



Your Project #: GW  
Your C.O.C. #: 834487-07-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/08/06**  
Report #: R6753349  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1L5654**

**Received: 2021/07/30, 09:30**

Sample Matrix: Water  
# Samples Received: 10

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Alkalinity	1	N/A	2021/08/03	CAM SOP-00448	SM 23 2320 B m
Alkalinity	9	N/A	2021/08/04	CAM SOP-00448	SM 23 2320 B m
Anions	10	N/A	2021/08/03	CAM SOP-00435	SM 23 4110 B m
Conductivity	1	N/A	2021/08/03	CAM SOP-00414	SM 23 2510 m
Conductivity	9	N/A	2021/08/04	CAM SOP-00414	SM 23 2510 m
Fluoride	1	2021/07/31	2021/08/03	CAM SOP-00449	SM 23 4500-F C m
Fluoride	9	2021/07/31	2021/08/04	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	10	N/A	2021/08/05	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Metals by ICPMS	10	N/A	2021/08/05	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	10	N/A	2021/08/05	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1)	1	N/A	2021/08/03	CAM SOP-00440	SM 23 4500-NO3I/NO2B
Nitrate (NO3) and Nitrite (NO2) in Water (1)	9	N/A	2021/08/04	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	1	2021/07/31	2021/08/03	CAM SOP-00413	SM 4500H+ B m
pH	9	2021/07/31	2021/08/04	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	9	N/A	2021/08/03	CAM SOP-00444	OMOE E3179 m
Phenols (4AAP)	1	N/A	2021/08/04	CAM SOP-00444	OMOE E3179 m
Orthophosphate	10	N/A	2021/08/05	CAM SOP-00461	EPA 365.1 m
Total Dissolved Solids	10	2021/08/04	2021/08/05	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water	1	2021/08/03	2021/08/05	CAM SOP-00938	OMOE E3516 m
Total Kjeldahl Nitrogen in Water	8	2021/08/03	2021/08/06	CAM SOP-00938	OMOE E3516 m
Total Kjeldahl Nitrogen in Water	1	2021/08/04	2021/08/05	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (2)	8	N/A	2021/08/04	CAM SOP-00446	SM 23 5310B m
Total Organic Carbon (TOC) (2)	2	N/A	2021/08/05	CAM SOP-00446	SM 23 5310B m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

(2) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.



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Encryption Key



**AUTHORIZED REPORT  
RAPPORT AUTORISÉ**

Bureau Veritas  
06 Aug 2021 15:16:13

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

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BV Labs Job #: C1L5654  
Report Date: 2021/08/06

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

<b>BV Labs ID</b>		QGI007			QGI008			QGI008		
<b>Sampling Date</b>		2021/07/29			2021/07/29			2021/07/29		
<b>COC Number</b>		834487-07-01			834487-07-01			834487-07-01		
	<b>UNITS</b>	<b>42-II</b>	<b>RDL</b>	<b>QC Batch</b>	<b>42-III</b>	<b>RDL</b>	<b>QC Batch</b>	<b>42-III Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Calculated Parameters</b>										
Hardness (CaCO3)	mg/L	1900	1.0	7494734	1900	1.0	7494734			
<b>Inorganics</b>										
Total Ammonia-N	mg/L	19	0.050	7497938	6.9	0.050	7497938			
Conductivity	umho/cm	4700	1.0	7495737	5200	1.0	7495737			
Total Dissolved Solids	mg/L	3520	10	7497033	2810	10	7497033			
Fluoride (F-)	mg/L	1.3	0.10	7495734	1.1	0.10	7495734			
Total Kjeldahl Nitrogen (TKN)	mg/L	22	1.0	7497849	8.0	1.0	7500379			
Total Organic Carbon (TOC)	mg/L	9.8	0.40	7497814	19	0.40	7500215	19	0.40	7500215
Orthophosphate (P)	mg/L	<0.010	0.010	7495779	0.016	0.010	7495779	0.015	0.010	7495779
pH	pH	7.47		7495738	7.78		7495738			
Phenols-4AAP	mg/L	0.14	0.010	7496914	0.0011	0.0010	7496943			
Alkalinity (Total as CaCO3)	mg/L	140	1.0	7495736	300	1.0	7495736			
Nitrite (N)	mg/L	<0.010	0.010	7495745	<0.010	0.010	7495745	<0.010	0.010	7495745
Dissolved Chloride (Cl-)	mg/L	630	10	7495770	1200	10	7495770			
Nitrate (N)	mg/L	<0.10	0.10	7495745	<0.10	0.10	7495745	<0.10	0.10	7495745
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7495745	<0.10	0.10	7495745	<0.10	0.10	7495745
Dissolved Bromide (Br-)	mg/L	<10	10	7495770	<10	10	7495770			
Dissolved Sulphate (SO4)	mg/L	1700	10	7495770	980	10	7495770			

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate



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Report Date: 2021/08/06

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QGI009			QGI009			QGI010		
Sampling Date		2021/07/29			2021/07/29			2021/07/29		
COC Number		834487-07-01			834487-07-01			834487-07-01		
	UNITS	P5-IR	RDL	QC Batch	P5-IR Lab-Dup	RDL	QC Batch	P5-IIR	RDL	QC Batch

Calculated Parameters										
Hardness (CaCO3)	mg/L	1800	1.0	7494734				1800	1.0	7494734
Inorganics										
Total Ammonia-N	mg/L	55 (1)	0.25	7497938				1.9	0.050	7497938
Conductivity	umho/cm	7100	1.0	7495798	7100	1.0	7495798	3500	1.0	7495737
Total Dissolved Solids	mg/L	4750	20	7497033				2970	10	7497033
Fluoride (F-)	mg/L	1.6	0.10	7495793	1.7	0.10	7495793	0.58	0.10	7495734
Total Kjeldahl Nitrogen (TKN)	mg/L	55 (1)	2.0	7497849				2.2	0.10	7497849
Total Organic Carbon (TOC)	mg/L	11	0.40	7497814				2.6	0.40	7500215
Orthophosphate (P)	mg/L	0.011	0.010	7495779				<0.010	0.010	7495779
pH	pH	7.40		7495802	7.42		7495802	7.70		7495738
Phenols-4AAP	mg/L	0.0091	0.0050	7496943				<0.0010	0.0010	7496943
Alkalinity (Total as CaCO3)	mg/L	72	1.0	7495796	72	1.0	7495796	250	1.0	7495736
Nitrite (N)	mg/L	<0.010	0.010	7495745				<0.010	0.010	7495739
Dissolved Chloride (Cl-)	mg/L	1300	10	7495770	1300	10	7495770	380	10	7495770
Nitrate (N)	mg/L	<0.10	0.10	7495745				<0.10	0.10	7495739
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7495745				<0.10	0.10	7495739
Dissolved Bromide (Br-)	mg/L	<10	10	7495770	<10	10	7495770	<10	10	7495770
Dissolved Sulphate (SO4)	mg/L	1700	10	7495770	1700	10	7495770	1300	10	7495770

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 (1) TKN < NH4: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.



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Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QGI010			QGI011		QGI012		
Sampling Date		2021/07/29			2021/07/29		2021/07/29		
COC Number		834487-07-01			834487-07-01		834487-07-01		
	UNITS	P5-IIR Lab-Dup	RDL	QC Batch	P5-IIIR	RDL	P5-IVR	RDL	QC Batch
<b>Calculated Parameters</b>									
Hardness (CaCO <sub>3</sub> )	mg/L				360	1.0	760	1.0	7494734
<b>Inorganics</b>									
Total Ammonia-N	mg/L				66 (1)	0.25	0.96	0.050	7497938
Conductivity	umho/cm				5700	1.0	1500	1.0	7495737
Total Dissolved Solids	mg/L	2970	10	7497033	2850	10	965	10	7497033
Fluoride (F-)	mg/L				1.9	0.10	0.69	0.10	7495734
Total Kjeldahl Nitrogen (TKN)	mg/L				64 (1)	2.0	1.2	0.10	7497849
Total Organic Carbon (TOC)	mg/L				18	0.40	9.4	0.40	7497814
Orthophosphate (P)	mg/L				<0.010	0.010	0.085	0.010	7495779
pH	pH				7.84		7.61		7495738
Phenols-4AAP	mg/L				0.050	0.0020	0.0013	0.0010	7496914
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L				160	1.0	490	1.0	7495736
Nitrite (N)	mg/L				<0.010	0.010	<0.010	0.010	7495739
Dissolved Chloride (Cl-)	mg/L				1400	10	28	1.0	7495770
Nitrate (N)	mg/L				<0.10	0.10	<0.10	0.10	7495739
Nitrate + Nitrite (N)	mg/L				<0.10	0.10	<0.10	0.10	7495739
Dissolved Bromide (Br-)	mg/L				<10	10	<1.0	1.0	7495770
Dissolved Sulphate (SO <sub>4</sub> )	mg/L				420	10	320	1.0	7495770
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate (1) TKN < NH <sub>4</sub> : Both values fall within acceptable RPD limits for duplicates and are likely equivalent.									



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### RESULTS OF ANALYSES OF WATER

BV Labs ID		QGI013			QGI014			QGI015		
Sampling Date		2021/07/29			2021/07/29			2021/07/29		
COC Number		834487-07-01			834487-07-01			834487-07-01		
	UNITS	P15	RDL	QC Batch	2-III	RDL	QC Batch	P1-I	RDL	QC Batch
<b>Calculated Parameters</b>										
Hardness (CaCO <sub>3</sub> )	mg/L	96	1.0	7494734	1600	1.0	7494734	1600	1.0	7494734
<b>Inorganics</b>										
Total Ammonia-N	mg/L	170 (1)	0.50	7497938	38 (1)	0.25	7497938	38	0.25	7497938
Conductivity	umho/cm	11000	1.0	7495737	6200	1.0	7495737	6200	1.0	7495737
Total Dissolved Solids	mg/L	5740	20	7497033	3890	10	7497033	3680	10	7497033
Fluoride (F <sup>-</sup> )	mg/L	3.7	0.10	7495734	1.1	0.10	7495734	1.1	0.10	7495734
Total Kjeldahl Nitrogen (TKN)	mg/L	160 (1)	5.0	7497849	36 (1)	2.0	7497849	38	1.0	7497849
Total Organic Carbon (TOC)	mg/L	49	0.40	7497814	7.0	0.40	7497814	7.2	0.40	7500215
Orthophosphate (P)	mg/L	<0.010	0.010	7495779	<0.010	0.010	7495779	<0.010	0.010	7495779
pH	pH	9.44		7495738	7.55		7495738	7.60		7495738
Phenols-4AAP	mg/L	0.65	0.050	7496943	0.0016	0.0010	7496914	0.0012	0.0010	7496914
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	320	1.0	7495736	190	1.0	7495736	190	1.0	7495736
Nitrite (N)	mg/L	<0.010	0.010	7495745	<0.010	0.010	7495739	<0.010	0.010	7495745
Dissolved Chloride (Cl <sup>-</sup> )	mg/L	3200	20	7495770	1200	10	7495770	1100	10	7495770
Nitrate (N)	mg/L	<0.10	0.10	7495745	<0.10	0.10	7495739	<0.10	0.10	7495745
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7495745	<0.10	0.10	7495739	<0.10	0.10	7495745
Dissolved Bromide (Br <sup>-</sup> )	mg/L	<20	20	7495770	<10	10	7495770	<10	10	7495770
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	350	20	7495770	1500	10	7495770	1500	10	7495770

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) TKN < NH<sub>4</sub>: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.



**RESULTS OF ANALYSES OF WATER**

<b>BV Labs ID</b>		QGI016		
<b>Sampling Date</b>		2021/07/29		
<b>COC Number</b>		834487-07-01		
	<b>UNITS</b>	<b>P1-II</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Calculated Parameters</b>				
Hardness (CaCO3)	mg/L	1600	1.0	7494734
<b>Inorganics</b>				
Total Ammonia-N	mg/L	38	0.25	7497938
Conductivity	umho/cm	6300	1.0	7495737
Total Dissolved Solids	mg/L	3850	10	7497033
Fluoride (F-)	mg/L	1.2	0.10	7495734
Total Kjeldahl Nitrogen (TKN)	mg/L	40	1.0	7497849
Total Organic Carbon (TOC)	mg/L	7.2	0.40	7500215
Orthophosphate (P)	mg/L	<0.010	0.010	7495779
pH	pH	7.54		7495738
Phenols-4AAP	mg/L	<0.0010	0.0010	7496914
Alkalinity (Total as CaCO3)	mg/L	180	1.0	7495736
Nitrite (N)	mg/L	<0.010	0.010	7495901
Dissolved Chloride (Cl-)	mg/L	1200	10	7495770
Nitrate (N)	mg/L	<0.10	0.10	7495901
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7495901
Dissolved Bromide (Br-)	mg/L	<10	10	7495770
Dissolved Sulphate (SO4)	mg/L	1500	10	7495770
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



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### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QGI007	QGI008		QGI009		QGI010		
Sampling Date		2021/07/29	2021/07/29		2021/07/29		2021/07/29		
COC Number		834487-07-01	834487-07-01		834487-07-01		834487-07-01		
	UNITS	42-II	42-III	RDL	P5-IR	RDL	P5-IIR	RDL	QC Batch
<b>Metals</b>									
Dissolved Aluminum (Al)	ug/L	<4.9	<4.9	4.9	<4.9	4.9	11	4.9	7497393
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7497393
Dissolved Arsenic (As)	ug/L	<1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7497393
Dissolved Barium (Ba)	ug/L	12	61	2.0	27	2.0	15	2.0	7497393
Dissolved Beryllium (Be)	ug/L	<0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40	7497393
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7497393
Dissolved Boron (B)	ug/L	1200	640	10	830	10	360	10	7497393
Dissolved Cadmium (Cd)	ug/L	<0.090	<0.090	0.090	<0.090	0.090	<0.090	0.090	7497393
Dissolved Calcium (Ca)	ug/L	570000	490000	1000	640000	1000	570000	1000	7497393
Dissolved Chromium (Cr)	ug/L	<5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	7497393
Dissolved Cobalt (Co)	ug/L	<0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7497393
Dissolved Copper (Cu)	ug/L	<0.90	<0.90	0.90	<0.90	0.90	<0.90	0.90	7497393
Dissolved Iron (Fe)	ug/L	580	370	100	<100	100	<100	100	7497393
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7497393
Dissolved Lithium (Li)	ug/L	80	43	5.0	96	5.0	62	5.0	7497393
Dissolved Magnesium (Mg)	ug/L	120000	160000	50	57000	50	100000	50	7497393
Dissolved Manganese (Mn)	ug/L	150	160	2.0	47	2.0	65	2.0	7497393
Dissolved Molybdenum (Mo)	ug/L	5.0	<0.50	0.50	<0.50	0.50	<0.50	0.50	7497393
Dissolved Nickel (Ni)	ug/L	1.8	1.2	1.0	2.4	1.0	<1.0	1.0	7497393
Dissolved Phosphorus (P)	ug/L	<100	<100	100	<100	100	<100	100	7497393
Dissolved Potassium (K)	ug/L	40000	50000	200	70000	200	13000	200	7497393
Dissolved Selenium (Se)	ug/L	<2.0	<2.0	2.0	2.6	2.0	<2.0	2.0	7497393
Dissolved Silicon (Si)	ug/L	19000	5500	50	5400	50	3600	50	7497393
Dissolved Silver (Ag)	ug/L	<0.090	<0.090	0.090	<0.090	0.090	<0.090	0.090	7497393
Dissolved Sodium (Na)	ug/L	390000	380000	100	880000	500	140000	100	7497393
Dissolved Strontium (Sr)	ug/L	12000	8300	1.0	6100	1.0	7000	1.0	7497393
Dissolved Tellurium (Te)	ug/L	<1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7497393
Dissolved Thallium (Tl)	ug/L	<0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	7497393
Dissolved Tin (Sn)	ug/L	<1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7497393
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	7497393
Dissolved Tungsten (W)	ug/L	1.1	<1.0	1.0	2.4	1.0	<1.0	1.0	7497393
Dissolved Uranium (U)	ug/L	0.28	0.16	0.10	<0.10	0.10	<0.10	0.10	7497393
Dissolved Vanadium (V)	ug/L	<0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7497393
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	7497393
Dissolved Zirconium (Zr)	ug/L	<1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7497393
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									





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### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QGI011		QGI012		QGI013		QGI014		
Sampling Date		2021/07/29		2021/07/29		2021/07/29		2021/07/29		
COC Number		834487-07-01		834487-07-01		834487-07-01		834487-07-01		
	UNITS	P5-IIIR	RDL	P5-IVR	RDL	P15	RDL	2-III	RDL	QC Batch
<b>Metals</b>										
Dissolved Aluminum (Al)	ug/L	7.5	4.9	26	4.9	460	4.9	12	4.9	7497393
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7497393
Dissolved Arsenic (As)	ug/L	1.1	1.0	<1.0	1.0	2.5	1.0	<1.0	1.0	7497393
Dissolved Barium (Ba)	ug/L	14	2.0	45	2.0	9.9	2.0	22	2.0	7497393
Dissolved Beryllium (Be)	ug/L	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40	7497393
Dissolved Bismuth (Bi)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7497393
Dissolved Boron (B)	ug/L	420	10	200	10	520	10	1100	10	7497393
Dissolved Cadmium (Cd)	ug/L	<0.090	0.090	<0.090	0.090	<0.090	0.090	<0.090	0.090	7497393
Dissolved Calcium (Ca)	ug/L	72000	200	200000	400	36000	200	550000	1000	7497393
Dissolved Chromium (Cr)	ug/L	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	7497393
Dissolved Cobalt (Co)	ug/L	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7497393
Dissolved Copper (Cu)	ug/L	<0.90	0.90	<0.90	0.90	<0.90	0.90	<0.90	0.90	7497393
Dissolved Iron (Fe)	ug/L	<100	100	1900	100	<100	100	<100	100	7497393
Dissolved Lead (Pb)	ug/L	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7497393
Dissolved Lithium (Li)	ug/L	27	5.0	8.5	5.0	26	5.0	140	5.0	7497393
Dissolved Magnesium (Mg)	ug/L	43000	50	66000	50	1600	50	68000	50	7497393
Dissolved Manganese (Mn)	ug/L	2.2	2.0	280	2.0	<2.0	2.0	37	2.0	7497393
Dissolved Molybdenum (Mo)	ug/L	17	0.50	0.62	0.50	17	0.50	<0.50	0.50	7497393
Dissolved Nickel (Ni)	ug/L	6.6	1.0	<1.0	1.0	23	1.0	1.5	1.0	7497393
Dissolved Phosphorus (P)	ug/L	<100	100	120	100	220	100	<100	100	7497393
Dissolved Potassium (K)	ug/L	71000	200	7700	200	140000	200	56000	200	7497393
Dissolved Selenium (Se)	ug/L	<2.0	2.0	<2.0	2.0	<2.0	2.0	<2.0	2.0	7497393
Dissolved Silicon (Si)	ug/L	8200	50	4800	50	5300	50	6500	50	7497393
Dissolved Silver (Ag)	ug/L	<0.090	0.090	<0.090	0.090	<0.090	0.090	<0.090	0.090	7497393
Dissolved Sodium (Na)	ug/L	910000	500	51000	100	2200000	500	690000	500	7497393
Dissolved Strontium (Sr)	ug/L	2400	1.0	6100	1.0	1400	1.0	6800	1.0	7497393
Dissolved Tellurium (Te)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7497393
Dissolved Thallium (Tl)	ug/L	<0.050	0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	7497393
Dissolved Tin (Sn)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7497393
Dissolved Titanium (Ti)	ug/L	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	7497393
Dissolved Tungsten (W)	ug/L	8.6	1.0	<1.0	1.0	21	1.0	1.1	1.0	7497393
Dissolved Uranium (U)	ug/L	<0.10	0.10	0.91	0.10	<0.10	0.10	<0.10	0.10	7497393
Dissolved Vanadium (V)	ug/L	<0.50	0.50	1.5	0.50	1.0	0.50	<0.50	0.50	7497393
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	7497393
Dissolved Zirconium (Zr)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7497393
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										



BUREAU  
VERITAS

BV Labs Job #: C1L5654  
Report Date: 2021/08/06

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QGI015	QGI016		
Sampling Date		2021/07/29	2021/07/29		
COC Number		834487-07-01	834487-07-01		
	UNITS	P1-I	P1-II	RDL	QC Batch
<b>Metals</b>					
Dissolved Aluminum (Al)	ug/L	12	5.5	4.9	7497393
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	0.50	7497393
Dissolved Arsenic (As)	ug/L	<1.0	<1.0	1.0	7497393
Dissolved Barium (Ba)	ug/L	22	23	2.0	7497393
Dissolved Beryllium (Be)	ug/L	<0.40	<0.40	0.40	7497393
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	1.0	7497393
Dissolved Boron (B)	ug/L	1000	950	10	7497393
Dissolved Cadmium (Cd)	ug/L	<0.090	<0.090	0.090	7497393
Dissolved Calcium (Ca)	ug/L	540000	550000	1000	7497393
Dissolved Chromium (Cr)	ug/L	<5.0	<5.0	5.0	7497393
Dissolved Cobalt (Co)	ug/L	<0.50	<0.50	0.50	7497393
Dissolved Copper (Cu)	ug/L	<0.90	<0.90	0.90	7497393
Dissolved Iron (Fe)	ug/L	<100	<100	100	7497393
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	0.50	7497393
Dissolved Lithium (Li)	ug/L	130	130	5.0	7497393
Dissolved Magnesium (Mg)	ug/L	68000	69000	50	7497393
Dissolved Manganese (Mn)	ug/L	38	45	2.0	7497393
Dissolved Molybdenum (Mo)	ug/L	<0.50	<0.50	0.50	7497393
Dissolved Nickel (Ni)	ug/L	1.5	1.4	1.0	7497393
Dissolved Phosphorus (P)	ug/L	<100	<100	100	7497393
Dissolved Potassium (K)	ug/L	55000	54000	200	7497393
Dissolved Selenium (Se)	ug/L	<2.0	<2.0	2.0	7497393
Dissolved Silicon (Si)	ug/L	6700	6000	50	7497393
Dissolved Silver (Ag)	ug/L	<0.090	<0.090	0.090	7497393
Dissolved Sodium (Na)	ug/L	700000	710000	500	7497393
Dissolved Strontium (Sr)	ug/L	6800	7400	1.0	7497393
Dissolved Tellurium (Te)	ug/L	<1.0	<1.0	1.0	7497393
Dissolved Thallium (Tl)	ug/L	<0.050	<0.050	0.050	7497393
Dissolved Tin (Sn)	ug/L	<1.0	<1.0	1.0	7497393
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	5.0	7497393
Dissolved Tungsten (W)	ug/L	1.1	1.1	1.0	7497393
Dissolved Uranium (U)	ug/L	<0.10	<0.10	0.10	7497393
Dissolved Vanadium (V)	ug/L	<0.50	<0.50	0.50	7497393
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	5.0	7497393
Dissolved Zirconium (Zr)	ug/L	<1.0	<1.0	1.0	7497393
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					



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VERITAS

BV Labs Job #: C1L5654  
Report Date: 2021/08/06

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QGI007  
**Sample ID:** 42-II  
**Matrix:** Water

**Collected:** 2021/07/29  
**Shipped:**  
**Received:** 2021/07/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7495736	N/A	2021/08/04	Surinder Rai
Anions	IC	7495770	N/A	2021/08/03	Fari Dehdezi
Conductivity	AT	7495737	N/A	2021/08/04	Surinder Rai
Fluoride	ISE	7495734	2021/07/31	2021/08/04	Surinder Rai
Hardness (calculated as CaCO3)		7494734	N/A	2021/08/05	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7497393	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7497938	N/A	2021/08/05	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7495745	N/A	2021/08/04	Chandra Nandlal
pH	AT	7495738	2021/07/31	2021/08/04	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7496914	N/A	2021/08/03	Deonarine Ramnarine
Orthophosphate	KONE	7495779	N/A	2021/08/05	Avneet Kour Sudan
Total Dissolved Solids	BAL	7497033	2021/08/04	2021/08/05	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7497849	2021/08/03	2021/08/06	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7497814	N/A	2021/08/04	Julianna Castiglione

**BV Labs ID:** QGI008  
**Sample ID:** 42-III  
**Matrix:** Water

**Collected:** 2021/07/29  
**Shipped:**  
**Received:** 2021/07/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7495736	N/A	2021/08/04	Surinder Rai
Anions	IC	7495770	N/A	2021/08/03	Fari Dehdezi
Conductivity	AT	7495737	N/A	2021/08/04	Surinder Rai
Fluoride	ISE	7495734	2021/07/31	2021/08/04	Surinder Rai
Hardness (calculated as CaCO3)		7494734	N/A	2021/08/05	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7497393	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7497938	N/A	2021/08/05	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7495745	N/A	2021/08/04	Chandra Nandlal
pH	AT	7495738	2021/07/31	2021/08/04	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7496943	N/A	2021/08/03	Deonarine Ramnarine
Orthophosphate	KONE	7495779	N/A	2021/08/05	Avneet Kour Sudan
Total Dissolved Solids	BAL	7497033	2021/08/04	2021/08/05	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7500379	2021/08/04	2021/08/05	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7500215	N/A	2021/08/04	Julianna Castiglione

**BV Labs ID:** QGI008 Dup  
**Sample ID:** 42-III  
**Matrix:** Water

**Collected:** 2021/07/29  
**Shipped:**  
**Received:** 2021/07/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7495745	N/A	2021/08/04	Chandra Nandlal
Orthophosphate	KONE	7495779	N/A	2021/08/05	Avneet Kour Sudan
Total Organic Carbon (TOC)	TOCV/NDIR	7500215	N/A	2021/08/04	Julianna Castiglione



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BV Labs Job #: C1L5654  
Report Date: 2021/08/06

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QGI009  
**Sample ID:** P5-IR  
**Matrix:** Water

**Collected:** 2021/07/29  
**Shipped:**  
**Received:** 2021/07/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7495796	N/A	2021/08/03	Surinder Rai
Anions	IC	7495770	N/A	2021/08/03	Fari Dehdezi
Conductivity	AT	7495798	N/A	2021/08/03	Surinder Rai
Fluoride	ISE	7495793	2021/07/31	2021/08/03	Surinder Rai
Hardness (calculated as CaCO3)		7494734	N/A	2021/08/05	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7497393	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7497938	N/A	2021/08/05	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7495745	N/A	2021/08/04	Chandra Nandlal
pH	AT	7495802	2021/07/31	2021/08/03	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7496943	N/A	2021/08/04	Deonarine Ramnarine
Orthophosphate	KONE	7495779	N/A	2021/08/05	Avneet Kour Sudan
Total Dissolved Solids	BAL	7497033	2021/08/04	2021/08/05	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7497849	2021/08/03	2021/08/06	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7497814	N/A	2021/08/04	Julianna Castiglione

**BV Labs ID:** QGI009 Dup  
**Sample ID:** P5-IR  
**Matrix:** Water

**Collected:** 2021/07/29  
**Shipped:**  
**Received:** 2021/07/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7495796	N/A	2021/08/03	Surinder Rai
Anions	IC	7495770	N/A	2021/08/03	Fari Dehdezi
Conductivity	AT	7495798	N/A	2021/08/03	Surinder Rai
Fluoride	ISE	7495793	2021/07/31	2021/08/03	Surinder Rai
pH	AT	7495802	2021/07/31	2021/08/03	Surinder Rai

**BV Labs ID:** QGI010  
**Sample ID:** P5-IIR  
**Matrix:** Water

**Collected:** 2021/07/29  
**Shipped:**  
**Received:** 2021/07/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7495736	N/A	2021/08/04	Surinder Rai
Anions	IC	7495770	N/A	2021/08/03	Fari Dehdezi
Conductivity	AT	7495737	N/A	2021/08/04	Surinder Rai
Fluoride	ISE	7495734	2021/07/31	2021/08/04	Surinder Rai
Hardness (calculated as CaCO3)		7494734	N/A	2021/08/05	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7497393	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7497938	N/A	2021/08/05	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7495739	N/A	2021/08/04	Chandra Nandlal
pH	AT	7495738	2021/07/31	2021/08/04	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7496943	N/A	2021/08/03	Deonarine Ramnarine
Orthophosphate	KONE	7495779	N/A	2021/08/05	Avneet Kour Sudan
Total Dissolved Solids	BAL	7497033	2021/08/04	2021/08/05	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7497849	2021/08/03	2021/08/05	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7500215	N/A	2021/08/05	Julianna Castiglione



