SUPERFUND ORGANIC METHODS PERFORMANCE EVALUATION SAMPLE
INDIVIDUAL LABORATORY SUMMARY REPORT
FOR ORG PT4 FY22 (CASE 50208)

LABORATORY: CHM Chemtech Consulting Group, Inc. [NJ]
PERFORMANCE: ACCEPTABLE, No Response Required

TOTAL SCORE: 100.0
REPORT DATE: 9/15/2022

		TVOA	TVOA SIM	VOA	SVOA	SVSIM	PEST	ARO	
SCORES BY	WATER:	--	--	100.0	100.0	100.0	100.0	100.0	TIMELINESS: 100.0
FRACTION	SOIL:	--	--	100.0	100.0	100.0	100.0	100.0	

ANALYTE	CRQL	PREDICTION INTERVAL LIMITS LOW ACTION	LOW WARN	HIGH WARN	HIGH ACTION	LABORATORY DATA CONC	Q	ILSR CODE
LOW/MEDIUM VOLATILES IN WATER MATRIX								
LOW/MEDIUM VOLATILE TARGET ANALYTES								
Vinyl Chloride	5	63	76	130	140	100		
Trichlorofluoromethane	5	56	66	100	110	90		
1,1-Dichloroethene	5	48	54	77	84	74		
Methyl tert-Butyl Ether	5	59	65	91	98	87		
cis-1,2-Dichloroethene	5	32	34	44	47	43		
Benzene	5	16	18	23	24	22		
Trichloroethene	5	55	60	79	84	67		
Methylcyclohexane	5	63	72	100	110	96		
1,2-Dichloropropane	5	17	18	23	25	22		
4-Methyl-2-pentanone	10	96	110	170	190	120		
1,1,2-Trichloroethane	5	24	26	34	36	32		
Tetrachloroethene	5	39	43	55	58	52		
2-Hexanone	10	54	77	160	190	97		
Dibromochloromethane	5	31	34	43	45	36		
1,2-Dibromoethane	5	100	110	130	140	120		
Ethylbenzene	5	58	63	80	84	78		
o-Xylene	5	24	26	33	35	32		
Isopropylbenzene	5	65	69	85	89	86		$
1,3-Dichlorobenzene	5	49	53	68	72	62		
1,2,4-Trichlorobenzene	5	39	43	57	61	51		
LOW/MEDIUM VOLATILE NON-TARGET ANALYTES								
Ethyl bromide		>0				13	JN	
Benzene, n-butyl-		NU	NU	NU	NU	110	JN	
Benzene, 1,3,5-trichloro-		>0				50	JN	
Total Alkanes		>0				28		
LOW/MEDIUM VOLATILE NON-TAL CONTAMINANTS								
Ethane, methoxy-						11	JN	
Methylal						71	JN	
unknown-01						2.6	J	

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		TVOA	TVOA SIM	VOA	SVOA	SVSIM	PEST	ARO	
SCORES BY FRACTION	WATER:	--	--	100.0	100.0	100.0	100.0	100.0	TIMELINESS: 100.0
	SOIL:	--	--	100.0	100.0	100.0	100.0	100.0	

ANALYTE	CRQL	PREDICTION INTERVAL LIMITS LOW ACTION	LOW WARN	HIGH WARN	HIGH ACTION	LABORATORY DATA CONC	Q	ILSR CODE
LOW/MEDIUM VOLATILES IN SOIL MATRIX								
LOW/MEDIUM VOLATILE TARGET ANALYTES								
Chloromethane	5	25	30	50	55	39		
Bromomethane	5	12	15	25	28	20		
Trichlorofluoromethane	5	21	25	37	41	26		
1,1-Dichloroethene	5	32	36	52	56	45		
Acetone	10	41	69	170	200	100	B	
Methyl Acetate	5	43	54	95	110	79		
Methylene Chloride	5	16	18	24	26	24	B	
trans-1,2-Dichloroethene	5	17	18	24	25	22		
Methyl tert-Butyl Ether	5	49	54	72	77	74		$
cis-1,2-Dichloroethene	5	39	43	60	64	54		
Bromochloromethane	5	22	25	35	37	31		
1,1,1-Trichloroethane	5	17	18	23	24	22		
Cyclohexane	5	15	17	24	26	21		
Carbon Tetrachloride	5	18	21	30	32	26		
1,2-Dichloroethane	5	17	18	22	23	22		
Trichloroethene	5	65	70	91	96	86		
Methylcyclohexane	5	39	44	60	65	58		
1,2-Dichloropropane	5	21	22	29	30	27		
Bromodichloromethane	5	32	35	46	48	43		
cis-1,3-Dichloropropene	5	29	31	39	41	35		
Toluene	5	33	36	47	49	45		
trans-1,3-Dichloropropene	5	14	15	19	20	16		
Tetrachloroethene	5	62	68	94	100	89		
2-Hexanone	10	44	54	92	100	59		
Dibromochloromethane	5	33	35	44	47	41		
Ethylbenzene	5	24	27	34	37	33		
o-Xylene	5	19	21	28	30	26		
m,p-Xylene	5	16	17	23	25	22		
Isopropylbenzene	5	20	22	29	31	26		
1,3-Dichlorobenzene	5	35	37	44	46	40		
1,2-Dichlorobenzene	5	15	17	23	25	21		
1,2-Dibromo-3-chloropropane	5	29	32	43	47	36		
LOW/MEDIUM VOLATILE NON-TARGET ANALYTES								
Benzene, 1,3,5-trichloro-		>0				47	JN	
Benzene, bromo-		>0				39	JN	
LOW/MEDIUM VOLATILE NON-TAL CONTAMINANTS								
1,4-Dioxane						2.7	JN	

