

This review was performed with guidance from the National Functional Guidelines for Organic Superfund Methods Data Review (US EPA, 2020, US EPA) and/or the National Functional Guidelines for Inorganic Superfund Methods Data Review (US EPA, 2020, US EPA). These validation guidance documents specifically address analyses performed in accordance with the CLP analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the Standard Method (SM), SW-846, and/or US EPA methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the quality of the analytical results and compliance relative to the Standard Method (SM), SW-846, and/or US EPA utilized by the laboratory. This QA review was performed on the data associated with Sample Delivery Group (SDG):

E5E0760

The findings offered in this report are based on a review of the Chain-of-Custody Record and Case Narrative, sample preservation and condition upon laboratory receipt, holding times, surrogate recovery, field and laboratory blank results, laboratory and field duplicate precision, laboratory control sample / laboratory control sample duplicate recoveries and precision, matrix spike / matrix spike duplicate recoveries and precision, total and dissolved results comparisons, and/or percent solids (as applicable). All review items may not have been included in this SDG; therefore, only those items included in this SDG were addressed in the QA review.

This report was revised to add qualification to pH for sample T042-244844.

A summary of the results of the data review process is provided below:

Sample	Sample Type	Method	Analyte	T/D	Result	Qual	Reason Code(s)	MDL	QL	Unit	Detect?
T042-244844	N	E365.4	Phosphorus, Total	N		U	BL	0.0800	0.0800	mg/L	N
T042-244844	N	SW8270	2,4-Dimethylphenol	N		UJ	LC	9.69	9.69	ug/L	N
T042-244844	N	SW8270	Benzidine	N		UJ	LC	9.69	9.69	ug/L	N
T042-244844	N	SW8270	Pyridine	N		UJ	LC	9.69	9.69	ug/L	N
T042-244844	N	SW9040	pH	N	8.66	J	HT			SU	Y

Data Qualifiers

U	The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate, or was observed in a blank at a similar level.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Reason Codes and Explanations

BF	Contamination present in a field blank (e.g ., Field Blank, Equipment Blank, etc .); evaluation criteria exceeded
BL	Contamination present in a laboratory blank (e.g ., Method Blank, Instrument Blank, etc .); evaluation criteria exceeded
BT	Contamination present in the Trip Blank; evaluation criteria exceeded
CC	Possible contamination due to carryover from a previous sample
CR	Calculated result in which one or more of the components has been qualified
CRQ	Calculated result flagged due to reporting protocol
CT	Cooler temperature criteria not met
CY	Chemical Yield recovery criteria not met
EC	Result exceeds the calibration range; potential bias indeterminate
FD	Field duplicate imprecision; potential bias indeterminate
GH	Headspace present in the gamma spectrometer sample analysis vessel; potential bias indeterminate
GS	Low sample density in the gamma spectrometer sample analysis vessel; potential bias indeterminate
HT	Holding time exceeded

HV	Headspace present in volatile vials
IN	Interference (e.g. , laboratory, chemical, chromatographic/instrumental, and/or matrix) present in the analysis
LC	Laboratory control sample/laboratory control sample duplicate recovery criteria not met
LCP	Laboratory control sample/laboratory control sample duplicate precision criteria not met; potential bias indeterminate
LD	Laboratory duplicate precision criteria not met; potential bias indeterminate
MDP	Laboratory deviated from the method for a method-defined parameter, based on regulatory requirements
MS	Matrix spike/matrix spike duplicate recovery criteria not met
MSP	Matrix spike/matrix spike duplicate precision criteria not met; potential bias indeterminate
PD	Post-digestion spike recovery criteria not met
OT	Other deficiencies, see report for additional details
PS	Low percent solids; potential bias indeterminate
RA	Replicate/multiple analyses criteria not met; potential bias indeterminate
RL	The analysis meets all qualitative identification criteria, but the measured concentration is between the method detection limit and the quantitation or reporting limit; potential bias indeterminate
RS	Reporting limit standard(s) outside of acceptance limits
SC	Relative percent difference between two columns exceeds criteria; potential bias indeterminate
SP	Sample preservation criteria not met
SR	Surrogate recovery criteria not met
ST	Sample container type incorrect
SU	Sample result is less than the two-sigma uncertainty
SUN	Absolute value of the negative sample result is greater than the two-sigma uncertainty
SW	Sample switch suspected
TD	Result for dissolved constituent significantly exceeded result for total constituent; potential bias indeterminate
TIC	Tentatively identified compound, quantified using an assumed calibration factor; potential bias indeterminate

Lab Sample ID	E5E0760-01
Sys Sample Code	T042-244844
Sample Name	T042-244844
Sample Date	5/21/2025 2:30:00 PM
Sample Type	N
Matrix	GW
Parent Sample	
% Moisture	