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VERITAS

BV Labs Job #: C1L5654  
Report Date: 2021/08/06

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QGI010 Dup  
**Sample ID:** P5-IIR  
**Matrix:** Water

**Collected:** 2021/07/29  
**Shipped:**  
**Received:** 2021/07/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	7497033	2021/08/04	2021/08/05	Kristen Chan

**BV Labs ID:** QGI011  
**Sample ID:** P5-IIIR  
**Matrix:** Water

**Collected:** 2021/07/29  
**Shipped:**  
**Received:** 2021/07/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7495736	N/A	2021/08/04	Surinder Rai
Anions	IC	7495770	N/A	2021/08/03	Fari Dehdezi
Conductivity	AT	7495737	N/A	2021/08/04	Surinder Rai
Fluoride	ISE	7495734	2021/07/31	2021/08/04	Surinder Rai
Hardness (calculated as CaCO3)		7494734	N/A	2021/08/05	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7497393	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7497938	N/A	2021/08/05	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7495739	N/A	2021/08/04	Chandra Nandlal
pH	AT	7495738	2021/07/31	2021/08/04	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7496914	N/A	2021/08/03	Deonarine Ramnarine
Orthophosphate	KONE	7495779	N/A	2021/08/05	Avneet Kour Sudan
Total Dissolved Solids	BAL	7497033	2021/08/04	2021/08/05	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7497849	2021/08/03	2021/08/06	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7497814	N/A	2021/08/04	Julianna Castiglione

**BV Labs ID:** QGI012  
**Sample ID:** P5-IVR  
**Matrix:** Water

**Collected:** 2021/07/29  
**Shipped:**  
**Received:** 2021/07/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7495736	N/A	2021/08/04	Surinder Rai
Anions	IC	7495770	N/A	2021/08/03	Fari Dehdezi
Conductivity	AT	7495737	N/A	2021/08/04	Surinder Rai
Fluoride	ISE	7495734	2021/07/31	2021/08/04	Surinder Rai
Hardness (calculated as CaCO3)		7494734	N/A	2021/08/05	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7497393	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7497938	N/A	2021/08/05	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7495739	N/A	2021/08/04	Chandra Nandlal
pH	AT	7495738	2021/07/31	2021/08/04	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7496914	N/A	2021/08/03	Deonarine Ramnarine
Orthophosphate	KONE	7495779	N/A	2021/08/05	Avneet Kour Sudan
Total Dissolved Solids	BAL	7497033	2021/08/04	2021/08/05	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7497849	2021/08/03	2021/08/06	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7497814	N/A	2021/08/04	Julianna Castiglione



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VERITAS

BV Labs Job #: C1L5654  
Report Date: 2021/08/06

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QGI013  
**Sample ID:** P15  
**Matrix:** Water

**Collected:** 2021/07/29  
**Shipped:**  
**Received:** 2021/07/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7495736	N/A	2021/08/04	Surinder Rai
Anions	IC	7495770	N/A	2021/08/03	Fari Dehdezi
Conductivity	AT	7495737	N/A	2021/08/04	Surinder Rai
Fluoride	ISE	7495734	2021/07/31	2021/08/04	Surinder Rai
Hardness (calculated as CaCO3)		7494734	N/A	2021/08/05	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7497393	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7497938	N/A	2021/08/05	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7495745	N/A	2021/08/04	Chandra Nandlal
pH	AT	7495738	2021/07/31	2021/08/04	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7496943	N/A	2021/08/03	Deonarine Ramnarine
Orthophosphate	KONE	7495779	N/A	2021/08/05	Avneet Kour Sudan
Total Dissolved Solids	BAL	7497033	2021/08/04	2021/08/05	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7497849	2021/08/03	2021/08/06	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7497814	N/A	2021/08/04	Julianna Castiglione

**BV Labs ID:** QGI014  
**Sample ID:** 2-III  
**Matrix:** Water

**Collected:** 2021/07/29  
**Shipped:**  
**Received:** 2021/07/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7495736	N/A	2021/08/04	Surinder Rai
Anions	IC	7495770	N/A	2021/08/03	Fari Dehdezi
Conductivity	AT	7495737	N/A	2021/08/04	Surinder Rai
Fluoride	ISE	7495734	2021/07/31	2021/08/04	Surinder Rai
Hardness (calculated as CaCO3)		7494734	N/A	2021/08/05	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7497393	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7497938	N/A	2021/08/05	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7495739	N/A	2021/08/04	Chandra Nandlal
pH	AT	7495738	2021/07/31	2021/08/04	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7496914	N/A	2021/08/03	Deonarine Ramnarine
Orthophosphate	KONE	7495779	N/A	2021/08/05	Avneet Kour Sudan
Total Dissolved Solids	BAL	7497033	2021/08/04	2021/08/05	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7497849	2021/08/03	2021/08/06	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7497814	N/A	2021/08/04	Julianna Castiglione

**BV Labs ID:** QGI015  
**Sample ID:** P1-I  
**Matrix:** Water

**Collected:** 2021/07/29  
**Shipped:**  
**Received:** 2021/07/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7495736	N/A	2021/08/04	Surinder Rai
Anions	IC	7495770	N/A	2021/08/03	Fari Dehdezi
Conductivity	AT	7495737	N/A	2021/08/04	Surinder Rai
Fluoride	ISE	7495734	2021/07/31	2021/08/04	Surinder Rai
Hardness (calculated as CaCO3)		7494734	N/A	2021/08/05	Automated Statchk



BUREAU  
VERITAS

BV Labs Job #: C1L5654  
Report Date: 2021/08/06

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QGI015  
**Sample ID:** P1-I  
**Matrix:** Water

**Collected:** 2021/07/29  
**Shipped:**  
**Received:** 2021/07/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS	ICP/MS	7497393	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7497938	N/A	2021/08/05	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7495745	N/A	2021/08/04	Chandra Nandlal
pH	AT	7495738	2021/07/31	2021/08/04	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7496914	N/A	2021/08/03	Deonarine Ramnarine
Orthophosphate	KONE	7495779	N/A	2021/08/05	Avneet Kour Sudan
Total Dissolved Solids	BAL	7497033	2021/08/04	2021/08/05	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7497849	2021/08/03	2021/08/06	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7500215	N/A	2021/08/05	Julianna Castiglione

**BV Labs ID:** QGI016  
**Sample ID:** P1-II  
**Matrix:** Water

**Collected:** 2021/07/29  
**Shipped:**  
**Received:** 2021/07/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7495736	N/A	2021/08/04	Surinder Rai
Anions	IC	7495770	N/A	2021/08/03	Fari Dehdezi
Conductivity	AT	7495737	N/A	2021/08/04	Surinder Rai
Fluoride	ISE	7495734	2021/07/31	2021/08/04	Surinder Rai
Hardness (calculated as CaCO3)		7494734	N/A	2021/08/05	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7497393	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7497938	N/A	2021/08/05	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7495901	N/A	2021/08/03	Chandra Nandlal
pH	AT	7495738	2021/07/31	2021/08/04	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7496914	N/A	2021/08/03	Deonarine Ramnarine
Orthophosphate	KONE	7495779	N/A	2021/08/05	Avneet Kour Sudan
Total Dissolved Solids	BAL	7497033	2021/08/04	2021/08/05	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7497849	2021/08/03	2021/08/06	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7500215	N/A	2021/08/04	Julianna Castiglione



### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.0°C
-----------	-------

Anions Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample QGI011 [P5-IIIR] : TKN < Ammonia: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample QGI013 [P15] : TKN < Ammonia: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample QGI014 [2-III] : TKN < Ammonia: Both values fall within the method uncertainty for duplicates and are likely equivalent.

**Results relate only to the items tested.**





BUREAU  
VERITAS

BV Labs Job #: C1L5654  
Report Date: 2021/08/06

### QUALITY ASSURANCE REPORT

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7495734	Fluoride (F-)	2021/08/04	114	80 - 120	98	80 - 120	<0.10	mg/L	16	20		
7495736	Alkalinity (Total as CaCO3)	2021/08/04			96	85 - 115	<1.0	mg/L	0.24	20		
7495737	Conductivity	2021/08/04			100	85 - 115	<1.0	umho/cm	0	25		
7495738	pH	2021/08/04			102	98 - 103			0.079	N/A		
7495739	Nitrate (N)	2021/08/04	100	80 - 120	103	80 - 120	<0.10	mg/L	NC	20		
7495739	Nitrite (N)	2021/08/04	105	80 - 120	108	80 - 120	<0.010	mg/L	NC	20		
7495745	Nitrate (N)	2021/08/04	101	80 - 120	103	80 - 120	<0.10	mg/L	NC	20		
7495745	Nitrite (N)	2021/08/04	105	80 - 120	108	80 - 120	<0.010	mg/L	NC	20		
7495770	Dissolved Bromide (Br-)	2021/08/03	94	80 - 120	108	80 - 120	<1.0	mg/L	NC	20		
7495770	Dissolved Chloride (Cl-)	2021/08/03	NC	80 - 120	104	70 - 130	<1.0	mg/L	1.5	20		
7495770	Dissolved Sulphate (SO4)	2021/08/03	NC	80 - 120	103	80 - 120	<1.0	mg/L	1.2	20		
7495779	Orthophosphate (P)	2021/08/05	108	75 - 125	103	80 - 120	<0.010	mg/L	4.4	25		
7495793	Fluoride (F-)	2021/08/03	84	80 - 120	104	80 - 120	<0.10	mg/L	4.2	20		
7495796	Alkalinity (Total as CaCO3)	2021/08/03			98	85 - 115	<1.0	mg/L	0.46	20		
7495798	Conductivity	2021/08/03			101	85 - 115	<1.0	umho/cm	0.71	25		
7495802	pH	2021/08/03			102	98 - 103			0.39	N/A		
7495901	Nitrate (N)	2021/08/03	102	80 - 120	104	80 - 120	<0.10	mg/L	NC	20		
7495901	Nitrite (N)	2021/08/03	106	80 - 120	107	80 - 120	<0.010	mg/L	NC	20		
7496914	Phenols-4AAP	2021/08/03	95	80 - 120	102	80 - 120	<0.0010	mg/L	0	20		
7496943	Phenols-4AAP	2021/08/03	100	80 - 120	101	80 - 120	<0.0010	mg/L	NC	20		
7497033	Total Dissolved Solids	2021/08/05					<10	mg/L	0.17	25	95	90 - 110
7497393	Dissolved Aluminum (Al)	2021/08/05	100	80 - 120	102	80 - 120	<4.9	ug/L				
7497393	Dissolved Antimony (Sb)	2021/08/05	100	80 - 120	101	80 - 120	<0.50	ug/L	NC	20		
7497393	Dissolved Arsenic (As)	2021/08/05	99	80 - 120	98	80 - 120	<1.0	ug/L	0.39	20		
7497393	Dissolved Barium (Ba)	2021/08/05	97	80 - 120	99	80 - 120	<2.0	ug/L	3.3	20		
7497393	Dissolved Beryllium (Be)	2021/08/05	94	80 - 120	101	80 - 120	<0.40	ug/L	NC	20		
7497393	Dissolved Bismuth (Bi)	2021/08/05	92	80 - 120	92	80 - 120	<1.0	ug/L				
7497393	Dissolved Boron (B)	2021/08/05	88	80 - 120	98	80 - 120	<10	ug/L	2.0	20		
7497393	Dissolved Cadmium (Cd)	2021/08/05	98	80 - 120	100	80 - 120	<0.090	ug/L	NC	20		



BUREAU  
VERITAS

BV Labs Job #: C1L5654  
Report Date: 2021/08/06

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7497393	Dissolved Calcium (Ca)	2021/08/05	NC	80 - 120	101	80 - 120	<200	ug/L				
7497393	Dissolved Chromium (Cr)	2021/08/05	96	80 - 120	96	80 - 120	<5.0	ug/L	NC	20		
7497393	Dissolved Cobalt (Co)	2021/08/05	99	80 - 120	99	80 - 120	<0.50	ug/L	3.9	20		
7497393	Dissolved Copper (Cu)	2021/08/05	101	80 - 120	102	80 - 120	<0.90	ug/L	0.73	20		
7497393	Dissolved Iron (Fe)	2021/08/05	99	80 - 120	96	80 - 120	<100	ug/L				
7497393	Dissolved Lead (Pb)	2021/08/05	97	80 - 120	95	80 - 120	<0.50	ug/L	NC	20		
7497393	Dissolved Lithium (Li)	2021/08/05	86	80 - 120	101	80 - 120	<5.0	ug/L				
7497393	Dissolved Magnesium (Mg)	2021/08/05	NC	80 - 120	102	80 - 120	<50	ug/L				
7497393	Dissolved Manganese (Mn)	2021/08/05	100	80 - 120	97	80 - 120	<2.0	ug/L				
7497393	Dissolved Molybdenum (Mo)	2021/08/05	101	80 - 120	100	80 - 120	<0.50	ug/L	2.0	20		
7497393	Dissolved Nickel (Ni)	2021/08/05	95	80 - 120	96	80 - 120	<1.0	ug/L	4.5	20		
7497393	Dissolved Phosphorus (P)	2021/08/05	100	80 - 120	104	80 - 120	<100	ug/L				
7497393	Dissolved Potassium (K)	2021/08/05	102	80 - 120	100	80 - 120	<200	ug/L				
7497393	Dissolved Selenium (Se)	2021/08/05	99	80 - 120	101	80 - 120	<2.0	ug/L	NC	20		
7497393	Dissolved Silicon (Si)	2021/08/05	95	80 - 120	102	80 - 120	<50	ug/L				
7497393	Dissolved Silver (Ag)	2021/08/05	90	80 - 120	95	80 - 120	<0.090	ug/L	NC	20		
7497393	Dissolved Sodium (Na)	2021/08/05	NC	80 - 120	98	80 - 120	<100	ug/L	1.1	20		
7497393	Dissolved Strontium (Sr)	2021/08/05	NC	80 - 120	94	80 - 120	<1.0	ug/L				
7497393	Dissolved Tellurium (Te)	2021/08/05	96	80 - 120	99	80 - 120	<1.0	ug/L				
7497393	Dissolved Thallium (Tl)	2021/08/05	96	80 - 120	94	80 - 120	<0.050	ug/L	NC	20		
7497393	Dissolved Tin (Sn)	2021/08/05	101	80 - 120	101	80 - 120	<1.0	ug/L				
7497393	Dissolved Titanium (Ti)	2021/08/05	95	80 - 120	97	80 - 120	<5.0	ug/L				
7497393	Dissolved Tungsten (W)	2021/08/05	98	80 - 120	98	80 - 120	<1.0	ug/L				
7497393	Dissolved Uranium (U)	2021/08/05	97	80 - 120	94	80 - 120	<0.10	ug/L	0	20		
7497393	Dissolved Vanadium (V)	2021/08/05	97	80 - 120	94	80 - 120	<0.50	ug/L	4.7	20		
7497393	Dissolved Zinc (Zn)	2021/08/05	97	80 - 120	97	80 - 120	<5.0	ug/L	NC	20		
7497393	Dissolved Zirconium (Zr)	2021/08/05	99	80 - 120	100	80 - 120	<1.0	ug/L				
7497814	Total Organic Carbon (TOC)	2021/08/04	98	80 - 120	99	80 - 120	<0.40	mg/L	4.0	20		
7497849	Total Kjeldahl Nitrogen (TKN)	2021/08/06	NC	80 - 120	96	80 - 120	<0.10	mg/L	0.64	20	103	80 - 120
7497938	Total Ammonia-N	2021/08/05	102	75 - 125	102	80 - 120	<0.050	mg/L	NC	20		
7500215	Total Organic Carbon (TOC)	2021/08/04	99	80 - 120	99	80 - 120	<0.40	mg/L	0.32	20		



BUREAU  
VERITAS

BV Labs Job #: C1L5654  
Report Date: 2021/08/06

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7500379	Total Kjeldahl Nitrogen (TKN)	2021/08/05	97	80 - 120	98	80 - 120	<0.10	mg/L	NC	20	102	80 - 120

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).



BUREAU  
VERITAS

BV Labs Job #: C1L5654  
Report Date: 2021/08/06

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

A handwritten signature in black ink, appearing to read 'A. Hamanov', written over a horizontal line.

Anastassia Hamanov, Scientific Specialist

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Bureau Veritas Laboratories  
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

30-Jul-21 09:30

Jolanta Goralczyk

C1L5654

ASR ENV-796

**INVOICE TO:**

Company Name: #16786 Terrapure Environmental  
 Attention: Accounting  
 Address: 65 Green Mountain Rd West  
 Stoney Creek ON L8J 1X5  
 Tel: (905) 561-0305 Fax: (905) 561-1674  
 Email: kbailey@terrapureenv.com

**REPORT TO:**

Company Name: Brad Mullin - GHD Reporting  
 Attention: Brad Mullin - GHD Reporting  
 Address: \_\_\_\_\_  
 Tel: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email: bmullin@terrapureenv.com; dtaylor2@terrapureenv.com

**PROJECT INFORMATION:**

Quotation #: B60569  
 P.O. #: \_\_\_\_\_  
 Project: GW  
 Project Name: \_\_\_\_\_  
 Site #: \_\_\_\_\_  
 Sampled By: \_\_\_\_\_

**Only:**

Bottle Order #: \_\_\_\_\_  
 Project Manager: Jolanta Goralczyk

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

**Regulation 153 (2011)**

Table 1  Res/Park  Medium/Fine  CCME  Sanitary Sewer Bylaw  
 Table 2  Ind/Comm  Coarse  Reg 558  Storm Sewer Bylaw  
 Table 3  Agri/Other  For RSC  MISA  Municipality  
 Table  PWQO  Reg 406 Table  
 Other \_\_\_\_\_

**ANALYSIS REQUESTED (PLEASE BE SPECIFIC)**

Field Filtered (please circle): **Metals Hg / Cr VI**

List "A" GW Monitoring

**Turnaround Time (TAT) Required:**

Please provide advance notice for rush projects.

**Regular (Standard) TAT:**  
 (will be applied if Rush TAT is not specified):   
 Standard TAT = 5-7 Working days for most tests.  
 Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

**Job Specific Rush TAT (if applies to entire submission)**  
 Date Required: \_\_\_\_\_ Time Required: \_\_\_\_\_  
 Rush Confirmation Number: \_\_\_\_\_ (call lab for #)

Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle)	List "A" GW Monitoring	# of Bottles	Comments
1	47-IV 42-II	July 29 2021	NA	GW	Y	X	6	
2	48-I 42-III			GW	Y	X	6	
3	48-II P5-IR			GW	Y	X	6	
4	48-IV P5-IR			GW	Y	X	6	
5	48-V P5-IR			GW	Y	X	6	
6	49-II P5-IR			GW	Y	X	6	
7	49-IV P15			GW	Y	X	6	
8	49-V 2-III			GW	Y	X	6	
9	50-II P1-I			GW	Y	X	6	
10	51-IV P1-II			GW	Y	X	6	

* RELINQUISHED BY: (Signature/Print) Dan Taylor	Date: (YY/MM/DD) 21/07/30	Time 9:30	RECEIVED BY: (Signature/Print) DIPKA SINGH	Date: (YY/MM/DD) 21/07/30	Time 16:54	# jars used and not submitted	Laboratory Use Only
						Time Sensitive	Temperature (°C) on Recept 4/3/5
						Custody Seal Present	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

\*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

4/5/5 1104 472828



Your Project #: GW

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

Your C.O.C. #: 834487-08-01, 834487-09-01, 834487-10-01

**Report Date: 2021/08/13**  
Report #: R6763930  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1L7895**

**Received: 2021/08/03, 16:13**

Sample Matrix: Water  
# Samples Received: 27

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Analytical Method</b>
Alkalinity	27	N/A	2021/08/06	CAM SOP-00448	SM 23 2320 B m
Anions	21	N/A	2021/08/10	CAM SOP-00435	SM 23 4110 B m
Anions	6	N/A	2021/08/06	CAM SOP-00435	SM 23 4110 B m
Conductivity	27	N/A	2021/08/06	CAM SOP-00414	SM 23 2510 m
Fluoride	26	2021/08/05	2021/08/06	CAM SOP-00449	SM 23 4500-F C m
Fluoride	1	2021/08/06	2021/08/06	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	2	N/A	2021/08/10	CAM SOP 00102/00408/00447	SM 2340 B
Hardness (calculated as CaCO3)	1	N/A	2021/08/11	CAM SOP 00102/00408/00447	SM 2340 B
Hardness (calculated as CaCO3)	18	N/A	2021/08/06	CAM SOP 00102/00408/00447	SM 2340 B
Hardness (calculated as CaCO3)	6	N/A	2021/08/09	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Metals by ICPMS	2	N/A	2021/08/10	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS	1	N/A	2021/08/11	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS	11	N/A	2021/08/05	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS	11	N/A	2021/08/06	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS	2	N/A	2021/08/09	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	7	N/A	2021/08/05	CAM SOP-00441	USGS I-2522-90 m
Total Ammonia-N	20	N/A	2021/08/09	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1)	1	N/A	2021/08/05	CAM SOP-00440	SM 23 4500-NO3I/NO2B
Nitrate (NO3) and Nitrite (NO2) in Water (1)	26	N/A	2021/08/06	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	26	2021/08/05	2021/08/06	CAM SOP-00413	SM 4500H+ B m
pH	1	2021/08/06	2021/08/06	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	25	N/A	2021/08/05	CAM SOP-00444	OMOE E3179 m
Phenols (4AAP)	2	N/A	2021/08/06	CAM SOP-00444	OMOE E3179 m
Orthophosphate	1	N/A	2021/08/05	CAM SOP-00461	EPA 365.1 m



Your Project #: GW

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

Your C.O.C. #: 834487-08-01, 834487-09-01, 834487-10-01

**Report Date: 2021/08/13**  
Report #: R6763930  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1L7895**

**Received: 2021/08/03, 16:13**

Sample Matrix: Water  
# Samples Received: 27

Analyses	Date		Laboratory Method	Analytical Method
	Quantity	Extracted		
Orthophosphate	26	N/A	2021/08/06 CAM SOP-00461	EPA 365.1 m
Total Dissolved Solids	27	2021/08/05	2021/08/06 CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water	10	2021/08/05	2021/08/10 CAM SOP-00938	OMOE E3516 m
Total Kjeldahl Nitrogen in Water	10	2021/08/05	2021/08/09 CAM SOP-00938	OMOE E3516 m
Total Kjeldahl Nitrogen in Water	4	2021/08/09	2021/08/10 CAM SOP-00938	OMOE E3516 m
Total Kjeldahl Nitrogen in Water	3	2021/08/09	2021/08/09 CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (2)	7	N/A	2021/08/05 CAM SOP-00446	SM 23 5310B m
Total Organic Carbon (TOC) (2)	20	N/A	2021/08/06 CAM SOP-00446	SM 23 5310B m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (2) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key



**AUTHORIZED REPORT  
RAPPORT AUTORISÉ**

Bureau Veritas  
13 Aug 2021 15:35:53

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

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BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QGV930			QGV930			QGV931		
Sampling Date		2021/07/30			2021/07/30			2021/07/30		
COC Number		834487-08-01			834487-08-01			834487-08-01		
	UNITS	P1-III	RDL	QC Batch	P1-III Lab-Dup	RDL	QC Batch	P3-II	RDL	QC Batch

Calculated Parameters										
Hardness (CaCO <sub>3</sub> )	mg/L	550	1.0	7499417				520	1.0	7499417
Inorganics										
Total Ammonia-N	mg/L	2.8	0.050	7502674				17	0.050	7502674
Conductivity	umho/cm	2000	1.0	7504754				2900	1.0	7503234
Total Dissolved Solids	mg/L	1190	10	7502177	1180	10	7502177	1480	10	7502177
Fluoride (F-)	mg/L	1.2	0.10	7504755				1.6	0.10	7503220
Total Kjeldahl Nitrogen (TKN)	mg/L	3.1	0.10	7503330				18	1.0	7503330
Total Organic Carbon (TOC)	mg/L	16	0.40	7503343				22	0.40	7503343
Orthophosphate (P)	mg/L	<0.010	0.010	7500895				<0.010	0.010	7503251
pH	pH	7.75		7504753				8.25		7503235
Phenols-4AAP	mg/L	0.047	0.0050	7501979				0.083	0.0050	7501979
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	130	1.0	7504752				90	1.0	7503233
Nitrite (N)	mg/L	<0.010	0.010	7500193				<0.010	0.010	7503189
Dissolved Chloride (Cl-)	mg/L	370	5.0	7501131				560	5.0	7503254
Nitrate (N)	mg/L	<0.10	0.10	7500193				<0.10	0.10	7503189
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7500193				<0.10	0.10	7503189
Dissolved Bromide (Br-)	mg/L	<5.0	5.0	7501131				<5.0	5.0	7503254
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	270	5.0	7501131				410	5.0	7503254

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate





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BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QGV931			QGV932			QGV933		
Sampling Date		2021/07/30			2021/07/30			2021/07/30		
COC Number		834487-08-01			834487-08-01			834487-08-01		
	UNITS	P3-II Lab-Dup	RDL	QC Batch	P3-III	RDL	QC Batch	43-I	RDL	QC Batch

Calculated Parameters										
Hardness (CaCO3)	mg/L				1100	1.0	7499417	2000	1.0	7499417
Inorganics										
Total Ammonia-N	mg/L				0.84	0.050	7502674	12	0.050	7502674
Conductivity	umho/cm	2900	1.0	7503234	3300	1.0	7503679	5500	1.0	7503234
Total Dissolved Solids	mg/L				1840	10	7502177	3680	10	7502177
Fluoride (F-)	mg/L	1.6	0.10	7503220	0.46	0.10	7503655	0.77	0.10	7503220
Total Kjeldahl Nitrogen (TKN)	mg/L				1.1	0.10	7503330	13	0.50	7503330
Total Organic Carbon (TOC)	mg/L				4.2	0.40	7503343	1.9	0.40	7503343
Orthophosphate (P)	mg/L				<0.010	0.010	7503825	<0.010	0.010	7503251
pH	pH	8.35		7503235	7.73		7503680	7.68		7503235
Phenols-4AAP	mg/L				<0.0010	0.0010	7501979	<0.0010	0.0010	7501979
Alkalinity (Total as CaCO3)	mg/L	92	1.0	7503233	280	1.0	7503672	260	1.0	7503233
Nitrite (N)	mg/L				<0.010	0.010	7503245	<0.010	0.010	7503189
Dissolved Chloride (Cl-)	mg/L				630	5.0	7504516	860	10	7503254
Nitrate (N)	mg/L				0.28	0.10	7503245	<0.10	0.10	7503189
Nitrate + Nitrite (N)	mg/L				0.28	0.10	7503245	<0.10	0.10	7503189
Dissolved Bromide (Br-)	mg/L				<5.0	5.0	7504516	<10	10	7503254
Dissolved Sulphate (SO4)	mg/L				420	5.0	7504516	1400	10	7503254

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate



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BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QGV933			QGV934			QGV935		
Sampling Date		2021/07/30			2021/07/30			2021/07/30		
COC Number		834487-08-01			834487-08-01			834487-08-01		
	UNITS	43-I Lab-Dup	RDL	QC Batch	43-II	RDL	QC Batch	ST1	RDL	QC Batch

Calculated Parameters										
Hardness (CaCO3)	mg/L				1000	1.0	7499417	760	1.0	7499417
Inorganics										
Total Ammonia-N	mg/L				2.7	0.050	7502908	48 (1)	0.25	7502908
Conductivity	umho/cm				2600	1.0	7503234	6100	1.0	7503234
Total Dissolved Solids	mg/L				1580	10	7502177	3020	10	7502177
Fluoride (F-)	mg/L				0.71	0.10	7503220	1.1	0.10	7503220
Total Kjeldahl Nitrogen (TKN)	mg/L	13	0.50	7503330	3.1	0.10	7502901	43 (1)	2.0	7502901
Total Organic Carbon (TOC)	mg/L				1.3	0.40	7502886	13	0.40	7502886
Orthophosphate (P)	mg/L				<0.010	0.010	7503251	<0.010	0.010	7503251
pH	pH				7.64		7503235	7.56		7503235
Phenols-4AAP	mg/L				<0.0010	0.0010	7501979	0.060	0.0050	7502016
Alkalinity (Total as CaCO3)	mg/L				330	1.0	7503233	140	1.0	7503233
Nitrite (N)	mg/L				<0.010	0.010	7503189	<0.010	0.010	7503189
Dissolved Chloride (Cl-)	mg/L				300	5.0	7503254	1500	10	7503254
Nitrate (N)	mg/L				<0.10	0.10	7503189	<0.10	0.10	7503189
Nitrate + Nitrite (N)	mg/L				<0.10	0.10	7503189	<0.10	0.10	7503189
Dissolved Bromide (Br-)	mg/L				<5.0	5.0	7503254	<10	10	7503254
Dissolved Sulphate (SO4)	mg/L				560	5.0	7503254	360	10	7503254

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 (1) TKN < NH4: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.



