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Automated Report

Technical Report for

Hydro-Environmental Technology, Inc.

8060.00 Indigo-Desoto Parish, LA

SGS Job Number: LA49120

Sampling Date: 10/24/18

Report to:

**Hydro-Environmental Technology
P.O. BOX 60295
Lafayette, LA 70596
labdata@hetinc.us**

ATTN: Stewart L Stover, Jr.

Total number of pages in report: 20



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Ron Benjamin
Ron Benjamin
Lab Director

Client Service contact: Ralph Frye 337-237-4775

Certifications: LDEQ(2048), LDHH(LA150012), AR(14-045-04), AZ(AZ0805), FL(E87657), IL(200082), KY(#31), NC(487), SC(73004001), NJ(LA007), TX(T104704186-15-7), WV(257)

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Test results relate only to samples analyzed.

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Sample Summary

Hydro-Environmental Technology, Inc.

Job No: LA49120

8060.00 Indigo-Desoto Parish, LA

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
LA49120-1	10/24/18	09:20	LV/EM10/25/18	AQ	Water	031-7764Z (NELSON-JOHNSON #2 RIG SUPPLY)
LA49120-2	10/24/18	11:15	LV/EM10/25/18	AQ	Water	031-8736Z (NELSON-MARTIN TIMBER ETAL 21 #1 RIG SUPPLY)
LA49120-3	10/24/18	12:10	LV/EM10/25/18	AQ	Water	031-6563Z (M. COWDIN IRRIGATION WELL)

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: 031-7764Z (NELSON-JOHNSON #2 RIG SUPPLY)	
Lab Sample ID: LA49120-1	Date Sampled: 10/24/18
Matrix: AQ - Water	Date Received: 10/25/18
Method: SW846 8260B	Percent Solids: n/a
Project: 8060.00 Indigo-Desoto Parish, LA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2J0056923.D	1	10/26/18 17:19	NN	n/a	n/a	V2J1650
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	0.050	mg/l	
71-43-2	Benzene	ND	0.0050	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	mg/l	
75-25-2	Bromoform	ND	0.0010	mg/l	
75-15-0	Carbon Disulfide	ND	0.0010	mg/l	
56-23-5	Carbon Tetrachloride	ND	0.0010	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	mg/l	
75-00-3	Chloroethane	ND	0.0010	mg/l	
67-66-3	Chloroform	ND	0.0010	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0010	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	mg/l	
540-59-0	1,2-Dichloroethene (total)	ND	0.0010	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	mg/l	
542-75-6	1,3-Dichloropropene (total)	ND	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0050	mg/l	
67-72-1	Hexachloroethane	ND	0.0010	mg/l	
78-83-1	Isobutyl Alcohol	ND	0.10	mg/l	
74-83-9	Methyl Bromide	ND	0.0010	mg/l	
74-87-3	Methyl Chloride	ND	0.0010	mg/l	
75-09-2	Methylene Chloride	ND	0.0010	mg/l	
78-93-3	Methyl Ethyl Ketone	ND	0.013	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.013	mg/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 031-7764Z (NELSON-JOHNSON #2 RIG SUPPLY)	
Lab Sample ID: LA49120-1	Date Sampled: 10/24/18
Matrix: AQ - Water	Date Received: 10/25/18
Method: SW846 8260B	Percent Solids: n/a
Project: 8060.00 Indigo-Desoto Parish, LA	

