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

LAB CHRONICLE

OrderID:	Q2333	**OrderDate:**	6/13/2025 3:21:44 PM
Client:	LiRo Engineers, Inc.	**Project:**	RFK Bridge RMB-Randall Island
Contact:	Martin Wesolowski	**Location:**	D51,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2333-01	**MW-06**	**Water**			**06/12/25**			**06/13/25**
			VOCMS Group1	8260-Low			06/19/25	
Q2333-02	**MW-08**	**Water**			**06/12/25**			**06/13/25**
			VOCMS Group1	8260-Low			06/19/25	
Q2333-02DL	**MW-08DL**	**Water**			**06/12/25**			**06/13/25**
			VOCMS Group1	8260-Low			06/19/25	
Q2333-03	**MW-10**	**Water**			**06/12/25**			**06/13/25**
			VOCMS Group1	8260-Low			06/19/25	
Q2333-04	**MW-11**	**Water**			**06/12/25**			**06/13/25**
			VOCMS Group1	8260-Low			06/19/25	
Q2333-05	**MW-13**	**Water**			**06/12/25**			**06/13/25**
			VOCMS Group1	8260-Low			06/19/25	
Q2333-06	**MW-12**	**Water**			**06/12/25**			**06/13/25**
			VOCMS Group1	8260-Low			06/19/25	
Q2333-06DL	**MW-12DL**	**Water**			**06/12/25**			**06/13/25**
			VOCMS Group1	8260-Low			06/19/25	

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Hit Summary Sheet
SW-846

SDG No.: Q2333

Client: LiRo Engineers, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	**MW-06**							
Q2333-01	MW-06	Water	Benzene	3.10		0.15	1.00	ug/L
Q2333-01	MW-06	Water	Ethyl Benzene	1.40		0.13	1.00	ug/L
Q2333-01	MW-06	Water	Total Xylenes	1.00	J	0.36	3.00	ug/L
Q2333-01	MW-06	Water	m/p-Xylenes	1.00	J	0.24	2.00	ug/L
Q2333-01	MW-06	Water	Isopropylbenzene	14.7		0.12	1.00	ug/L
Q2333-01	MW-06	Water	n-propylbenzene	36.4		0.13	1.00	ug/L
Q2333-01	MW-06	Water	sec-Butylbenzene	2.50		0.13	1.00	ug/L
Q2333-01	MW-06	Water	n-Butylbenzene	1.70		0.15	1.00	ug/L
Q2333-01	MW-06	Water	Naphthalene	23.0		0.20	1.00	ug/L
			Total Voc :	83.8				
			Total Concentration:	83.8				
Client ID:	**MW-08**							
Q2333-02	MW-08	Water	Benzene	88.5		0.15	1.00	ug/L
Q2333-02	MW-08	Water	Toluene	22.0		0.14	1.00	ug/L
Q2333-02	MW-08	Water	Ethyl Benzene	520	E	0.13	1.00	ug/L
Q2333-02	MW-08	Water	Total Xylenes	1770	E	0.36	3.00	ug/L
Q2333-02	MW-08	Water	m/p-Xylenes	1200	E	0.24	2.00	ug/L
Q2333-02	MW-08	Water	o-Xylene	570	E	0.12	1.00	ug/L
Q2333-02	MW-08	Water	Isopropylbenzene	38.1		0.12	1.00	ug/L
Q2333-02	MW-08	Water	n-propylbenzene	79.6		0.13	1.00	ug/L
Q2333-02	MW-08	Water	1,3,5-Trimethylbenzene	46.5		0.15	1.00	ug/L
Q2333-02	MW-08	Water	1,2,4-Trimethylbenzene	890	E	0.14	1.00	ug/L
Q2333-02	MW-08	Water	sec-Butylbenzene	3.60		0.13	1.00	ug/L
Q2333-02	MW-08	Water	p-Isopropyltoluene	2.80		0.13	1.00	ug/L
Q2333-02	MW-08	Water	n-Butylbenzene	3.40		0.15	1.00	ug/L
Q2333-02	MW-08	Water	Naphthalene	350	E	0.20	1.00	ug/L
			Total Voc :	3810				
			Total Concentration:	3810				
Client ID:	**MW-08DL**							
Q2333-02DL	MW-08DL	Water	Benzene	120	D	3.00	20.0	ug/L
Q2333-02DL	MW-08DL	Water	Toluene	27.0	D	2.80	20.0	ug/L
Q2333-02DL	MW-08DL	Water	Ethyl Benzene	630	D	2.60	20.0	ug/L
Q2333-02DL	MW-08DL	Water	Total Xylenes	2170	D	7.20	60.0	ug/L
Q2333-02DL	MW-08DL	Water	m/p-Xylenes	1500	D	4.80	40.0	ug/L
Q2333-02DL	MW-08DL	Water	o-Xylene	670	D	2.40	20.0	ug/L
Q2333-02DL	MW-08DL	Water	Isopropylbenzene	44.3	D	2.40	20.0	ug/L