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BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QGV936			QGV937		QGV938	QGV939		
Sampling Date		2021/07/30			2021/07/30		2021/07/30	2021/07/30		
COC Number		834487-08-01			834487-08-01		834487-08-01	834487-08-01		
	UNITS	ST2	RDL	QC Batch	61-I	QC Batch	61-II	61-III	RDL	QC Batch

Calculated Parameters										
Hardness (CaCO3)	mg/L	100	1.0	7499417	2000	7499417	1600	2000	1.0	7499417
Inorganics										
Total Ammonia-N	mg/L	150 (1)	1.0	7502908	4.1	7502908	1.6	2.2	0.050	7502908
Conductivity	umho/cm	9000	1.0	7503234	5100	7503234	4200	4000	1.0	7503234
Total Dissolved Solids	mg/L	4070	20	7502177	3440	7502177	2840	2980	10	7502177
Fluoride (F-)	mg/L	3.0	0.10	7503220	0.79	7503220	1.0	0.72	0.10	7503220
Total Kjeldahl Nitrogen (TKN)	mg/L	130 (1)	5.0	7502901	5.0	7502901	2.1	2.9	0.10	7502901
Total Organic Carbon (TOC)	mg/L	29	0.40	7502886	3.1	7502886	2.7	2.7	0.40	7502886
Orthophosphate (P)	mg/L	0.019	0.010	7503251	0.035	7503251	<0.010	<0.010	0.010	7503251
pH	pH	9.23		7503235	7.55	7503235	7.67	7.61		7503235
Phenols-4AAP	mg/L	0.52	0.020	7502016	0.0018	7501979	0.0012	<0.0010	0.0010	7501979
Alkalinity (Total as CaCO3)	mg/L	260	1.0	7503233	290	7503233	270	270	1.0	7503233
Nitrite (N)	mg/L	<0.010	0.010	7503189	<0.010	7503245	<0.010	<0.010	0.010	7503189
Dissolved Chloride (Cl-)	mg/L	2600	20	7503254	710	7503254	420	450	10	7503254
Nitrate (N)	mg/L	<0.10	0.10	7503189	<0.10	7503245	<0.10	0.55	0.10	7503189
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7503189	<0.10	7503245	<0.10	0.55	0.10	7503189
Dissolved Bromide (Br-)	mg/L	<2.0	2.0	7503254	<10	7503254	<10	<10	10	7503254
Dissolved Sulphate (SO4)	mg/L	170	2.0	7503254	1500	7503254	1300	1200	10	7503254

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 (1) TKN < NH4: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.



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BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QGV998			QGV999			QGW000		
Sampling Date		2021/07/30			2021/07/30			2021/07/30		
COC Number		834487-09-01			834487-09-01			834487-09-01		
	UNITS	49-II	RDL	QC Batch	49-IV	RDL	QC Batch	49-V	RDL	QC Batch
<b>Calculated Parameters</b>										
Hardness (CaCO3)	mg/L	2100	1.0	7499417	1100	1.0	7499417	2200	1.0	7499417
<b>Inorganics</b>										
Total Ammonia-N	mg/L	1.5	0.050	7502674	0.60	0.050	7502908	1.7	0.050	7502908
Conductivity	umho/cm	3900	1.0	7503234	3700	1.0	7503679	3900	1.0	7503234
Total Dissolved Solids	mg/L	3290	10	7502180	2090	10	7502180	3230	10	7502177
Fluoride (F-)	mg/L	1.3	0.10	7503220	1.5	0.10	7503655	1.3	0.10	7503220
Total Kjeldahl Nitrogen (TKN)	mg/L	1.9	0.10	7503330	0.87	0.10	7502901	2.4	0.10	7502901
Total Organic Carbon (TOC)	mg/L	2.5	0.40	7503343	3.6	0.40	7502886	2.6	0.40	7502886
Orthophosphate (P)	mg/L	<0.010	0.010	7503251	<0.010	0.010	7503825	0.012	0.010	7503251
pH	pH	7.56		7503235	7.81		7503680	7.61		7503235
Phenols-4AAP	mg/L	<0.0010	0.0010	7502016	<0.0010	0.0010	7501979	<0.0010	0.0010	7501979
Alkalinity (Total as CaCO3)	mg/L	360	1.0	7503233	270	1.0	7503672	370	1.0	7503233
Nitrite (N)	mg/L	<0.010	0.010	7503245	<0.010	0.010	7503245	<0.010	0.010	7503245
Dissolved Chloride (Cl-)	mg/L	210	10	7503254	620	5.0	7504516	140	10	7504516
Nitrate (N)	mg/L	<0.10	0.10	7503245	<0.10	0.10	7503245	<0.10	0.10	7503245
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7503245	<0.10	0.10	7503245	<0.10	0.10	7503245
Dissolved Bromide (Br-)	mg/L	<10	10	7503254	<5.0	5.0	7504516	<10	10	7504516
Dissolved Sulphate (SO4)	mg/L	1500	10	7503254	590	5.0	7504516	1700	10	7504516
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										



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BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QGW000			QGW001			QGW002		
Sampling Date		2021/07/30			2021/07/30			2021/07/30		
COC Number		834487-09-01			834487-09-01			834487-09-01		
	UNITS	49-V Lab-Dup	RDL	QC Batch	57-I	RDL	QC Batch	G11	RDL	QC Batch

Calculated Parameters										
Hardness (CaCO3)	mg/L				160	1.0	7499417	630	1.0	7499417
Inorganics										
Total Ammonia-N	mg/L				220 (1)	0.50	7502674	<0.050	0.050	7502908
Conductivity	umho/cm				13000	1.0	7503234	4300	1.0	7503679
Total Dissolved Solids	mg/L				6750	20	7502177	2350	10	7502177
Fluoride (F-)	mg/L				3.6	0.10	7503220	1.4	0.10	7503655
Total Kjeldahl Nitrogen (TKN)	mg/L				210 (1)	10	7503330	0.36	0.10	7502901
Total Organic Carbon (TOC)	mg/L				75	0.40	7503343	3.8	0.40	7502886
Orthophosphate (P)	mg/L	0.012	0.010	7503251	0.017	0.010	7503825	<0.010	0.010	7503825
pH	pH				10.5		7503235	7.81		7503680
Phenols-4AAP	mg/L				1.1	0.050	7502016	<0.0010	0.0010	7501979
Alkalinity (Total as CaCO3)	mg/L				760	1.0	7503233	300	1.0	7503672
Nitrite (N)	mg/L				0.012	0.010	7503245	<0.010	0.010	7503245
Dissolved Chloride (Cl-)	mg/L				4000	50	7503254	1000	10	7504516
Nitrate (N)	mg/L				<0.10	0.10	7503245	<0.10	0.10	7503245
Nitrate + Nitrite (N)	mg/L				<0.10	0.10	7503245	<0.10	0.10	7503245
Dissolved Bromide (Br-)	mg/L				<50	50	7503254	<10	10	7504516
Dissolved Sulphate (SO4)	mg/L				230	50	7503254	280	10	7504516

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 (1) TKN < NH4: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.



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BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

**RESULTS OF ANALYSES OF WATER**

BV Labs ID		QGW003				QGW004				QGW005			
Sampling Date		2021/07/30				2021/07/30				2021/07/30			
COC Number		834487-09-01				834487-09-01				834487-09-01			
	UNITS	G13	RDL	QC Batch	67-II	RDL	QC Batch	67-III	RDL	QC Batch			
<b>Calculated Parameters</b>													
Hardness (CaCO3)	mg/L	640	1.0	7499417	1000	1.0	7499417	900	1.0	7499417			
<b>Inorganics</b>													
Total Ammonia-N	mg/L	<0.050	0.050	7502674	15 (1)	0.050	7502908	10	0.050	7502908			
Conductivity	umho/cm	2100	1.0	7503234	3900	1.0	7503234	3500	1.0	7503679			
Total Dissolved Solids	mg/L	1300	10	7502177	2280	10	7502177	1920	10	7502177			
Fluoride (F-)	mg/L	1.2	0.10	7503220	0.81	0.10	7503220	0.62	0.10	7503655			
Total Kjeldahl Nitrogen (TKN)	mg/L	0.18	0.10	7503330	13 (1)	1.0	7502901	10	1.0	7502901			
Total Organic Carbon (TOC)	mg/L	3.1	0.40	7503343	4.8	0.40	7502886	7.1	0.40	7502886			
Orthophosphate (P)	mg/L	<0.010	0.010	7503251	<0.010	0.010	7503251	<0.010	0.010	7503251			
pH	pH	7.87		7503235	7.75		7503235	7.80		7503680			
Phenols-4AAP	mg/L	<0.0010	0.0010	7501979	0.0015	0.0010	7502016	0.020	0.0010	7502016			
Alkalinity (Total as CaCO3)	mg/L	310	1.0	7503233	320	1.0	7503233	300	1.0	7503672			
Nitrite (N)	mg/L	0.028	0.010	7503189	0.189	0.010	7503189	<0.010	0.010	7503245			
Dissolved Chloride (Cl-)	mg/L	290	5.0	7503254	610	10	7503254	710	5.0	7503254			
Nitrate (N)	mg/L	0.96	0.10	7503189	1.83	0.10	7503189	<0.10	0.10	7503245			
Nitrate + Nitrite (N)	mg/L	0.99	0.10	7503189	2.02	0.10	7503189	<0.10	0.10	7503245			
Dissolved Bromide (Br-)	mg/L	<5.0	5.0	7503254	<10	10	7503254	<5.0	5.0	7503254			
Dissolved Sulphate (SO4)	mg/L	290	5.0	7503254	660	10	7503254	320	5.0	7503254			
RDL = Reportable Detection Limit													
QC Batch = Quality Control Batch													
(1) TKN < NH4: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.													



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Terrapure Environmental  
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### RESULTS OF ANALYSES OF WATER

BV Labs ID		QGW005			QGW006		QGW007		
Sampling Date		2021/07/30			2021/07/30		2021/07/30		
COC Number		834487-09-01			834487-09-01		834487-09-01		
	UNITS	67-III Lab-Dup	RDL	QC Batch	33-I	RDL	33-II	RDL	QC Batch
<b>Calculated Parameters</b>									
Hardness (CaCO3)	mg/L				1300	1.0	750	1.0	7499417
<b>Inorganics</b>									
Total Ammonia-N	mg/L				<0.050	0.050	0.34	0.050	7502908
Conductivity	umho/cm	3500	1.0	7503679	4100	1.0	2600	1.0	7503234
Total Dissolved Solids	mg/L				2810	10	1600	10	7502177
Fluoride (F-)	mg/L	0.61	0.10	7503655	1.8	0.10	1.2	0.10	7503220
Total Kjeldahl Nitrogen (TKN)	mg/L				1.7	0.20	1.7	0.10	7502901
Total Organic Carbon (TOC)	mg/L				26	0.40	17	0.40	7502886
Orthophosphate (P)	mg/L				0.031	0.010	0.061	0.010	7503251
pH	pH	7.80		7503680	7.41		7.38		7503235
Phenols-4AAP	mg/L				<0.0010	0.0010	0.0011	0.0010	7501979
Alkalinity (Total as CaCO3)	mg/L	300	1.0	7503672	49	1.0	36	1.0	7503233
Nitrite (N)	mg/L	<0.010	0.010	7503245	0.011	0.010	<0.010	0.010	7503189
Dissolved Chloride (Cl-)	mg/L				340	10	210	5.0	7503254
Nitrate (N)	mg/L	<0.10	0.10	7503245	4.42	0.10	2.91	0.10	7503189
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7503245	4.44	0.10	2.91	0.10	7503189
Dissolved Bromide (Br-)	mg/L				<10	10	<5.0	5.0	7503254
Dissolved Sulphate (SO4)	mg/L				1300	10	780	5.0	7503254
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate									



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BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

**RESULTS OF ANALYSES OF WATER**

BV Labs ID		QGW007			QGW008			QGW009		
Sampling Date		2021/07/30			2021/07/30			2021/07/30		
COC Number		834487-09-01			834487-10-01			834487-10-01		
	UNITS	33-II Lab-Dup	RDL	QC Batch	30-I	RDL	QC Batch	30-II	RDL	QC Batch
<b>Calculated Parameters</b>										
Hardness (CaCO3)	mg/L				420	1.0	7499417	400	1.0	7499417
<b>Inorganics</b>										
Total Ammonia-N	mg/L				21	0.050	7502908	2.1	0.050	7502908
Conductivity	umho/cm				3700	1.0	7503234	1500	1.0	7503679
Total Dissolved Solids	mg/L				1610	10	7502177	970	10	7502177
Fluoride (F-)	mg/L				0.86	0.10	7503220	1.7	0.10	7503655
Total Kjeldahl Nitrogen (TKN)	mg/L				22	2.0	7502901	3.0	0.10	7502901
Total Organic Carbon (TOC)	mg/L				110	0.80	7502886	19	0.40	7502886
Orthophosphate (P)	mg/L				<0.010	0.010	7503251	<0.010	0.010	7503825
pH	pH				11.7		7503235	9.90		7503680
Phenols-4AAP	mg/L				2.1	0.050	7502016	0.0033	0.0010	7501979
Alkalinity (Total as CaCO3)	mg/L				470	1.0	7503233	44	1.0	7503672
Nitrite (N)	mg/L				<0.010	0.010	7503245	1.25	0.010	7503245
Dissolved Chloride (Cl-)	mg/L	200	5.0	7503254	550	5.0	7503254	69	5.0	7504516
Nitrate (N)	mg/L				<0.10	0.10	7503245	0.84	0.10	7503245
Nitrate + Nitrite (N)	mg/L				<0.10	0.10	7503245	2.09	0.10	7503245
Dissolved Bromide (Br-)	mg/L	<5.0	5.0	7503254	<5.0	5.0	7503254	<5.0	5.0	7504516
Dissolved Sulphate (SO4)	mg/L	730	5.0	7503254	110	5.0	7503254	510	5.0	7504516
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										
Lab-Dup = Laboratory Initiated Duplicate										





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BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QGW010			QGW010			QGW011		
Sampling Date		2021/07/30			2021/07/30			2021/07/30		
COC Number		834487-10-01			834487-10-01			834487-10-01		
	UNITS	60-I	RDL	QC Batch	60-I Lab-Dup	RDL	QC Batch	60-II	RDL	QC Batch

Calculated Parameters										
Hardness (CaCO3)	mg/L	1700	1.0	7499417				1400	1.0	7499417
Inorganics										
Total Ammonia-N	mg/L	5.6	0.050	7502908				2.9	0.050	7502908
Conductivity	umho/cm	6300	1.0	7503679				3700	1.0	7503234
Total Dissolved Solids	mg/L	4100	10	7502180	4190	10	7502180	2470	10	7502180
Fluoride (F-)	mg/L	0.73	0.10	7503655				1.0	0.10	7503220
Total Kjeldahl Nitrogen (TKN)	mg/L	6.9	1.0	7502901				3.2	0.10	7502901
Total Organic Carbon (TOC)	mg/L	9.1	0.40	7502886				2.9	0.40	7502886
Orthophosphate (P)	mg/L	<0.010	0.010	7503825				<0.010	0.010	7503251
pH	pH	7.64		7503680				7.70		7503235
Phenols-4AAP	mg/L	0.0012	0.0010	7501979				<0.0010	0.0010	7502016
Alkalinity (Total as CaCO3)	mg/L	140	1.0	7503672				250	1.0	7503233
Nitrite (N)	mg/L	<0.010	0.010	7503245				<0.010	0.010	7503189
Dissolved Chloride (Cl-)	mg/L	1300	10	7504516				470	10	7503254
Nitrate (N)	mg/L	<0.10	0.10	7503245				<0.10	0.10	7503189
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7503245				<0.10	0.10	7503189
Dissolved Bromide (Br-)	mg/L	<10	10	7504516				<10	10	7503254
Dissolved Sulphate (SO4)	mg/L	750	10	7504516				790	10	7503254

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate



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BV Labs Job #: C1L7895  
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Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QGW011			QGW012		QGW013		
Sampling Date		2021/07/30			2021/07/30		2021/07/30		
COC Number		834487-10-01			834487-10-01		834487-10-01		
	UNITS	60-II Lab-Dup	RDL	QC Batch	60-III	RDL	60-IV	RDL	QC Batch
<b>Calculated Parameters</b>									
Hardness (CaCO3)	mg/L				1300	1.0	2200	1.0	7499417
<b>Inorganics</b>									
Total Ammonia-N	mg/L	2.9	0.050	7502908	0.64	0.050	8.0	0.050	7502908
Conductivity	umho/cm				3000	1.0	7000	1.0	7503234
Total Dissolved Solids	mg/L				1930	10	4760	20	7502180
Fluoride (F-)	mg/L				0.69	0.10	1.0	0.10	7503220
Total Kjeldahl Nitrogen (TKN)	mg/L	3.3	0.10	7502901	1.1	0.10	8.5	1.0	7502901
Total Organic Carbon (TOC)	mg/L	2.8	0.40	7502886	6.0	0.40	3.6	0.40	7502886
Orthophosphate (P)	mg/L				<0.010	0.010	<0.010	0.010	7503251
pH	pH				7.59		7.49		7503235
Phenols-4AAP	mg/L				<0.0010	0.0010	<0.0010	0.0010	7502016
Alkalinity (Total as CaCO3)	mg/L				410	1.0	170	1.0	7503233
Nitrite (N)	mg/L				0.020	0.010	<0.010	0.010	7503189
Dissolved Chloride (Cl-)	mg/L				250	5.0	1200	20	7503254
Nitrate (N)	mg/L				<0.10	0.10	<0.10	0.10	7503189
Nitrate + Nitrite (N)	mg/L				0.11	0.10	<0.10	0.10	7503189
Dissolved Bromide (Br-)	mg/L				<5.0	5.0	<20	20	7503254
Dissolved Sulphate (SO4)	mg/L				720	5.0	1400	20	7503254
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate									



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BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QGW014		
Sampling Date		2021/07/30		
COC Number		834487-10-01		
	UNITS	11-I	RDL	QC Batch
<b>Calculated Parameters</b>				
Hardness (CaCO <sub>3</sub> )	mg/L	1700	1.0	7499417
<b>Inorganics</b>				
Total Ammonia-N	mg/L	5.6 (1)	0.050	7502908
Conductivity	umho/cm	6300	1.0	7503234
Total Dissolved Solids	mg/L	3620	10	7502180
Fluoride (F <sup>-</sup> )	mg/L	0.72	0.10	7503220
Total Kjeldahl Nitrogen (TKN)	mg/L	5.6 (1)	1.0	7502901
Total Organic Carbon (TOC)	mg/L	9.2	0.40	7502886
Orthophosphate (P)	mg/L	<0.010	0.010	7503251
pH	pH	7.58		7503235
Phenols-4AAP	mg/L	0.0011	0.0010	7501979
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	140	1.0	7503233
Nitrite (N)	mg/L	<0.010	0.010	7503189
Dissolved Chloride (Cl <sup>-</sup> )	mg/L	1300	10	7503254
Nitrate (N)	mg/L	<0.10	0.10	7503189
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7503189
Dissolved Bromide (Br <sup>-</sup> )	mg/L	<10	10	7503254
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	770	10	7503254
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) TKN < NH <sub>4</sub> : Both values fall within acceptable RPD limits for duplicates and are likely equivalent.				



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BV Labs Job #: C1L7895  
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Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QGV930		QGV931		QGV932			QGV933		
Sampling Date		2021/07/30		2021/07/30		2021/07/30			2021/07/30		
COC Number		834487-08-01		834487-08-01		834487-08-01			834487-08-01		
	UNITS	P1-III	QC Batch	P3-II	RDL	P3-III	RDL	QC Batch	43-I	RDL	QC Batch
<b>Metals</b>											
Dissolved Aluminum (Al)	ug/L	8.4	7502858	13	4.9	<4.9	4.9	7502986	<4.9	4.9	7502858
Dissolved Antimony (Sb)	ug/L	<0.50	7502858	<0.50	0.50	<0.50	0.50	7502986	<0.50	0.50	7502858
Dissolved Arsenic (As)	ug/L	<1.0	7502858	2.5	1.0	<1.0	1.0	7502986	<1.0	1.0	7502858
Dissolved Barium (Ba)	ug/L	60	7502858	16	2.0	41	2.0	7502986	12	2.0	7502858
Dissolved Beryllium (Be)	ug/L	<0.40	7502858	<0.40	0.40	<0.40	0.40	7502986	<0.40	0.40	7502858
Dissolved Bismuth (Bi)	ug/L	<1.0	7502858	<1.0	1.0	<1.0	1.0	7502986	<1.0	1.0	7502858
Dissolved Boron (B)	ug/L	170	7502858	490	10	310	10	7502986	800	10	7502858
Dissolved Cadmium (Cd)	ug/L	<0.090	7502858	<0.090	0.090	0.26	0.090	7502986	<0.090	0.090	7502858
Dissolved Calcium (Ca)	ug/L	140000	7502858	170000	200	270000	400	7502986	670000	1000	7502858
Dissolved Chromium (Cr)	ug/L	<5.0	7502858	<5.0	5.0	<5.0	5.0	7502986	<5.0	5.0	7502858
Dissolved Cobalt (Co)	ug/L	<0.50	7502858	<0.50	0.50	0.99	0.50	7502986	<0.50	0.50	7502858
Dissolved Copper (Cu)	ug/L	<0.90	7502858	<0.90	0.90	<0.90	0.90	7502986	<0.90	0.90	7502858
Dissolved Iron (Fe)	ug/L	<100	7502858	<100	100	<100	100	7502986	<100	100	7502858
Dissolved Lead (Pb)	ug/L	1.1	7502858	<0.50	0.50	<0.50	0.50	7502986	<0.50	0.50	7502858
Dissolved Lithium (Li)	ug/L	14	7502858	38	5.0	66	5.0	7502986	180	5.0	7502858
Dissolved Magnesium (Mg)	ug/L	50000	7502858	24000	50	94000	50	7502986	86000	50	7502858
Dissolved Manganese (Mn)	ug/L	88	7502858	36	2.0	87	2.0	7502986	69	2.0	7502858
Dissolved Molybdenum (Mo)	ug/L	14	7502858	9.2	0.50	<0.50	0.50	7502986	<0.50	0.50	7502858
Dissolved Nickel (Ni)	ug/L	6.3	7502858	2.9	1.0	4.6	1.0	7502986	<1.0	1.0	7502858
Dissolved Phosphorus (P)	ug/L	<100	7502858	<100	100	<100	100	7502986	<100	100	7502858
Dissolved Potassium (K)	ug/L	18000	7502858	35000	200	17000	200	7502986	31000	200	7502858
Dissolved Selenium (Se)	ug/L	<2.0	7502858	<2.0	2.0	<2.0	2.0	7502986	<2.0	2.0	7502858
Dissolved Silicon (Si)	ug/L	6400	7502858	8400	50	5100	50	7502986	4800	50	7502858
Dissolved Silver (Ag)	ug/L	<0.090	7502858	<0.090	0.090	<0.090	0.090	7502986	<0.090	0.090	7502858
Dissolved Sodium (Na)	ug/L	160000	7502858	330000	100	280000	100	7502986	480000	100	7502858
Dissolved Strontium (Sr)	ug/L	950	7502858	3000	1.0	5200	1.0	7502986	13000	1.0	7502858
Dissolved Tellurium (Te)	ug/L	<1.0	7502858	<1.0	1.0	<1.0	1.0	7502986	<1.0	1.0	7502858
Dissolved Thallium (Tl)	ug/L	<0.050	7502858	<0.050	0.050	<0.050	0.050	7502986	<0.050	0.050	7502858
Dissolved Tin (Sn)	ug/L	<1.0	7502858	<1.0	1.0	<1.0	1.0	7502986	<1.0	1.0	7502858
Dissolved Titanium (Ti)	ug/L	<5.0	7502858	<5.0	5.0	<5.0	5.0	7502986	<5.0	5.0	7502858
Dissolved Tungsten (W)	ug/L	1.1	7502858	5.1	1.0	<1.0	1.0	7502986	<1.0	1.0	7502858
Dissolved Uranium (U)	ug/L	1.1	7502858	0.11	0.10	0.18	0.10	7502986	<0.10	0.10	7502858
Dissolved Vanadium (V)	ug/L	0.61	7502858	0.57	0.50	<0.50	0.50	7502986	<0.50	0.50	7502858
Dissolved Zinc (Zn)	ug/L	49	7502858	<5.0	5.0	<5.0	5.0	7502986	<5.0	5.0	7502858
Dissolved Zirconium (Zr)	ug/L	<1.0	7502858	<1.0	1.0	<1.0	1.0	7502986	<1.0	1.0	7502858
RDL = Reportable Detection Limit											
QC Batch = Quality Control Batch											



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BV Labs Job #: C1L7895  
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Client Project #: GW  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QGV934		QGV935		QGV936		QGV937		
Sampling Date		2021/07/30		2021/07/30		2021/07/30		2021/07/30		
COC Number		834487-08-01		834487-08-01		834487-08-01		834487-08-01		
	UNITS	43-II	RDL	ST1	RDL	ST2	RDL	61-I	RDL	QC Batch
<b>Metals</b>										
Dissolved Aluminum (Al)	ug/L	<4.9	4.9	<4.9	4.9	<4.9	4.9	<4.9	4.9	7502858
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7502858
Dissolved Arsenic (As)	ug/L	<1.0	1.0	1.2	1.0	2.6	1.0	<1.0	1.0	7502858
Dissolved Barium (Ba)	ug/L	15	2.0	49	2.0	27	2.0	15	2.0	7502858
Dissolved Beryllium (Be)	ug/L	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40	7502858
Dissolved Bismuth (Bi)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7502858
Dissolved Boron (B)	ug/L	640	10	400	10	490	10	1700	10	7502858
Dissolved Cadmium (Cd)	ug/L	<0.090	0.090	<0.090	0.090	<0.090	0.090	<0.090	0.090	7502858
Dissolved Calcium (Ca)	ug/L	280000	1000	180000	400	21000	200	660000	1000	7502858
Dissolved Chromium (Cr)	ug/L	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	7502858
Dissolved Cobalt (Co)	ug/L	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7502858
Dissolved Copper (Cu)	ug/L	<0.90	0.90	<0.90	0.90	<0.90	0.90	<0.90	0.90	7502858
Dissolved Iron (Fe)	ug/L	<100	100	<100	100	<100	100	<100	100	7502858
Dissolved Lead (Pb)	ug/L	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7502858
Dissolved Lithium (Li)	ug/L	84	5.0	51	5.0	26	5.0	250	5.0	7502858
Dissolved Magnesium (Mg)	ug/L	72000	50	76000	50	11000	50	99000	50	7502858
Dissolved Manganese (Mn)	ug/L	61	2.0	16	2.0	<2.0	2.0	100	2.0	7502858
Dissolved Molybdenum (Mo)	ug/L	<0.50	0.50	2.3	0.50	49	0.50	<0.50	0.50	7502858
Dissolved Nickel (Ni)	ug/L	<1.0	1.0	4.4	1.0	15	1.0	<1.0	1.0	7502858
Dissolved Phosphorus (P)	ug/L	<100	100	<100	100	<100	100	<100	100	7502858
Dissolved Potassium (K)	ug/L	15000	200	46000	200	100000	200	28000	200	7502858
Dissolved Selenium (Se)	ug/L	<2.0	2.0	5.8	2.0	4.5	2.0	<2.0	2.0	7502858
Dissolved Silicon (Si)	ug/L	3600	50	6500	50	4200	50	4200	50	7502858
Dissolved Silver (Ag)	ug/L	<0.090	0.090	<0.090	0.090	<0.090	0.090	<0.090	0.090	7502858
Dissolved Sodium (Na)	ug/L	180000	100	750000	500	1600000	500	410000	100	7502858
Dissolved Strontium (Sr)	ug/L	11000	1.0	5100	1.0	2200	1.0	6100	1.0	7502858
Dissolved Tellurium (Te)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7502858
Dissolved Thallium (Tl)	ug/L	<0.050	0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	7502858
Dissolved Tin (Sn)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7502858
Dissolved Titanium (Ti)	ug/L	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	7502858
Dissolved Tungsten (W)	ug/L	<1.0	1.0	5.8	1.0	18	1.0	<1.0	1.0	7502858
Dissolved Uranium (U)	ug/L	<0.10	0.10	0.15	0.10	<0.10	0.10	<0.10	0.10	7502858
Dissolved Vanadium (V)	ug/L	<0.50	0.50	<0.50	0.50	0.83	0.50	<0.50	0.50	7502858
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	7502858
Dissolved Zirconium (Zr)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7502858
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										