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.0050	mg/l	
100-42-5	Styrene	ND	0.0010	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00050	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	mg/l	
108-88-3	Toluene	ND	0.0050	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	mg/l	
75-01-4	Vinyl Chloride	ND	0.0010	mg/l	
	m,p-Xylene	ND	0.0050	mg/l	
95-47-6	o-Xylene	ND	0.0050	mg/l	
1330-20-7	Xylene (total)	ND	0.0050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	114%		84-124%
2037-26-5	Toluene-D8	97%		83-115%
460-00-4	4-Bromofluorobenzene	97%		89-111%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	031-8736Z (NELSON-MARTIN TIMBER ETAL 21 #1 RIG SUPPLY)		
Lab Sample ID:	LA49120-2	Date Sampled:	10/24/18
Matrix:	AQ - Water	Date Received:	10/25/18
Method:	SW846 8260B	Percent Solids:	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2J0056925.D	1	10/26/18 17:46	NN	n/a	n/a	V2J1650
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	0.050	mg/l	
71-43-2	Benzene	ND	0.0050	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	mg/l	
75-25-2	Bromoform	ND	0.0010	mg/l	
75-15-0	Carbon Disulfide	ND	0.0010	mg/l	
56-23-5	Carbon Tetrachloride	ND	0.0010	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	mg/l	
75-00-3	Chloroethane	ND	0.0010	mg/l	
67-66-3	Chloroform	ND	0.0010	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0010	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	mg/l	
540-59-0	1,2-Dichloroethene (total)	ND	0.0010	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	mg/l	
542-75-6	1,3-Dichloropropene (total)	ND	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0050	mg/l	
67-72-1	Hexachloroethane	ND	0.0010	mg/l	
78-83-1	Isobutyl Alcohol	ND	0.10	mg/l	
74-83-9	Methyl Bromide	ND	0.0010	mg/l	
74-87-3	Methyl Chloride	ND	0.0010	mg/l	
75-09-2	Methylene Chloride	ND	0.0010	mg/l	
78-93-3	Methyl Ethyl Ketone	ND	0.013	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.013	mg/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	031-8736Z (NELSON-MARTIN TIMBER ETAL 21 #1 RIG SUPPLY)		
Lab Sample ID:	LA49120-2	Date Sampled:	10/24/18
Matrix:	AQ - Water	Date Received:	10/25/18
Method:	SW846 8260B	Percent Solids:	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.0050	mg/l	
100-42-5	Styrene	ND	0.0010	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00050	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	mg/l	
108-88-3	Toluene	ND	0.0050	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	mg/l	
75-01-4	Vinyl Chloride	ND	0.0010	mg/l	
	m,p-Xylene	ND	0.0050	mg/l	
95-47-6	o-Xylene	ND	0.0050	mg/l	
1330-20-7	Xylene (total)	ND	0.0050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	112%		84-124%
2037-26-5	Toluene-D8	98%		83-115%
460-00-4	4-Bromofluorobenzene	96%		89-111%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 031-6563Z (M. COWDIN IRRIGATION WELL)	Date Sampled: 10/24/18
Lab Sample ID: LA49120-3	Date Received: 10/25/18
Matrix: AQ - Water	Percent Solids: n/a
Method: SW846 8260B	
Project: 8060.00 Indigo-Desoto Parish, LA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2J0056927.D	1	10/26/18 18:13	NN	n/a	n/a	V2J1650
Run #2 ^a	2G090169.D	1	10/29/18 14:08	NN	n/a	n/a	V2G4695

Run #	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	0.050	mg/l	
71-43-2	Benzene	ND	0.0050	mg/l	
75-27-4	Bromodichloromethane	0.0272	0.0010	mg/l	
75-25-2	Bromoform	0.0051	0.0010	mg/l	
75-15-0	Carbon Disulfide	ND	0.0010	mg/l	
56-23-5	Carbon Tetrachloride	ND	0.0010	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	mg/l	
75-00-3	Chloroethane	ND	0.0010	mg/l	
67-66-3	Chloroform	0.0209	0.0010	mg/l	
124-48-1	Dibromochloromethane	0.0250	0.0010	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0010	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	mg/l	
540-59-0	1,2-Dichloroethene (total)	ND	0.0010	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	mg/l	
542-75-6	1,3-Dichloropropene (total)	ND	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0050	mg/l	
67-72-1	Hexachloroethane	ND	0.0010	mg/l	
78-83-1	Isobutyl Alcohol	ND	0.10	mg/l	
74-83-9	Methyl Bromide	ND	0.0010	mg/l	
74-87-3	Methyl Chloride	ND	0.0010	mg/l	
75-09-2	Methylene Chloride	ND	0.0010	mg/l	
78-93-3	Methyl Ethyl Ketone	ND	0.013	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.013	mg/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	031-6563Z (M. COWDIN IRRIGATION WELL)	Date Sampled:	10/24/18
Lab Sample ID:	LA49120-3	Date Received:	10/25/18
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	8060.00 Indigo-Desoto Parish, LA		