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Hit Summary Sheet
SW-846

SDG No.: Q2333

Client: LiRo Engineers, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q2333-02DL	MW-08DL	Water	n-propylbenzene	92.2	D	2.60	20.0	ug/L
Q2333-02DL	MW-08DL	Water	1,3,5-Trimethylbenzene	50.0	D	3.00	20.0	ug/L
Q2333-02DL	MW-08DL	Water	1,2,4-Trimethylbenzene	1100	D	2.80	20.0	ug/L
Q2333-02DL	MW-08DL	Water	Naphthalene	400	D	4.00	20.0	ug/L
			Total Voc :	4630				
			Total Concentration:	4630				
Client ID:	**MW-10**							
Q2333-03	MW-10	Water	Ethyl Benzene	0.31	J	0.13	1.00	ug/L
Q2333-03	MW-10	Water	Total Xylenes	0.85	J	0.36	3.00	ug/L
Q2333-03	MW-10	Water	m/p-Xylenes	0.85	J	0.24	2.00	ug/L
Q2333-03	MW-10	Water	Isopropylbenzene	2.90		0.12	1.00	ug/L
Q2333-03	MW-10	Water	n-propylbenzene	0.86	J	0.13	1.00	ug/L
Q2333-03	MW-10	Water	tert-Butylbenzene	0.30	J	0.14	1.00	ug/L
Q2333-03	MW-10	Water	1,2,4-Trimethylbenzene	1.80		0.14	1.00	ug/L
Q2333-03	MW-10	Water	sec-Butylbenzene	0.93	J	0.13	1.00	ug/L
			Total Voc :	7.95				
			Total Concentration:	7.95				
Client ID:	**MW-11**							
Q2333-04	MW-11	Water	Ethyl Benzene	0.30	J	0.13	1.00	ug/L
Q2333-04	MW-11	Water	Total Xylenes	1.05	J	0.36	3.00	ug/L
Q2333-04	MW-11	Water	m/p-Xylenes	0.79	J	0.24	2.00	ug/L
Q2333-04	MW-11	Water	o-Xylene	0.26	J	0.12	1.00	ug/L
Q2333-04	MW-11	Water	1,2,4-Trimethylbenzene	1.70		0.14	1.00	ug/L
Q2333-04	MW-11	Water	Naphthalene	0.61	J	0.20	1.00	ug/L
			Total Voc :	3.66				
			Total Concentration:	3.66				
Client ID:	**MW-13**							
Q2333-05	MW-13	Water	Benzene	0.80	J	0.15	1.00	ug/L
Q2333-05	MW-13	Water	Ethyl Benzene	1.70		0.13	1.00	ug/L
Q2333-05	MW-13	Water	Total Xylenes	2.70	J	0.36	3.00	ug/L
Q2333-05	MW-13	Water	m/p-Xylenes	1.50	J	0.24	2.00	ug/L
Q2333-05	MW-13	Water	o-Xylene	1.20		0.12	1.00	ug/L
Q2333-05	MW-13	Water	1,2,4-Trimethylbenzene	0.71	J	0.14	1.00	ug/L
Q2333-05	MW-13	Water	Naphthalene	0.34	J	0.20	1.00	ug/L
			Total Voc :	6.25				
			Total Concentration:	6.25				
Client ID:	**MW-12**							
Q2333-06	MW-12	Water	Benzene	200	E	0.15	1.00	ug/L

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Hit Summary Sheet
SW-846

SDG No.: Q2333

Client: LiRo Engineers, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q2333-06	MW-12	Water	Toluene	58.0		0.14	1.00	ug/L
Q2333-06	MW-12	Water	Ethyl Benzene	730	E	0.13	1.00	ug/L
Q2333-06	MW-12	Water	Total Xylenes	540	E	0.36	3.00	ug/L
Q2333-06	MW-12	Water	m/p-Xylenes	370	E	0.24	2.00	ug/L
Q2333-06	MW-12	Water	o-Xylene	170	E	0.12	1.00	ug/L
Q2333-06	MW-12	Water	Isopropylbenzene	23.6		0.12	1.00	ug/L
Q2333-06	MW-12	Water	n-propylbenzene	49.1		0.13	1.00	ug/L
Q2333-06	MW-12	Water	1,3,5-Trimethylbenzene	4.50		0.15	1.00	ug/L
Q2333-06	MW-12	Water	1,2,4-Trimethylbenzene	480	E	0.14	1.00	ug/L
Q2333-06	MW-12	Water	sec-Butylbenzene	2.50		0.13	1.00	ug/L
Q2333-06	MW-12	Water	p-Isopropyltoluene	2.50		0.13	1.00	ug/L
Q2333-06	MW-12	Water	n-Butylbenzene	3.10		0.15	1.00	ug/L
Q2333-06	MW-12	Water	Naphthalene	140		0.20	1.00	ug/L
			Total Voc :	2230				
			Total Concentration:	2230				
Client ID:	**MW-12DL**							
Q2333-06DL	MW-12DL	Water	Benzene	210	D	1.50	10.0	ug/L
Q2333-06DL	MW-12DL	Water	Toluene	61.7	D	1.40	10.0	ug/L
Q2333-06DL	MW-12DL	Water	Ethyl Benzene	780	D	1.30	10.0	ug/L
Q2333-06DL	MW-12DL	Water	Total Xylenes	570	D	3.60	30.0	ug/L
Q2333-06DL	MW-12DL	Water	m/p-Xylenes	390	D	2.40	20.0	ug/L
Q2333-06DL	MW-12DL	Water	o-Xylene	180	D	1.20	10.0	ug/L
Q2333-06DL	MW-12DL	Water	Isopropylbenzene	23.2	D	1.20	10.0	ug/L
Q2333-06DL	MW-12DL	Water	n-propylbenzene	47.7	D	1.30	10.0	ug/L
Q2333-06DL	MW-12DL	Water	1,3,5-Trimethylbenzene	5.10	JD	1.50	10.0	ug/L
Q2333-06DL	MW-12DL	Water	1,2,4-Trimethylbenzene	500	D	1.40	10.0	ug/L
Q2333-06DL	MW-12DL	Water	sec-Butylbenzene	3.10	JD	1.30	10.0	ug/L
Q2333-06DL	MW-12DL	Water	p-Isopropyltoluene	2.80	JD	1.30	10.0	ug/L
Q2333-06DL	MW-12DL	Water	n-Butylbenzene	4.00	JD	1.50	10.0	ug/L
Q2333-06DL	MW-12DL	Water	Naphthalene	130	D	2.00	10.0	ug/L
			Total Voc :	2340				
			Total Concentration:	2340				

SAMPLE DATA

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	06/12/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	MW-06	SDG No.:	Q2333
Lab Sample ID:	Q2333-01	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087106.D	1		06/19/25 13:17	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.16	1.00	ug/L
71-43-2	Benzene	3.10		0.15	1.00	ug/L
108-88-3	Toluene	1.00	U	0.14	1.00	ug/L
100-41-4	Ethyl Benzene	1.40		0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	1.00	J	0.24	2.00	ug/L
1330-20-7	Total Xylenes	1.00	J	0.36	3.00	ug/L
95-47-6	o-Xylene	1.00	U	0.12	1.00	ug/L
98-82-8	Isopropylbenzene	14.7		0.12	1.00	ug/L
103-65-1	n-propylbenzene	36.4		0.13	1.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	1.00	U	0.15	1.00	ug/L
98-06-6	tert-Butylbenzene	1.00	U	0.14	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	1.00	U	0.14	1.00	ug/L
135-98-8	sec-Butylbenzene	2.50		0.13	1.00	ug/L
99-87-6	p-Isopropyltoluene	1.00	U	0.13	1.00	ug/L
104-51-8	n-Butylbenzene	1.70		0.15	1.00	ug/L
91-20-3	Naphthalene	23.0		0.20	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.0		74 - 125	110%	SPK: 50
1868-53-7	Dibromofluoromethane	53.9		75 - 124	108%	SPK: 50
2037-26-5	Toluene-d8	50.6		86 - 113	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.9		77 - 121	96%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	163000	8.23			
540-36-3	1,4-Difluorobenzene	328000	9.106			
3114-55-4	Chlorobenzene-d5	281000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	132000	13.788			