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BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QGV938		QGV939	QGV998			QGV999		
Sampling Date		2021/07/30		2021/07/30	2021/07/30			2021/07/30		
COC Number		834487-08-01		834487-08-01	834487-09-01			834487-09-01		
	UNITS	61-II	RDL	61-III	49-II	RDL	QC Batch	49-IV	RDL	QC Batch
<b>Metals</b>										
Dissolved Aluminum (Al)	ug/L	<4.9	4.9	4.9	<4.9	4.9	7502858	<4.9	4.9	7502986
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	<0.50	<0.50	0.50	7502858	<0.50	0.50	7502986
Dissolved Arsenic (As)	ug/L	<1.0	1.0	<1.0	<1.0	1.0	7502858	4.3	1.0	7502986
Dissolved Barium (Ba)	ug/L	14	2.0	21	28	2.0	7502858	49	2.0	7502986
Dissolved Beryllium (Be)	ug/L	<0.40	0.40	<0.40	<0.40	0.40	7502858	<0.40	0.40	7502986
Dissolved Bismuth (Bi)	ug/L	<1.0	1.0	<1.0	<1.0	1.0	7502858	<1.0	1.0	7502986
Dissolved Boron (B)	ug/L	3000	10	1900	560	10	7502858	53	10	7502986
Dissolved Cadmium (Cd)	ug/L	<0.090	0.090	<0.090	<0.090	0.090	7502858	<0.090	0.090	7502986
Dissolved Calcium (Ca)	ug/L	500000	400	660000	460000	1000	7502858	240000	200	7502986
Dissolved Chromium (Cr)	ug/L	<5.0	5.0	<5.0	<5.0	5.0	7502858	<5.0	5.0	7502986
Dissolved Cobalt (Co)	ug/L	<0.50	0.50	<0.50	<0.50	0.50	7502858	7.7	0.50	7502986
Dissolved Copper (Cu)	ug/L	1.2	0.90	<0.90	<0.90	0.90	7502858	<0.90	0.90	7502986
Dissolved Iron (Fe)	ug/L	470	100	<100	<100	100	7502858	1100	100	7502986
Dissolved Lead (Pb)	ug/L	<0.50	0.50	<0.50	<0.50	0.50	7502858	<0.50	0.50	7502986
Dissolved Lithium (Li)	ug/L	360	5.0	180	120	5.0	7502858	48	5.0	7502986
Dissolved Magnesium (Mg)	ug/L	85000	50	90000	230000	50	7502858	110000	50	7502986
Dissolved Manganese (Mn)	ug/L	190	2.0	55	64	2.0	7502858	50	2.0	7502986
Dissolved Molybdenum (Mo)	ug/L	<0.50	0.50	<0.50	<0.50	0.50	7502858	24	0.50	7502986
Dissolved Nickel (Ni)	ug/L	<1.0	1.0	<1.0	<1.0	1.0	7502858	40	1.0	7502986
Dissolved Phosphorus (P)	ug/L	<100	100	<100	<100	100	7502858	<100	100	7502986
Dissolved Potassium (K)	ug/L	20000	200	23000	14000	200	7502858	5400	200	7502986
Dissolved Selenium (Se)	ug/L	<2.0	2.0	<2.0	2.3	2.0	7502858	<2.0	2.0	7502986
Dissolved Silicon (Si)	ug/L	5900	50	4500	7900	50	7502858	4100	50	7502986
Dissolved Silver (Ag)	ug/L	<0.090	0.090	<0.090	<0.090	0.090	7502858	<0.090	0.090	7502986
Dissolved Sodium (Na)	ug/L	370000	100	250000	190000	100	7502858	380000	100	7502986
Dissolved Strontium (Sr)	ug/L	6300	1.0	7800	6400	1.0	7502858	3200	1.0	7502986
Dissolved Tellurium (Te)	ug/L	<1.0	1.0	<1.0	<1.0	1.0	7502858	<1.0	1.0	7502986
Dissolved Thallium (Tl)	ug/L	<0.050	0.050	<0.050	<0.050	0.050	7502858	<0.050	0.050	7502986
Dissolved Tin (Sn)	ug/L	<1.0	1.0	<1.0	<1.0	1.0	7502858	<1.0	1.0	7502986
Dissolved Titanium (Ti)	ug/L	<5.0	5.0	<5.0	<5.0	5.0	7502858	<5.0	5.0	7502986
Dissolved Tungsten (W)	ug/L	<1.0	1.0	<1.0	<1.0	1.0	7502858	<1.0	1.0	7502986
Dissolved Uranium (U)	ug/L	0.41	0.10	1.2	1.1	0.10	7502858	11	0.10	7502986
Dissolved Vanadium (V)	ug/L	<0.50	0.50	<0.50	<0.50	0.50	7502858	0.60	0.50	7502986
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	<5.0	<5.0	5.0	7502858	26	5.0	7502986
Dissolved Zirconium (Zr)	ug/L	<1.0	1.0	<1.0	<1.0	1.0	7502858	<1.0	1.0	7502986
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										



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BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QGW000	QGW000			QGW001		QGW002		
Sampling Date		2021/07/30	2021/07/30			2021/07/30		2021/07/30		
COC Number		834487-09-01	834487-09-01			834487-09-01		834487-09-01		
	UNITS	49-V	49-V Lab-Dup	RDL	QC Batch	57-I	QC Batch	G11	RDL	QC Batch
<b>Metals</b>										
Dissolved Aluminum (Al)	ug/L	5.2	<4.9	4.9	7503005	4500	7502986	<4.9	4.9	7502858
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	0.50	7503005	<0.50	7502986	<0.50	0.50	7502858
Dissolved Arsenic (As)	ug/L	<1.0	<1.0	1.0	7503005	3.9	7502986	<1.0	1.0	7502858
Dissolved Barium (Ba)	ug/L	39	39	2.0	7503005	17	7502986	31	2.0	7502858
Dissolved Beryllium (Be)	ug/L	<0.40	<0.40	0.40	7503005	<0.40	7502986	<0.40	0.40	7502858
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	1.0	7503005	<1.0	7502986	<1.0	1.0	7502858
Dissolved Boron (B)	ug/L	810	810	10	7503005	460	7502986	130	10	7502858
Dissolved Cadmium (Cd)	ug/L	<0.090	<0.090	0.090	7503005	<0.090	7502986	<0.090	0.090	7502858
Dissolved Calcium (Ca)	ug/L	500000	500000	1000	7503005	60000	7502986	190000	200	7502858
Dissolved Chromium (Cr)	ug/L	<5.0	<5.0	5.0	7503005	<5.0	7502986	<5.0	5.0	7502858
Dissolved Cobalt (Co)	ug/L	<0.50	<0.50	0.50	7503005	<0.50	7502986	1.1	0.50	7502858
Dissolved Copper (Cu)	ug/L	<0.90	<0.90	0.90	7503005	<0.90	7502986	2.3	0.90	7502858
Dissolved Iron (Fe)	ug/L	320	320	100	7503005	<100	7502986	<100	100	7502858
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	0.50	7503005	<0.50	7502986	<0.50	0.50	7502858
Dissolved Lithium (Li)	ug/L	180	180	5.0	7503005	28	7502986	9.6	5.0	7502858
Dissolved Magnesium (Mg)	ug/L	220000	220000	50	7503005	1700	7502986	40000	50	7502858
Dissolved Manganese (Mn)	ug/L	230	220	2.0	7503005	<2.0	7502986	37	2.0	7502858
Dissolved Molybdenum (Mo)	ug/L	<0.50	<0.50	0.50	7503005	66	7502986	12	0.50	7502858
Dissolved Nickel (Ni)	ug/L	<1.0	<1.0	1.0	7503005	31	7502986	26	1.0	7502858
Dissolved Phosphorus (P)	ug/L	<100	<100	100	7503005	610	7502986	<100	100	7502858
Dissolved Potassium (K)	ug/L	15000	15000	200	7503005	180000	7502986	2800	200	7502858
Dissolved Selenium (Se)	ug/L	7.7	4.7	2.0	7503005	3.1	7502986	<2.0	2.0	7502858
Dissolved Silicon (Si)	ug/L	8000	7800	50	7503005	9500	7502986	3200	50	7502858
Dissolved Silver (Ag)	ug/L	<0.090	<0.090	0.090	7503005	<0.090	7502986	<0.090	0.090	7502858
Dissolved Sodium (Na)	ug/L	140000	140000	100	7503005	2500000	7502986	650000	500	7502858
Dissolved Strontium (Sr)	ug/L	6500	6400	1.0	7503005	1300	7502986	1700	1.0	7502858
Dissolved Tellurium (Te)	ug/L	<1.0	<1.0	1.0	7503005	<1.0	7502986	<1.0	1.0	7502858
Dissolved Thallium (Tl)	ug/L	<0.050	<0.050	0.050	7503005	<0.050	7502986	0.40	0.050	7502858
Dissolved Tin (Sn)	ug/L	<1.0	<1.0	1.0	7503005	<1.0	7502986	<1.0	1.0	7502858
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	5.0	7503005	<5.0	7502986	<5.0	5.0	7502858
Dissolved Tungsten (W)	ug/L	<1.0	<1.0	1.0	7503005	22	7502986	<1.0	1.0	7502858
Dissolved Uranium (U)	ug/L	1.1	1.1	0.10	7503005	<0.10	7502986	18	0.10	7502858
Dissolved Vanadium (V)	ug/L	1.3	1.3	0.50	7503005	0.90	7502986	<0.50	0.50	7502858
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	5.0	7503005	<5.0	7502986	570	5.0	7502858
Dissolved Zirconium (Zr)	ug/L	<1.0	<1.0	1.0	7503005	<1.0	7502986	<1.0	1.0	7502858
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate										



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BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QGW003	QGW003		QGW004		QGW005	QGW006		
Sampling Date		2021/07/30	2021/07/30		2021/07/30		2021/07/30	2021/07/30		
COC Number		834487-09-01	834487-09-01		834487-09-01		834487-09-01	834487-09-01		
	UNITS	G13	G13 Lab-Dup	RDL	67-II	RDL	67-III	33-I	RDL	QC Batch
<b>Metals</b>										
Dissolved Aluminum (Al)	ug/L	<4.9	<4.9	4.9	<4.9	4.9	<4.9	5.4	4.9	7502858
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	0.50	<0.50	0.50	<0.50	<0.50	0.50	7502858
Dissolved Arsenic (As)	ug/L	<1.0	<1.0	1.0	<1.0	1.0	<1.0	<1.0	1.0	7502858
Dissolved Barium (Ba)	ug/L	33	33	2.0	14	2.0	45	120	2.0	7502858
Dissolved Beryllium (Be)	ug/L	<0.40	<0.40	0.40	<0.40	0.40	<0.40	<0.40	0.40	7502858
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	1.0	<1.0	1.0	<1.0	<1.0	1.0	7502858
Dissolved Boron (B)	ug/L	280	290	10	1700	10	880	390	10	7502858
Dissolved Cadmium (Cd)	ug/L	0.40	0.42	0.090	0.13	0.090	<0.090	0.35	0.090	7502858
Dissolved Calcium (Ca)	ug/L	180000	180000	200	290000	400	180000	480000	200	7502858
Dissolved Chromium (Cr)	ug/L	<5.0	<5.0	5.0	<5.0	5.0	<5.0	<5.0	5.0	7502858
Dissolved Cobalt (Co)	ug/L	<0.50	<0.50	0.50	2.0	0.50	<0.50	<0.50	0.50	7502858
Dissolved Copper (Cu)	ug/L	3.4	3.4	0.90	<0.90	0.90	<0.90	5.5	0.90	7502858
Dissolved Iron (Fe)	ug/L	<100	<100	100	260	100	540	<100	100	7502858
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	0.50	<0.50	0.50	<0.50	<0.50	0.50	7502858
Dissolved Lithium (Li)	ug/L	16	17	5.0	74	5.0	68	21	5.0	7502858
Dissolved Magnesium (Mg)	ug/L	48000	50000	50	64000	50	110000	13000	50	7502858
Dissolved Manganese (Mn)	ug/L	6.5	6.6	2.0	260	2.0	17	83	2.0	7502858
Dissolved Molybdenum (Mo)	ug/L	6.5	6.4	0.50	2.6	0.50	11	16	0.50	7502858
Dissolved Nickel (Ni)	ug/L	15	15	1.0	4.4	1.0	4.3	2.3	1.0	7502858
Dissolved Phosphorus (P)	ug/L	<100	<100	100	<100	100	<100	<100	100	7502858
Dissolved Potassium (K)	ug/L	2100	2100	200	37000	200	19000	60000	200	7502858
Dissolved Selenium (Se)	ug/L	<2.0	<2.0	2.0	<2.0	2.0	<2.0	<2.0	2.0	7502858
Dissolved Silicon (Si)	ug/L	4500	4700	50	5300	50	7800	4800	50	7502858
Dissolved Silver (Ag)	ug/L	<0.090	<0.090	0.090	<0.090	0.090	<0.090	<0.090	0.090	7502858
Dissolved Sodium (Na)	ug/L	220000	220000	100	440000	100	350000	430000	100	7502858
Dissolved Strontium (Sr)	ug/L	1700	1700	1.0	5100	1.0	2200	2100	1.0	7502858
Dissolved Tellurium (Te)	ug/L	<1.0	<1.0	1.0	<1.0	1.0	<1.0	<1.0	1.0	7502858
Dissolved Thallium (Tl)	ug/L	0.20	0.21	0.050	<0.050	0.050	<0.050	<0.050	0.050	7502858
Dissolved Tin (Sn)	ug/L	<1.0	<1.0	1.0	<1.0	1.0	<1.0	<1.0	1.0	7502858
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	5.0	<5.0	5.0	<5.0	<5.0	5.0	7502858
Dissolved Tungsten (W)	ug/L	<1.0	<1.0	1.0	<1.0	1.0	2.3	<1.0	1.0	7502858
Dissolved Uranium (U)	ug/L	11	11	0.10	0.25	0.10	4.7	<0.10	0.10	7502858
Dissolved Vanadium (V)	ug/L	<0.50	<0.50	0.50	<0.50	0.50	<0.50	<0.50	0.50	7502858
Dissolved Zinc (Zn)	ug/L	560	560	5.0	<5.0	5.0	<5.0	<5.0	5.0	7502858
Dissolved Zirconium (Zr)	ug/L	<1.0	<1.0	1.0	<1.0	1.0	<1.0	<1.0	1.0	7502858
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate										





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BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QGW007	QGW008	QGW009			QGW010		
Sampling Date		2021/07/30	2021/07/30	2021/07/30			2021/07/30		
COC Number		834487-09-01	834487-10-01	834487-10-01			834487-10-01		
	UNITS	33-II	30-I	30-II	RDL	QC Batch	60-I	RDL	QC Batch
<b>Metals</b>									
Dissolved Aluminum (Al)	ug/L	12	18	32	4.9	7502858	<4.9	4.9	7502986
Dissolved Antimony (Sb)	ug/L	<0.50	0.88	0.50	0.50	7502858	<0.50	0.50	7502986
Dissolved Arsenic (As)	ug/L	<1.0	6.7	3.3	1.0	7502858	<1.0	1.0	7502986
Dissolved Barium (Ba)	ug/L	72	70	26	2.0	7502858	28	2.0	7502986
Dissolved Beryllium (Be)	ug/L	<0.40	<0.40	<0.40	0.40	7502858	<0.40	0.40	7502986
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	<1.0	1.0	7502858	<1.0	1.0	7502986
Dissolved Boron (B)	ug/L	300	110	58	10	7502858	520	10	7502986
Dissolved Cadmium (Cd)	ug/L	0.29	<0.090	<0.090	0.090	7502858	<0.090	0.090	7502986
Dissolved Calcium (Ca)	ug/L	280000	170000	160000	200	7502858	490000	400	7502986
Dissolved Chromium (Cr)	ug/L	<5.0	<5.0	<5.0	5.0	7502858	<5.0	5.0	7502986
Dissolved Cobalt (Co)	ug/L	<0.50	<0.50	<0.50	0.50	7502858	<0.50	0.50	7502986
Dissolved Copper (Cu)	ug/L	2.4	<0.90	4.6	0.90	7502858	<0.90	0.90	7502986
Dissolved Iron (Fe)	ug/L	<100	<100	<100	100	7502858	<100	100	7502986
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	<0.50	0.50	7502858	<0.50	0.50	7502986
Dissolved Lithium (Li)	ug/L	22	54	8.7	5.0	7502858	71	5.0	7502986
Dissolved Magnesium (Mg)	ug/L	10000	<50	130	50	7502858	110000	50	7502986
Dissolved Manganese (Mn)	ug/L	89	<2.0	<2.0	2.0	7502858	90	2.0	7502986
Dissolved Molybdenum (Mo)	ug/L	17	18	43	0.50	7502858	<0.50	0.50	7502986
Dissolved Nickel (Ni)	ug/L	1.3	14	2.4	1.0	7502858	<1.0	1.0	7502986
Dissolved Phosphorus (P)	ug/L	110	<100	<100	100	7502858	<100	100	7502986
Dissolved Potassium (K)	ug/L	40000	110000	60000	200	7502858	33000	200	7502986
Dissolved Selenium (Se)	ug/L	<2.0	4.4	3.4	2.0	7502858	<2.0	2.0	7502986
Dissolved Silicon (Si)	ug/L	2800	4800	11000	50	7502858	4000	50	7502986
Dissolved Silver (Ag)	ug/L	<0.090	<0.090	<0.090	0.090	7502858	<0.090	0.090	7502986
Dissolved Sodium (Na)	ug/L	260000	410000	140000	100	7502858	680000	500	7502986
Dissolved Strontium (Sr)	ug/L	1500	2200	1400	1.0	7502858	7700	1.0	7502986
Dissolved Tellurium (Te)	ug/L	<1.0	<1.0	<1.0	1.0	7502858	<1.0	1.0	7502986
Dissolved Thallium (Tl)	ug/L	<0.050	<0.050	<0.050	0.050	7502858	<0.050	0.050	7502986
Dissolved Tin (Sn)	ug/L	<1.0	<1.0	<1.0	1.0	7502858	<1.0	1.0	7502986
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	<5.0	5.0	7502858	<5.0	5.0	7502986
Dissolved Tungsten (W)	ug/L	6.4	<1.0	20	1.0	7502858	<1.0	1.0	7502986
Dissolved Uranium (U)	ug/L	<0.10	<0.10	<0.10	0.10	7502858	<0.10	0.10	7502986
Dissolved Vanadium (V)	ug/L	1.4	<0.50	52	0.50	7502858	<0.50	0.50	7502986
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	<5.0	5.0	7502858	<5.0	5.0	7502986
Dissolved Zirconium (Zr)	ug/L	<1.0	<1.0	<1.0	1.0	7502858	<1.0	1.0	7502986
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									



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BV Labs Job #: C1L7895  
Report Date: 2021/08/13

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Client Project #: GW  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QGW011		QGW012			QGW013		QGW014		
Sampling Date		2021/07/30		2021/07/30			2021/07/30		2021/07/30		
COC Number		834487-10-01		834487-10-01			834487-10-01		834487-10-01		
	UNITS	60-II	QC Batch	60-III	RDL	QC Batch	60-IV	RDL	11-I	RDL	QC Batch
<b>Metals</b>											
Dissolved Aluminum (Al)	ug/L	<4.9	7502858	<4.9	4.9	7502986	<4.9	4.9	<4.9	4.9	7502997
Dissolved Antimony (Sb)	ug/L	<0.50	7502858	<0.50	0.50	7502986	<0.50	0.50	<0.50	0.50	7502997
Dissolved Arsenic (As)	ug/L	<1.0	7502858	<1.0	1.0	7502986	<1.0	1.0	<1.0	1.0	7502997
Dissolved Barium (Ba)	ug/L	26	7502858	35	2.0	7502986	15	2.0	27	2.0	7502997
Dissolved Beryllium (Be)	ug/L	<0.40	7502858	<0.40	0.40	7502986	<0.40	0.40	<0.40	0.40	7502997
Dissolved Bismuth (Bi)	ug/L	<1.0	7502858	<1.0	1.0	7502986	<1.0	1.0	<1.0	1.0	7502997
Dissolved Boron (B)	ug/L	580	7502858	670	10	7502986	1400	10	550	10	7502997
Dissolved Cadmium (Cd)	ug/L	<0.090	7502858	<0.090	0.090	7502986	<0.090	0.090	<0.090	0.090	7502997
Dissolved Calcium (Ca)	ug/L	380000	7502858	380000	200	7502986	680000	1000	490000	400	7502997
Dissolved Chromium (Cr)	ug/L	<5.0	7502858	<5.0	5.0	7502986	<5.0	5.0	<5.0	5.0	7502997
Dissolved Cobalt (Co)	ug/L	<0.50	7502858	<0.50	0.50	7502986	<0.50	0.50	<0.50	0.50	7502997
Dissolved Copper (Cu)	ug/L	<0.90	7502858	<0.90	0.90	7502986	<0.90	0.90	<0.90	0.90	7502997
Dissolved Iron (Fe)	ug/L	240	7502858	<100	100	7502986	180	100	<100	100	7502997
Dissolved Lead (Pb)	ug/L	<0.50	7502858	<0.50	0.50	7502986	<0.50	0.50	<0.50	0.50	7502997
Dissolved Lithium (Li)	ug/L	80	7502858	18	5.0	7502986	370	5.0	70	5.0	7502997
Dissolved Magnesium (Mg)	ug/L	100000	7502858	74000	50	7502986	120000	50	110000	50	7502997
Dissolved Manganese (Mn)	ug/L	140	7502858	85	2.0	7502986	99	2.0	90	2.0	7502997
Dissolved Molybdenum (Mo)	ug/L	<0.50	7502858	0.80	0.50	7502986	<0.50	0.50	<0.50	0.50	7502997
Dissolved Nickel (Ni)	ug/L	<1.0	7502858	2.2	1.0	7502986	<1.0	1.0	<1.0	1.0	7502997
Dissolved Phosphorus (P)	ug/L	<100	7502858	<100	100	7502986	<100	100	<100	100	7502997
Dissolved Potassium (K)	ug/L	20000	7502858	14000	200	7502986	38000	200	32000	200	7502997
Dissolved Selenium (Se)	ug/L	<2.0	7502858	<2.0	2.0	7502986	2.9	2.0	4.7	2.0	7502997
Dissolved Silicon (Si)	ug/L	5400	7502858	5700	50	7502986	3300	50	4000	50	7502997
Dissolved Silver (Ag)	ug/L	<0.090	7502858	<0.090	0.090	7502986	<0.090	0.090	<0.090	0.090	7502997
Dissolved Sodium (Na)	ug/L	290000	7502858	250000	100	7502986	680000	500	680000	500	7502997
Dissolved Strontium (Sr)	ug/L	4500	7502858	4700	1.0	7502986	8600	1.0	7600	1.0	7502997
Dissolved Tellurium (Te)	ug/L	<1.0	7502858	<1.0	1.0	7502986	1.1	1.0	<1.0	1.0	7502997
Dissolved Thallium (Tl)	ug/L	<0.050	7502858	<0.050	0.050	7502986	<0.050	0.050	<0.050	0.050	7502997
Dissolved Tin (Sn)	ug/L	<1.0	7502858	<1.0	1.0	7502986	<1.0	1.0	<1.0	1.0	7502997
Dissolved Titanium (Ti)	ug/L	<5.0	7502858	<5.0	5.0	7502986	<5.0	5.0	<5.0	5.0	7502997
Dissolved Tungsten (W)	ug/L	<1.0	7502858	<1.0	1.0	7502986	<1.0	1.0	<1.0	1.0	7502997
Dissolved Uranium (U)	ug/L	0.40	7502858	3.2	0.10	7502986	0.19	0.10	<0.10	0.10	7502997
Dissolved Vanadium (V)	ug/L	<0.50	7502858	<0.50	0.50	7502986	<0.50	0.50	<0.50	0.50	7502997
Dissolved Zinc (Zn)	ug/L	<5.0	7502858	29	5.0	7502986	<5.0	5.0	<5.0	5.0	7502997
Dissolved Zirconium (Zr)	ug/L	<1.0	7502858	<1.0	1.0	7502986	<1.0	1.0	<1.0	1.0	7502997
RDL = Reportable Detection Limit											
QC Batch = Quality Control Batch											



BUREAU  
VERITAS

BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QGV930  
**Sample ID:** P1-III  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7504752	N/A	2021/08/06	Surinder Rai
Anions	IC	7501131	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7504754	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7504755	2021/08/06	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/06	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502858	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502674	N/A	2021/08/05	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7500193	N/A	2021/08/05	Chandra Nandlal
pH	AT	7504753	2021/08/06	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7501979	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7500895	N/A	2021/08/05	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7503330	2021/08/09	2021/08/10	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7503343	N/A	2021/08/05	Julianna Castiglione

**BV Labs ID:** QGV930 Dup  
**Sample ID:** P1-III  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan

**BV Labs ID:** QGV931  
**Sample ID:** P3-II  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/09	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/06	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502674	N/A	2021/08/05	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503189	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7501979	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7503330	2021/08/09	2021/08/09	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7503343	N/A	2021/08/05	Julianna Castiglione



BUREAU  
VERITAS

BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QGV931 Dup  
**Sample ID:** P3-II  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai

**BV Labs ID:** QGV932  
**Sample ID:** P3-III  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503672	N/A	2021/08/06	Surinder Rai
Anions	IC	7504516	N/A	2021/08/06	Fari Dehdezi
Conductivity	AT	7503679	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503655	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/09	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/06	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502674	N/A	2021/08/05	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503245	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503680	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7501979	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503825	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7503330	2021/08/09	2021/08/10	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7503343	N/A	2021/08/05	Julianna Castiglione

**BV Labs ID:** QGV933  
**Sample ID:** 43-I  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/06	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502858	N/A	2021/08/06	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502674	N/A	2021/08/05	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503189	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7501979	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7503330	2021/08/09	2021/08/10	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7503343	N/A	2021/08/05	Julianna Castiglione



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VERITAS

BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QGV933 Dup  
**Sample ID:** 43-I  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Kjeldahl Nitrogen in Water	SKAL	7503330	2021/08/09	2021/08/10	Massarat Jan

**BV Labs ID:** QGV934  
**Sample ID:** 43-II  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/06	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502858	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503189	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7501979	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/09	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione

**BV Labs ID:** QGV935  
**Sample ID:** ST1  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/06	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502858	N/A	2021/08/06	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503189	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502016	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/10	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione



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BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QGV936  
**Sample ID:** ST2  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/06	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502858	N/A	2021/08/06	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503189	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502016	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/10	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione

**BV Labs ID:** QGV937  
**Sample ID:** 61-I  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/06	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502858	N/A	2021/08/06	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503245	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7501979	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/09	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione

**BV Labs ID:** QGV938  
**Sample ID:** 61-II  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/06	Automated Statchk



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VERITAS

BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QGV938  
**Sample ID:** 61-II  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS	ICP/MS	7502858	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503189	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7501979	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/09	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione

**BV Labs ID:** QGV939  
**Sample ID:** 61-III  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/06	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502858	N/A	2021/08/06	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503189	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7501979	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/10	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione

**BV Labs ID:** QGV998  
**Sample ID:** 49-II  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/06	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502858	N/A	2021/08/06	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502674	N/A	2021/08/05	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503245	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502016	N/A	2021/08/06	Deonarine Ramnarine