Analytic Method	Chemical Name	CAS Rn	Fraction	Test Type	Result Unit	Final Result	Final Qual	Reason code	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
BART	Iron Related Bacteria	IRB	N	INITIAL	cfu/ml		U		1	1	1	N	Yes	1	NA
	Slime Forming Bacteria	SLYM	N	INITIAL	cfu/ml		U		20	20	20	N	Yes	1	NA
	Sulfate Reducing Bacteria	SRB	N	INITIAL	cfu/ml		U		5	5	5	N	Yes	1	NA
E200.8	Barium	7440-39-3	D	INITIAL	ug/L	16.2			4.00	4.00	4.00	Y	Yes	1	NA
	Boron	7440-42-8	D	INITIAL	ug/L	91.7			15.0	15.0	15.0	Y	Yes	1	NA
	Calcium	7440-70-2	D	INITIAL	ug/L	5830			200	200	200	Y	Yes	1	NA
	Iron	7439-89-6	D	INITIAL	ug/L		U		100	100	100	N	Yes	1	NA
	Magnesium	7439-95-4	D	INITIAL	ug/L	1090			30.0	30.0	30.0	Y	Yes	1	NA
	Manganese	7439-96-5	D	INITIAL	ug/L	20.7			5.00	5.00	5.00	Y	Yes	1	NA
	Potassium	7440-09-7	D	INITIAL	ug/L	1440			300	300	300	Y	Yes	1	NA
	Selenium	7782-49-2	D	INITIAL	ug/L		U		5.00	5.00	5.00	N	Yes	1	NA
	Sodium	7440-23-5	D	DILUTION	ug/L	180000			2500	2500	2500	Y	Yes	10	NA
Strontium	7440-24-6	D	INITIAL	ug/L	166			10.0	10.0	10.0	Y	Yes	1	NA	
E353.2	Nitrogen, Nitrate-Nitrite	NO2-NO3	N	DILUTION	mg/L		U		0.100	0.100	0.100	N	Yes	5	NA
E365.4	Phosphorus, Total	7723-14-0	N	INITIAL	mg/L		U	BL	0.0800	0.0800	0.0800	N	Yes	1	NA
RSK175	Ethane	74-84-0	N	INITIAL	ug/L		U		10.0	10.0	10.0	N	Yes	1	NA
	Methane	74-82-8	N	INITIAL	ug/L	13			10.0	10.0	10.0	Y	Yes	1	NA
	Propane	74-98-6	N	INITIAL	ug/L		U		10.0	10.0	10.0	N	Yes	1	NA
SM 2540C	Total Dissolved Solids (Residue, Filterable)	10-33-3	N	INITIAL	mg/L	514			5.00	5.00	5.00	Y	Yes	1	NA
SM2320B	Alkalinity, Bicarbonate (As CaCO3)	71-52-3	N	INITIAL	mg/L	240			2.00	2.00	2.00	Y	Yes	1	NA
	Alkalinity, Carbonate (As CaCO3)	10-14-0	N	INITIAL	mg/L	16.0			2.00	2.00	2.00	Y	Yes	1	NA
	Alkalinity, total (As CaCO3)	TotAlk	N	INITIAL	mg/L	256			2.00	2.00	2.00	Y	Yes	1	NA
SW8015	Diesel Range Organics	DROC10C28	N	INITIAL	ug/L		U		192	192	192	N	Yes	1	NA
	TVPH-Gasoline Range Organics	8006-61-9	N	INITIAL	ug/L		U		100	100	100	N	Yes	1	NA
SW8260	1,2,4-Trimethylbenzene	95-63-6	N	INITIAL	ug/L		U		2.00	2.00	2.00	N	Yes	1	NA
	1,3,5-Trimethylbenzene	108-67-8	N	INITIAL	ug/L		U		2.00	2.00	2.00	N	Yes	1	NA
	Benzene	71-43-2	N	INITIAL	ug/L		U		1.00	1.00	1.00	N	Yes	1	NA
	Ethylbenzene	100-41-4	N	INITIAL	ug/L		U		1.00	1.00	1.00	N	Yes	1	NA
	Naphthalene	91-20-3	N	INITIAL	ug/L		U		2.00	2.00	2.00	N	Yes	1	NA
	Toluene	108-88-3	N	INITIAL	ug/L		U		1.00	1.00	1.00	N	Yes	1	NA
	Xylene, total	1330-20-7	N	INITIAL	ug/L		U		1.00	1.00	1.00	N	Yes	1	NA
SW8270	1,2,4-Trichlorobenzene	120-82-1	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	1,2-Dichlorobenzene	95-50-1	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA

Lab Sample ID	E5E0760-01
Sys Sample Code	T042-244844
Sample Name	T042-244844
Sample Date	5/21/2025 2:30:00 PM
Sample Type	N
Matrix	GW
Parent Sample	
% Moisture	