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.0050	mg/l	
100-42-5	Styrene	ND	0.0010	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00050	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	mg/l	
108-88-3	Toluene	ND	0.0050	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	mg/l	
75-01-4	Vinyl Chloride	ND	0.0010	mg/l	
	m,p-Xylene	ND	0.0050	mg/l	
95-47-6	o-Xylene	ND	0.0050	mg/l	
1330-20-7	Xylene (total)	ND	0.0050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	115%	113%	84-124%
2037-26-5	Toluene-D8	98%	98%	83-115%
460-00-4	4-Bromofluorobenzene	97%	100%	89-111%

(a) Confirmation run.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
 Environmental Consultants
 P.O. Box 60295
 Lafayette, LA 70596-0295
 Phone (337) 261-1963 FAX (337) 261-1953

LA49120

SAMPLE CHAIN-OF-CUSTODY RECORD

Project Name: Indigo
 Project Number: 8060.00
 Project Location: DeSoto Parish, Louisiana

Laboratory: SGS Lafayette
 Collected By: LV/EIM
 Company: Hydro-Environmental Technology, Inc.
 Date: 10/24/2018

Sample I.D.	Type	Date/Time Sampled	Containers	Analysis Requested/Method	Comments
031-7764Z (Nelson-Johnson #2 Rig Supply)	AQ	10/24/2018 9:20	(4) 40mL Glass HCl	VOC 8260	4°C
031-8736Z (Nelson-Johnson #2 Rig Supply) <i>Martin Timber 5/11/21</i>	AQ	10/24/2018 11:15	(4) 40mL Glass HCl	VOC 8260	4°C
031-6563Z (M. Cowdin Benthic Well) <i>Trinidad</i>	AQ	10/24/2018 10:30	(4) 40mL Glass HCl	VOC 8260	4°C

RUSH

Relinquished By: *[Signature]*
 Date/Time: 10/24/18 13:00
 Received By: *Kemp J. Carr*
 Date/Time: 10/24/18 13:00

Relinquished By: *Kemp J. Carr*
 Date/Time: 10/25/18 14:45
 Received By: *Walter Newman*
 Date/Time: 10/25/18 14:45

Analysis Due: Verbal: *NO CS*
 Written: *RL94*
T/10 (DV44D)



SGS Sample Receipt Summary

Job Number: LA49120

Client: HYDRO ENV

Project: INDIGO

Date / Time Received: 10/25/2018 2:45:00 PM

Delivery Method: Accutest Courier

Airbill #'s: _____

Cooler Temps (Initial/Adjusted): #1: (1.6/1.6):

Cooler Security

	<u>Y or N</u>			<u>Y or N</u>	
1. Custody Seals Present:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Custody Seals Intact:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Cooler Temperature

	<u>Y or N</u>	
1. Temp criteria achieved:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Thermometer ID:	<u>DV441;</u>	
3. Cooler media:	<u>Ice (direct contact)</u>	
4. No. Coolers:	<u>1</u>	

Quality Control Preservation

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. VOCs headspace free:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

Sample Integrity - Documentation

	<u>Y or N</u>	
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Sample Integrity - Condition

	<u>Y or N</u>	
1. Sample recvd within HT:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Condition of sample:	<u>Intact</u>	

Sample Integrity - Instructions

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

LA49120: Chain of Custody

Page 2 of 2

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: LA49120
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2J1650-MB2	2J0056911.D	1	10/26/18	NN	n/a	n/a	V2J1650

The QC reported here applies to the following samples:

Method: SW846 8260B

LA49120-1, LA49120-2, LA49120-3

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
75-15-0	Carbon Disulfide	ND	1.0	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
542-75-6	1,3-Dichloropropene (total)	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
67-72-1	Hexachloroethane	ND	1.0	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	ug/l	
74-83-9	Methyl Bromide	ND	1.0	ug/l	
74-87-3	Methyl Chloride	ND	1.0	ug/l	
75-09-2	Methylene Chloride	ND	1.0	ug/l	
78-93-3	Methyl Ethyl Ketone	ND	13	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	13	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	

Method Blank Summary

Job Number: LA49120
 Account: HETILAL Hydro-Environmental Technology, Inc.
 Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2J1650-MB2	2J0056911.D	1	10/26/18	NN	n/a	n/a	V2J1650

The QC reported here applies to the following samples:

Method: SW846 8260B

LA49120-1, LA49120-2, LA49120-3

CAS No.	Compound	Result	RL	Units	Q
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	2.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
17060-07-0	1,2-Dichloroethane-D4	108%	84-124%
2037-26-5	Toluene-D8	98%	83-115%
460-00-4	4-Bromofluorobenzene	96%	89-111%

4.1.1
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Blank Spike/Blank Spike Duplicate Summary

Job Number: LA49120
 Account: HETILAL Hydro-Environmental Technology, Inc.
 Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2J1650-BS1	2J0056905.D	1	10/26/18	NN	n/a	n/a	V2J1650
V2J1650-BSD1	2J0056907.D	1	10/26/18	NN	n/a	n/a	V2J1650

The QC reported here applies to the following samples:

Method: SW846 8260B

LA49120-1, LA49120-2, LA49120-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	48.8	98	49.3	99	1	38-178/30
71-43-2	Benzene	20	18.9	95	19.5	98	3	82-119/30
75-27-4	Bromodichloromethane	20	19.9	100	20.6	103	3	79-120/30
75-25-2	Bromoform	20	18.2	91	19.8	99	8	68-128/30
75-15-0	Carbon Disulfide	20	19.5	98	20.5	103	5	64-133/30
56-23-5	Carbon Tetrachloride	20	19.2	96	19.3	97	1	69-132/30
108-90-7	Chlorobenzene	20	19.1	96	19.9	100	4	85-120/30
75-00-3	Chloroethane	20	21.6	108	22.8	114	5	33-170/30
67-66-3	Chloroform	20	19.4	97	19.8	99	2	80-122/30
124-48-1	Dibromochloromethane	20	20.0	100	20.5	103	2	73-125/30
96-12-8	1,2-Dibromo-3-chloropropane	20	19.0	95	20.5	103	8	67-131/30
541-73-1	m-Dichlorobenzene	20	19.0	95	20.1	101	6	84-121/30
95-50-1	o-Dichlorobenzene	20	18.9	95	20.0	100	6	83-120/30
106-46-7	p-Dichlorobenzene	20	18.7	94	19.4	97	4	83-122/30
75-34-3	1,1-Dichloroethane	20	19.1	96	19.8	99	4	78-124/30
107-06-2	1,2-Dichloroethane	20	21.1	106	22.6	113	7	74-127/30
75-35-4	1,1-Dichloroethylene	20	18.9	95	19.1	96	1	70-134/30
156-59-2	cis-1,2-Dichloroethylene	20	19.0	95	19.9	100	5	78-122/30
156-60-5	trans-1,2-Dichloroethylene	20	19.1	96	19.2	96	1	75-127/30
540-59-0	1,2-Dichloroethene (total)	40	38.1	95	39.1	98	3	78-123/30
78-87-5	1,2-Dichloropropane	20	17.9	90	19.1	96	6	82-120/30
10061-01-5	cis-1,3-Dichloropropene	20	20.0	100	21.0	105	5	79-122/30
10061-02-6	trans-1,3-Dichloropropene	20	19.5	98	20.5	103	5	78-124/30
542-75-6	1,3-Dichloropropene (total)	40	39.6	99	41.5	104	5	50-150/30 ^a
100-41-4	Ethylbenzene	20	19.6	98	20.6	103	5	84-117/30
67-72-1	Hexachloroethane	20	20.4	102	20.3	102	0	53-141/30
78-83-1	Isobutyl Alcohol	200	188	94	209	105	11	20-175/30
74-83-9	Methyl Bromide	20	20.5	103	21.6	108	5	37-198/30
74-87-3	Methyl Chloride	20	17.9	90	19.0	95	6	50-136/30
75-09-2	Methylene Chloride	20	18.7	94	19.4	97	4	71-130/30
78-93-3	Methyl Ethyl Ketone	50	46.5	93	49.6	99	6	59-149/30
108-10-1	4-Methyl-2-pentanone	50	51.2	102	54.9	110	7	74-131/30
1634-04-4	Methyl Tert Butyl Ether	20	18.8	94	19.7	99	5	70-126/30
100-42-5	Styrene	20	20.2	101	21.5	108	6	79-128/30
630-20-6	1,1,1,2-Tetrachloroethane	20	19.5	98	20.6	103	5	84-120/30
79-34-5	1,1,2,2-Tetrachloroethane	20	19.4	97	19.9	100	3	77-126/30

* = Outside of Control Limits.