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VERITAS

BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QGV998  
**Sample ID:** 49-II  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502180	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7503330	2021/08/09	2021/08/09	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7503343	N/A	2021/08/05	Julianna Castiglione

**BV Labs ID:** QGV999  
**Sample ID:** 49-IV  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503672	N/A	2021/08/06	Surinder Rai
Anions	IC	7504516	N/A	2021/08/06	Fari Dehdezi
Conductivity	AT	7503679	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503655	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/09	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/06	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503245	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503680	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7501979	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503825	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502180	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/09	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione

**BV Labs ID:** QGW000  
**Sample ID:** 49-V  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7504516	N/A	2021/08/06	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/11	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7503005	N/A	2021/08/11	Nan Raykha
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503245	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7501979	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/09	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione





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VERITAS

BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QGW000 Dup  
**Sample ID:** 49-V  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS	ICP/MS	7503005	N/A	2021/08/11	Nan Raykha
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan

**BV Labs ID:** QGW001  
**Sample ID:** 57-I  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/10	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/10	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502674	N/A	2021/08/05	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503245	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502016	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503825	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7503330	2021/08/09	2021/08/10	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7503343	N/A	2021/08/05	Julianna Castiglione

**BV Labs ID:** QGW002  
**Sample ID:** G11  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503672	N/A	2021/08/06	Surinder Rai
Anions	IC	7504516	N/A	2021/08/06	Fari Dehdezi
Conductivity	AT	7503679	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503655	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/06	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502858	N/A	2021/08/06	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503245	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503680	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7501979	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503825	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/09	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione



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VERITAS

BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QGW003  
**Sample ID:** G13  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/06	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502858	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502674	N/A	2021/08/05	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503189	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7501979	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7503330	2021/08/09	2021/08/09	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7503343	N/A	2021/08/05	Julianna Castiglione

**BV Labs ID:** QGW003 Dup  
**Sample ID:** G13  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS	ICP/MS	7502858	N/A	2021/08/05	Daniel Teclu

**BV Labs ID:** QGW004  
**Sample ID:** 67-II  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/06	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502858	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503189	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502016	N/A	2021/08/06	Deonarine Ramnarine
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/10	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione



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VERITAS

BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QGW005  
**Sample ID:** 67-III  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503672	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503679	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503655	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/06	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502858	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503245	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503680	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502016	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/10	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione

**BV Labs ID:** QGW005 Dup  
**Sample ID:** 67-III  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503672	N/A	2021/08/06	Surinder Rai
Conductivity	AT	7503679	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503655	2021/08/05	2021/08/06	Surinder Rai
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503245	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503680	2021/08/05	2021/08/06	Surinder Rai

**BV Labs ID:** QGW006  
**Sample ID:** 33-I  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/06	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502858	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503189	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7501979	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/10	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione



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VERITAS

BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QGW007  
**Sample ID:** 33-II  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/06	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502858	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503189	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7501979	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/09	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione

**BV Labs ID:** QGW007 Dup  
**Sample ID:** 33-II  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi

**BV Labs ID:** QGW008  
**Sample ID:** 30-I  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/06	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502858	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503245	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502016	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/10	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione



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VERITAS

BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QGW009  
**Sample ID:** 30-II  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503672	N/A	2021/08/06	Surinder Rai
Anions	IC	7504516	N/A	2021/08/06	Fari Dehdezi
Conductivity	AT	7503679	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503655	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/06	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502858	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503245	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503680	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7501979	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503825	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502177	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/09	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione

**BV Labs ID:** QGW010  
**Sample ID:** 60-I  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503672	N/A	2021/08/06	Surinder Rai
Anions	IC	7504516	N/A	2021/08/06	Fari Dehdezi
Conductivity	AT	7503679	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503655	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/10	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/10	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503245	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503680	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7501979	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503825	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502180	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/10	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione

**BV Labs ID:** QGW010 Dup  
**Sample ID:** 60-I  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	7502180	2021/08/05	2021/08/06	Kristen Chan



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VERITAS

BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QGW011  
**Sample ID:** 60-II  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/06	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502858	N/A	2021/08/05	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503189	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502016	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502180	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/09	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione

**BV Labs ID:** QGW011 Dup  
**Sample ID:** 60-II  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/09	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione

**BV Labs ID:** QGW012  
**Sample ID:** 60-III  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/09	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/06	Daniel Teclu
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503189	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502016	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502180	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/09	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione



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BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QGW013  
**Sample ID:** 60-IV  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/09	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502997	N/A	2021/08/09	Azita Fazaeli
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503189	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502016	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502180	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/10	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione

**BV Labs ID:** QGW014  
**Sample ID:** 11-I  
**Matrix:** Water

**Collected:** 2021/07/30  
**Shipped:**  
**Received:** 2021/08/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7503233	N/A	2021/08/06	Surinder Rai
Anions	IC	7503254	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7503234	N/A	2021/08/06	Surinder Rai
Fluoride	ISE	7503220	2021/08/05	2021/08/06	Surinder Rai
Hardness (calculated as CaCO3)		7499417	N/A	2021/08/09	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502997	N/A	2021/08/09	Azita Fazaeli
Total Ammonia-N	LACH/NH4	7502908	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7503189	N/A	2021/08/06	Chandra Nandlal
pH	AT	7503235	2021/08/05	2021/08/06	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7501979	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7503251	N/A	2021/08/06	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502180	2021/08/05	2021/08/06	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7502901	2021/08/05	2021/08/10	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7502886	N/A	2021/08/06	Julianna Castiglione



### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.7°C
Package 2	1.7°C
Package 3	2.3°C
Package 4	1.3°C
Package 5	0.7°C

Anions Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample QGV935 [ST1] : TKN < Ammonia: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample QGV936 [ST2] : TKN < Ammonia: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample QGW001 [57-I] : TKN < Ammonia: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample QGW004 [67-II] : TKN < Ammonia: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample QGW014 [11-I] : TKN < Ammonia: Both values fall within the method uncertainty for duplicates and are likely equivalent.

**Results relate only to the items tested.**





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BV Labs Job #: C1L7895  
Report Date: 2021/08/13

### QUALITY ASSURANCE REPORT

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7500193	Nitrate (N)	2021/08/05	99	80 - 120	101	80 - 120	<0.10	mg/L	2.5	20		
7500193	Nitrite (N)	2021/08/05	106	80 - 120	108	80 - 120	<0.010	mg/L	1.0	20		
7500895	Orthophosphate (P)	2021/08/05	107	75 - 125	100	80 - 120	<0.010	mg/L	NC	25		
7501131	Dissolved Bromide (Br-)	2021/08/10	100	80 - 120	106	80 - 120	<1.0	mg/L	NC	20		
7501131	Dissolved Chloride (Cl-)	2021/08/10	96	80 - 120	102	70 - 130	<1.0	mg/L	9.6	20		
7501131	Dissolved Sulphate (SO4)	2021/08/10	97	80 - 120	102	80 - 120	<1.0	mg/L	11	20		
7501979	Phenols-4AAP	2021/08/05	102	80 - 120	105	80 - 120	<0.0010	mg/L	NC	20		
7502016	Phenols-4AAP	2021/08/05	104	80 - 120	105	80 - 120	<0.0010	mg/L	NC	20		
7502177	Total Dissolved Solids	2021/08/06					<10	mg/L	0.42	25	95	90 - 110
7502180	Total Dissolved Solids	2021/08/06					<10	mg/L	2.1	25	97	90 - 110
7502674	Total Ammonia-N	2021/08/05	101	75 - 125	102	80 - 120	<0.050	mg/L	3.5	20		
7502858	Dissolved Aluminum (Al)	2021/08/05	98	80 - 120	103	80 - 120	<4.9	ug/L	NC	20		
7502858	Dissolved Antimony (Sb)	2021/08/05	104	80 - 120	101	80 - 120	<0.50	ug/L	NC	20		
7502858	Dissolved Arsenic (As)	2021/08/05	98	80 - 120	98	80 - 120	<1.0	ug/L	NC	20		
7502858	Dissolved Barium (Ba)	2021/08/05	99	80 - 120	100	80 - 120	<2.0	ug/L	0.20	20		
7502858	Dissolved Beryllium (Be)	2021/08/05	98	80 - 120	92	80 - 120	<0.40	ug/L	NC	20		
7502858	Dissolved Bismuth (Bi)	2021/08/05	89	80 - 120	97	80 - 120	<1.0	ug/L	NC	20		
7502858	Dissolved Boron (B)	2021/08/05	96	80 - 120	92	80 - 120	<10	ug/L	2.3	20		
7502858	Dissolved Cadmium (Cd)	2021/08/05	101	80 - 120	102	80 - 120	<0.090	ug/L	4.6	20		
7502858	Dissolved Calcium (Ca)	2021/08/05	NC	80 - 120	101	80 - 120	<200	ug/L	2.1	20		
7502858	Dissolved Chromium (Cr)	2021/08/05	97	80 - 120	97	80 - 120	<5.0	ug/L	NC	20		
7502858	Dissolved Cobalt (Co)	2021/08/05	97	80 - 120	101	80 - 120	<0.50	ug/L	NC	20		
7502858	Dissolved Copper (Cu)	2021/08/05	101	80 - 120	100	80 - 120	<0.90	ug/L	1.0	20		
7502858	Dissolved Iron (Fe)	2021/08/05	95	80 - 120	97	80 - 120	<100	ug/L	NC	20		
7502858	Dissolved Lead (Pb)	2021/08/05	95	80 - 120	102	80 - 120	<0.50	ug/L	NC	20		
7502858	Dissolved Lithium (Li)	2021/08/05	98	80 - 120	98	80 - 120	<5.0	ug/L	4.2	20		
7502858	Dissolved Magnesium (Mg)	2021/08/05	NC	80 - 120	100	80 - 120	<50	ug/L	2.5	20		
7502858	Dissolved Manganese (Mn)	2021/08/05	98	80 - 120	98	80 - 120	<2.0	ug/L	2.1	20		
7502858	Dissolved Molybdenum (Mo)	2021/08/05	105	80 - 120	100	80 - 120	<0.50	ug/L	1.7	20		
7502858	Dissolved Nickel (Ni)	2021/08/05	93	80 - 120	97	80 - 120	<1.0	ug/L	1.1	20		
7502858	Dissolved Phosphorus (P)	2021/08/05	107	80 - 120	116	80 - 120	<100	ug/L	NC	20		



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BV Labs Job #: C1L7895

Report Date: 2021/08/13

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental

Client Project #: GW

Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7502858	Dissolved Potassium (K)	2021/08/05	99	80 - 120	98	80 - 120	<200	ug/L	0.0055	20		
7502858	Dissolved Selenium (Se)	2021/08/05	96	80 - 120	99	80 - 120	<2.0	ug/L	NC	20		
7502858	Dissolved Silicon (Si)	2021/08/05	99	80 - 120	105	80 - 120	<50	ug/L	3.2	20		
7502858	Dissolved Silver (Ag)	2021/08/05	94	80 - 120	96	80 - 120	<0.090	ug/L	NC	20		
7502858	Dissolved Sodium (Na)	2021/08/05	NC	80 - 120	98	80 - 120	<100	ug/L	0.84	20		
7502858	Dissolved Strontium (Sr)	2021/08/05	NC	80 - 120	100	80 - 120	<1.0	ug/L	2.3	20		
7502858	Dissolved Tellurium (Te)	2021/08/05	100	80 - 120	101	80 - 120	<1.0	ug/L	NC	20		
7502858	Dissolved Thallium (Tl)	2021/08/05	92	80 - 120	100	80 - 120	<0.050	ug/L	4.8	20		
7502858	Dissolved Tin (Sn)	2021/08/05	107	80 - 120	105	80 - 120	<1.0	ug/L	NC	20		
7502858	Dissolved Titanium (Ti)	2021/08/05	98	80 - 120	103	80 - 120	<5.0	ug/L	NC	20		
7502858	Dissolved Tungsten (W)	2021/08/05	103	80 - 120	106	80 - 120	<1.0	ug/L	NC	20		
7502858	Dissolved Uranium (U)	2021/08/05	97	80 - 120	103	80 - 120	<0.10	ug/L	1.2	20		
7502858	Dissolved Vanadium (V)	2021/08/05	94	80 - 120	95	80 - 120	<0.50	ug/L	NC	20		
7502858	Dissolved Zinc (Zn)	2021/08/05	NC	80 - 120	99	80 - 120	<5.0	ug/L	0.084	20		
7502858	Dissolved Zirconium (Zr)	2021/08/05	103	80 - 120	99	80 - 120	<1.0	ug/L	NC	20		
7502886	Total Organic Carbon (TOC)	2021/08/06	98	80 - 120	100	80 - 120	<0.40	mg/L	2.6	20		
7502901	Total Kjeldahl Nitrogen (TKN)	2021/08/09	NC	80 - 120	102	80 - 120	<0.10	mg/L	2.8	20	101	80 - 120
7502908	Total Ammonia-N	2021/08/09	98	75 - 125	101	80 - 120	<0.050	mg/L	1.1	20		
7502986	Dissolved Aluminum (Al)	2021/08/06	98	80 - 120	100	80 - 120	<4.9	ug/L	NC	20		
7502986	Dissolved Antimony (Sb)	2021/08/06	103	80 - 120	100	80 - 120	<0.50	ug/L	NC	20		
7502986	Dissolved Arsenic (As)	2021/08/06	98	80 - 120	96	80 - 120	<1.0	ug/L	NC	20		
7502986	Dissolved Barium (Ba)	2021/08/06	98	80 - 120	98	80 - 120	<2.0	ug/L	0.75	20		
7502986	Dissolved Beryllium (Be)	2021/08/06	97	80 - 120	99	80 - 120	<0.40	ug/L	NC	20		
7502986	Dissolved Bismuth (Bi)	2021/08/06	96	80 - 120	96	80 - 120	<1.0	ug/L	NC	20		
7502986	Dissolved Boron (B)	2021/08/06	NC	80 - 120	93	80 - 120	<10	ug/L	15	20		
7502986	Dissolved Cadmium (Cd)	2021/08/06	100	80 - 120	100	80 - 120	<0.090	ug/L	NC	20		
7502986	Dissolved Calcium (Ca)	2021/08/06	NC	80 - 120	105	80 - 120	<200	ug/L	0.49	20		
7502986	Dissolved Chromium (Cr)	2021/08/06	98	80 - 120	101	80 - 120	<5.0	ug/L	NC	20		
7502986	Dissolved Cobalt (Co)	2021/08/06	98	80 - 120	101	80 - 120	<0.50	ug/L	NC	20		
7502986	Dissolved Copper (Cu)	2021/08/06	101	80 - 120	104	80 - 120	<0.90	ug/L	NC	20		
7502986	Dissolved Iron (Fe)	2021/08/06	97	80 - 120	98	80 - 120	<100	ug/L	NC	20		



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### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental

Client Project #: GW

Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7502986	Dissolved Lead (Pb)	2021/08/06	97	80 - 120	98	80 - 120	<0.50	ug/L	NC	20		
7502986	Dissolved Lithium (Li)	2021/08/06	101	80 - 120	102	80 - 120	<5.0	ug/L	6.7	20		
7502986	Dissolved Magnesium (Mg)	2021/08/06	NC	80 - 120	102	80 - 120	<50	ug/L	1.7	20		
7502986	Dissolved Manganese (Mn)	2021/08/06	97	80 - 120	98	80 - 120	<2.0	ug/L	2.8	20		
7502986	Dissolved Molybdenum (Mo)	2021/08/06	107	80 - 120	106	80 - 120	<0.50	ug/L	NC	20		
7502986	Dissolved Nickel (Ni)	2021/08/06	94	80 - 120	99	80 - 120	<1.0	ug/L	NC	20		
7502986	Dissolved Phosphorus (P)	2021/08/06	101	80 - 120	104	80 - 120	<100	ug/L	NC	20		
7502986	Dissolved Potassium (K)	2021/08/06	97	80 - 120	101	80 - 120	<200	ug/L	1.0	20		
7502986	Dissolved Selenium (Se)	2021/08/06	92	80 - 120	101	80 - 120	<2.0	ug/L	NC	20		
7502986	Dissolved Silicon (Si)	2021/08/06	102	80 - 120	106	80 - 120	<50	ug/L	5.4	20		
7502986	Dissolved Silver (Ag)	2021/08/06	71 (1)	80 - 120	90	80 - 120	<0.090	ug/L	NC	20		
7502986	Dissolved Sodium (Na)	2021/08/06	NC	80 - 120	101	80 - 120	<100	ug/L	0.68	20		
7502986	Dissolved Strontium (Sr)	2021/08/06	NC	80 - 120	97	80 - 120	<1.0	ug/L	4.2	20		
7502986	Dissolved Tellurium (Te)	2021/08/06	84	80 - 120	99	80 - 120	<1.0	ug/L	NC	20		
7502986	Dissolved Thallium (Tl)	2021/08/06	95	80 - 120	94	80 - 120	<0.050	ug/L	NC	20		
7502986	Dissolved Tin (Sn)	2021/08/06	102	80 - 120	100	80 - 120	<1.0	ug/L	NC	20		
7502986	Dissolved Titanium (Ti)	2021/08/06	99	80 - 120	99	80 - 120	<5.0	ug/L	NC	20		
7502986	Dissolved Tungsten (W)	2021/08/06	105	80 - 120	100	80 - 120	<1.0	ug/L	NC	20		
7502986	Dissolved Uranium (U)	2021/08/06	97	80 - 120	96	80 - 120	<0.10	ug/L	12	20		
7502986	Dissolved Vanadium (V)	2021/08/06	98	80 - 120	97	80 - 120	<0.50	ug/L	NC	20		
7502986	Dissolved Zinc (Zn)	2021/08/06	93	80 - 120	96	80 - 120	<5.0	ug/L	NC	20		
7502986	Dissolved Zirconium (Zr)	2021/08/06	104	80 - 120	103	80 - 120	<1.0	ug/L	NC	20		
7502997	Dissolved Aluminum (Al)	2021/08/06	99	80 - 120	100	80 - 120	<4.9	ug/L				
7502997	Dissolved Antimony (Sb)	2021/08/06	104	80 - 120	103	80 - 120	<0.50	ug/L	NC	20		
7502997	Dissolved Arsenic (As)	2021/08/06	101	80 - 120	100	80 - 120	<1.0	ug/L	16	20		
7502997	Dissolved Barium (Ba)	2021/08/06	95	80 - 120	97	80 - 120	<2.0	ug/L	1.8	20		
7502997	Dissolved Beryllium (Be)	2021/08/06	97	80 - 120	97	80 - 120	<0.40	ug/L	NC	20		
7502997	Dissolved Bismuth (Bi)	2021/08/06	94	80 - 120	97	80 - 120	<1.0	ug/L				
7502997	Dissolved Boron (B)	2021/08/06	98	80 - 120	98	80 - 120	<10	ug/L	0.89	20		
7502997	Dissolved Cadmium (Cd)	2021/08/06	97	80 - 120	98	80 - 120	<0.090	ug/L	NC	20		
7502997	Dissolved Calcium (Ca)	2021/08/06	NC	80 - 120	99	80 - 120	<200	ug/L				



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### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental

Client Project #: GW

Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7502997	Dissolved Chromium (Cr)	2021/08/06	97	80 - 120	97	80 - 120	<5.0	ug/L	NC	20		
7502997	Dissolved Cobalt (Co)	2021/08/06	95	80 - 120	96	80 - 120	<0.50	ug/L	3.8	20		
7502997	Dissolved Copper (Cu)	2021/08/06	96	80 - 120	98	80 - 120	<0.90	ug/L	NC	20		
7502997	Dissolved Iron (Fe)	2021/08/06	97	80 - 120	98	80 - 120	<100	ug/L				
7502997	Dissolved Lead (Pb)	2021/08/06	93	80 - 120	96	80 - 120	<0.50	ug/L	NC	20		
7502997	Dissolved Lithium (Li)	2021/08/06	102	80 - 120	102	80 - 120	<5.0	ug/L				
7502997	Dissolved Magnesium (Mg)	2021/08/06	NC	80 - 120	98	80 - 120	<50	ug/L				
7502997	Dissolved Manganese (Mn)	2021/08/06	NC	80 - 120	97	80 - 120	<2.0	ug/L				
7502997	Dissolved Molybdenum (Mo)	2021/08/06	102	80 - 120	100	80 - 120	<0.50	ug/L	2.9	20		
7502997	Dissolved Nickel (Ni)	2021/08/06	95	80 - 120	98	80 - 120	<1.0	ug/L	0.94	20		
7502997	Dissolved Phosphorus (P)	2021/08/06	104	80 - 120	101	80 - 120	<100	ug/L				
7502997	Dissolved Potassium (K)	2021/08/06	98	80 - 120	98	80 - 120	<200	ug/L				
7502997	Dissolved Selenium (Se)	2021/08/06	94	80 - 120	101	80 - 120	<2.0	ug/L	NC	20		
7502997	Dissolved Silicon (Si)	2021/08/06	98	80 - 120	99	80 - 120	<50	ug/L				
7502997	Dissolved Silver (Ag)	2021/08/06	53 (2)	80 - 120	96	80 - 120	<0.090	ug/L	NC	20		
7502997	Dissolved Sodium (Na)	2021/08/06	NC	80 - 120	99	80 - 120	<100	ug/L				
7502997	Dissolved Strontium (Sr)	2021/08/06	NC	80 - 120	97	80 - 120	<1.0	ug/L				
7502997	Dissolved Tellurium (Te)	2021/08/06	84	80 - 120	97	80 - 120	<1.0	ug/L				
7502997	Dissolved Thallium (Tl)	2021/08/06	94	80 - 120	96	80 - 120	<0.050	ug/L	NC	20		
7502997	Dissolved Tin (Sn)	2021/08/06	101	80 - 120	100	80 - 120	<1.0	ug/L				
7502997	Dissolved Titanium (Ti)	2021/08/06	97	80 - 120	97	80 - 120	<5.0	ug/L				
7502997	Dissolved Tungsten (W)	2021/08/06	99	80 - 120	97	80 - 120	<1.0	ug/L				
7502997	Dissolved Uranium (U)	2021/08/06	101	80 - 120	102	80 - 120	<0.10	ug/L	0.89	20		
7502997	Dissolved Vanadium (V)	2021/08/06	98	80 - 120	98	80 - 120	<0.50	ug/L	NC	20		
7502997	Dissolved Zinc (Zn)	2021/08/06	93	80 - 120	98	80 - 120	<5.0	ug/L	NC	20		
7502997	Dissolved Zirconium (Zr)	2021/08/06	104	80 - 120	101	80 - 120	<1.0	ug/L				
7503005	Dissolved Aluminum (Al)	2021/08/11	95	80 - 120	94	80 - 120	<4.9	ug/L	5.0	20		
7503005	Dissolved Antimony (Sb)	2021/08/11	102	80 - 120	104	80 - 120	<0.50	ug/L	NC	20		
7503005	Dissolved Arsenic (As)	2021/08/11	100	80 - 120	100	80 - 120	<1.0	ug/L	NC	20		
7503005	Dissolved Barium (Ba)	2021/08/11	100	80 - 120	102	80 - 120	<2.0	ug/L	1.2	20		
7503005	Dissolved Beryllium (Be)	2021/08/11	103	80 - 120	102	80 - 120	<0.40	ug/L	NC	20		



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### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7503005	Dissolved Bismuth (Bi)	2021/08/11	84	80 - 120	101	80 - 120	<1.0	ug/L	NC	20		
7503005	Dissolved Boron (B)	2021/08/11	NC	80 - 120	95	80 - 120	<10	ug/L	0.039	20		
7503005	Dissolved Cadmium (Cd)	2021/08/11	100	80 - 120	101	80 - 120	<0.090	ug/L	NC	20		
7503005	Dissolved Calcium (Ca)	2021/08/11	NC	80 - 120	94	80 - 120	<200	ug/L	0.44	20		
7503005	Dissolved Chromium (Cr)	2021/08/11	96	80 - 120	96	80 - 120	<5.0	ug/L	NC	20		
7503005	Dissolved Cobalt (Co)	2021/08/11	96	80 - 120	98	80 - 120	<0.50	ug/L	NC	20		
7503005	Dissolved Copper (Cu)	2021/08/11	88	80 - 120	98	80 - 120	<0.90	ug/L	NC	20		
7503005	Dissolved Iron (Fe)	2021/08/11	96	80 - 120	97	80 - 120	<100	ug/L	0.73	20		
7503005	Dissolved Lead (Pb)	2021/08/11	96	80 - 120	101	80 - 120	<0.50	ug/L	NC	20		
7503005	Dissolved Lithium (Li)	2021/08/11	101	80 - 120	105	80 - 120	<5.0	ug/L	2.3	20		
7503005	Dissolved Magnesium (Mg)	2021/08/11	NC	80 - 120	96	80 - 120	<50	ug/L	0.024	20		
7503005	Dissolved Manganese (Mn)	2021/08/11	95	80 - 120	98	80 - 120	<2.0	ug/L	1.3	20		
7503005	Dissolved Molybdenum (Mo)	2021/08/11	107	80 - 120	102	80 - 120	<0.50	ug/L	NC	20		
7503005	Dissolved Nickel (Ni)	2021/08/11	92	80 - 120	96	80 - 120	<1.0	ug/L	NC	20		
7503005	Dissolved Phosphorus (P)	2021/08/11	98	80 - 120	104	80 - 120	<100	ug/L	NC	20		
7503005	Dissolved Potassium (K)	2021/08/11	98	80 - 120	96	80 - 120	<200	ug/L	0.029	20		
7503005	Dissolved Selenium (Se)	2021/08/11	71 (3)	80 - 120	97	80 - 120	<2.0	ug/L	NC	20		
7503005	Dissolved Silicon (Si)	2021/08/11	95	80 - 120	95	80 - 120	<50	ug/L	2.7	20		
7503005	Dissolved Silver (Ag)	2021/08/11	86	80 - 120	101	80 - 120	<0.090	ug/L	NC	20		
7503005	Dissolved Sodium (Na)	2021/08/11	NC	80 - 120	97	80 - 120	<100	ug/L	0.50	20		
7503005	Dissolved Strontium (Sr)	2021/08/11	NC	80 - 120	98	80 - 120	<1.0	ug/L	0.61	20		
7503005	Dissolved Tellurium (Te)	2021/08/11	85	80 - 120	104	80 - 120	<1.0	ug/L	NC	20		
7503005	Dissolved Thallium (Tl)	2021/08/11	98	80 - 120	102	80 - 120	<0.050	ug/L	NC	20		
7503005	Dissolved Tin (Sn)	2021/08/11	104	80 - 120	103	80 - 120	<1.0	ug/L	NC	20		
7503005	Dissolved Titanium (Ti)	2021/08/11	91	80 - 120	91	80 - 120	<5.0	ug/L	NC	20		
7503005	Dissolved Tungsten (W)	2021/08/11	105	80 - 120	103	80 - 120	<1.0	ug/L	NC	20		
7503005	Dissolved Uranium (U)	2021/08/11	99	80 - 120	101	80 - 120	<0.10	ug/L	2.5	20		
7503005	Dissolved Vanadium (V)	2021/08/11	100	80 - 120	98	80 - 120	<0.50	ug/L	0.32	20		
7503005	Dissolved Zinc (Zn)	2021/08/11	92	80 - 120	98	80 - 120	<5.0	ug/L	NC	20		
7503005	Dissolved Zirconium (Zr)	2021/08/11	107	80 - 120	102	80 - 120	<1.0	ug/L	NC	20		
7503189	Nitrate (N)	2021/08/06	95	80 - 120	100	80 - 120	<0.10	mg/L	NC	20		



BUREAU  
VERITAS

BV Labs Job #: C1L7895  
Report Date: 2021/08/13

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7503189	Nitrite (N)	2021/08/06	105	80 - 120	107	80 - 120	<0.010	mg/L	NC	20		
7503220	Fluoride (F-)	2021/08/06	96	80 - 120	97	80 - 120	<0.10	mg/L	0.45	20		
7503233	Alkalinity (Total as CaCO3)	2021/08/06			96	85 - 115	<1.0	mg/L	2.5	20		
7503234	Conductivity	2021/08/06			101	85 - 115	<1.0	umho/cm	0	25		
7503235	pH	2021/08/06			102	98 - 103			1.1	N/A		
7503245	Nitrate (N)	2021/08/06	97	80 - 120	98	80 - 120	<0.10	mg/L	NC	20		
7503245	Nitrite (N)	2021/08/06	106	80 - 120	108	80 - 120	<0.010	mg/L	NC	20		
7503251	Orthophosphate (P)	2021/08/06	120	75 - 125	99	80 - 120	<0.010	mg/L	0.081	25		
7503254	Dissolved Bromide (Br-)	2021/08/10	101	80 - 120	100	80 - 120	<1.0	mg/L	NC	20		
7503254	Dissolved Chloride (Cl-)	2021/08/10	NC	80 - 120	97	70 - 130	<1.0	mg/L	6.5	20		
7503254	Dissolved Sulphate (SO4)	2021/08/10	NC	80 - 120	96	80 - 120	<1.0	mg/L	6.7	20		
7503330	Total Kjeldahl Nitrogen (TKN)	2021/08/10	NC	80 - 120	102	80 - 120	<0.10	mg/L	1.2	20	96	80 - 120
7503343	Total Organic Carbon (TOC)	2021/08/05	100	80 - 120	98	80 - 120	<0.40	mg/L	NC	20		
7503655	Fluoride (F-)	2021/08/06	92	80 - 120	96	80 - 120	<0.10	mg/L	1.4	20		
7503672	Alkalinity (Total as CaCO3)	2021/08/06			99	85 - 115	<1.0	mg/L	0.14	20		
7503679	Conductivity	2021/08/06			102	85 - 115	<1.0	umho/cm	0.29	25		
7503680	pH	2021/08/06			102	98 - 103			0.0013	N/A		
7503825	Orthophosphate (P)	2021/08/06	NC	75 - 125	99	80 - 120	<0.010	mg/L	0.45	25		
7504516	Dissolved Bromide (Br-)	2021/08/06	103	80 - 120	103	80 - 120	<1.0	mg/L	NC	20		
7504516	Dissolved Chloride (Cl-)	2021/08/06	NC	80 - 120	100	70 - 130	<1.0	mg/L	3.5	20		
7504516	Dissolved Sulphate (SO4)	2021/08/06	97	80 - 120	98	80 - 120	<1.0	mg/L	3.3	20		
7504752	Alkalinity (Total as CaCO3)	2021/08/06			97	85 - 115	<1.0	mg/L	0.23	20		
7504753	pH	2021/08/06			102	98 - 103			0.44	N/A		
7504754	Conductivity	2021/08/06			101	85 - 115	<1.0	umho/cm	0.55	25		



BUREAU  
VERITAS

BV Labs Job #: C1L7895  
Report Date: 2021/08/13

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7504755	Fluoride (F-)	2021/08/06	95	80 - 120	101	80 - 120	<0.10	mg/L	0.46	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Matrix Spike exceeds acceptance limits, sample inhomogeneity suspected.