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	06/12/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	MW-06	SDG No.:	Q2333
Lab Sample ID:	Q2333-01	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087106.D	1		06/19/25 13:17	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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:	LiRo Engineers, Inc.	Date Collected:	06/12/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	MW-08	SDG No.:	Q2333
Lab Sample ID:	Q2333-02	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087107.D	1		06/19/25 13:38	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.16	1.00	ug/L
71-43-2	Benzene	88.5		0.15	1.00	ug/L
108-88-3	Toluene	22.0		0.14	1.00	ug/L
100-41-4	Ethyl Benzene	520	E	0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	1200	E	0.24	2.00	ug/L
1330-20-7	Total Xylenes	1770	E	0.36	3.00	ug/L
95-47-6	o-Xylene	570	E	0.12	1.00	ug/L
98-82-8	Isopropylbenzene	38.1		0.12	1.00	ug/L
103-65-1	n-propylbenzene	79.6		0.13	1.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	46.5		0.15	1.00	ug/L
98-06-6	tert-Butylbenzene	1.00	U	0.14	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	890	E	0.14	1.00	ug/L
135-98-8	sec-Butylbenzene	3.60		0.13	1.00	ug/L
99-87-6	p-Isopropyltoluene	2.80		0.13	1.00	ug/L
104-51-8	n-Butylbenzene	3.40		0.15	1.00	ug/L
91-20-3	Naphthalene	350	E	0.20	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.3		74 - 125	105%	SPK: 50
1868-53-7	Dibromofluoromethane	51.4		75 - 124	103%	SPK: 50
2037-26-5	Toluene-d8	52.9		86 - 113	106%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.2		77 - 121	94%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	261000	8.23			
540-36-3	1,4-Difluorobenzene	524000	9.106			
3114-55-4	Chlorobenzene-d5	470000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	202000	13.788			

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	06/12/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	MW-08	SDG No.:	Q2333
Lab Sample ID:	Q2333-02	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087107.D	1		06/19/25 13:38	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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:	LiRo Engineers, Inc.	Date Collected:	06/12/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	MW-08DL	SDG No.:	Q2333
Lab Sample ID:	Q2333-02DL	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087114.D	20		06/19/25 16:07	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
1634-04-4	Methyl tert-butyl Ether	20.0	UD	3.20	20.0	ug/L
71-43-2	Benzene	120	D	3.00	20.0	ug/L
108-88-3	Toluene	27.0	D	2.80	20.0	ug/L
100-41-4	Ethyl Benzene	630	D	2.60	20.0	ug/L
179601-23-1	m/p-Xylenes	1500	D	4.80	40.0	ug/L
1330-20-7	Total Xylenes	2170	D	7.20	60.0	ug/L
95-47-6	o-Xylene	670	D	2.40	20.0	ug/L
98-82-8	Isopropylbenzene	44.3	D	2.40	20.0	ug/L
103-65-1	n-propylbenzene	92.2	D	2.60	20.0	ug/L
108-67-8	1,3,5-Trimethylbenzene	50.0	D	3.00	20.0	ug/L
98-06-6	tert-Butylbenzene	20.0	UD	2.80	20.0	ug/L
95-63-6	1,2,4-Trimethylbenzene	1100	D	2.80	20.0	ug/L
135-98-8	sec-Butylbenzene	20.0	UD	2.60	20.0	ug/L
99-87-6	p-Isopropyltoluene	20.0	UD	2.60	20.0	ug/L
104-51-8	n-Butylbenzene	20.0	UD	3.00	20.0	ug/L
91-20-3	Naphthalene	400	D	4.00	20.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.1		74 - 125	108%	SPK: 50
1868-53-7	Dibromofluoromethane	51.8		75 - 124	104%	SPK: 50
2037-26-5	Toluene-d8	52.4		86 - 113	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.8		77 - 121	100%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	183000	8.229			
540-36-3	1,4-Difluorobenzene	368000	9.106			
3114-55-4	Chlorobenzene-d5	333000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	162000	13.788			

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	06/12/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	MW-08DL	SDG No.:	Q2333
Lab Sample ID:	Q2333-02DL	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087114.D	20		06/19/25 16:07	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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:	LiRo Engineers, Inc.	Date Collected:	06/12/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	MW-10	SDG No.:	Q2333
Lab Sample ID:	Q2333-03	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087115.D	1		06/19/25 16:28	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.16	1.00	ug/L
71-43-2	Benzene	1.00	U	0.15	1.00	ug/L
108-88-3	Toluene	1.00	U	0.14	1.00	ug/L
100-41-4	Ethyl Benzene	0.31	J	0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	0.85	J	0.24	2.00	ug/L
1330-20-7	Total Xylenes	0.85	J	0.36	3.00	ug/L
95-47-6	o-Xylene	1.00	U	0.12	1.00	ug/L
98-82-8	Isopropylbenzene	2.90		0.12	1.00	ug/L
103-65-1	n-propylbenzene	0.86	J	0.13	1.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	1.00	U	0.15	1.00	ug/L
98-06-6	tert-Butylbenzene	0.30	J	0.14	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	1.80		0.14	1.00	ug/L
135-98-8	sec-Butylbenzene	0.93	J	0.13	1.00	ug/L
99-87-6	p-Isopropyltoluene	1.00	U	0.13	1.00	ug/L
104-51-8	n-Butylbenzene	1.00	U	0.15	1.00	ug/L
91-20-3	Naphthalene	1.00	U	0.20	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.0		74 - 125	110%	SPK: 50
1868-53-7	Dibromofluoromethane	51.8		75 - 124	104%	SPK: 50
2037-26-5	Toluene-d8	52.8		86 - 113	106%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.5		77 - 121	99%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	175000	8.23			
540-36-3	1,4-Difluorobenzene	354000	9.106			
3114-55-4	Chlorobenzene-d5	321000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	152000	13.788			

