.64 | | | | |
| 1146-65-2 | Naphthalene-d8 | 558 | 10.426 | | | | |
| 15067-26-2 | Acenaphthene-d10 | 321 | 14.288 | | | | |
| 1517-22-2 | Phenanthrene-d10 | 761 | 17.033 | | | | |
| 1719-03-5 | Chrysene-d12 | 945 | 21.233 | | | | |
| 1520-96-3 | Perylene-d12 | 1190 | 23.45 | | | | |

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | | | |
|---|---|---|---|---|---|
| Client: | Tetra Tech NUS, Inc. | | | Date Collected: | |
| Project: | CTO WE13 | | | Date Received: | |
| Client Sample ID: | PB167565BS | | | SDG No.: | Q1773 |
| Lab Sample ID: | PB167565BS | | | Matrix: | Water |
| Analytical Method: | SW8270ESIM | | | % Solid: | 0 |
| Sample Wt/Vol: | 1000 | Units: | mL | Final Vol: | 1000 uL |
| Soil Aliquot Vol: | | | uL | Test: | SVOC-SIMGroup1 |
| Extraction Type : | | | Decanted : N | Level : | LOW |
| Injection Volume : | | | GPC Factor : 1.0 | GPC Cleanup : N | PH : |
| Prep Method : | | | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| BN036891.D | 1 | 04/11/25 09:20 | 04/11/25 22:57 | PB167565 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOD | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | | |
| 123-91-1 | 1,4-Dioxane | 0.35 | | 0.070 | 0.20 | 0.20 | ug/L |
| **SURROGATES** | | | | | | | |
| 7297-45-2 | 2-Methylnaphthalene-d10 | 0.46 | | 30 - 150 | | 116% | SPK: 0.4 |
| 93951-69-0 | Fluoranthene-d10 | 0.46 | | 30 - 150 | | 115% | SPK: 0.4 |
| 4165-60-0 | Nitrobenzene-d5 | 0.38 | | 55 - 111 | | 96% | SPK: 0.4 |
| 321-60-8 | 2-Fluorobiphenyl | 0.38 | | 53 - 106 | | 96% | SPK: 0.4 |
| 1718-51-0 | Terphenyl-d14 | 0.40 | | 58 - 132 | | 100% | SPK: 0.4 |
| **INTERNAL STANDARDS** | | | | | | | |
| 3855-82-1 | 1,4-Dichlorobenzene-d4 | 208 | 7.64 | | | | |
| 1146-65-2 | Naphthalene-d8 | 496 | 10.426 | | | | |
| 15067-26-2 | Acenaphthene-d10 | 321 | 14.288 | | | | |
| 1517-22-2 | Phenanthrene-d10 | 731 | 17.033 | | | | |
| 1719-03-5 | Chrysene-d12 | 908 | 21.233 | | | | |
| 1520-96-3 | Perylene-d12 | 1140 | 23.447 | | | | |