(2) Matrix Spike exceeds acceptance limits, probable matrix interference.

(3) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.




BUREAU  
VERITAS

BV Labs Job #: C1L7895  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

*Eva Pranjic*  


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Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.





INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name: #16786 Terrapure Environmental	Company Name:	Quotation #: B60569			
Attention: Accounting	Attention: Brad Mullin - GHD Reporting	P.O. #:			
Address: 65 Green Mountain Rd West Stoney Creek ON L8J 1X5	Address:	Project: GW			
Tel: (905) 561-0305 Fax: (905) 561-1674	Tel:	Project Name:			
Email: kbailey@terrapureenv.com	Email: bmullin@terrapureenv.com; dtaylor2@terrapureenv.com	Site #:			
		Sampled By:			

03-Aug-21 16:13  
Jolanta Goralczyk  
C1L7895  
M1K ENV-730  
Turnaround Time (TAT) Required:  
Regular (Standard) TAT:  
Job Specific Rush TAT (if applies to entire submission)

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

<b>Regulation 153 (2011)</b> <input type="checkbox"/> Table 1 <input type="checkbox"/> Res/Park <input type="checkbox"/> Medium/Fine <input type="checkbox"/> Table 2 <input type="checkbox"/> Ind/Comm <input type="checkbox"/> Coarse <input type="checkbox"/> Table 3 <input type="checkbox"/> Agri/Other <input type="checkbox"/> For RSC <input type="checkbox"/> Table _____	<b>Other Regulations</b> <input type="checkbox"/> CCME <input type="checkbox"/> Sanitary Sewer Bylaw <input type="checkbox"/> Reg 558 <input type="checkbox"/> Storm Sewer Bylaw <input type="checkbox"/> MISA Municipality _____ <input type="checkbox"/> PWQO <input type="checkbox"/> Reg 406 Table _____ <input type="checkbox"/> Other _____	<b>Special Instructions</b>  
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Field Filtered (please circle): Metals Hg / Cr VI	List "A" GW Monitoring	ANALYSIS REQUESTED (PLEASE BE SPECIFIC)									

Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals Hg / Cr VI	List "A" GW Monitoring												
1	P1-III	July 30 2021	NA	GW	Y	X												
2	P3-II			GW	Y	X												
3	P3-III			GW	Y	X												
4	43-I			GW	Y	X												
5	43-II			GW	Y	X												
6	ST1			GW	Y	X												
7	ST2			GW	Y	X												
8	61-I			GW	Y	X												
9	61-II			GW	Y	X												
10	61-III			GW	Y	X												

Please provide advance notice for rush projects

Regular (Standard) TAT:  
(will be applied if Rush TAT is not specified):  
Standard TAT = 5-7 Working days for most tests.  
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)  
Date Required: \_\_\_\_\_ Time Required: \_\_\_\_\_  
Rush Confirmation Number: \_\_\_\_\_ (call lab for #)

* RELINQUISHED BY: (Signature/Print) D Taylor / Dan Taylor	Date: (YY/MM/DD) 21/08/03	Time 9:30	RECEIVED BY: (Signature/Print) Alisal NARAL PATEL	Date: (YY/MM/DD) 2021/08/03	Time 16:13	# jars used and not submitted
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Laboratory Use Only	
Time Sensitive	Temperature (°C) on Receipt
See ACTR	Custody Seal Present
	Intact
	Yes No
	✓

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

\*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client



<b>INVOICE TO:</b>		<b>REPORT TO:</b>		<b>PROJECT INFORMATION:</b>		<b>Laboratory Use Only:</b>	
Company Name: #16786 Terrapure Environmental		Company Name: Brad Mullin - GHD Reporting		Quotation #: B60569		BV Labs Job #:	
Attention: Accounting		Attention: Brad Mullin - GHD Reporting		P.O. #:		Bottle Order #:	
Address: 65 Green Mountain Rd West		Address:		Project: GW		COC #:	
Stoney Creek ON L8J 1X5				Project Name:		Project Manager:	
Tel: (905) 561-0305 Fax: (905) 561-1674		Tel: Fax:		Site #:		Jolanta Goralczyk	
Email: kbailey@terrapureenv.com		Email: bmullin@terrapureenv.com; dtaylor2@terrapureenv.com		Sampled By:		C#834487-09-01	

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required:				
Regulation 153 (2011)			Other Regulations			Special Instructions	Field Filtered (please circle): Metals <input checked="" type="checkbox"/> Ig / Cr VI	List "A" - GW Monitoring											Regular (Standard) TAT:	
<input type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw												(will be applied if Rush TAT is not specified): Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.				
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw												Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)				
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality _____																
<input type="checkbox"/> Table _____			<input type="checkbox"/> PWQO	Reg 406 Table _____																
<input type="checkbox"/> Other _____																				
Include Criteria on Certificate of Analysis (Y/N)?																				
Sample Barcode Label	Sample (Location) Identification		Date Sampled	Time Sampled	Matrix												# of Bottles	Comments		
1	49-II		July 30 2021	NA	GW	Y	X										6			
2	49-IV				GW	Y	X										6			
3	49-V				GW	Y	X										6			
4	57-I				GW	Y	X										6			
5	611				GW	Y	X										6			
6	613				GW	Y	X										6			
7	67-II				GW	Y	X										6			
8	67-III				GW	Y	X										6			
9	33-I				GW	Y	X										6			
10	33-II				GW	Y	X										6			

* RELINQUISHED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
Dan Taylor		21/08/03	9:30	See pg 1					Time Sensitive	Temperature (°C) on Recept	Custody Seal Present	Yes	No
											Intact		

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

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SAMPLES MUST BE KEPT COOL (< 10° C ) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client



<b>INVOICE TO:</b>		<b>REPORT TO:</b>		<b>PROJECT INFORMATION:</b>		<b>Laboratory Use Only:</b>	
Company Name: #16786 Terrapure Environmental		Company Name: Brad Mullin - GHD Reporting		Quotation #: B60569		BV Labs Job #:	
Attention: Accounting		Attention: Brad Mullin - GHD Reporting		P.O. #:		Bottle Order #:	
Address: 65 Green Mountain Rd West		Address:		Project: GW		COC #:	
Stoney Creek ON L8J 1X5				Project Name:		Project Manager:	
Tel: (905) 561-0305 Fax: (905) 561-1674		Tel: Fax:		Site #:		Jolanta Goralczyk	
Email: kbailey@terrapureenv.com		Email: bmullin@terrapureenv.com; dtaylor2@terrapureenv.com		Sampled By:		C#834487-10-01	

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required:			
Regulation 153 (2011)			Other Regulations			Special Instructions	Field Filtered (please circle):											Regular (Standard) TAT:	
<input type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw			Metals, Hg / Cr VI											Regular (Standard) TAT: <input checked="" type="checkbox"/>	
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw														Standard TAT = 5-7 Working days for most tests.	
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality _____													Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.		
<input type="checkbox"/> Table			<input type="checkbox"/> PWQO	Reg 406 Table _____													Job Specific Rush TAT (if applies to entire submission)		
Include Criteria on Certificate of Analysis (Y/N)?																		Date Required: _____ Time Required: _____	
																		Rush Confirmation Number: _____ (call lab for #)	
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix													# of Bottles	Comments	
1	30-I	July 30 2021	NA	GW	Y	X													
2	30-II			GW	Y	X													
3	60-I			GW	Y	X													
4	60-II			GW	Y	X													
5	60-III			GW	Y	X													
6	60-IV			GW	Y	X													
7	11-I			GW	Y	X													
8				GW		X													
9				GW		X													
10				GW		X													

* RELINQUISHED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
D. Taylor / Dan Taylor				See pg 11				Time Sensitive	Temperature (°C) on Recept	Custody Seal Present	Yes	No
										Intact		

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SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client



Your Project #: GW  
 Your C.O.C. #: 834487-11-01, 834487-12-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
 65 Green Mountain Rd West  
 Stoney Creek, ON  
 CANADA L8J 1X5

**Report Date: 2021/08/13**  
 Report #: R6764177  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1L8915**

**Received: 2021/08/04, 15:27**

Sample Matrix: Water  
 # Samples Received: 13

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Alkalinity	13	N/A	2021/08/09	CAM SOP-00448	SM 23 2320 B m
Anions	12	N/A	2021/08/10	CAM SOP-00435	SM 23 4110 B m
Anions	1	N/A	2021/08/11	CAM SOP-00435	SM 23 4110 B m
Conductivity	13	N/A	2021/08/09	CAM SOP-00414	SM 23 2510 m
Fluoride	11	2021/08/07	2021/08/10	CAM SOP-00449	SM 23 4500-F C m
Fluoride	2	2021/08/07	2021/08/09	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	4	N/A	2021/08/10	CAM SOP 00102/00408/00447	SM 2340 B
Hardness (calculated as CaCO3)	9	N/A	2021/08/09	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Metals by ICPMS	4	N/A	2021/08/10	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS	9	N/A	2021/08/06	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	4	N/A	2021/08/10	CAM SOP-00441	USGS I-2522-90 m
Total Ammonia-N	9	N/A	2021/08/09	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1)	13	N/A	2021/08/09	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	13	2021/08/07	2021/08/09	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	8	N/A	2021/08/05	CAM SOP-00444	OMOE E3179 m
Phenols (4AAP)	5	N/A	2021/08/06	CAM SOP-00444	OMOE E3179 m
Orthophosphate	13	N/A	2021/08/09	CAM SOP-00461	EPA 365.1 m
Total Dissolved Solids	8	2021/08/05	2021/08/09	CAM SOP-00428	SM 23 2540C m
Total Dissolved Solids	5	2021/08/06	2021/08/09	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water	4	2021/08/06	2021/08/10	CAM SOP-00938	OMOE E3516 m
Total Kjeldahl Nitrogen in Water	9	2021/08/06	2021/08/09	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (2)	13	N/A	2021/08/07	CAM SOP-00446	SM 23 5310B m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

(2) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.



Your Project #: GW  
Your C.O.C. #: 834487-11-01, 834487-12-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/08/13**  
Report #: R6764177  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1L8915**

**Received: 2021/08/04, 15:27**

Encryption Key



**AUTHORIZED REPORT  
RAPPORT AUTORISÉ**

Bureau Veritas  
13 Aug 2021 17:14:48

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

=====  
This report has been generated and distributed using a secure automated process.  
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



BUREAU  
VERITAS

BV Labs Job #: C1L8915  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

**RESULTS OF ANALYSES OF WATER**

BV Labs ID		QHB220			QHB221			QHB221		
Sampling Date		2021/08/03			2021/08/03			2021/08/03		
COC Number		834487-11-01			834487-11-01			834487-11-01		
	UNITS	47-I	RDL	QC Batch	47-IIR	RDL	QC Batch	47-IIR Lab-Dup	RDL	QC Batch

Calculated Parameters										
Hardness (CaCO3)	mg/L	1800	1.0	7500554	450	1.0	7500554			
Inorganics										
Total Ammonia-N	mg/L	4.9 (1)	0.050	7505809	0.22 (1)	0.050	7505818			
Conductivity	umho/cm	4300	1.0	7506972	1100	1.0	7506972			
Total Dissolved Solids	mg/L	3200	10	7505286	735	10	7505286			
Fluoride (F-)	mg/L	0.86	0.10	7506967	0.52	0.10	7506967			
Total Kjeldahl Nitrogen (TKN)	mg/L	4.6 (1)	0.50	7505720	0.19 (1)	0.10	7505667			
Total Organic Carbon (TOC)	mg/L	2.6	0.40	7505588	3.9	0.40	7505588			
Orthophosphate (P)	mg/L	<0.010	0.010	7506987	<0.010	0.010	7506987			
pH	pH	7.80		7506973	7.92		7506973			
Phenols-4AAP	mg/L	<0.0010	0.0010	7502246	<0.0010	0.0010	7502246			
Alkalinity (Total as CaCO3)	mg/L	220	1.0	7506970	260	1.0	7506970			
Nitrite (N)	mg/L	<0.010	0.010	7506947	<0.010	0.010	7506945			
Dissolved Chloride (Cl-)	mg/L	440	5.0	7507011	98	1.0	7507011	84	1.0	7507011
Nitrate (N)	mg/L	<0.10	0.10	7506947	<0.10	0.10	7506945			
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7506947	<0.10	0.10	7506945			
Dissolved Bromide (Br-)	mg/L	<5.0	5.0	7507011	<1.0	1.0	7507011	<1.0	1.0	7507011
Dissolved Sulphate (SO4)	mg/L	1500	5.0	7507011	190	1.0	7507011	190	1.0	7507011

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 (1) TKN < NH4: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.



BUREAU  
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BV Labs Job #: C1L8915  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

<b>BV Labs ID</b>		QHB222			QHB222			QHB223		
<b>Sampling Date</b>		2021/08/03			2021/08/03			2021/08/03		
<b>COC Number</b>		834487-11-01			834487-11-01			834487-11-01		
	<b>UNITS</b>	<b>47-III</b>	<b>RDL</b>	<b>QC Batch</b>	<b>47-III Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>	<b>47-IV</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Calculated Parameters</b>										
Hardness (CaCO3)	mg/L	1100	1.0	7500554				510	1.0	7500554
<b>Inorganics</b>										
Total Ammonia-N	mg/L	1.2	0.050	7505809				<0.050	0.050	7505809
Conductivity	umho/cm	2300	1.0	7506972				1300	1.0	7506972
Total Dissolved Solids	mg/L	1800	10	7505286	1810	10	7505286	870	10	7502754
Fluoride (F-)	mg/L	0.58	0.10	7506967				0.52	0.10	7506967
Total Kjeldahl Nitrogen (TKN)	mg/L	1.4	0.10	7505720				0.37	0.10	7505720
Total Organic Carbon (TOC)	mg/L	3.3	0.40	7505588				4.1	0.40	7505588
Orthophosphate (P)	mg/L	<0.010	0.010	7506987				<0.010	0.010	7506987
pH	pH	7.74		7506973				7.86		7506973
Phenols-4AAP	mg/L	<0.0010	0.0010	7502246				<0.0010	0.0010	7502246
Alkalinity (Total as CaCO3)	mg/L	350	1.0	7506970				270	1.0	7506970
Nitrite (N)	mg/L	<0.010	0.010	7506945				<0.010	0.010	7506945
Dissolved Chloride (Cl-)	mg/L	110	5.0	7507011				110	1.0	7507011
Nitrate (N)	mg/L	<0.10	0.10	7506945				<0.10	0.10	7506945
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7506945				<0.10	0.10	7506945
Dissolved Bromide (Br-)	mg/L	<5.0	5.0	7507011				<1.0	1.0	7507011
Dissolved Sulphate (SO4)	mg/L	690	5.0	7507011				240	1.0	7507011

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate



BUREAU  
VERITAS

BV Labs Job #: C1L8915  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QHB224			QHB224			QHB225		
Sampling Date		2021/08/03			2021/08/03			2021/08/03		
COC Number		834487-11-01			834487-11-01			834487-11-01		
	UNITS	3-I	RDL	QC Batch	3-I Lab-Dup	RDL	QC Batch	48-I	RDL	QC Batch

Calculated Parameters										
Hardness (CaCO3)	mg/L	1200	1.0	7500554				3500	1.0	7500554
Inorganics										
Total Ammonia-N	mg/L	1.2	0.050	7505818				3.5	0.050	7505818
Conductivity	umho/cm	2300	1.0	7506960	2200	1.0	7506960	11000	1.0	7506972
Total Dissolved Solids	mg/L	1630	10	7502754				7180	20	7505286
Fluoride (F-)	mg/L	0.63	0.10	7506955	0.64	0.10	7506955	0.67	0.10	7506967
Total Kjeldahl Nitrogen (TKN)	mg/L	1.3	0.10	7505667				4.3	0.10	7505667
Total Organic Carbon (TOC)	mg/L	3.3	0.40	7505588				1.5	0.40	7505588
Orthophosphate (P)	mg/L	<0.010	0.010	7506987				<0.010	0.010	7506987
pH	pH	7.55		7506962	7.56		7506962	7.54		7506973
Phenols-4AAP	mg/L	<0.0010	0.0010	7502246				<0.0010	0.0010	7502246
Alkalinity (Total as CaCO3)	mg/L	350	1.0	7506959	350	1.0	7506959	290	1.0	7506970
Nitrite (N)	mg/L	<0.010	0.010	7506945				<0.010	0.010	7506945
Dissolved Chloride (Cl-)	mg/L	110	5.0	7507011				2200	20	7507011
Nitrate (N)	mg/L	<0.10	0.10	7506945				<0.10	0.10	7506945
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7506945				<0.10	0.10	7506945
Dissolved Bromide (Br-)	mg/L	<5.0	5.0	7507011				23	20	7507011
Dissolved Sulphate (SO4)	mg/L	720	5.0	7507011				1200	20	7507011

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate





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VERITAS

BV Labs Job #: C1L8915  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

**RESULTS OF ANALYSES OF WATER**

BV Labs ID		QHB226			QHB227			QHB228		
Sampling Date		2021/08/03			2021/08/03			2021/08/03		
COC Number		834487-11-01			834487-11-01			834487-11-01		
	UNITS	48-II	RDL	QC Batch	48-IV	RDL	QC Batch	48-V	RDL	QC Batch
<b>Calculated Parameters</b>										
Hardness (CaCO3)	mg/L	1900	1.0	7500554	1100	1.0	7500554	1800	1.0	7500554
<b>Inorganics</b>										
Total Ammonia-N	mg/L	1.4	0.050	7505809	0.082	0.050	7505818	1.1	0.050	7505809
Conductivity	umho/cm	4900	1.0	7506972	3700	1.0	7506972	5000	1.0	7506972
Total Dissolved Solids	mg/L	3460	10	7502754	2160	10	7505286	3560	10	7502754
Fluoride (F-)	mg/L	0.73	0.10	7506967	0.44	0.10	7506967	0.63	0.10	7506967
Total Kjeldahl Nitrogen (TKN)	mg/L	1.9	0.10	7505720	0.25	0.10	7505667	1.5	0.10	7505720
Total Organic Carbon (TOC)	mg/L	2.3	0.40	7505588	2.0	0.40	7505588	2.6	0.40	7505588
Orthophosphate (P)	mg/L	<0.010	0.010	7506987	<0.010	0.010	7506987	<0.010	0.010	7506987
pH	pH	7.63		7506973	7.77		7506973	7.65		7506973
Phenols-4AAP	mg/L	<0.0010	0.0010	7502246	<0.0010	0.0010	7502246	<0.0010	0.0010	7502246
Alkalinity (Total as CaCO3)	mg/L	340	1.0	7506970	370	1.0	7506970	350	1.0	7506970
Nitrite (N)	mg/L	<0.010	0.010	7506947	<0.010	0.010	7506945	<0.010	0.010	7506947
Dissolved Chloride (Cl-)	mg/L	650	10	7507011	630	5.0	7507011	720	10	7507011
Nitrate (N)	mg/L	<0.10	0.10	7506947	<0.10	0.10	7506945	<0.10	0.10	7506947
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7506947	<0.10	0.10	7506945	<0.10	0.10	7506947
Dissolved Bromide (Br-)	mg/L	<10	10	7507011	<5.0	5.0	7507011	<10	10	7507011
Dissolved Sulphate (SO4)	mg/L	1500	10	7507011	490	5.0	7507011	1400	10	7507011
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										



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VERITAS

BV Labs Job #: C1L8915  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QHB229			QHB244			QHB244		
Sampling Date		2021/08/03			2021/08/03			2021/08/03		
COC Number		834487-11-01			834487-12-01			834487-12-01		
	UNITS	12-IV	RDL	QC Batch	P6-IR	RDL	QC Batch	P6-IR Lab-Dup	RDL	QC Batch

Calculated Parameters										
Hardness (CaCO3)	mg/L	1900	1.0	7500554	20	1.0	7500554			
Inorganics										
Total Ammonia-N	mg/L	1.1	0.050	7505809	190	0.50	7505809	190	0.50	7505809
Conductivity	umho/cm	4900	1.0	7506960	12000	1.0	7506972			
Total Dissolved Solids	mg/L	3520	10	7502754	6280	20	7502754			
Fluoride (F-)	mg/L	0.74	0.10	7506955	3.4	0.10	7506967			
Total Kjeldahl Nitrogen (TKN)	mg/L	1.5	0.10	7505720	190	5.0	7505667			
Total Organic Carbon (TOC)	mg/L	2.7	0.40	7505611	34	0.40	7505588			
Orthophosphate (P)	mg/L	<0.010	0.010	7506987	0.25	0.010	7506987			
pH	pH	7.49		7506962	9.60		7506973			
Phenols-4AAP	mg/L	<0.0010	0.0010	7502246	1.0	0.050	7502246			
Alkalinity (Total as CaCO3)	mg/L	350	1.0	7506959	490	1.0	7506970			
Nitrite (N)	mg/L	<0.010	0.010	7506947	0.012	0.010	7506947			
Dissolved Chloride (Cl-)	mg/L	700	10	7507011	3400	20	7507011			
Nitrate (N)	mg/L	<0.10	0.10	7506947	<0.10	0.10	7506947			
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7506947	0.11	0.10	7506947			
Dissolved Bromide (Br-)	mg/L	<10	10	7507011	<20	20	7507011			
Dissolved Sulphate (SO4)	mg/L	1300	10	7507011	110	20	7507011			

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate



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VERITAS

BV Labs Job #: C1L8915  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QHB245			QHB245			QHB246		
Sampling Date		2021/08/03			2021/08/03			2021/08/03		
COC Number		834487-12-01			834487-12-01			834487-12-01		
	UNITS	9-I	RDL	QC Batch	9-I Lab-Dup	RDL	QC Batch	P10-V	RDL	QC Batch

Calculated Parameters										
Hardness (CaCO3)	mg/L	680	1.0	7500554				490	1.0	7500554
Inorganics										
Total Ammonia-N	mg/L	<0.050	0.050	7505809				<0.050	0.050	7505809
Conductivity	umho/cm	1700	1.0	7506972				1200	1.0	7506972
Total Dissolved Solids	mg/L	1140	10	7502754	1140	10	7502754	750	10	7502754
Fluoride (F-)	mg/L	1.0	0.10	7506967				0.60	0.10	7506967
Total Kjeldahl Nitrogen (TKN)	mg/L	0.34	0.10	7505720				0.34	0.10	7505720
Total Organic Carbon (TOC)	mg/L	3.9	0.40	7505588				4.2	0.40	7505611
Orthophosphate (P)	mg/L	<0.010	0.010	7506987				0.090	0.010	7506987
pH	pH	7.89		7506973				7.86		7506973
Phenols-4AAP	mg/L	<0.0010	0.0010	7502246				<0.0010	0.0010	7502246
Alkalinity (Total as CaCO3)	mg/L	240	1.0	7506970				360	1.0	7506970
Nitrite (N)	mg/L	<0.010	0.010	7506947				<0.010	0.010	7506947
Dissolved Chloride (Cl-)	mg/L	130	5.0	7507011				45	1.0	7507011
Nitrate (N)	mg/L	0.11	0.10	7506947				<0.10	0.10	7506947
Nitrate + Nitrite (N)	mg/L	0.11	0.10	7506947				<0.10	0.10	7506947
Dissolved Bromide (Br-)	mg/L	<5.0	5.0	7507011				<1.0	1.0	7507011
Dissolved Sulphate (SO4)	mg/L	400	5.0	7507011				200	1.0	7507011