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	06/12/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	MW-10	SDG No.:	Q2333
Lab Sample ID:	Q2333-03	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087115.D	1		06/19/25 16:28	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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:	LiRo Engineers, Inc.	Date Collected:	06/12/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	MW-11	SDG No.:	Q2333
Lab Sample ID:	Q2333-04	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087109.D	1		06/19/25 14:21	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.16	1.00	ug/L
71-43-2	Benzene	1.00	U	0.15	1.00	ug/L
108-88-3	Toluene	1.00	U	0.14	1.00	ug/L
100-41-4	Ethyl Benzene	0.30	J	0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	0.79	J	0.24	2.00	ug/L
1330-20-7	Total Xylenes	1.05	J	0.36	3.00	ug/L
95-47-6	o-Xylene	0.26	J	0.12	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.12	1.00	ug/L
103-65-1	n-propylbenzene	1.00	U	0.13	1.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	1.00	U	0.15	1.00	ug/L
98-06-6	tert-Butylbenzene	1.00	U	0.14	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	1.70		0.14	1.00	ug/L
135-98-8	sec-Butylbenzene	1.00	U	0.13	1.00	ug/L
99-87-6	p-Isopropyltoluene	1.00	U	0.13	1.00	ug/L
104-51-8	n-Butylbenzene	1.00	U	0.15	1.00	ug/L
91-20-3	Naphthalene	0.61	J	0.20	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.7		74 - 125	105%	SPK: 50
1868-53-7	Dibromofluoromethane	51.5		75 - 124	103%	SPK: 50
2037-26-5	Toluene-d8	52.5		86 - 113	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.0		77 - 121	100%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	204000	8.229			
540-36-3	1,4-Difluorobenzene	406000	9.106			
3114-55-4	Chlorobenzene-d5	369000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	175000	13.788			

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	06/12/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	MW-11	SDG No.:	Q2333
Lab Sample ID:	Q2333-04	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087109.D	1		06/19/25 14:21	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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:	LiRo Engineers, Inc.	Date Collected:	06/12/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	MW-13	SDG No.:	Q2333
Lab Sample ID:	Q2333-05	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087110.D	1		06/19/25 14:42	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.16	1.00	ug/L
71-43-2	Benzene	0.80	J	0.15	1.00	ug/L
108-88-3	Toluene	1.00	U	0.14	1.00	ug/L
100-41-4	Ethyl Benzene	1.70		0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	1.50	J	0.24	2.00	ug/L
1330-20-7	Total Xylenes	2.70	J	0.36	3.00	ug/L
95-47-6	o-Xylene	1.20		0.12	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.12	1.00	ug/L
103-65-1	n-propylbenzene	1.00	U	0.13	1.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	1.00	U	0.15	1.00	ug/L
98-06-6	tert-Butylbenzene	1.00	U	0.14	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.71	J	0.14	1.00	ug/L
135-98-8	sec-Butylbenzene	1.00	U	0.13	1.00	ug/L
99-87-6	p-Isopropyltoluene	1.00	U	0.13	1.00	ug/L
104-51-8	n-Butylbenzene	1.00	U	0.15	1.00	ug/L
91-20-3	Naphthalene	0.34	J	0.20	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.0		74 - 125	102%	SPK: 50
1868-53-7	Dibromofluoromethane	51.4		75 - 124	103%	SPK: 50
2037-26-5	Toluene-d8	51.8		86 - 113	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.3		77 - 121	99%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	201000	8.23			
540-36-3	1,4-Difluorobenzene	398000	9.106			
3114-55-4	Chlorobenzene-d5	356000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	169000	13.788			

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	06/12/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	MW-13	SDG No.:	Q2333
Lab Sample ID:	Q2333-05	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087110.D	1		06/19/25 14:42	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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:	LiRo Engineers, Inc.	Date Collected:	06/12/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	MW-12	SDG No.:	Q2333
Lab Sample ID:	Q2333-06	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087111.D	1		06/19/25 15:03	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.16	1.00	ug/L
71-43-2	Benzene	200	E	0.15	1.00	ug/L
108-88-3	Toluene	58.0		0.14	1.00	ug/L
100-41-4	Ethyl Benzene	730	E	0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	370	E	0.24	2.00	ug/L
1330-20-7	Total Xylenes	540	E	0.36	3.00	ug/L
95-47-6	o-Xylene	170	E	0.12	1.00	ug/L
98-82-8	Isopropylbenzene	23.6		0.12	1.00	ug/L
103-65-1	n-propylbenzene	49.1		0.13	1.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	4.50		0.15	1.00	ug/L
98-06-6	tert-Butylbenzene	1.00	U	0.14	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	480	E	0.14	1.00	ug/L
135-98-8	sec-Butylbenzene	2.50		0.13	1.00	ug/L
99-87-6	p-Isopropyltoluene	2.50		0.13	1.00	ug/L
104-51-8	n-Butylbenzene	3.10		0.15	1.00	ug/L
91-20-3	Naphthalene	140		0.20	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.5		74 - 125	105%	SPK: 50
1868-53-7	Dibromofluoromethane	51.2		75 - 124	102%	SPK: 50
2037-26-5	Toluene-d8	51.9		86 - 113	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.7		77 - 121	97%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	189000	8.23			
540-36-3	1,4-Difluorobenzene	380000	9.106			
3114-55-4	Chlorobenzene-d5	339000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	153000	13.788			

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	06/12/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	MW-12	SDG No.:	Q2333
Lab Sample ID:	Q2333-06	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087111.D	1		06/19/25 15:03	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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:	LiRo Engineers, Inc.	Date Collected:	06/12/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	MW-12DL	SDG No.:	Q2333
Lab Sample ID:	Q2333-06DL	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087116.D	10		06/19/25 16:49	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
1634-04-4	Methyl tert-butyl Ether	10.0	UD	1.60	10.0	ug/L
71-43-2	Benzene	210	D	1.50	10.0	ug/L
108-88-3	Toluene	61.7	D	1.40	10.0	ug/L
100-41-4	Ethyl Benzene	780	D	1.30	10.0	ug/L
179601-23-1	m/p-Xylenes	390	D	2.40	20.0	ug/L
1330-20-7	Total Xylenes	570	D	3.60	30.0	ug/L
95-47-6	o-Xylene	180	D	1.20	10.0	ug/L
98-82-8	Isopropylbenzene	23.2	D	1.20	10.0	ug/L
103-65-1	n-propylbenzene	47.7	D	1.30	10.0	ug/L
108-67-8	1,3,5-Trimethylbenzene	5.10	JD	1.50	10.0	ug/L
98-06-6	tert-Butylbenzene	10.0	UD	1.40	10.0	ug/L
95-63-6	1,2,4-Trimethylbenzene	500	D	1.40	10.0	ug/L
135-98-8	sec-Butylbenzene	3.10	JD	1.30	10.0	ug/L
99-87-6	p-Isopropyltoluene	2.80	JD	1.30	10.0	ug/L
104-51-8	n-Butylbenzene	4.00	JD	1.50	10.0	ug/L
91-20-3	Naphthalene	130	D	2.00	10.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.9		74 - 125	106%	SPK: 50
1868-53-7	Dibromofluoromethane	51.0		75 - 124	102%	SPK: 50
2037-26-5	Toluene-d8	52.0		86 - 113	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.8		77 - 121	100%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	200000	8.23			
540-36-3	1,4-Difluorobenzene	403000	9.106			
3114-55-4	Chlorobenzene-d5	361000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	175000	13.788			