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REPORT DATE: 9/15/2022

		TVOA	TVOA SIM	VOA	SVOA	SVSIM	PEST	ARO	
SCORES BY	WATER:	--	--	100.0	100.0	100.0	100.0	100.0	TIMELINESS: 100.0
FRACTION	SOIL:	--	--	100.0	100.0	100.0	100.0	100.0	

ANALYTE	CRQL	PREDICTION INTERVAL LIMITS LOW ACTION	LOW WARN	HIGH WARN	HIGH ACTION	LABORATORY DATA CONC	Q	ILSR CODE
SEMIVOLATILES IN WATER MATRIX								
SEMIVOLATILE TARGET ANALYTES								
bis(2-Chloroethyl)ether	10	10	13	23	26	20		
2,2'-oxybis(1-Chloropropane)	10	N.L.	12	24	28	19		
4-Methylphenol	10	26	32	55	62	51		
Hexachloroethane	5	22	30	59	67	59		
Nitrobenzene	5	11	13	23	26	20		
2-Nitrophenol	5	23	28	46	51	39		
2,4-Dimethylphenol	5	14	18	33	37	28		
bis(2-Chloroethoxy)methane	5	11	13	22	24	20		
2,4-Dichlorophenol	5	15	18	31	35	27		
4-Chloroaniline	10	N.L.	18	79	96	59		
2-Methylnaphthalene	5	13	17	29	32	28		
Hexachlorocyclopentadiene	10	N.L.	16	67	80	42		
2,4,6-Trichlorophenol	5	12	14	23	25	19		
2-Chloronaphthalene	5	8.1	10	17	19	15		
2-Nitroaniline	5	40	49	83	92	80		
Dimethylphthalate	5	23	26	39	43	34		
2,6-Dinitrotoluene	5	11	12	19	20	16		
3-Nitroaniline	10	32	43	87	99	76		
2,4-Dinitrophenol	10	29	42	89	100	69		
4-Nitrophenol	10	33	44	84	95	69		
4-Chlorophenyl-phenylether	5	9.2	11	18	20	16		
4-Nitroaniline	10	24	30	53	60	46		
4,6-Dinitro-2-methylphenol	10	40	48	78	86	70		
4-Bromophenyl-phenylether	5	40	48	77	85	75		
3,3'-Dichlorobenzidine	10	N.L.	12	34	39	22		
SEMIVOLATILE NON-TARGET ANALYTES								
p,p-DDT		>0				28	JN	
Malathion		>0				14	JN	
SEMIVOLATILE NON-TAL CONTAMINANTS								
Propane, 1,1-oxybis[2-chloro-						5.6	JN	
Resorcinol						36	JN	
unknown-01						2.9	J	
unknown-02						2.7	J	

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LABORATORY: CHM Chemtech Consulting Group, Inc. [NJ]
PERFORMANCE: ACCEPTABLE, No Response Required

TOTAL SCORE: 100.0
REPORT DATE: 9/15/2022

		TVOA	TVOA SIM	VOA	SVOA	SVSIM	PEST	ARO	
SCORES BY	WATER:	--	--	100.0	100.0	100.0	100.0	100.0	TIMELINESS: 100.0
FRACTION	SOIL:	--	--	100.0	100.0	100.0	100.0	100.0	