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate



BUREAU  
VERITAS

BV Labs Job #: C1L8915  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QHB220	QHB220		QHB221	QHB222	QHB223		
Sampling Date		2021/08/03	2021/08/03		2021/08/03	2021/08/03	2021/08/03		
COC Number		834487-11-01	834487-11-01		834487-11-01	834487-11-01	834487-11-01		
	UNITS	47-I	47-I Lab-Dup	RDL	47-IIR	47-III	47-IV	RDL	QC Batch
<b>Metals</b>									
Dissolved Aluminum (Al)	ug/L	<4.9	<4.9	4.9	<4.9	<4.9	<4.9	4.9	7502986
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	0.50	<0.50	<0.50	<0.50	0.50	7502986
Dissolved Arsenic (As)	ug/L	<1.0	<1.0	1.0	<1.0	<1.0	<1.0	1.0	7502986
Dissolved Barium (Ba)	ug/L	17	17	2.0	42	12	57	2.0	7502986
Dissolved Beryllium (Be)	ug/L	<0.40	<0.40	0.40	<0.40	<0.40	<0.40	0.40	7502986
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	1.0	<1.0	<1.0	<1.0	1.0	7502986
Dissolved Boron (B)	ug/L	960	830	10	150	1400	140	10	7502986
Dissolved Cadmium (Cd)	ug/L	<0.090	<0.090	0.090	<0.090	<0.090	0.14	0.090	7502986
Dissolved Calcium (Ca)	ug/L	580000	580000	1000	120000	350000	140000	200	7502986
Dissolved Chromium (Cr)	ug/L	<5.0	<5.0	5.0	<5.0	<5.0	<5.0	5.0	7502986
Dissolved Cobalt (Co)	ug/L	<0.50	<0.50	0.50	<0.50	<0.50	<0.50	0.50	7502986
Dissolved Copper (Cu)	ug/L	<0.90	<0.90	0.90	<0.90	<0.90	<0.90	0.90	7502986
Dissolved Iron (Fe)	ug/L	<100	<100	100	<100	<100	<100	100	7502986
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	0.50	<0.50	<0.50	<0.50	0.50	7502986
Dissolved Lithium (Li)	ug/L	110	100	5.0	<5.0	66	<5.0	5.0	7502986
Dissolved Magnesium (Mg)	ug/L	90000	89000	50	34000	63000	40000	50	7502986
Dissolved Manganese (Mn)	ug/L	110	110	2.0	130	52	110	2.0	7502986
Dissolved Molybdenum (Mo)	ug/L	<0.50	<0.50	0.50	3.0	<0.50	2.5	0.50	7502986
Dissolved Nickel (Ni)	ug/L	<1.0	<1.0	1.0	<1.0	<1.0	1.5	1.0	7502986
Dissolved Phosphorus (P)	ug/L	<100	<100	100	<100	<100	<100	100	7502986
Dissolved Potassium (K)	ug/L	25000	24000	200	2800	13000	2800	200	7502986
Dissolved Selenium (Se)	ug/L	<2.0	<2.0	2.0	<2.0	<2.0	<2.0	2.0	7502986
Dissolved Silicon (Si)	ug/L	3900	3600	50	4900	4800	4700	50	7502986
Dissolved Silver (Ag)	ug/L	<0.090	<0.090	0.090	<0.090	<0.090	<0.090	0.090	7502986
Dissolved Sodium (Na)	ug/L	280000	280000	100	67000	94000	80000	100	7502986
Dissolved Strontium (Sr)	ug/L	4800	4600	1.0	1700	4600	2100	1.0	7502986
Dissolved Tellurium (Te)	ug/L	<1.0	<1.0	1.0	<1.0	<1.0	<1.0	1.0	7502986
Dissolved Thallium (Tl)	ug/L	<0.050	<0.050	0.050	<0.050	<0.050	<0.050	0.050	7502986
Dissolved Tin (Sn)	ug/L	<1.0	<1.0	1.0	<1.0	<1.0	<1.0	1.0	7502986
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	5.0	<5.0	<5.0	<5.0	5.0	7502986
Dissolved Tungsten (W)	ug/L	<1.0	<1.0	1.0	<1.0	<1.0	<1.0	1.0	7502986
Dissolved Uranium (U)	ug/L	0.25	0.22	0.10	1.7	0.17	2.2	0.10	7502986
Dissolved Vanadium (V)	ug/L	<0.50	<0.50	0.50	<0.50	<0.50	<0.50	0.50	7502986
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	5.0	160	<5.0	210	5.0	7502986
Dissolved Zirconium (Zr)	ug/L	<1.0	<1.0	1.0	<1.0	<1.0	<1.0	1.0	7502986
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate									



BUREAU  
VERITAS

BV Labs Job #: C1L8915  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QHB224		QHB225		QHB226		QHB227		
Sampling Date		2021/08/03		2021/08/03		2021/08/03		2021/08/03		
COC Number		834487-11-01		834487-11-01		834487-11-01		834487-11-01		
	UNITS	3-I	RDL	48-I	RDL	48-II	RDL	48-IV	RDL	QC Batch
<b>Metals</b>										
Dissolved Aluminum (Al)	ug/L	<4.9	4.9	<4.9	4.9	<4.9	4.9	<4.9	4.9	7502986
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7502986
Dissolved Arsenic (As)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7502986
Dissolved Barium (Ba)	ug/L	11	2.0	16	2.0	32	2.0	53	2.0	7502986
Dissolved Beryllium (Be)	ug/L	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40	7502986
Dissolved Bismuth (Bi)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7502986
Dissolved Boron (B)	ug/L	1400	10	2000	10	1500	10	88	10	7502986
Dissolved Cadmium (Cd)	ug/L	<0.090	0.090	<0.090	0.090	<0.090	0.090	0.20	0.090	7502986
Dissolved Calcium (Ca)	ug/L	360000	200	1000000	1000	580000	1000	250000	200	7502986
Dissolved Chromium (Cr)	ug/L	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	7502986
Dissolved Cobalt (Co)	ug/L	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7502986
Dissolved Copper (Cu)	ug/L	<0.90	0.90	<0.90	0.90	<0.90	0.90	<0.90	0.90	7502986
Dissolved Iron (Fe)	ug/L	<100	100	<100	100	<100	100	<100	100	7502986
Dissolved Lead (Pb)	ug/L	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7502986
Dissolved Lithium (Li)	ug/L	65	5.0	1200	25	170	5.0	52	5.0	7502986
Dissolved Magnesium (Mg)	ug/L	62000	50	230000	50	100000	50	100000	50	7502986
Dissolved Manganese (Mn)	ug/L	53	2.0	120	2.0	140	2.0	67	2.0	7502986
Dissolved Molybdenum (Mo)	ug/L	<0.50	0.50	<0.50	0.50	<0.50	0.50	1.1	0.50	7502986
Dissolved Nickel (Ni)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	2.0	1.0	7502986
Dissolved Phosphorus (P)	ug/L	<100	100	<100	100	<100	100	<100	100	7502986
Dissolved Potassium (K)	ug/L	13000	200	31000	200	15000	200	4200	200	7502986
Dissolved Selenium (Se)	ug/L	<2.0	2.0	4.7	2.0	<2.0	2.0	<2.0	2.0	7502986
Dissolved Silicon (Si)	ug/L	4800	50	4100	50	5000	50	6400	50	7502986
Dissolved Silver (Ag)	ug/L	<0.090	0.090	<0.090	0.090	<0.090	0.090	<0.090	0.090	7502986
Dissolved Sodium (Na)	ug/L	94000	100	960000	500	400000	100	340000	100	7502986
Dissolved Strontium (Sr)	ug/L	4700	1.0	15000	1.0	5200	1.0	2100	1.0	7502986
Dissolved Tellurium (Te)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7502986
Dissolved Thallium (Tl)	ug/L	<0.050	0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	7502986
Dissolved Tin (Sn)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7502986
Dissolved Titanium (Ti)	ug/L	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	7502986
Dissolved Tungsten (W)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	1.2	1.0	7502986
Dissolved Uranium (U)	ug/L	0.18	0.10	0.55	0.10	0.97	0.10	6.2	0.10	7502986
Dissolved Vanadium (V)	ug/L	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7502986
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	<5.0	5.0	<5.0	5.0	110	5.0	7502986
Dissolved Zirconium (Zr)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7502986
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										



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VERITAS

BV Labs Job #: C1L8915  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QHB228	QHB229		QHB244		QHB245	QHB246		
Sampling Date		2021/08/03	2021/08/03		2021/08/03		2021/08/03	2021/08/03		
COC Number		834487-11-01	834487-11-01		834487-12-01		834487-12-01	834487-12-01		
	UNITS	48-V	12-IV	RDL	P6-IR	RDL	9-I	P10-V	RDL	QC Batch
<b>Metals</b>										
Dissolved Aluminum (Al)	ug/L	<4.9	<4.9	4.9	5.7	4.9	8.3	<4.9	4.9	7502986
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	0.50	<0.50	0.50	<0.50	<0.50	0.50	7502986
Dissolved Arsenic (As)	ug/L	<1.0	<1.0	1.0	3.2	1.0	<1.0	<1.0	1.0	7502986
Dissolved Barium (Ba)	ug/L	36	36	2.0	8.2	2.0	42	55	2.0	7502986
Dissolved Beryllium (Be)	ug/L	<0.40	<0.40	0.40	<0.40	0.40	<0.40	<0.40	0.40	7502986
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	1.0	<1.0	1.0	<1.0	<1.0	1.0	7502986
Dissolved Boron (B)	ug/L	880	1200	10	540	10	120	210	10	7502986
Dissolved Cadmium (Cd)	ug/L	<0.090	<0.090	0.090	<0.090	0.090	1.1	2.9	0.090	7502986
Dissolved Calcium (Ca)	ug/L	570000	590000	1000	7100	200	210000	130000	200	7502986
Dissolved Chromium (Cr)	ug/L	<5.0	<5.0	5.0	<5.0	5.0	<5.0	<5.0	5.0	7502986
Dissolved Cobalt (Co)	ug/L	<0.50	<0.50	0.50	<0.50	0.50	<0.50	<0.50	0.50	7502986
Dissolved Copper (Cu)	ug/L	<0.90	<0.90	0.90	<0.90	0.90	3.0	4.5	0.90	7502986
Dissolved Iron (Fe)	ug/L	870	800	100	<100	100	<100	<100	100	7502986
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	0.50	<0.50	0.50	<0.50	1.5	0.50	7502986
Dissolved Lithium (Li)	ug/L	110	130	5.0	27	5.0	7.0	<5.0	5.0	7502986
Dissolved Magnesium (Mg)	ug/L	100000	98000	50	480	50	41000	41000	50	7502986
Dissolved Manganese (Mn)	ug/L	160	160	2.0	<2.0	2.0	54	3.7	2.0	7502986
Dissolved Molybdenum (Mo)	ug/L	0.57	<0.50	0.50	66	0.50	3.3	2.0	0.50	7502986
Dissolved Nickel (Ni)	ug/L	<1.0	1.1	1.0	21	1.0	7.0	7.1	1.0	7502986
Dissolved Phosphorus (P)	ug/L	<100	<100	100	370	100	<100	100	100	7502986
Dissolved Potassium (K)	ug/L	13000	13000	200	140000	200	4900	8700	200	7502986
Dissolved Selenium (Se)	ug/L	<2.0	<2.0	2.0	7.2	2.0	<2.0	<2.0	2.0	7502986
Dissolved Silicon (Si)	ug/L	5600	5100	50	9900	50	4800	7200	50	7502986
Dissolved Silver (Ag)	ug/L	<0.090	<0.090	0.090	<0.090	0.090	<0.090	<0.090	0.090	7502986
Dissolved Sodium (Na)	ug/L	440000	420000	100	2300000	500	81000	56000	100	7502986
Dissolved Strontium (Sr)	ug/L	4800	4700	1.0	880	1.0	3200	920	1.0	7502986
Dissolved Tellurium (Te)	ug/L	<1.0	<1.0	1.0	1.3	1.0	<1.0	<1.0	1.0	7502986
Dissolved Thallium (Tl)	ug/L	<0.050	<0.050	0.050	<0.050	0.050	0.34	0.23	0.050	7502986
Dissolved Tin (Sn)	ug/L	<1.0	<1.0	1.0	<1.0	1.0	<1.0	<1.0	1.0	7502986
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	5.0	<5.0	5.0	<5.0	<5.0	5.0	7502986
Dissolved Tungsten (W)	ug/L	<1.0	<1.0	1.0	20	1.0	<1.0	<1.0	1.0	7502986
Dissolved Uranium (U)	ug/L	1.5	1.4	0.10	<0.10	0.10	3.8	4.5	0.10	7502986
Dissolved Vanadium (V)	ug/L	<0.50	<0.50	0.50	1.1	0.50	<0.50	<0.50	0.50	7502986
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	5.0	<5.0	5.0	510	760	5.0	7502986
Dissolved Zirconium (Zr)	ug/L	<1.0	<1.0	1.0	<1.0	1.0	<1.0	<1.0	1.0	7502986
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										



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VERITAS

BV Labs Job #: C1L8915  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QHB220  
**Sample ID:** 47-I  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506970	N/A	2021/08/09	Surinder Rai
Anions	IC	7507011	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7506972	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506967	2021/08/07	2021/08/10	Surinder Rai
Hardness (calculated as CaCO3)		7500554	N/A	2021/08/09	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/06	Daniel Teclu
Total Ammonia-N	LACH/NH4	7505809	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506947	N/A	2021/08/09	Chandra Nandlal
pH	AT	7506973	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502246	N/A	2021/08/06	Deonarine Ramnarine
Orthophosphate	KONE	7506987	N/A	2021/08/09	Avneet Kour Sudan
Total Dissolved Solids	BAL	7505286	2021/08/06	2021/08/09	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7505720	2021/08/06	2021/08/10	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7505588	N/A	2021/08/07	Nimarta Singh

**BV Labs ID:** QHB220 Dup  
**Sample ID:** 47-I  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/06	Daniel Teclu

**BV Labs ID:** QHB221  
**Sample ID:** 47-IIR  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506970	N/A	2021/08/09	Surinder Rai
Anions	IC	7507011	N/A	2021/08/11	Fari Dehdezi
Conductivity	AT	7506972	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506967	2021/08/07	2021/08/10	Surinder Rai
Hardness (calculated as CaCO3)		7500554	N/A	2021/08/09	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/06	Daniel Teclu
Total Ammonia-N	LACH/NH4	7505818	N/A	2021/08/10	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506945	N/A	2021/08/09	Chandra Nandlal
pH	AT	7506973	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502246	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7506987	N/A	2021/08/09	Avneet Kour Sudan
Total Dissolved Solids	BAL	7505286	2021/08/06	2021/08/09	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7505667	2021/08/06	2021/08/09	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7505588	N/A	2021/08/07	Nimarta Singh



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VERITAS

BV Labs Job #: C1L8915  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QHB221 Dup  
**Sample ID:** 47-IIR  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Anions	IC	7507011	N/A	2021/08/11	Fari Dehdezi

**BV Labs ID:** QHB222  
**Sample ID:** 47-III  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506970	N/A	2021/08/09	Surinder Rai
Anions	IC	7507011	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7506972	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506967	2021/08/07	2021/08/10	Surinder Rai
Hardness (calculated as CaCO3)		7500554	N/A	2021/08/09	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/06	Daniel Teclu
Total Ammonia-N	LACH/NH4	7505809	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506945	N/A	2021/08/09	Chandra Nandlal
pH	AT	7506973	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502246	N/A	2021/08/06	Deonarine Ramnarine
Orthophosphate	KONE	7506987	N/A	2021/08/09	Avneet Kour Sudan
Total Dissolved Solids	BAL	7505286	2021/08/06	2021/08/09	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7505720	2021/08/06	2021/08/09	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7505588	N/A	2021/08/07	Nimarta Singh

**BV Labs ID:** QHB222 Dup  
**Sample ID:** 47-III  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	7505286	2021/08/06	2021/08/09	Kristen Chan

**BV Labs ID:** QHB223  
**Sample ID:** 47-IV  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506970	N/A	2021/08/09	Surinder Rai
Anions	IC	7507011	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7506972	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506967	2021/08/07	2021/08/10	Surinder Rai
Hardness (calculated as CaCO3)		7500554	N/A	2021/08/09	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/06	Daniel Teclu
Total Ammonia-N	LACH/NH4	7505809	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506945	N/A	2021/08/09	Chandra Nandlal
pH	AT	7506973	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502246	N/A	2021/08/06	Deonarine Ramnarine
Orthophosphate	KONE	7506987	N/A	2021/08/09	Avneet Kour Sudan





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VERITAS

BV Labs Job #: C1L8915  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QHB223  
**Sample ID:** 47-IV  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	7502754	2021/08/05	2021/08/09	Shivani Desai
Total Kjeldahl Nitrogen in Water	SKAL	7505720	2021/08/06	2021/08/09	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7505588	N/A	2021/08/07	Nimarta Singh

**BV Labs ID:** QHB224  
**Sample ID:** 3-I  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506959	N/A	2021/08/09	Surinder Rai
Anions	IC	7507011	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7506960	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506955	2021/08/07	2021/08/09	Surinder Rai
Hardness (calculated as CaCO3)		7500554	N/A	2021/08/09	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/06	Daniel Teclu
Total Ammonia-N	LACH/NH4	7505818	N/A	2021/08/10	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506945	N/A	2021/08/09	Chandra Nandlal
pH	AT	7506962	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502246	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7506987	N/A	2021/08/09	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502754	2021/08/05	2021/08/09	Shivani Desai
Total Kjeldahl Nitrogen in Water	SKAL	7505667	2021/08/06	2021/08/09	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7505588	N/A	2021/08/07	Nimarta Singh

**BV Labs ID:** QHB224 Dup  
**Sample ID:** 3-I  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506959	N/A	2021/08/09	Surinder Rai
Conductivity	AT	7506960	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506955	2021/08/07	2021/08/09	Surinder Rai
pH	AT	7506962	2021/08/07	2021/08/09	Surinder Rai

**BV Labs ID:** QHB225  
**Sample ID:** 48-I  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506970	N/A	2021/08/09	Surinder Rai
Anions	IC	7507011	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7506972	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506967	2021/08/07	2021/08/10	Surinder Rai
Hardness (calculated as CaCO3)		7500554	N/A	2021/08/09	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/06	Daniel Teclu



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VERITAS

BV Labs Job #: C1L8915  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QHB225  
**Sample ID:** 48-I  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Ammonia-N	LACH/NH4	7505818	N/A	2021/08/10	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506945	N/A	2021/08/09	Chandra Nandlal
pH	AT	7506973	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502246	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7506987	N/A	2021/08/09	Avneet Kour Sudan
Total Dissolved Solids	BAL	7505286	2021/08/06	2021/08/09	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7505667	2021/08/06	2021/08/09	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7505588	N/A	2021/08/07	Nimarta Singh

**BV Labs ID:** QHB226  
**Sample ID:** 48-II  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506970	N/A	2021/08/09	Surinder Rai
Anions	IC	7507011	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7506972	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506967	2021/08/07	2021/08/10	Surinder Rai
Hardness (calculated as CaCO3)		7500554	N/A	2021/08/10	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/10	Daniel Teclu
Total Ammonia-N	LACH/NH4	7505809	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506947	N/A	2021/08/09	Chandra Nandlal
pH	AT	7506973	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502246	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7506987	N/A	2021/08/09	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502754	2021/08/05	2021/08/09	Shivani Desai
Total Kjeldahl Nitrogen in Water	SKAL	7505720	2021/08/06	2021/08/09	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7505588	N/A	2021/08/07	Nimarta Singh

**BV Labs ID:** QHB227  
**Sample ID:** 48-IV  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506970	N/A	2021/08/09	Surinder Rai
Anions	IC	7507011	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7506972	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506967	2021/08/07	2021/08/10	Surinder Rai
Hardness (calculated as CaCO3)		7500554	N/A	2021/08/09	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/06	Daniel Teclu
Total Ammonia-N	LACH/NH4	7505818	N/A	2021/08/10	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506945	N/A	2021/08/09	Chandra Nandlal
pH	AT	7506973	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502246	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7506987	N/A	2021/08/09	Avneet Kour Sudan



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BV Labs Job #: C1L8915  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QHB227  
**Sample ID:** 48-IV  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	7505286	2021/08/06	2021/08/09	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7505667	2021/08/06	2021/08/10	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7505588	N/A	2021/08/07	Nimarta Singh

**BV Labs ID:** QHB228  
**Sample ID:** 48-V  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506970	N/A	2021/08/09	Surinder Rai
Anions	IC	7507011	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7506972	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506967	2021/08/07	2021/08/10	Surinder Rai
Hardness (calculated as CaCO3)		7500554	N/A	2021/08/10	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/10	Daniel Teclu
Total Ammonia-N	LACH/NH4	7505809	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506947	N/A	2021/08/09	Chandra Nandlal
pH	AT	7506973	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502246	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7506987	N/A	2021/08/09	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502754	2021/08/05	2021/08/09	Shivani Desai
Total Kjeldahl Nitrogen in Water	SKAL	7505720	2021/08/06	2021/08/09	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7505588	N/A	2021/08/07	Nimarta Singh

**BV Labs ID:** QHB229  
**Sample ID:** 12-IV  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506959	N/A	2021/08/09	Surinder Rai
Anions	IC	7507011	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7506960	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506955	2021/08/07	2021/08/09	Surinder Rai
Hardness (calculated as CaCO3)		7500554	N/A	2021/08/10	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/10	Daniel Teclu
Total Ammonia-N	LACH/NH4	7505809	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506947	N/A	2021/08/09	Chandra Nandlal
pH	AT	7506962	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502246	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7506987	N/A	2021/08/09	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502754	2021/08/05	2021/08/09	Shivani Desai
Total Kjeldahl Nitrogen in Water	SKAL	7505720	2021/08/06	2021/08/09	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7505611	N/A	2021/08/07	Nimarta Singh



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BV Labs Job #: C1L8915  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QHB244  
**Sample ID:** P6-IR  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506970	N/A	2021/08/09	Surinder Rai
Anions	IC	7507011	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7506972	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506967	2021/08/07	2021/08/10	Surinder Rai
Hardness (calculated as CaCO3)		7500554	N/A	2021/08/10	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/10	Daniel Teclu
Total Ammonia-N	LACH/NH4	7505809	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506947	N/A	2021/08/09	Chandra Nandlal
pH	AT	7506973	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502246	N/A	2021/08/06	Deonarine Ramnarine
Orthophosphate	KONE	7506987	N/A	2021/08/09	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502754	2021/08/05	2021/08/09	Shivani Desai
Total Kjeldahl Nitrogen in Water	SKAL	7505667	2021/08/06	2021/08/10	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7505588	N/A	2021/08/07	Nimarta Singh

**BV Labs ID:** QHB244 Dup  
**Sample ID:** P6-IR  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Ammonia-N	LACH/NH4	7505809	N/A	2021/08/09	Amanpreet Sappal

**BV Labs ID:** QHB245  
**Sample ID:** 9-I  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506970	N/A	2021/08/09	Surinder Rai
Anions	IC	7507011	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7506972	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506967	2021/08/07	2021/08/10	Surinder Rai
Hardness (calculated as CaCO3)		7500554	N/A	2021/08/09	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/06	Daniel Teclu
Total Ammonia-N	LACH/NH4	7505809	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506947	N/A	2021/08/09	Chandra Nandlal
pH	AT	7506973	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502246	N/A	2021/08/05	Deonarine Ramnarine
Orthophosphate	KONE	7506987	N/A	2021/08/09	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502754	2021/08/05	2021/08/09	Shivani Desai
Total Kjeldahl Nitrogen in Water	SKAL	7505720	2021/08/06	2021/08/09	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7505588	N/A	2021/08/07	Nimarta Singh



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Terrapure Environmental  
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### TEST SUMMARY

**BV Labs ID:** QHB245 Dup  
**Sample ID:** 9-I  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	7502754	2021/08/05	2021/08/09	Shivani Desai

**BV Labs ID:** QHB246  
**Sample ID:** P10-V  
**Matrix:** Water

**Collected:** 2021/08/03  
**Shipped:**  
**Received:** 2021/08/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506970	N/A	2021/08/09	Surinder Rai
Anions	IC	7507011	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7506972	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506967	2021/08/07	2021/08/10	Surinder Rai
Hardness (calculated as CaCO3)		7500554	N/A	2021/08/09	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7502986	N/A	2021/08/06	Daniel Teclu
Total Ammonia-N	LACH/NH4	7505809	N/A	2021/08/09	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506947	N/A	2021/08/09	Chandra Nandlal
pH	AT	7506973	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7502246	N/A	2021/08/06	Deonarine Ramnarine
Orthophosphate	KONE	7506987	N/A	2021/08/09	Avneet Kour Sudan
Total Dissolved Solids	BAL	7502754	2021/08/05	2021/08/09	Shivani Desai
Total Kjeldahl Nitrogen in Water	SKAL	7505720	2021/08/06	2021/08/10	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7505611	N/A	2021/08/07	Nimarta Singh



### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	5.3°C
Package 2	5.7°C
Package 3	5.0°C

Sample QHB220 [47-I] : TKN < Ammonia: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample QHB221 [47-IIR] : TKN < Ammonia: Both values fall within the method uncertainty for duplicates and are likely equivalent.

**Results relate only to the items tested.**



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BV Labs Job #: C1L8915  
Report Date: 2021/08/13

### QUALITY ASSURANCE REPORT

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7502246	Phenols-4AAP	2021/08/05	102	80 - 120	103	80 - 120	<0.0010	mg/L	NC	20		
7502754	Total Dissolved Solids	2021/08/09					<10	mg/L	0.44	25	102	90 - 110
7502986	Dissolved Aluminum (Al)	2021/08/06	98	80 - 120	100	80 - 120	<4.9	ug/L	NC	20		
7502986	Dissolved Antimony (Sb)	2021/08/06	103	80 - 120	100	80 - 120	<0.50	ug/L	NC	20		
7502986	Dissolved Arsenic (As)	2021/08/06	98	80 - 120	96	80 - 120	<1.0	ug/L	NC	20		
7502986	Dissolved Barium (Ba)	2021/08/06	98	80 - 120	98	80 - 120	<2.0	ug/L	0.75	20		
7502986	Dissolved Beryllium (Be)	2021/08/06	97	80 - 120	99	80 - 120	<0.40	ug/L	NC	20		
7502986	Dissolved Bismuth (Bi)	2021/08/06	96	80 - 120	96	80 - 120	<1.0	ug/L	NC	20		
7502986	Dissolved Boron (B)	2021/08/06	NC	80 - 120	93	80 - 120	<10	ug/L	15	20		
7502986	Dissolved Cadmium (Cd)	2021/08/06	100	80 - 120	100	80 - 120	<0.090	ug/L	NC	20		
7502986	Dissolved Calcium (Ca)	2021/08/06	NC	80 - 120	105	80 - 120	<200	ug/L	0.49	20		
7502986	Dissolved Chromium (Cr)	2021/08/06	98	80 - 120	101	80 - 120	<5.0	ug/L	NC	20		
7502986	Dissolved Cobalt (Co)	2021/08/06	98	80 - 120	101	80 - 120	<0.50	ug/L	NC	20		
7502986	Dissolved Copper (Cu)	2021/08/06	101	80 - 120	104	80 - 120	<0.90	ug/L	NC	20		
7502986	Dissolved Iron (Fe)	2021/08/06	97	80 - 120	98	80 - 120	<100	ug/L	NC	20		
7502986	Dissolved Lead (Pb)	2021/08/06	97	80 - 120	98	80 - 120	<0.50	ug/L	NC	20		
7502986	Dissolved Lithium (Li)	2021/08/06	101	80 - 120	102	80 - 120	<5.0	ug/L	6.7	20		
7502986	Dissolved Magnesium (Mg)	2021/08/06	NC	80 - 120	102	80 - 120	<50	ug/L	1.7	20		
7502986	Dissolved Manganese (Mn)	2021/08/06	97	80 - 120	98	80 - 120	<2.0	ug/L	2.8	20		
7502986	Dissolved Molybdenum (Mo)	2021/08/06	107	80 - 120	106	80 - 120	<0.50	ug/L	NC	20		
7502986	Dissolved Nickel (Ni)	2021/08/06	94	80 - 120	99	80 - 120	<1.0	ug/L	NC	20		
7502986	Dissolved Phosphorus (P)	2021/08/06	101	80 - 120	104	80 - 120	<100	ug/L	NC	20		
7502986	Dissolved Potassium (K)	2021/08/06	97	80 - 120	101	80 - 120	<200	ug/L	1.0	20		
7502986	Dissolved Selenium (Se)	2021/08/06	92	80 - 120	101	80 - 120	<2.0	ug/L	NC	20		
7502986	Dissolved Silicon (Si)	2021/08/06	102	80 - 120	106	80 - 120	<50	ug/L	5.4	20		
7502986	Dissolved Silver (Ag)	2021/08/06	71 (1)	80 - 120	90	80 - 120	<0.090	ug/L	NC	20		
7502986	Dissolved Sodium (Na)	2021/08/06	NC	80 - 120	101	80 - 120	<100	ug/L	0.68	20		
7502986	Dissolved Strontium (Sr)	2021/08/06	NC	80 - 120	97	80 - 120	<1.0	ug/L	4.2	20		
7502986	Dissolved Tellurium (Te)	2021/08/06	84	80 - 120	99	80 - 120	<1.0	ug/L	NC	20		
7502986	Dissolved Thallium (Tl)	2021/08/06	95	80 - 120	94	80 - 120	<0.050	ug/L	NC	20		
7502986	Dissolved Tin (Sn)	2021/08/06	102	80 - 120	100	80 - 120	<1.0	ug/L	NC	20		



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### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7502986	Dissolved Titanium (Ti)	2021/08/06	99	80 - 120	99	80 - 120	<5.0	ug/L	NC	20		
7502986	Dissolved Tungsten (W)	2021/08/06	105	80 - 120	100	80 - 120	<1.0	ug/L	NC	20		
7502986	Dissolved Uranium (U)	2021/08/06	97	80 - 120	96	80 - 120	<0.10	ug/L	12	20		
7502986	Dissolved Vanadium (V)	2021/08/06	98	80 - 120	97	80 - 120	<0.50	ug/L	NC	20		
7502986	Dissolved Zinc (Zn)	2021/08/06	93	80 - 120	96	80 - 120	<5.0	ug/L	NC	20		
7502986	Dissolved Zirconium (Zr)	2021/08/06	104	80 - 120	103	80 - 120	<1.0	ug/L	NC	20		
7505286	Total Dissolved Solids	2021/08/09					<10	mg/L	0.83	25	100	90 - 110
7505588	Total Organic Carbon (TOC)	2021/08/07	93	80 - 120	98	80 - 120	<0.40	mg/L	4.5	20		
7505611	Total Organic Carbon (TOC)	2021/08/07	93	80 - 120	98	80 - 120	<0.40	mg/L	14	20		
7505667	Total Kjeldahl Nitrogen (TKN)	2021/08/09	90	N/A	98	80 - 120	<0.10	mg/L	NC	20	96	N/A
7505720	Total Kjeldahl Nitrogen (TKN)	2021/08/09	109	N/A	98	80 - 120	<0.10	mg/L	19	20	92	80 - 120
7505809	Total Ammonia-N	2021/08/09	NC	75 - 125	101	80 - 120	<0.050	mg/L	0.30	20		
7505818	Total Ammonia-N	2021/08/10	NC	75 - 125	100	80 - 120	<0.050	mg/L	2.5 (2)	20		
7506945	Nitrate (N)	2021/08/09	97	80 - 120	99	80 - 120	<0.10	mg/L	NC	20		
7506945	Nitrite (N)	2021/08/09	105	80 - 120	107	80 - 120	<0.010	mg/L				
7506947	Nitrate (N)	2021/08/09	96	80 - 120	100	80 - 120	<0.10	mg/L	NC	20		
7506947	Nitrite (N)	2021/08/09	106	80 - 120	110	80 - 120	<0.010	mg/L	NC	20		
7506955	Fluoride (F-)	2021/08/09	92	80 - 120	94	80 - 120	<0.10	mg/L	0.93	20		
7506959	Alkalinity (Total as CaCO3)	2021/08/09			97	85 - 115	<1.0	mg/L	0.18	20		
7506960	Conductivity	2021/08/09			102	85 - 115	<1.0	umho/cm	0.45	25		
7506962	pH	2021/08/09			102	98 - 103			0.16	N/A		
7506967	Fluoride (F-)	2021/08/10	99	80 - 120	92	80 - 120	<0.10	mg/L	3.5	20		
7506970	Alkalinity (Total as CaCO3)	2021/08/09			96	85 - 115	<1.0	mg/L	1.7	20		
7506972	Conductivity	2021/08/09			103	85 - 115	<1.0	umho/cm	0.52	25		
7506973	pH	2021/08/09			102	98 - 103			0.87	N/A		
7506987	Orthophosphate (P)	2021/08/09	106	75 - 125	101	80 - 120	<0.010	mg/L	NC	25		
7507011	Dissolved Bromide (Br-)	2021/08/11	102..74920	80 - 120	104	80 - 120	<1.0	mg/L	NC	20		
7507011	Dissolved Chloride (Cl-)	2021/08/11	79 (3)	80 - 120	100	70 - 130	<1.0	mg/L	16	20		





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### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental

Client Project #: GW

Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7507011	Dissolved Sulphate (SO4)	2021/08/11	93	80 - 120	100	80 - 120	<1.0	mg/L	0.49	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Matrix Spike exceeds acceptance limits, sample inhomogeneity suspected.