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	06/12/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	MW-12DL	SDG No.:	Q2333
Lab Sample ID:	Q2333-06DL	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087116.D	10		06/19/25 16:49	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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
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() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

QC SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Surrogate Summary

SDG No.: Q2333

Client: LiRo Engineers, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
Q2329-11MS	TT172S1-20250613MS	1,2-Dichloroethane-d4	50	50.0	100	74	125
		Dibromofluoromethane	50	55.6	111	75	124
		Toluene-d8	50	51.3	103	86	113
		4-Bromofluorobenzene	50	52.6	105	77	121
Q2329-12MSD	TT172S1-20250613MSD	1,2-Dichloroethane-d4	50	44.7	89	74	125
		Dibromofluoromethane	50	49.1	98	75	124
		Toluene-d8	50	45.9	92	86	113
		4-Bromofluorobenzene	50	46.6	93	77	121
Q2333-01	MW-06	1,2-Dichloroethane-d4	50	55.0	110	74	125
		Dibromofluoromethane	50	53.9	108	75	124
		Toluene-d8	50	50.6	101	86	113
		4-Bromofluorobenzene	50	47.9	96	77	121
Q2333-02	MW-08	1,2-Dichloroethane-d4	50	52.3	105	74	125
		Dibromofluoromethane	50	51.4	103	75	124
		Toluene-d8	50	52.9	106	86	113
		4-Bromofluorobenzene	50	47.2	94	77	121
Q2333-02DL	MW-08DL	1,2-Dichloroethane-d4	50	54.1	108	74	125
		Dibromofluoromethane	50	51.9	104	75	124
		Toluene-d8	50	52.4	105	86	113
		4-Bromofluorobenzene	50	49.8	100	77	121
Q2333-03	MW-10	1,2-Dichloroethane-d4	50	55.0	110	74	125
		Dibromofluoromethane	50	51.8	104	75	124
		Toluene-d8	50	52.8	106	86	113
		4-Bromofluorobenzene	50	49.5	99	77	121
Q2333-04	MW-11	1,2-Dichloroethane-d4	50	52.7	105	74	125
		Dibromofluoromethane	50	51.5	103	75	124
		Toluene-d8	50	52.5	105	86	113
		4-Bromofluorobenzene	50	50.0	100	77	121
Q2333-05	MW-13	1,2-Dichloroethane-d4	50	51.0	102	74	125
		Dibromofluoromethane	50	51.4	103	75	124
		Toluene-d8	50	51.8	104	86	113
		4-Bromofluorobenzene	50	49.3	99	77	121
Q2333-06	MW-12	1,2-Dichloroethane-d4	50	52.5	105	74	125
		Dibromofluoromethane	50	51.2	102	75	124
		Toluene-d8	50	51.9	104	86	113
		4-Bromofluorobenzene	50	48.7	97	77	121
Q2333-06DL	MW-12DL	1,2-Dichloroethane-d4	50	52.9	106	74	125
		Dibromofluoromethane	50	51.0	102	75	124
		Toluene-d8	50	52.0	104	86	113
		4-Bromofluorobenzene	50	49.8	100	77	121
VN0619WBL01	VN0619WBL01	1,2-Dichloroethane-d4	50	57.1	114	74	125
		Dibromofluoromethane	50	53.1	106	75	124
		Toluene-d8	50	53.8	108	86	113
		4-Bromofluorobenzene	50	48.9	98	77	121
VN0619WBS01	VN0619WBS01	1,2-Dichloroethane-d4	50	48.3	97	74	125
		Dibromofluoromethane	50	53.4	107	75	124
		Toluene-d8	50	49.9	100	86	113
		4-Bromofluorobenzene	50	50.3	101	77	121

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q2333

Client: LiRo Engineers, Inc.

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID :	**Q2329-11MS**	**Client Sample ID :**	**TT172S1-20250613MS**					**Datafile :**	VN087118.D		
Methyl tert-butyl Ether	50	0	56.2	ug/L	112				82	133	
Benzene	50	0	57.4	ug/L	115				81	128	
Toluene	50	0	58.6	ug/L	117	*			85	115	
Ethyl Benzene	50	0	55.6	ug/L	111				81	128	
m/p-Xylenes	100	0	120	ug/L	120				69	129	
o-Xylene	50	0	58.7	ug/L	117				75	127	
Isopropylbenzene	50	0	54.2	ug/L	108				76	121	
N-propylbenzene	50	0	52.4	ug/L	105				79	116	
1,3,5-Trimethylbenzene	50	0	54.3	ug/L	109				40	169	
tert-Butylbenzene	50	0	50.9	ug/L	102				80	116	
1,2,4-Trimethylbenzene	50	0.36	54.7	ug/L	109				81	116	
Sec-butylbenzene	50	0	49.6	ug/L	99				70	122	
p-Isopropyltoluene	50	0	50.6	ug/L	101				64	124	
n-Butylbenzene	50	0	45.3	ug/L	91				53	140	
Naphthalene	50	0	52.9	ug/L	106				79	124	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q2333

Client: LiRo Engineers, Inc.

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID :	**Q2329-12MSD**	**Client Sample ID :**	**TT172S1-20250613MSD**					**Datafile :**	VN087119.D		
Methyl tert-butyl Ether	50	0	52.3	ug/L	105		7		82	133	20
Benzene	50	0	53.1	ug/L	106		8		81	128	20
Toluene	50	0	53.7	ug/L	107		9		85	115	20
Ethyl Benzene	50	0	52.9	ug/L	106		5		81	128	20
m/p-Xylenes	100	0	110	ug/L	110		9		69	129	20
o-Xylene	50	0	55.9	ug/L	112		5		75	127	20
Isopropylbenzene	50	0	51.7	ug/L	103		5		76	121	20
N-propylbenzene	50	0	49.7	ug/L	99		5		79	116	20
1,3,5-Trimethylbenzene	50	0	51.1	ug/L	102		6		40	169	20
tert-Butylbenzene	50	0	48.4	ug/L	97		5		80	116	20
1,2,4-Trimethylbenzene	50	0.36	52.0	ug/L	103		6		81	116	20
Sec-butylbenzene	50	0	47.4	ug/L	95		5		70	122	20
p-Isopropyltoluene	50	0	47.8	ug/L	96		6		64	124	20
n-Butylbenzene	50	0	42.8	ug/L	86		6		53	140	20
Naphthalene	50	0	50.2	ug/L	100		5		79	124	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q2333

Client: LiRo Engineers, Inc.