ANALYTE	CRQL	PREDICTION INTERVAL LIMITS LOW ACTION	LOW WARN	HIGH WARN	HIGH ACTION	LABORATORY DATA CONC	Q	ILSR CODE
SEMIVOLATILES IN SOIL MATRIX								
SEMIVOLATILE TARGET ANALYTES								
1,4-Dioxane	67	120	270	830	980	740		
Benzaldehyde	330	530	820	1900	2200	2100		$
Phenol	330	720	920	1700	1900	1300		
2-Chlorophenol	170	470	610	1100	1200	840		
N-Nitroso-di-n-propylamine	170	510	670	1300	1400	1200		
Nitrobenzene	170	420	540	980	1100	820		
2-Nitrophenol	170	440	580	1100	1200	830		
2,4-Dichlorophenol	170	540	680	1200	1300	880		
Naphthalene	170	320	420	760	850	620		
Hexachlorobutadiene	170	440	590	1100	1300	820		
4-Chloro-3-methylphenol	170	790	1100	2000	2300	1700		
1-Methylnaphthalene	170	430	570	1100	1200	900		
2,4,6-Trichlorophenol	170	870	1100	1800	2000	1200		
1,1'-Biphenyl	170	550	680	1200	1300	960		
2-Chloronaphthalene	170	350	430	730	810	570		
Dimethylphthalate	170	460	560	920	1000	750		
2,6-Dinitrotoluene	170	570	700	1200	1300	1000		
Acenaphthene	170	480	590	990	1100	860		
4-Nitrophenol	330	440	610	1300	1500	970		
Dibenzofuran	170	410	500	810	900	700		
4-Chlorophenyl-phenylether	170	380	460	770	850	640		
4,6-Dinitro-2-methylphenol	330	N.L.	580	1900	2200	1600		
1,2,4,5-Tetrachlorobenzene	170	380	490	920	1000	660		
Hexachlorobenzene	170	460	550	890	980	730		
Pentachlorophenol	330	490	820	2100	2400	1400		
Phenanthrene	170	440	520	810	890	720		
Anthracene	170	470	570	950	1000	840		
Carbazole	330	490	600	1000	1100	800		
Di-n-butylphthalate	170	440	530	870	960	800		
Fluoranthene	170	910	1100	1900	2100	1900		
Pyrene	170	640	780	1300	1500	1300		
Butylbenzylphthalate	170	390	500	910	1000	810		
Benzo(a)anthracene	170	800	970	1600	1800	1400		
Chrysene	170	600	720	1200	1300	950		
bis(2-Ethylhexyl)phthalate	170	500	640	1100	1300	1000		
Benzo(b)fluoranthene	170	540	690	1200	1400	1000		
Benzo(a)pyrene	170	410	580	1200	1300	910		
Indeno(1,2,3-cd)pyrene	170	500	680	1400	1500	1000		
Dibenzo(a,h)anthracene	170	420	550	1000	1100	770		
2,3,4,6-Tetrachlorophenol	170	550	650	1000	1100	920		
SEMIVOLATILE NON-TARGET ANALYTES								
1,1-Biphenyl, 4-nitro-		>0				590	JN	

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PERFORMANCE: ACCEPTABLE, No Response Required

TOTAL SCORE: 100.0
REPORT DATE: 9/15/2022

		TVOA	TVOA SIM	VOA	SVOA	SVSIM	PEST	ARO	
SCORES BY	WATER:	--	--	100.0	100.0	100.0	100.0	100.0	TIMELINESS: 100.0
FRACTION	SOIL:	--	--	100.0	100.0	100.0	100.0	100.0	