Analytic Method	Chemical Name	CAS Rn	Fraction	Test Type	Result Unit	Final Result	Final Qual	Reason code	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
SW8270	1,2-Diphenylhydrazine	122-66-7	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	1,3-Dichlorobenzene	541-73-1	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	1,4-Dichlorobenzene	106-46-7	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	1,4-Dioxane (p-Dioxane)	123-91-1	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	1-Methylnaphthalene	90-12-0	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	2,4,5-Trichlorophenol	95-95-4	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	2,4,6-Trichlorophenol	88-06-2	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	2,4-Dichlorophenol	120-83-2	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	2,4-Dimethylphenol	105-67-9	N	INITIAL	ug/L		UJ	LC	9.69	9.69	9.69	N	Yes	1	NA
	2,4-Dinitrophenol	51-28-5	N	INITIAL	ug/L		U		19.4	19.4	19.4	N	Yes	1	NA
	2,4-Dinitrotoluene	121-14-2	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	2,6-Dinitrotoluene	606-20-2	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	2-Chloronaphthalene	91-58-7	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	2-Chlorophenol	95-57-8	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	2-Methylnaphthalene	91-57-6	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	2-Nitrophenol	88-75-5	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	3,3'-Dichlorobenzidine	91-94-1	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	4-Bromophenyl phenyl ether	101-55-3	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	4-Chlorophenyl phenyl ether	7005-72-3	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	4-Nitrophenol	100-02-7	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	Acenaphthene	83-32-9	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Acenaphthylene	208-96-8	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Anthracene	120-12-7	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Benzidine	92-87-5	N	INITIAL	ug/L		UJ	LC	9.69	9.69	9.69	N	Yes	1	NA
	Benzo(a)anthracene	56-55-3	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Benzo(a)pyrene	50-32-8	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Benzo(b)Fluoranthene	205-99-2	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Benzo(g,h,i)Perylene	191-24-2	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Benzo(k)Fluoranthene	207-08-9	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Bis(2-Chloro-1-methylethyl)ether	108-60-1	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	bis(2-Chloroethoxy) methane	111-91-1	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	bis(2-Chloroethyl) ether	111-44-4	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	bis(2-Ethylhexyl) phthalate	117-81-7	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA

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Sys Sample Code	T042-244844
Sample Name	T042-244844
Sample Date	5/21/2025 2:30:00 PM
Sample Type	N
Matrix	GW
Parent Sample	
% Moisture	

Analytic Method	Chemical Name	CAS Rn	Fraction	Test Type	Result Unit	Final Result	Final Qual	Reason code	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
SW8270	Butyl Benzyl Phthalate	85-68-7	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Chrysene	218-01-9	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Dibenz(a,h)Anthracene	53-70-3	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Diethyl phthalate	84-66-2	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Dimethyl phthalate	131-11-3	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Di-n-butyl phthalate	84-74-2	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Di-n-Octyl phthalate	117-84-0	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Diphenyl amine	122-39-4	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	Fluoranthene	206-44-0	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Fluorene	86-73-7	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Hexachlorobenzene	118-74-1	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	Hexachlorobutadiene	87-68-3	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	Hexachlorocyclopentadiene	77-47-4	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	Hexachloroethane	67-72-1	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	Indeno(1,2,3-c,d)Pyrene	193-39-5	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Isophorone	78-59-1	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	M, P-CRESOLS	65794-96-9	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	Naphthalene	91-20-3	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Nitrobenzene	98-95-3	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	n-Nitrosodimethylamine	62-75-9	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	n-Nitrosodi-n-Propylamine	621-64-7	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	o-cresol	95-48-7	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	Pentachlorophenol	87-86-5	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	Phenanthrene	85-01-8	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Phenol	108-95-2	N	INITIAL	ug/L		U		9.69	9.69	9.69	N	Yes	1	NA
	Pyrene	129-00-0	N	INITIAL	ug/L		U		0.969	0.969	0.969	N	Yes	1	NA
	Pyridine	110-86-1	N	INITIAL	ug/L		UJ	LC	9.69	9.69	9.69	N	Yes	1	NA
SW9040	pH	10-29-7	N	INITIAL	SU	8.66	J	HT				Y	Yes	1	NA
SW9050A	Specific Conductance	10-34-4	N	INITIAL	uS/cm	884			5.00	5.00	5.00	Y	Yes	1	NA

Lab Sample ID	E5E0760-02
Sys Sample Code	TRIPBLANK01_20250521_1330
Sample Name	TripBlank01
Sample Date	5/21/2025 1:30:00 PM
Sample Type	TB
Matrix	WQ
Parent Sample	
% Moisture	

Analytic Method	Chemical Name	CAS Rn	Fraction	Test Type	Result Unit	Final Result	Final Qual	Reason code	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
SW8260	1,2,4-Trimethylbenzene	95-63-6	N	INITIAL	ug/L		U		2.00	2.00	2.00	N	Yes	1	NA
	1,3,5-Trimethylbenzene	108-67-8	N	INITIAL	ug/L		U		2.00	2.00	2.00	N	Yes	1	NA
	Benzene	71-43-2	N	INITIAL	ug/L		U		1.00	1.00	1.00	N	Yes	1	NA
	Ethylbenzene	100-41-4	N	INITIAL	ug/L		U		1.00	1.00	1.00	N	Yes	1	NA
	Naphthalene	91-20-3	N	INITIAL	ug/L		U		2.00	2.00	2.00	N	Yes	1	NA
	Toluene	108-88-3	N	INITIAL	ug/L		U		1.00	1.00	1.00	N	Yes	1	NA
	Xylene, total	1330-20-7	N	INITIAL	ug/L		U		1.00	1.00	1.00	N	Yes	1	NA