Analytical Method: SW8260-Low **Datafile :** VN087104.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0619WBS01	Methyl tert-butyl Ether	20	18.1	ug/L	91			78	114	
	Benzene	20	19.2	ug/L	96			82	109	
	Toluene	20	19.5	ug/L	98			82	110	
	Ethyl Benzene	20	18.6	ug/L	93			83	109	
	m/p-Xylenes	40	38.5	ug/L	96			82	110	
	o-Xylene	20	18.7	ug/L	94			83	109	
	Isopropylbenzene	20	18.1	ug/L	91			83	112	
	N-propylbenzene	20	17.7	ug/L	89			83	112	
	1,3,5-Trimethylbenzene	20	18.2	ug/L	91			85	112	
	tert-Butylbenzene	20	16.6	ug/L	83			83	112	
	1,2,4-Trimethylbenzene	20	18.1	ug/L	91			85	111	
	Sec-butylbenzene	20	16.4	ug/L	82			81	114	
	p-Isopropyltoluene	20	16.5	ug/L	83			78	116	
	n-Butylbenzene	20	15.1	ug/L	76			75	115	
	Naphthalene	20	16.4	ug/L	82			78	119	

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0619WBL01

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: Q2333 SAS No.: Q2333 SDG NO.: Q2333

Lab File ID: VN087102.D Lab Sample ID: VN0619WBL01

Date Analyzed: 06/19/2025 Time Analyzed: 10:26

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN0619WBS01	VN0619WBS01	VN087104.D	06/19/2025
MW-06	Q2333-01	VN087106.D	06/19/2025
MW-08	Q2333-02	VN087107.D	06/19/2025
MW-11	Q2333-04	VN087109.D	06/19/2025
MW-13	Q2333-05	VN087110.D	06/19/2025
MW-12	Q2333-06	VN087111.D	06/19/2025
MW-08DL	Q2333-02DL	VN087114.D	06/19/2025
MW-10	Q2333-03	VN087115.D	06/19/2025
MW-12DL	Q2333-06DL	VN087116.D	06/19/2025
TT172S1-20250613MS	Q2329-11MS	VN087118.D	06/19/2025
TT172S1-20250613MSD	Q2329-12MSD	VN087119.D	06/19/2025

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: Q2333 SAS No.: Q2333 SDG NO.: Q2333

Lab File ID: VN086861.D BFB Injection Date: 06/06/2025

Instrument ID: MSVOA_N BFB Injection Time: 07:59

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.3
75	30.0 - 60.0% of mass 95	48.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.7 (1) 1
174	50.0 - 100.0% of mass 95	66.6
175	5.0 - 9.0% of mass 174	4.7 (7.1) 1
176	95.0 - 101.0% of mass 174	65.3 (98.1) 1
177	5.0 - 9.0% of mass 176	4.4 (6.8) 2

1-Value is % mass 174 2-Value is % mass 176

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
VSTDICC001	VSTDICC001	VN086862.D	06/06/2025	12:44
VSTDICC005	VSTDICC005	VN086863.D	06/06/2025	13:17
VSTDICC020	VSTDICC020	VN086864.D	06/06/2025	13:40
VSTDICCC050	VSTDICCC050	VN086865.D	06/06/2025	14:03
VSTDICC100	VSTDICC100	VN086866.D	06/06/2025	14:26
VSTDICC150	VSTDICC150	VN086867.D	06/06/2025	14:49

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: Q2333 SAS No.: Q2333 SDG NO.: Q2333

Lab File ID: VN087099.D BFB Injection Date: 06/19/2025

Instrument ID: MSVOA_N BFB Injection Time: 08:58

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.1
75	30.0 - 60.0% of mass 95	44.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	0.7 (1) 1
174	50.0 - 100.0% of mass 95	70.2
175	5.0 - 9.0% of mass 174	5 (7.1) 1
176	95.0 - 101.0% of mass 174	68.6 (97.7) 1
177	5.0 - 9.0% of mass 176	4.5 (6.5) 2

1-Value is % mass 174 2-Value is % mass 176

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
VSTDCCC050	VSTDCCC050	VN087100.D	06/19/2025	09:31
VN0619WBL01	VN0619WBL01	VN087102.D	06/19/2025	10:26
VN0619WBS01	VN0619WBS01	VN087104.D	06/19/2025	12:22
MW-06	Q2333-01	VN087106.D	06/19/2025	13:17
MW-08	Q2333-02	VN087107.D	06/19/2025	13:38
MW-11	Q2333-04	VN087109.D	06/19/2025	14:21
MW-13	Q2333-05	VN087110.D	06/19/2025	14:42
MW-12	Q2333-06	VN087111.D	06/19/2025	15:03
MW-08DL	Q2333-02DL	VN087114.D	06/19/2025	16:07
MW-10	Q2333-03	VN087115.D	06/19/2025	16:28
MW-12DL	Q2333-06DL	VN087116.D	06/19/2025	16:49
TT172S1-20250613MS	Q2329-11MS	VN087118.D	06/19/2025	17:31
TT172S1-20250613MSD	Q2329-12MSD	VN087119.D	06/19/2025	17:52

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: Q2333 SAS No.: Q2333 SDG NO.: Q2333

Lab File ID: VN087100.D Date Analyzed: 06/19/2025

Instrument ID: MSVOA_N Time Analyzed: 09:31

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	157053	8.23	278046	9.11	245271	11.87
UPPER LIMIT	314106	8.729	556092	9.606	490542	12.365
LOWER LIMIT	78526.5	7.729	139023	8.606	122636	11.365
EPA SAMPLE NO.						
TT172S1-20250613MS	180737	8.23	323339	9.11	287602	11.87
TT172S1-20250613MSD	177485	8.23	324249	9.11	281966	11.87
MW-06	163392	8.23	328324	9.11	281009	11.87
MW-08	260611	8.23	524185	9.11	470225	11.87
MW-08DL	183164	8.23	368444	9.11	333195	11.87
MW-10	174663	8.23	354191	9.11	320832	11.87
MW-11	203941	8.23	406474	9.11	369075	11.87
MW-13	200534	8.23	398084	9.11	356355	11.87
MW-12	189269	8.23	379701	9.11	338791	11.87
MW-12DL	199848	8.23	402925	9.11	360708	11.87
VN0619WBL01	180966	8.23	368878	9.11	337249	11.87
VN0619WBS01	168651	8.23	300634	9.11	265368	11.87