ANALYTE	CRQL	PREDICTION INTERVAL LIMITS LOW ACTION	LOW WARN	HIGH WARN	HIGH ACTION	LABORATORY DATA CONC	Q	ILSR CODE
SEMIVOLATILE NON-TAL CONTAMINANTS								
2-Pentanone, 4-hydroxy-4-methyl-						540	AJN	
Hexadecanoic acid, methyl ester						70	JN	
SEMIVOLATILES SIM IN WATER MATRIX								
SEMIVOLATILE SIM TARGET ANALYTES								
Naphthalene	0.1	0.47	0.57	0.93	1.0	0.77		
Acenaphthylene	0.1	0.39	0.49	0.84	0.93	0.66		
Acenaphthene	0.1	0.39	0.48	0.81	0.90	0.69		
Fluorene	0.1	0.53	0.64	1.0	1.1	0.83		
Pentachlorophenol	0.2	0.33	0.95	3.3	3.9	1.6		
Phenanthrene	0.1	0.43	0.51	0.82	0.90	0.65		
Anthracene	0.1	0.27	0.33	0.54	0.59	0.41		
Pyrene	0.1	0.83	1.0	1.8	2.0	1.4		
Benzo(a)anthracene	0.1	0.52	0.60	0.90	0.98	0.74		
Chrysene	0.1	0.62	0.73	1.1	1.2	0.96		
Benzo(k)fluoranthene	0.1	0.23	0.29	0.53	0.59	0.47		
Indeno(1,2,3-cd)pyrene	0.1	0.32	0.47	1.0	1.2	0.77		
Benzo(g,h,i)perylene	0.1	0.43	0.57	1.1	1.2	0.96		
SEMIVOLATILES SIM IN SOIL MATRIX								
SEMIVOLATILE SIM TARGET ANALYTES								
Naphthalene	3.3	8.5	15	38	44	27		
Acenaphthylene	3.3	6.7	9.2	19	21	12		
Acenaphthene	3.3	8.6	11	21	23	15		
Fluorene	3.3	8.0	10	18	20	12		
Pentachlorophenol	6.7	N.L.	7.0	44	54	15		
Phenanthrene	3.3	9.6	12	20	22	14		
Anthracene	3.3	7.9	11	21	24	14		
Fluoranthene	3.3	9.2	12	21	23	16		
Pyrene	3.3	11	15	28	31	21		
Benzo(a)anthracene	3.3	10	13	23	25	19		
Benzo(b)fluoranthene	3.3	7.4	11	22	25	20		
Benzo(a)pyrene	3.3	NU	NU	NU	NU	3.3	U	
Indeno(1,2,3-cd)pyrene	3.3	9.9	14	30	34	26		
Dibenzo(a,h)anthracene	3.3	9.1	13	29	33	25		
Benzo(g,h,i)perylene	3.3	4.7	10	31	36	10		

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		TVOA	TVOA SIM	VOA	SVOA	SVSIM	PEST	ARO	
SCORES BY	WATER:	--	--	100.0	100.0	100.0	100.0	100.0	TIMELINESS: 100.0
FRACTION	SOIL:	--	--	100.0	100.0	100.0	100.0	100.0	

ANALYTE	CRQL	PREDICTION INTERVAL LIMITS LOW ACTION	LOW WARN	HIGH WARN	HIGH ACTION	LABORATORY DATA CONC	Q	ILSR CODE
PESTICIDES IN WATER MATRIX								
PESTICIDE TARGET ANALYTES								
alpha-BHC	0.05	0.35	0.43	0.75	0.84	0.68		
delta-BHC	0.05	0.21	0.26	0.42	0.47	0.36		
Dieldrin	0.1	0.29	0.33	0.47	0.51	0.45		
4,4'-DDE	0.1	0.17	0.20	0.30	0.33	0.28		
Endosulfan II	0.1	NU	NU	NU	NU	0.012	JP	
4,4'-DDT	0.1	0.51	0.60	0.91	0.99	0.90		
Endrin ketone	0.1	0.45	0.53	0.82	0.90	0.78		
Endrin aldehyde	0.1	0.21	0.27	0.51	0.57	0.48		
cis-Chlordane	0.05	0.13	0.14	0.20	0.22	0.19		
PESTICIDES IN SOIL MATRIX								
PESTICIDE TARGET ANALYTES								
beta-BHC	1.7	8.3	9.9	16	17	11		
gamma-BHC (Lindane)	1.7	NU	NU	NU	NU	7.8		
Aldrin	1.7	10	12	20	22	14		
Heptachlor epoxide	1.7	8.9	10	16	17	12		
Endosulfan I	1.7	9.6	11	18	20	12		
Dieldrin	3.3	15	17	26	28	20		
4,4'-DDE	3.3	NU	NU	NU	NU	24		
Endrin	3.3	15	18	26	28	19	P	
4,4'-DDD	3.3	14	16	25	27	18		
4,4'-DDT	3.3	22	26	43	47	26		
Endrin ketone	3.3	12	14	20	22	17		
cis-Chlordane	1.7	5.7	6.7	11	12	8.3		
AROCLORS IN WATER MATRIX								
AROCLOR TARGET ANALYTES								
Aroclor-1248	1	3.4	3.9	5.9	6.4	4.5		
AROCLORS IN SOIL MATRIX								
AROCLOR TARGET ANALYTES								
Aroclor-1232	33	300	340	490	530	370		

Summary of laboratory deficiencies:

Number of target analytes not identified:	0
Number of target analytes outside action limits:	0
Number of TAL contaminants over SOW limits:	0
Number of non-target analyes not identified:	0

Data package timeliness:

Date data package due for scoring:	9/1/2022
Date complete data package received:	8/31/2022
Days no lateness applied (weekends, etc.):	0
Net number of days late:	0

Number of target analytes added to PES and used for scoring: 164

EXPLANATION OF SUPERFUND ORGANIC METHODS INDIVIDUAL LABORATORY SUMMARY REPORT (ILSR)

SUMMARY OF DEFINITIONS USED:

Concentration Units: µg/L for water samples; µg/Kg for soil samples; mg/L for TCLP samples.