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | | | |
|---|---|---|---|---|---|
| Client: | Tetra Tech NUS, Inc. | | | Date Collected: | |
| Project: | CTO WE13 | | | Date Received: | |
| Client Sample ID: | PB167565BSD | | | SDG No.: | Q1773 |
| Lab Sample ID: | PB167565BSD | | | Matrix: | Water |
| Analytical Method: | SW8270ESIM | | | % Solid: | 0 |
| Sample Wt/Vol: | 1000 | Units: | mL | Final Vol: | 1000 uL |
| Soil Aliquot Vol: | | | uL | Test: | SVOC-SIMGroup1 |
| Extraction Type : | | | Decanted : N | Level : | LOW |
| Injection Volume : | | | GPC Factor : 1.0 | GPC Cleanup : N | PH : |
| Prep Method : | | | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| BN036892.D | 1 | 04/11/25 09:20 | 04/11/25 23:33 | PB167565 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOD | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | | |
| 123-91-1 | 1,4-Dioxane | 0.41 | | 0.070 | 0.20 | 0.20 | ug/L |
| **SURROGATES** | | | | | | | |
| 7297-45-2 | 2-Methylnaphthalene-d10 | 0.44 | | 30 - 150 | | 111% | SPK: 0.4 |
| 93951-69-0 | Fluoranthene-d10 | 0.44 | | 30 - 150 | | 111% | SPK: 0.4 |
| 4165-60-0 | Nitrobenzene-d5 | 0.37 | | 55 - 111 | | 93% | SPK: 0.4 |
| 321-60-8 | 2-Fluorobiphenyl | 0.45 | * | 53 - 106 | | 113% | SPK: 0.4 |
| 1718-51-0 | Terphenyl-d14 | 0.43 | | 58 - 132 | | 108% | SPK: 0.4 |
| **INTERNAL STANDARDS** | | | | | | | |
| 3855-82-1 | 1,4-Dichlorobenzene-d4 | 383 | 7.64 | | | | |
| 1146-65-2 | Naphthalene-d8 | 935 | 10.426 | | | | |
| 15067-26-2 | Acenaphthene-d10 | 512 | 14.288 | | | | |
| 1517-22-2 | Phenanthrene-d10 | 1260 | 17.033 | | | | |
| 1719-03-5 | Chrysene-d12 | 1400 | 21.224 | | | | |
| 1520-96-3 | Perylene-d12 | 1610 | 23.445 | | | | |

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

# CALIBRATION SUMMARY

Response Factor Report BNA_N

Method Path : Z:\svoasrv\HPCHEM1\BNA_N\Methods\
Method File : 8270-SIM-BN041125.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Fri Apr 11 16:11:08 2025
Response Via : Initial Calibration

Calibration Files
0.1 =BN036873.D 0.2 =BN036874.D 0.4 =BN036875.D 0.8 =BN036876.D 1.6 =BN036877.D 3.2 =BN036878.D 5.0 =BN036879.D