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

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 LOWER 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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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: Q2333 SAS No.: Q2333 SDG NO.: Q2333

Lab File ID: VN087100.D Date Analyzed: 06/19/2025

Instrument ID: MSVOA_N Time Analyzed: 09:31

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	126484	13.788				
UPPER LIMIT	252968	14.288				
LOWER LIMIT	63242	13.288				
EPA SAMPLE NO.						
TT172S1-20250613MS	145576	13.79				
TT172S1-20250613MSD	142178	13.79				
MW-06	131506	13.79				
MW-08	201938	13.79				
MW-08DL	162105	13.79				
MW-10	152345	13.79				
MW-11	174687	13.79				
MW-13	169301	13.79				
MW-12	153356	13.79				
MW-12DL	175112	13.79				
VN0619WBL01	156562	13.79				
VN0619WBS01	132931	13.79				

IS4 = 1,4-Dichlorobenzene-d4

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 LOWER 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:	LiRo Engineers, Inc.	Date Collected:	
Project:	RFK Bridge RMB-Randall Island	Date Received:	
Client Sample ID:	VN0619WBL01	SDG No.:	Q2333
Lab Sample ID:	VN0619WBL01	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087102.D	1		06/19/25 10:26	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.16	1.00	ug/L
71-43-2	Benzene	1.00	U	0.15	1.00	ug/L
108-88-3	Toluene	1.00	U	0.14	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.24	2.00	ug/L
1330-20-7	Total Xylenes	3.00	U	0.36	3.00	ug/L
95-47-6	o-Xylene	1.00	U	0.12	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.12	1.00	ug/L
103-65-1	n-propylbenzene	1.00	U	0.13	1.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	1.00	U	0.15	1.00	ug/L
98-06-6	tert-Butylbenzene	1.00	U	0.14	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	1.00	U	0.14	1.00	ug/L
135-98-8	sec-Butylbenzene	1.00	U	0.13	1.00	ug/L
99-87-6	p-Isopropyltoluene	1.00	U	0.13	1.00	ug/L
104-51-8	n-Butylbenzene	1.00	U	0.15	1.00	ug/L
91-20-3	Naphthalene	1.00	U	0.20	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.1		74 - 125	114%	SPK: 50
1868-53-7	Dibromofluoromethane	53.1		75 - 124	106%	SPK: 50
2037-26-5	Toluene-d8	53.8		86 - 113	108%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.9		77 - 121	98%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	181000	8.23			
540-36-3	1,4-Difluorobenzene	369000	9.106			
3114-55-4	Chlorobenzene-d5	337000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	157000	13.788			

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	
Project:	RFK Bridge RMB-Randall Island	Date Received:	
Client Sample ID:	VN0619WBL01	SDG No.:	Q2333
Lab Sample ID:	VN0619WBL01	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087102.D	1		06/19/25 10:26	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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:	LiRo Engineers, Inc.	Date Collected:	
Project:	RFK Bridge RMB-Randall Island	Date Received:	
Client Sample ID:	VN0619WBS01	SDG No.:	Q2333
Lab Sample ID:	VN0619WBS01	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087104.D	1		06/19/25 12:22	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
1634-04-4	Methyl tert-butyl Ether	18.1		0.16	1.00	ug/L
71-43-2	Benzene	19.2		0.15	1.00	ug/L
108-88-3	Toluene	19.5		0.14	1.00	ug/L
100-41-4	Ethyl Benzene	18.6		0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	38.5		0.24	2.00	ug/L
1330-20-7	Total Xylenes	57.2		0.36	3.00	ug/L
95-47-6	o-Xylene	18.7		0.12	1.00	ug/L
98-82-8	Isopropylbenzene	18.1		0.12	1.00	ug/L
103-65-1	n-propylbenzene	17.7		0.13	1.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	18.2		0.15	1.00	ug/L
98-06-6	tert-Butylbenzene	16.6		0.14	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	18.1		0.14	1.00	ug/L
135-98-8	sec-Butylbenzene	16.4		0.13	1.00	ug/L
99-87-6	p-Isopropyltoluene	16.5		0.13	1.00	ug/L
104-51-8	n-Butylbenzene	15.1		0.15	1.00	ug/L
91-20-3	Naphthalene	16.4		0.20	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.3		74 - 125	97%	SPK: 50
1868-53-7	Dibromofluoromethane	53.3		75 - 124	107%	SPK: 50
2037-26-5	Toluene-d8	49.9		86 - 113	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.3		77 - 121	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	169000	8.23			
540-36-3	1,4-Difluorobenzene	301000	9.106			
3114-55-4	Chlorobenzene-d5	265000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	133000	13.788			

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	
Project:	RFK Bridge RMB-Randall Island	Date Received:	
Client Sample ID:	VN0619WBS01	SDG No.:	Q2333
Lab Sample ID:	VN0619WBS01	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087104.D	1		06/19/25 12:22	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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:	LiRo Engineers, Inc.	Date Collected:	06/13/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	TT172S1-20250613MS	SDG No.:	Q2333
Lab Sample ID:	Q2329-11MS	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087118.D	1		06/19/25 17:31	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
1634-04-4	Methyl tert-butyl Ether	56.2		0.16	1.00	ug/L
71-43-2	Benzene	57.4		0.15	1.00	ug/L
108-88-3	Toluene	58.6		0.14	1.00	ug/L
100-41-4	Ethyl Benzene	55.6		0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	120		0.24	2.00	ug/L
1330-20-7	Total Xylenes	179		0.36	3.00	ug/L
95-47-6	o-Xylene	58.7		0.12	1.00	ug/L
98-82-8	Isopropylbenzene	54.2		0.12	1.00	ug/L
103-65-1	n-propylbenzene	52.4		0.13	1.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	54.3		0.15	1.00	ug/L
98-06-6	tert-Butylbenzene	50.9		0.14	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	54.7		0.14	1.00	ug/L
135-98-8	sec-Butylbenzene	49.6		0.13	1.00	ug/L
99-87-6	p-Isopropyltoluene	50.6		0.13	1.00	ug/L
104-51-8	n-Butylbenzene	45.3		0.15	1.00	ug/L
91-20-3	Naphthalene	52.9		0.20	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.0		74 - 125	100%	SPK: 50
1868-53-7	Dibromofluoromethane	55.7		75 - 124	111%	SPK: 50
2037-26-5	Toluene-d8	51.3		86 - 113	103%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.6		77 - 121	105%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	181000	8.23			
540-36-3	1,4-Difluorobenzene	323000	9.106			
3114-55-4	Chlorobenzene-d5	288000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	146000	13.788			