CRQL: CLP SOW Contract Required Quantitation Limit (unadjusted for dilution, moisture, sample size).

PREDICTION INTERVAL LIMITS:

< CRQL	TAL contaminant concentrations below CRQL (adjusted for dilution, etc.) are not flagged.
< 2xCRQL	TAL contaminant concentrations below 2 times CRQL (adjusted for dilution, etc.) are not flagged.
< 5xCRQL	TAL contaminant concentrations below 5 times CRQL (adjusted for dilution, etc.) are not flagged.
> 0	Non-target analyte used in scoring. If not identified, will be flagged.
NU	Limit not used in scoring analyte or contaminant.
NL	No numeric low limit is set for this target analyte because the calculated Prediction Interval limit is below the CRQL.

LABORATORY DATA:

CONC	Laboratory reported concentration.
Q	Laboratory reported concentration qualifier(s).
NS	Analyte results not submitted by laboratory.

ILSR CODE:

&	Target or non-target analyte not identified.	- POINTS DEDUCTED
X	Target analyte concentration outside action limits.	- POINTS DEDUCTED
C	TAL contaminant exceeds SOW-defined limit.	- POINTS DEDUCTED
$	Target analyte concentration outside warning limits, within action limits.	- NO POINTS DEDUCTED
NR	Non-target analyte identification not required.	- NO POINTS DEDUCTED

PROGRAM SUMMARY DATA:

OUTSIDE LIMITS	Number of laboratory results outside the prediction interval action limits for the analyte.
NOT ID CPD	Number of laboratory results with no identification of the analyte.
ID CPD	Number of laboratory results with identification of the analyte.
TOTAL	Total number of laboratory results.

SUMMARY OF SCORING METHOD:

The total score, performance, and rank listed at the top of each ILSR page and the summary of laboratory deficiencies listed at the end of each ILSR are all based upon the composite results from all samples and matrices evaluated. The scores by fraction are each based on a single analysis type and matrix.

The following algorithm is used for scoring:

$$\text{Score} = 100 - (125 * \{ 2A + B + C \} / T) - (2.2 * D) - L$$

where:

A = Number of target analytes added to the sample(s) which the laboratory did not identify.

B = Number of target analytes added to the sample(s) which the laboratory identified but quantitated outside the action limits.

C = Number of TAL contaminants (analytes not added to the sample(s)) which the laboratory quantitated above the CLP SOW limits for blank contamination.

D = Number of non-target analytes added to the sample(s) which the laboratory did not identify. The D term is limited to a maximum deduction of 11 points.

L = Number of days the data package was received late at SMO (or number of days the last fraction was received late, if fractions were submitted separately).
If a laboratory submits supplemental and/or revised data after the data package due date, penalties are applied for resubmissions that affect scoring. The L term is limited to a maximum deduction of 10 points.

T = Total number of target analytes added to the sample(s) which were used for scoring (excludes analytes with NU as limits).

Warning and action limits are statistically calculated from CLP laboratory results and/or historical results for the analytes.
The warning limits are set at the 80% confidence level; the action limits are set at the 95% confidence level.
- If a target or non-target analyte added to the sample is not identified by 40% or more of the laboratories, then that analyte is not used in scoring and NU appears in place of the limits.
- If a target analyte not added to the sample (a TAL contaminant) is identified by 40% or more of the laboratories, then that analyte is not used in scoring and NU appears in place of the limit.

For target analytes, identification consists of listing a concentration on Form 1A-OR without the U qualifier.
For non-target analytes, identification consists of listing a valid name and concentration on FORM 1B-OR.
- A valid non-target analyte name is one which can be recognized as (1) a proper name for the analyte or any synonym, or (2) the name of another analyte (typically an isomer) with a nearly identical mass spectrum. For example, "unknown" is not valid as identification of 2-chlorotoluene for purposes of scoring, while all the following are valid as identification of 2-chlorotoluene: "1-chloro-2-methylbenzene", "unknown chlorotoluene isomer", "possibly 4-chlorotoluene", and "4-chlorotoluene".

Laboratory performance falls into one of three categories:

"ACCEPTABLE, No Response Required" - for a Total Score of 90.0 or more.

"ACCEPTABLE, Response Explaining Deficiency(ies) Required" - for a Total Score of 75.0 or more, but below 90.0.

"UNACCEPTABLE, Response Explaining Deficiency(ies) Required" - for a Total Score below 75.0.