| | | Compound | 0.1 | 0.2 | 0.4 | 0.8 | 1.6 | 3.2 | 5.0 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | 1,4-Dichlorobenzen... | ----------ISTD---------- | | | | | | | | |
| 2) | | 1,4-Dioxane | 0.588 | 0.440 | 0.411 | 0.455 | 0.471 | 0.417 | 0.464 | | 14.02 |
| 3) | | n-Nitrosodimet... | 1.024 | 1.092 | 1.084 | 0.971 | 1.022 | 1.058 | 0.943 | 1.028 | 5.43 |
| 4) | S | 2-Fluorophenol | 1.000 | 0.941 | 0.965 | 0.920 | 0.892 | 0.981 | 0.888 | 0.941 | 4.61 |
| 5) | S | Phenol-d6 | 1.315 | 1.199 | 1.198 | 1.134 | 1.147 | 1.263 | 1.166 | 1.203 | 5.40 |
| 6) | | bis(2-Chloroet... | 1.476 | 1.031 | 1.187 | 1.163 | 1.124 | 1.190 | 1.091 | 1.180 | 12.04 |
| 7) | I | Naphthalene-d8 | ----------ISTD---------- | | | | | | | | |
| 8) | S | Nitrobenzene-d5 | 0.575 | 0.438 | 0.451 | 0.399 | 0.395 | 0.439 | 0.411 | 0.444 | 13.86 |
| 9) | | Naphthalene | 1.336 | 1.141 | 1.170 | 1.079 | 1.072 | 1.176 | 1.080 | 1.151 | 8.09 |
| 10) | | Hexachlorobuta... | 0.300 | 0.261 | 0.284 | 0.247 | 0.240 | 0.261 | 0.235 | 0.261 | 9.11 |
| 11) | SURR | 2-Methylnaphth... | 0.600 | 0.564 | 0.594 | 0.554 | 0.572 | 0.616 | 0.571 | 0.582 | 3.78 |
| 12) | | 2-Methylnaphth... | 0.803 | 0.703 | 0.759 | 0.704 | 0.711 | 0.784 | 0.724 | 0.741 | 5.50 |
| 13) | I | Acenaphthene-d10 | ----------ISTD---------- | | | | | | | | |
| 14) | S | 2,4,6-Tribromo... | 0.215 | 0.188 | 0.183 | 0.187 | 0.185 | 0.202 | 0.191 | 0.193 | 5.97 |
| 15) | S | 2-Fluorobiphenyl | 2.063 | 1.860 | 2.013 | 1.697 | 1.897 | 2.083 | 1.833 | 1.921 | 7.28 |
| 16) | | Acenaphthylene | 1.959 | 1.808 | 1.891 | 1.744 | 1.750 | 1.995 | 1.861 | 1.858 | 5.25 |
| 17) | | Acenaphthene | 1.227 | 1.175 | 1.234 | 1.162 | 1.152 | 1.316 | 1.205 | 1.210 | 4.65 |
| 18) | | Fluorene | 1.695 | 1.698 | 1.694 | 1.566 | 1.593 | 1.780 | 1.657 | 1.669 | 4.29 |
| 19) | I | Phenanthrene-d10 | ----------ISTD---------- | | | | | | | | |
| 20) | | 4,6-Dinitro-2-... | 0.081 | 0.084 | 0.095 | 0.092 | 0.092 | 0.116 | 0.102 | 0.095 | 12.46 |
| 21) | | 4-Bromophenyl-... | 0.239 | 0.230 | 0.260 | 0.229 | 0.230 | 0.258 | 0.231 | 0.240 | 5.77 |
| 22) | | Hexachlorobenzene | 0.308 | 0.293 | 0.310 | 0.262 | 0.261 | 0.288 | 0.263 | 0.284 | 7.64 |
| 23) | | Atrazine | 0.237 | 0.233 | 0.263 | 0.221 | 0.223 | 0.245 | 0.218 | 0.234 | 6.76 |
| 24) | | Pentachlorophenol | 0.153 | 0.154 | 0.162 | 0.130 | 0.134 | 0.160 | 0.149 | 0.149 | 8.32 |
| 25) | | Phenanthrene | 1.233 | 1.093 | 1.298 | 1.139 | 1.149 | 1.300 | 1.183 | 1.199 | 6.70 |
| 26) | | Anthracene | 1.033 | 0.999 | 1.150 | 0.991 | 1.036 | 1.182 | 1.094 | 1.069 | 6.97 |
| 27) | SURR | Fluoranthene-d10 | 1.100 | 1.059 | 1.221 | 1.044 | 1.091 | 1.226 | 1.148 | 1.127 | 6.53 |
| 28) | | Fluoranthene | 1.448 | 1.405 | 1.606 | 1.395 | 1.463 | 1.677 | 1.570 | 1.509 | 7.21 |
| 29) | I | Chrysene-d12 | ----------ISTD---------- | | | | | | | | |
| 30) | | Pyrene | 1.488 | 1.512 | 1.604 | 1.477 | 1.469 | 1.582 | 1.451 | 1.512 | 3.88 |
| 31) | S | Terphenyl-d14 | 0.743 | 0.751 | 0.815 | 0.741 | 0.739 | 0.802 | 0.730 | 0.760 | 4.45 |
| 32) | | Benzo(a)anthra... | 1.361 | 1.371 | 1.410 | 1.354 | 1.402 | 1.552 | 1.443 | 1.413 | 4.87 |
| 33) | | Chrysene | 1.436 | 1.567 | 1.669 | 1.519 | 1.553 | 1.641 | 1.517 | 1.558 | 5.06 |
| 34) | | Bis(2-ethylhex... | 1.205 | 1.197 | 1.023 | 0.957 | 0.990 | 1.022 | 0.947 | 1.049 | 10.29 |
| 35) | I | Perylene-d12 | ----------ISTD---------- | | | | | | | | |

Method Path : Z:\svoasrv\HPCHEM1\BNA_N\Methods\
Method File : 8270-SIM-BN041125.M