4.2.1
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Blank Spike/Blank Spike Duplicate Summary

Job Number: LA49120
 Account: HETILAL Hydro-Environmental Technology, Inc.
 Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2J1650-BS1	2J0056905.D	1	10/26/18	NN	n/a	n/a	V2J1650
V2J1650-BSD1	2J0056907.D	1	10/26/18	NN	n/a	n/a	V2J1650

The QC reported here applies to the following samples:

Method: SW846 8260B

LA49120-1, LA49120-2, LA49120-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
127-18-4	Tetrachloroethylene	20	18.2	91	19.5	98	7	75-133/30
108-88-3	Toluene	20	18.8	94	19.7	99	5	80-121/30
71-55-6	1,1,1-Trichloroethane	20	19.5	98	20.3	102	4	74-126/30
79-00-5	1,1,2-Trichloroethane	20	18.6	93	19.2	96	3	80-123/30
79-01-6	Trichloroethylene	20	19.1	96	19.9	100	4	62-125/30
75-69-4	Trichlorofluoromethane	20	20.2	101	20.6	103	2	62-148/30
75-01-4	Vinyl Chloride	20	19.0	95	20.0	100	5	67-130/30
	m,p-Xylene	40	39.6	99	41.1	103	4	82-121/30
95-47-6	o-Xylene	20	19.7	99	20.7	104	5	84-119/30
1330-20-7	Xylene (total)	60	59.3	99	61.9	103	4	81-122/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
17060-07-0	1,2-Dichloroethane-D4	101%	98%	84-124%
2037-26-5	Toluene-D8	99%	99%	83-115%
460-00-4	4-Bromofluorobenzene	101%	101%	89-111%

(a) Advisory control limits.

* = Outside of Control Limits.

4.2.1
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Matrix Spike/Matrix Spike Duplicate Summary

Job Number: LA49120
 Account: HETILAL Hydro-Environmental Technology, Inc.
 Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
LA49027-3MS	2J0056943.D	5	10/26/18	NN	n/a	n/a	V2J1650
LA49027-3MSD	2J0056945.D	5	10/26/18	NN	n/a	n/a	V2J1650
LA49027-3	2J0056941.D	1	10/26/18	NN	n/a	n/a	V2J1650

The QC reported here applies to the following samples:

Method: SW846 8260B

LA49120-1, LA49120-2, LA49120-3

CAS No.	Compound	LA49027-3 ug/l	Spike Q	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	1.1	250	240	96	250	239	95	0	39-164/27
71-43-2	Benzene	ND	100	98.4	98	100	98.8	99	0	31-161/15
75-27-4	Bromodichloromethane	ND	100	103	103	100	105	105	2	64-122/36
75-25-2	Bromoform	ND	100	96.3	96	100	97.7	98	1	43-125/37
75-15-0	Carbon Disulfide	ND	100	99.4	99	100	101	101	2	38-138/36
56-23-5	Carbon Tetrachloride	ND	100	100	100	100	98.6	99	1	53-133/36
108-90-7	Chlorobenzene	ND	100	99.1	99	100	102	102	3	74-122/34
75-00-3	Chloroethane	ND	100	116	116	100	116	116	0	14-181/43
67-66-3	Chloroform	ND	100	100	100	100	100	100	0	65-130/24
124-48-1	Dibromochloromethane	ND	100	102	102	100	103	103	1	57-121/36
96-12-8	1,2-Dibromo-3-chloropropane	ND	100	98.5	99	100	99.2	99	1	46-135/25
541-73-1	m-Dichlorobenzene	ND	100	96.2	96	100	99.8	100	4	70-120/35
95-50-1	o-Dichlorobenzene	ND	100	95.7	96	100	97.3	97	2	72-120/35
106-46-7	p-Dichlorobenzene	ND	100	93.5	94	100	99.1	99	6	68-120/35
75-34-3	1,1-Dichloroethane	ND	100	99.1	99	100	99.9	100	1	56-138/32
107-06-2	1,2-Dichloroethane	ND	100	113	113	100	116	116	3	51-141/39
75-35-4	1,1-Dichloroethylene	ND	100	95.6	96	100	98.7	99	3	48-139/37
156-59-2	cis-1,2-Dichloroethylene	ND	100	95.6	96	100	97.4	97	2	56-133/15
156-60-5	trans-1,2-Dichloroethylene	ND	100	96.1	96	100	98.6	99	3	59-128/37
540-59-0	1,2-Dichloroethane (total)	ND	200	192	96	200	196	98	2	54-134/30
78-87-5	1,2-Dichloropropane	ND	100	93.1	93	100	94.7	95	2	68-124/32
10061-01-5	cis-1,3-Dichloropropene	ND	100	94.5	95	100	95.9	96	1	62-120/35
10061-02-6	trans-1,3-Dichloropropene	ND	100	102	102	100	103	103	1	64-119/36
542-75-6	1,3-Dichloropropene (total)	ND	200	197	99	200	199	100	1	50-150/30 ^a
100-41-4	Ethylbenzene	ND	100	101	101	100	102	102	1	47-146/30
67-72-1	Hexachloroethane	ND	100	98.5	99	100	98.2	98	0	32-128/39
78-83-1	Isobutyl Alcohol	ND	1000	1010	101	1000	998	100	1	33-142/54
74-83-9	Methyl Bromide	ND	100	106	106	100	109	109	3	1-150/64
74-87-3	Methyl Chloride	ND	100	93.5	94	100	91.8	92	2	16-146/29
75-09-2	Methylene Chloride	ND	100	98.5	99	100	98.2	98	0	55-134/36
78-93-3	Methyl Ethyl Ketone	ND	250	248	99	250	256	102	3	54-142/39
108-10-1	4-Methyl-2-pentanone	ND	250	284	114	250	268	107	6	60-140/40
1634-04-4	Methyl Tert Butyl Ether	ND	100	94.8	95	100	98.3	98	4	52-146/32
100-42-5	Styrene	ND	100	106	106	100	108	108	2	67-128/35
630-20-6	1,1,1,2-Tetrachloroethane	ND	100	103	103	100	102	102	1	67-121/35
79-34-5	1,1,2,2-Tetrachloroethane	ND	100	104	104	100	106	106	2	64-133/38

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: LA49120
 Account: HETILAL Hydro-Environmental Technology, Inc.
 Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
LA49027-3MS	2J0056943.D	5	10/26/18	NN	n/a	n/a	V2J1650
LA49027-3MSD	2J0056945.D	5	10/26/18	NN	n/a	n/a	V2J1650
LA49027-3	2J0056941.D	1	10/26/18	NN	n/a	n/a	V2J1650

The QC reported here applies to the following samples:

Method: SW846 8260B

LA49120-1, LA49120-2, LA49120-3

CAS No.	Compound	LA49027-3 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
127-18-4	Tetrachloroethylene	ND	100	94.1	94	100	98.5	99	5	58-135/37
108-88-3	Toluene	ND	100	98.2	98	100	96.8	97	1	36-155/17
71-55-6	1,1,1-Trichloroethane	ND	100	103	103	100	102	102	1	63-128/36
79-00-5	1,1,2-Trichloroethane	ND	100	95.2	95	100	98.5	99	3	61-138/17
79-01-6	Trichloroethylene	ND	100	99.4	99	100	98.4	98	1	57-131/36
75-69-4	Trichlorofluoromethane	ND	100	107	107	100	105	105	2	31-156/36
75-01-4	Vinyl Chloride	ND	100	96.5	97	100	96.8	97	0	22-155/49
	m,p-Xylene	ND	200	206	103	200	208	104	1	35-159/31
95-47-6	o-Xylene	ND	100	99.3	99	100	101	101	2	50-144/35
1330-20-7	Xylene (total)	ND	300	305	102	300	309	103	1	41-154/29

CAS No.	Surrogate Recoveries	MS	MSD	LA49027-3	Limits
17060-07-0	1,2-Dichloroethane-D4	104%	102%	114%	84-124%
2037-26-5	Toluene-D8	98%	97%	98%	83-115%
460-00-4	4-Bromofluorobenzene	100%	100%	96%	89-111%

(a) Advisory control limits.

* = Outside of Control Limits.

4.3.1
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