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	06/13/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	TT172S1-20250613MS	SDG No.:	Q2333
Lab Sample ID:	Q2329-11MS	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087118.D	1		06/19/25 17:31	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	06/13/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	TT172S1-20250613MSD	SDG No.:	Q2333
Lab Sample ID:	Q2329-12MSD	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087119.D	1		06/19/25 17:52	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
1634-04-4	Methyl tert-butyl Ether	52.3		0.16	1.00	ug/L
71-43-2	Benzene	53.1		0.15	1.00	ug/L
108-88-3	Toluene	53.7		0.14	1.00	ug/L
100-41-4	Ethyl Benzene	52.9		0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	110		0.24	2.00	ug/L
1330-20-7	Total Xylenes	166		0.36	3.00	ug/L
95-47-6	o-Xylene	55.9		0.12	1.00	ug/L
98-82-8	Isopropylbenzene	51.7		0.12	1.00	ug/L
103-65-1	n-propylbenzene	49.7		0.13	1.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	51.1		0.15	1.00	ug/L
98-06-6	tert-Butylbenzene	48.4		0.14	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	52.0		0.14	1.00	ug/L
135-98-8	sec-Butylbenzene	47.4		0.13	1.00	ug/L
99-87-6	p-Isopropyltoluene	47.8		0.13	1.00	ug/L
104-51-8	n-Butylbenzene	42.8		0.15	1.00	ug/L
91-20-3	Naphthalene	50.2		0.20	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	44.7		74 - 125	89%	SPK: 50
1868-53-7	Dibromofluoromethane	49.1		75 - 124	98%	SPK: 50
2037-26-5	Toluene-d8	45.9		86 - 113	92%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.6		77 - 121	93%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	177000	8.23			
540-36-3	1,4-Difluorobenzene	324000	9.106			
3114-55-4	Chlorobenzene-d5	282000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	142000	13.788			

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	06/13/25
Project:	RFK Bridge RMB-Randall Island	Date Received:	06/13/25
Client Sample ID:	TT172S1-20250613MSD	SDG No.:	Q2333
Lab Sample ID:	Q2329-12MSD	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN087119.D	1		06/19/25 17:52	VN061925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
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LOD = Limit of Detection
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J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
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() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CALIBRATION SUMMARY

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: Q2333 SAS No.: Q2333 SDG No.: Q2333

Instrument ID: MSVOA_N Calibration Date(s): 06/06/2025 06/06/2025

Heated Purge: (Y/N) N Calibration Time(s): 12:44 14:49

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF001 = VN086862.D RRF005 = VN086863.D RRF020 = VN086864.D
RRF050 = VN086865.D RRF100 = VN086866.D RRF150 = VN086867.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Methyl tert-butyl Ether	2.120	2.038	2.051	1.933	2.021	1.926	2.015	3.7
Benzene	1.588	1.501	1.444	1.345	1.414	1.371	1.444	6.2
Toluene	0.918	0.914	0.885	0.835	0.883	0.859	0.882	3.6
Ethyl Benzene	1.989	1.975	1.907	1.796	1.913	1.816	1.900	4.2
m/p-Xylenes	0.730	0.751	0.741	0.701	0.736	0.703	0.727	2.8
o-Xylene	0.714	0.699	0.702	0.674	0.711	0.678	0.696	2.4
Isopropylbenzene	3.864	3.749	3.649	3.426	3.621	3.546	3.643	4.2
n-propylbenzene	4.530	4.627	4.449	4.211	4.424	4.317	4.427	3.3
1,3,5-Trimethylbenzene	3.004	3.091	3.035	2.898	3.064	2.953	3.007	2.4
tert-Butylbenzene	2.942	2.810	2.736	2.617	2.745	2.668	2.753	4.1
1,2,4-Trimethylbenzene	2.952	3.122	3.063	2.914	3.075	2.968	3.016	2.7
sec-Butylbenzene	4.114	4.126	4.037	3.829	4.018	3.861	3.998	3.1
p-Isopropyltoluene	3.305	3.425	3.321	3.184	3.366	3.227	3.305	2.7
n-Butylbenzene	3.473	3.292	3.140	3.059	3.188	3.054	3.201	5
Naphthalene	3.820	3.727	3.761	3.600	3.839	3.772	3.753	2.3
1,2-Dichloroethane-d4		0.732	0.707	0.500	0.656	0.751	0.669	15.1
Dibromofluoromethane		0.303	0.310	0.219	0.298	0.351	0.296	16.2
Toluene-d8		1.245	1.203	0.861	1.178	1.377	1.173	16.2
4-Bromofluorobenzene		0.441	0.446	0.325	0.446	0.521	0.436	16.2

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: Q2333 SAS No.: Q2333 SDG No.: Q2333

Instrument ID: MSVOA_N Calibration Date/Time: 06/19/2025 09:31

Lab File ID: VN087100.D Init. Calib. Date(s): 06/06/2025 06/06/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 12:44 14:49

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Methyl tert-butyl Ether	2.015	2.213		9.83	20
Benzene	1.444	1.656		14.68	20
Toluene	0.882	1.023		15.99	20
Ethyl Benzene	1.900	2.140		12.63	20
m/p-Xylenes	0.727	0.852		17.19	20
o-Xylene	0.696	0.807		15.95	20
Isopropylbenzene	3.643	3.878		6.45	20
n-propylbenzene	4.427	4.633		4.65	20
1,3,5-Trimethylbenzene	3.007	3.222		7.15	20
tert-Butylbenzene	2.753	2.715		-1.38	20
1,2,4-Trimethylbenzene	3.016	3.240		7.43	20
sec-Butylbenzene	3.998	3.893		-2.63	20
p-Isopropyltoluene	3.305	3.279		-0.79	20
n-Butylbenzene	3.201	2.886		-9.84	20
Naphthalene	3.753	3.758		0.13	20
1,2-Dichloroethane-d4	0.669	0.604		-9.72	20
Dibromofluoromethane	0.296	0.296		0	20
Toluene-d8	1.173	1.094		-6.74	20
4-Bromofluorobenzene	0.436	0.411		-5.73	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.