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 36) | | Indeno(1,2,3-c... | 1.781 | 1.803 | 2.021 | 1.816 | 1.925 | 2.099 | 1.919 | 1.909 | 6.24 |
| 37) | | Benzo(b)fluora... | 1.373 | 1.278 | 1.523 | 1.355 | 1.376 | 1.572 | 1.456 | 1.419 | 7.26 |
| 38) | | Benzo(k)fluora... | 1.486 | 1.302 | 1.482 | 1.370 | 1.384 | 1.545 | 1.452 | 1.432 | 5.83 |
| 39) | C | Benzo(a)pyrene | 1.121 | 1.154 | 1.345 | 1.204 | 1.226 | 1.378 | 1.279 | 1.244 | 7.66 |
| 40) | | Dibenzo(a,h)an... | 1.331 | 1.416 | 1.585 | 1.487 | 1.560 | 1.680 | 1.552 | 1.516 | 7.61 |
| 41) | | Benzo(g,h,i)pe... | 1.646 | 1.673 | 1.805 | 1.634 | 1.724 | 1.835 | 1.678 | 1.714 | 4.59 |

(#) = Out of Range

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1773 SAS No.: Q1773 SDG No.: Q1773

Instrument ID: BNA_N Calibration Date/Time: 04/11/2025 18:45

Lab File ID: BN036884.D Init. Calib. Date(s): 04/11/2025 04/11/2025

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 11:42 15:42

GC Column: ZB-GR ID: 0.25 (mm)

| COMPOUND | RRF | RRF0.4 | MIN RRF | %D | MAX%D |
|---|---|---|---|---|---|
| 2-Methylnaphthalene-d10 | 0.582 | 0.596 | | 2.4 | 20.0 |
| Fluoranthene-d10 | 1.127 | 1.290 | | 14.5 | 20.0 |
| 2-Fluorophenol | 0.941 | 0.980 | | 4.1 | 20.0 |
| Phenol-d6 | 1.203 | 1.244 | | 3.4 | 20.0 |
| Nitrobenzene-d5 | 0.444 | 0.442 | | -0.4 | 20.0 |
| 2-Fluorobiphenyl | 1.921 | 2.017 | | 5.0 | 20.0 |
| 2,4,6-Tribromophenol | 0.193 | 0.204 | | 5.7 | 20.0 |
| Terphenyl-d14 | 0.760 | 0.770 | | 1.3 | 20.0 |
| 1,4-Dioxane | 0.464 | 0.386 | | -16.8 | 20.0 |

All other compounds must meet a minimum RRF of 0.010.

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Fax : 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1773 SAS No.: Q1773 SDG No.: Q1773

Instrument ID: BNA_N Calibration Date/Time: 04/12/2025 01:21

Lab File ID: BN036895.D Init. Calib. Date(s): 04/11/2025 04/11/2025

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 11:42 15:42

GC Column: ZB-GR ID: 0.25 (mm)

| COMPOUND | RRF | RRF0.4 | MIN RRF | %D | MAX%D |
|---|---|---|---|---|---|
| 2-Methylnaphthalene-d10 | 0.582 | 0.635 | | 9.1 | 50.0 |
| Fluoranthene-d10 | 1.127 | 1.234 | | 9.5 | 50.0 |
| 2-Fluorophenol | 0.941 | 1.009 | | 7.2 | 50.0 |
| Phenol-d6 | 1.203 | 1.179 | | -2.0 | 50.0 |
| Nitrobenzene-d5 | 0.444 | 0.413 | | -7.0 | 50.0 |
| 2-Fluorobiphenyl | 1.921 | 1.956 | | 1.8 | 50.0 |
| 2,4,6-Tribromophenol | 0.193 | 0.212 | | 9.8 | 50.0 |
| Terphenyl-d14 | 0.760 | 0.765 | | 0.7 | 50.0 |
| 1,4-Dioxane | 0.464 | 0.513 | | 10.6 | 50.0 |

All other compounds must meet a minimum RRF of 0.010.