(2) TKN < NH4: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

(3) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

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Anastassia Hamanov, Scientific Specialist

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Brad Newman, B.Sc., C.Chem., Scientific Service Specialist

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Bureau Veritas Laboratories  
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

04-Aug-21 15:27

Jolanta Goralczyk  
C1L8915

<b>INVOICE TO:</b> Company Name: #16786 Terrapure Environmental Attention: Accounting Address: 65 Green Mountain Rd West Stoney Creek ON L8J 1X5 Tel: (905) 561-0305 Fax: (905) 561-1674 Email: kbailey@terrapureenv.com		<b>REPORT TO:</b> Company Name: Brad Mullin - GHD Reporting Attention: Brad Mullin - GHD Reporting Address: _____ Tel: _____ Fax: _____ Email: bmullin@terrapureenv.com; dtaylor2@terrapureenv.com		<b>PROJECT INFORMATION:</b> Quotation #: B60569 P.O. #: _____ Project: GW Project Name: _____ Site #: _____ Sampled By: _____		<b>Only:</b> Bottle Order #: _____  834487 Project Manager: Jolanta Goralczyk  C#834487-11-01	
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MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required: Please provide advance notice for rush projects				
Regulation 153 (2011)			Other Regulations			Special Instructions	Field Filtered (please circle): Metals Hg / Cr VI	List "A" GW Monitoring											Regular (Standard) TAT: (will be applied if Rush TAT is not specified): Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.	
<input type="checkbox"/> Table 1 <input type="checkbox"/> Res/Park <input type="checkbox"/> Medium/Fine <input type="checkbox"/> Table 2 <input type="checkbox"/> Ind/Comm <input type="checkbox"/> Coarse <input type="checkbox"/> Table 3 <input type="checkbox"/> Agri/Other <input type="checkbox"/> For RSC <input type="checkbox"/> Table _____			<input type="checkbox"/> CCME <input type="checkbox"/> Sanitary Sewer Bylaw <input type="checkbox"/> Reg 558 <input type="checkbox"/> Storm Sewer Bylaw <input type="checkbox"/> MISA Municipality <input type="checkbox"/> PWQO <input type="checkbox"/> Reg 406 Table <input type="checkbox"/> Other _____																Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)	
Include Criteria on Certificate of Analysis (Y/N)?																		# of Bottles	Comments	
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix																
	47-I	Aug 3 2021	NA	GW	Y	X													6	
	47-II			GW	Y	X													6	
	47-III			GW	Y	X													6	
	47-IV			GW	Y	X													6	
	3-I			GW	Y	X													6	
	48-I			GW	Y	X													6	
	48-II			GW	Y	X													6	
	48-III			GW	Y	X													6	
	48-IV			GW	Y	X													6	
	12-IV			GW	Y	X													6	

* RELINQUISHED BY: (Signature/Print) Dan Taylor		Date: (YY/MM/DD) 21/08/21	Time 9:00	RECEIVED BY: (Signature/Print) Jolanta Goralczyk		Date: (YY/MM/DD) 21/08/21	Time 15:27	# jars used and not submitted	Laboratory Use Only		
Time Sensitive	Temperature (°C) on Recept 15/14	Custody Seal Present Intact	Yes	No							

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

\*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client

5/8/4

21315



<b>INVOICE TO:</b>		<b>REPORT TO:</b>		<b>PROJECT INFORMATION:</b>		<b>Laboratory Use Only:</b>								
Company Name: #16786 Terrapure Environmental	Attention: Accounting	Address: 65 Green Mountain Rd West Stoney Creek ON L8J 1X5	Tel: (905) 561-0305 Fax: (905) 561-1674 Email: kbailey@terrapureenv.com	Company Name: Brad Mullin - GHD Reporting	Attention: Brad Mullin - GHD Reporting	Address: _____ Tel: _____ Fax: _____ Email: bmullin@terrapureenv.com; dtaylor2@terrapureenv.com	Quotation #: B60569 P.O. #: _____ Project: GW Project Name: _____ Site #: _____ Sampled By: _____	<table border="1"> <tr> <td>BV Labs Job #:</td> <td>Bottle Order #:</td> </tr> <tr> <td>COC #:</td> <td>Project Manager:</td> </tr> <tr> <td colspan="2">Jolanta Goralczyk</td> </tr> </table>	BV Labs Job #:	Bottle Order #:	COC #:	Project Manager:	Jolanta Goralczyk	
BV Labs Job #:	Bottle Order #:													
COC #:	Project Manager:													
Jolanta Goralczyk														

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY.						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)												Turnaround Time (TAT) Required:				
Regulation 153 (2011)			Other Regulations			Special Instructions	Field Filtered (please circle): Metals Hg / Cr VI	Lit. "A" - GW Monitoring													Regular (Standard) TAT:	
<input type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw														(will be applied if Rush TAT is not specified): Standard TAT = 5-7 Working days for most tests.				
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw														Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.				
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality _____														Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____				
<input type="checkbox"/> Table _____			<input type="checkbox"/> PWQO	Reg 406 Table _____														Rush Confirmation Number: _____ (call lab for #)				
Include Criteria on Certificate of Analysis (Y/N)? _____																						
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix														# of Bottles	Comments			
1	P6-IR	Aug 13 2021	NA	GW	Y	X												6				
2	9-I	↓	↓	GW	Y	X												6				
3	P10-I	↓	↓	GW	Y	X												6				
4				GW		X																
5				GW		X																
6				GW		X																
7				GW		X																
8				GW		X																
9				GW		X																
10				GW		X																

* RELINQUISHED BY: (Signature/Print) D Taylor / Dan Taylor		Date: (YY/MM/DD) 2/08/04	Time 9:00	RECEIVED BY: (Signature/Print) See Page 1		Date: (YY/MM/DD)	Time	# Jars used and not submitted	Laboratory Use Only			
Time Sensitive		Temperature (°C) on Recept		Custody Seal Present		Yes	No					
				Intact								

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

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\*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C ) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client



Your Project #: GW  
 Your C.O.C. #: 834487-13-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
 65 Green Mountain Rd West  
 Stoney Creek, ON  
 CANADA L8J 1X5

**Report Date: 2021/08/18**  
 Report #: R6770247  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1M0725**

**Received: 2021/08/05, 15:33**

Sample Matrix: Water  
 # Samples Received: 8

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Alkalinity	8	N/A	2021/08/09	CAM SOP-00448	SM 23 2320 B m
Anions	1	N/A	2021/08/10	CAM SOP-00435	SM 23 4110 B m
Anions	7	N/A	2021/08/11	CAM SOP-00435	SM 23 4110 B m
Conductivity	8	N/A	2021/08/09	CAM SOP-00414	SM 23 2510 m
Fluoride	8	2021/08/07	2021/08/09	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	8	N/A	2021/08/17	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Metals by ICPMS	8	N/A	2021/08/17	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	8	N/A	2021/08/10	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1)	5	N/A	2021/08/10	CAM SOP-00440	SM 23 4500-NO3I/NO2B
Nitrate (NO3) and Nitrite (NO2) in Water (1)	3	N/A	2021/08/09	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	8	2021/08/07	2021/08/09	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	2	N/A	2021/08/10	CAM SOP-00444	OMOE E3179 m
Phenols (4AAP)	6	N/A	2021/08/06	CAM SOP-00444	OMOE E3179 m
Orthophosphate	5	N/A	2021/08/10	CAM SOP-00461	EPA 365.1 m
Orthophosphate	3	N/A	2021/08/09	CAM SOP-00461	EPA 365.1 m
Total Dissolved Solids	8	2021/08/09	2021/08/10	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water	8	2021/08/09	2021/08/10	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (2)	8	N/A	2021/08/09	CAM SOP-00446	SM 23 5310B m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

(2) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.



Your Project #: GW  
Your C.O.C. #: 834487-13-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/08/18**  
Report #: R6770247  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1M0725**  
**Received: 2021/08/05, 15:33**

Encryption Key



**AUTHORIZED REPORT**  
**RAPPORT AUTORISÉ**

Bureau Veritas  
18 Aug 2021 11:06:46

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

=====  
This report has been generated and distributed using a secure automated process.  
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



BUREAU  
VERITAS

BV Labs Job #: C1M0725  
Report Date: 2021/08/18

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QHL468			QHL468			QHL469		
Sampling Date		2021/08/04			2021/08/04			2021/08/04		
COC Number		834487-13-01			834487-13-01			834487-13-01		
	UNITS	77-I	RDL	QC Batch	77-I Lab-Dup	RDL	QC Batch	77-II	RDL	QC Batch

Calculated Parameters										
Hardness (CaCO3)	mg/L	56000	1.0	7502115				42000	1.0	7502115
Inorganics										
Total Ammonia-N	mg/L	42	0.25	7508398				35	0.25	7507946
Conductivity	umho/cm	>100000	1.0	7506960				>100000	1.0	7506960
Total Dissolved Solids	mg/L	127000	20	7506051	127000	20	7506051	89800	20	7506051
Fluoride (F-)	mg/L	0.14	0.10	7506955				0.20	0.10	7506955
Total Kjeldahl Nitrogen (TKN)	mg/L	52	2.0	7508358				51	2.0	7503330
Total Organic Carbon (TOC)	mg/L	0.69	0.40	7508893				1.5	0.40	7507940
Orthophosphate (P)	mg/L	<0.010	0.010	7506989				<0.010	0.010	7506987
pH	pH	6.51		7506962				6.43		7506962
Phenols-4AAP	mg/L	0.030	0.0050	7504589				0.021	0.0050	7504589
Alkalinity (Total as CaCO3)	mg/L	54	1.0	7506959				47	1.0	7506959
Nitrite (N)	mg/L	<0.10	0.10	7506950				<0.10	0.10	7506950
Dissolved Chloride (Cl-)	mg/L	72000	500	7507315				48000	500	7507315
Nitrate (N)	mg/L	<1.0	1.0	7506950				<1.0	1.0	7506950
Nitrate + Nitrite (N)	mg/L	<1.0	1.0	7506950				<1.0	1.0	7506950
Dissolved Bromide (Br-)	mg/L	850	500	7507315				560	500	7507315
Dissolved Sulphate (SO4)	mg/L	980	500	7507315				1200	500	7507315

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate



BUREAU  
VERITAS

BV Labs Job #: C1M0725  
Report Date: 2021/08/18

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QHL469			QHL470			QHL470		
Sampling Date		2021/08/04			2021/08/04			2021/08/04		
COC Number		834487-13-01			834487-13-01			834487-13-01		
	UNITS	77-II Lab-Dup	RDL	QC Batch	77-III	RDL	QC Batch	77-III Lab-Dup	RDL	QC Batch

Calculated Parameters										
Hardness (CaCO3)	mg/L				1400	1.0	7502115			
Inorganics										
Total Ammonia-N	mg/L	34	0.25	7507946	0.26	0.050	7508398			
Conductivity	umho/cm				4200	1.0	7506960			
Total Dissolved Solids	mg/L				2580	10	7506051			
Fluoride (F-)	mg/L				0.85	0.10	7506955			
Total Kjeldahl Nitrogen (TKN)	mg/L				0.53	0.10	7508358			
Total Organic Carbon (TOC)	mg/L	1.5	0.40	7507940	4.2	0.40	7508893			
Orthophosphate (P)	mg/L				<0.010	0.010	7506989	<0.010	0.010	7506989
pH	pH				7.43		7506962			
Phenols-4AAP	mg/L				<0.0010	0.0010	7504589			
Alkalinity (Total as CaCO3)	mg/L				280	1.0	7506959			
Nitrite (N)	mg/L				<0.010	0.010	7506947	<0.010	0.010	7506947
Dissolved Chloride (Cl-)	mg/L				660	10	7507315			
Nitrate (N)	mg/L				<0.10	0.10	7506947	<0.10	0.10	7506947
Nitrate + Nitrite (N)	mg/L				<0.10	0.10	7506947	<0.10	0.10	7506947
Dissolved Bromide (Br-)	mg/L				<10	10	7507315			
Dissolved Sulphate (SO4)	mg/L				920	10	7507315			

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate





BUREAU  
VERITAS

BV Labs Job #: C1M0725  
Report Date: 2021/08/18

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QHL471			QHL472			QHL472		
Sampling Date		2021/08/04			2021/08/04			2021/08/04		
COC Number		834487-13-01			834487-13-01			834487-13-01		
	UNITS	12-I	RDL	QC Batch	72-I	RDL	QC Batch	72-I Lab-Dup	RDL	QC Batch

Calculated Parameters										
Hardness (CaCO3)	mg/L	1400	1.0	7502115	56000	1.0	7502115			
Inorganics										
Total Ammonia-N	mg/L	0.34	0.050	7508398	39	0.25	7508398			
Conductivity	umho/cm	4200	1.0	7506960	>100000	1.0	7506960			
Total Dissolved Solids	mg/L	2930	10	7506051	86700	20	7506051			
Fluoride (F-)	mg/L	0.85	0.10	7506955	0.15	0.10	7506955			
Total Kjeldahl Nitrogen (TKN)	mg/L	0.47	0.10	7508358	48	2.0	7508358			
Total Organic Carbon (TOC)	mg/L	4.3	0.40	7508893	0.88	0.40	7508893			
Orthophosphate (P)	mg/L	<0.010	0.010	7506989	<0.010	0.010	7506987	<0.010	0.010	7506987
pH	pH	7.54		7506962	6.49		7506962			
Phenols-4AAP	mg/L	<0.0010	0.0010	7504589	0.039	0.0050	7504589			
Alkalinity (Total as CaCO3)	mg/L	280	1.0	7506959	55	1.0	7506959			
Nitrite (N)	mg/L	<0.010	0.010	7506950	<0.10	0.10	7506950			
Dissolved Chloride (Cl-)	mg/L	660	10	7507315	68000	500	7507011			
Nitrate (N)	mg/L	<0.10	0.10	7506950	<1.0	1.0	7506950			
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7506950	<1.0	1.0	7506950			
Dissolved Bromide (Br-)	mg/L	<10	10	7507315	<500	500	7507011			
Dissolved Sulphate (SO4)	mg/L	900	10	7507315	910	500	7507011			

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate



BUREAU  
VERITAS

BV Labs Job #: C1M0725  
Report Date: 2021/08/18

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

**RESULTS OF ANALYSES OF WATER**

BV Labs ID		QHL473		QHL474			QHL475		
Sampling Date		2021/08/04		2021/08/04			2021/08/04		
COC Number		834487-13-01		834487-13-01			834487-13-01		
	UNITS	72-II	RDL	72-III	RDL	QC Batch	11-III	RDL	QC Batch
<b>Calculated Parameters</b>									
Hardness (CaCO3)	mg/L	18000	1.0	5500	1.0	7502115	18000	1.0	7502115
<b>Inorganics</b>									
Total Ammonia-N	mg/L	22	0.050	11	0.050	7508398	22	0.050	7508398
Conductivity	umho/cm	63000	1.0	25000	1.0	7506960	63000	1.0	7506960
Total Dissolved Solids	mg/L	42800	20	14300	20	7506051	40900	20	7506051
Fluoride (F-)	mg/L	0.38	0.10	0.68	0.10	7506955	0.39	0.10	7506955
Total Kjeldahl Nitrogen (TKN)	mg/L	24	2.0	11	0.50	7508358	27	2.0	7508358
Total Organic Carbon (TOC)	mg/L	2.1	0.40	3.0	0.40	7508893	2.1	0.40	7508893
Orthophosphate (P)	mg/L	<0.010	0.010	<0.010	0.010	7506989	<0.010	0.010	7506987
pH	pH	7.09		7.12		7506962	7.07		7506962
Phenols-4AAP	mg/L	<0.010 (1)	0.010	0.0028	0.0010	7504589	<0.010 (1)	0.010	7504589
Alkalinity (Total as CaCO3)	mg/L	160	1.0	190	1.0	7506959	150	1.0	7506959
Nitrite (N)	mg/L	<0.050	0.050	<0.010	0.010	7506950	<0.050	0.050	7506950
Dissolved Chloride (Cl-)	mg/L	19000	200	7700	50	7507315	23000	200	7507315
Nitrate (N)	mg/L	<0.50	0.50	<0.10	0.10	7506950	<0.50	0.50	7506950
Nitrate + Nitrite (N)	mg/L	<0.50	0.50	<0.10	0.10	7506950	<0.50	0.50	7506950
Dissolved Bromide (Br-)	mg/L	210	200	82	50	7507315	290	100	7507315
Dissolved Sulphate (SO4)	mg/L	1200	200	1700	50	7507315	1400	100	7507315
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Detection Limit was raised due to matrix interferences.									

BV Labs ID		QHL475		
Sampling Date		2021/08/04		
COC Number		834487-13-01		
	UNITS	11-III Lab-Dup	RDL	QC Batch
<b>Inorganics</b>				
Nitrite (N)	mg/L	<0.050	0.050	7506950
Nitrate (N)	mg/L	<0.50	0.50	7506950
Nitrate + Nitrite (N)	mg/L	<0.50	0.50	7506950
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate				



BUREAU  
VERITAS

BV Labs Job #: C1M0725  
Report Date: 2021/08/18

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QHL468		QHL469		QHL470	QHL471		
Sampling Date		2021/08/04		2021/08/04		2021/08/04	2021/08/04		
COC Number		834487-13-01		834487-13-01		834487-13-01	834487-13-01		
	UNITS	77-I	RDL	77-II	RDL	77-III	12-I	RDL	QC Batch
<b>Metals</b>									
Dissolved Aluminum (Al)	ug/L	<250	250	<250	250	<4.9	<4.9	4.9	7508790
Dissolved Antimony (Sb)	ug/L	<25	25	<25	25	<0.50	<0.50	0.50	7508790
Dissolved Arsenic (As)	ug/L	<50	50	<50	50	<1.0	<1.0	1.0	7508790
Dissolved Barium (Ba)	ug/L	140	100	110	100	53	55	2.0	7508790
Dissolved Beryllium (Be)	ug/L	<20	20	<20	20	<0.40	<0.40	0.40	7508790
Dissolved Bismuth (Bi)	ug/L	<50	50	<50	50	<1.0	<1.0	1.0	7508790
Dissolved Boron (B)	ug/L	5700	500	6600	500	110	110	10	7508790
Dissolved Cadmium (Cd)	ug/L	<4.5	4.5	<4.5	4.5	<0.090	<0.090	0.090	7508790
Dissolved Calcium (Ca)	ug/L	16000000	20000	12000000	10000	270000	260000	200	7508790
Dissolved Chromium (Cr)	ug/L	<250	250	<250	250	<5.0	<5.0	5.0	7508790
Dissolved Cobalt (Co)	ug/L	<25	25	<25	25	<0.50	<0.50	0.50	7508790
Dissolved Copper (Cu)	ug/L	<45	45	<45	45	<0.90	<0.90	0.90	7508790
Dissolved Iron (Fe)	ug/L	<5000	5000	<5000	5000	1000	1000	100	7508790
Dissolved Lead (Pb)	ug/L	<25	25	<25	25	<0.50	<0.50	0.50	7508790
Dissolved Lithium (Li)	ug/L	26000	500	21000	250	56	58	5.0	7508790
Dissolved Magnesium (Mg)	ug/L	4100000	2500	3100000	2500	180000	180000	50	7508790
Dissolved Manganese (Mn)	ug/L	2300	100	1400	100	160	170	2.0	7508790
Dissolved Molybdenum (Mo)	ug/L	<25	25	<25	25	1.7	1.7	0.50	7508790
Dissolved Nickel (Ni)	ug/L	<50	50	<50	50	<1.0	<1.0	1.0	7508790
Dissolved Phosphorus (P)	ug/L	<5000	5000	<5000	5000	<100	<100	100	7508790
Dissolved Potassium (K)	ug/L	320000	10000	260000	10000	5600	5700	200	7508790
Dissolved Selenium (Se)	ug/L	<100	100	<100	100	<2.0	<2.0	2.0	7508790
Dissolved Silicon (Si)	ug/L	<2500	2500	<2500	2500	7000	6900	50	7508790
Dissolved Silver (Ag)	ug/L	<4.5	4.5	<4.5	4.5	<0.090	<0.090	0.090	7508790
Dissolved Sodium (Na)	ug/L	24000000	5000	18000000	5000	410000	410000	100	7508790
Dissolved Strontium (Sr)	ug/L	300000	50	220000	50	3800	3800	1.0	7508790
Dissolved Tellurium (Te)	ug/L	<50	50	<50	50	<1.0	<1.0	1.0	7508790
Dissolved Thallium (Tl)	ug/L	<2.5	2.5	<2.5	2.5	<0.050	<0.050	0.050	7508790
Dissolved Tin (Sn)	ug/L	<50	50	<50	50	<1.0	<1.0	1.0	7508790
Dissolved Titanium (Ti)	ug/L	<250	250	<250	250	<5.0	<5.0	5.0	7508790
Dissolved Tungsten (W)	ug/L	<50	50	<50	50	<1.0	<1.0	1.0	7508790
Dissolved Uranium (U)	ug/L	<5.0	5.0	<5.0	5.0	2.3	2.2	0.10	7508790
Dissolved Vanadium (V)	ug/L	<25	25	<25	25	<0.50	<0.50	0.50	7508790
Dissolved Zinc (Zn)	ug/L	<250	250	<250	250	<5.0	<5.0	5.0	7508790
Dissolved Zirconium (Zr)	ug/L	<50	50	<50	50	<1.0	<1.0	1.0	7508790
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									



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VERITAS

BV Labs Job #: C1M0725  
Report Date: 2021/08/18

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QHL472		QHL473		QHL474		QHL475		
Sampling Date		2021/08/04		2021/08/04		2021/08/04		2021/08/04		
COC Number		834487-13-01		834487-13-01		834487-13-01		834487-13-01		
	UNITS	72-I	RDL	72-II	RDL	72-III	RDL	11-III	RDL	QC Batch
<b>Metals</b>										
Dissolved Aluminum (Al)	ug/L	<250	250	<250	250	89	49	<250	250	7508790
Dissolved Antimony (Sb)	ug/L	<25	25	<25	25	<5.0	5.0	<25	25	7508790
Dissolved Arsenic (As)	ug/L	<50	50	<50	50	<10	10	<50	50	7508790
Dissolved Barium (Ba)	ug/L	150	100	<100	100	21	20	<100	100	7508790
Dissolved Beryllium (Be)	ug/L	<20	20	<20	20	<4.0	4.0	<20	20	7508790
Dissolved Bismuth (Bi)	ug/L	<50	50	<50	50	<10	10	<50	50	7508790
Dissolved Boron (B)	ug/L	5400	500	7100	500	7600	100	7100	500	7508790
Dissolved Cadmium (Cd)	ug/L	<4.5	4.5	<4.5	4.5	<0.90	0.90	<4.5	4.5	7508790
Dissolved Calcium (Ca)	ug/L	16000000	20000	5000000	10000	1500000	2000	5000000	10000	7508790
Dissolved Chromium (Cr)	ug/L	<250	250	<250	250	<50	50	<250	250	7508790
Dissolved Cobalt (Co)	ug/L	<25	25	<25	25	<5.0	5.0	<25	25	7508790
Dissolved Copper (Cu)	ug/L	<45	45	<45	45	<9.0	9.0	<45	45	7508790
Dissolved Iron (Fe)	ug/L	<5000	5000	<5000	5000	4600	1000	<5000	5000	7508790
Dissolved Lead (Pb)	ug/L	<25	25	<25	25	<5.0	5.0	<25	25	7508790
Dissolved Lithium (Li)	ug/L	25000	500	10000	250	3800	50	10000	250	7508790
Dissolved Magnesium (Mg)	ug/L	4000000	2500	1300000	2500	430000	500	1300000	2500	7508790
Dissolved Manganese (Mn)	ug/L	2600	100	610	100	460	20	640	100	7508790
Dissolved Molybdenum (Mo)	ug/L	<25	25	<25	25	<5.0	5.0	<25	25	7508790
Dissolved Nickel (Ni)	ug/L	<50	50	<50	50	<10	10	<50	50	7508790
Dissolved Phosphorus (P)	ug/L	<5000	5000	<5000	5000	<1000	1000	<5000	5000	7508790
Dissolved Potassium (K)	ug/L	310000	10000	160000	10000	75000	2000	150000	10000	7508790
Dissolved Selenium (Se)	ug/L	<100	100	<100	100	<20	20	<100	100	7508790
Dissolved Silicon (Si)	ug/L	<2500	2500	2700	2500	5400	500	2700	2500	7508790
Dissolved Silver (Ag)	ug/L	<4.5	4.5	<4.5	4.5	<0.90	0.90	<4.5	4.5	7508790
Dissolved Sodium (Na)	ug/L	23000000	5000	8800000	5000	3100000	1000	8500000	5000	7508790
Dissolved Strontium (Sr)	ug/L	300000	50	94000	50	27000	10	91000	50	7508790
Dissolved Tellurium (Te)	ug/L	<50	50	<50	50	<10	10	<50	50	7508790
Dissolved Thallium (Tl)	ug/L	<2.5	2.5	<2.5	2.5	<0.50	0.50	<2.5	2.5	7508790
Dissolved Tin (Sn)	ug/L	<50	50	<50	50	<10	10	<50	50	7508790
Dissolved Titanium (Ti)	ug/L	<250	250	<250	250	<50	50	<250	250	7508790
Dissolved Tungsten (W)	ug/L	<50	50	<50	50	<10	10	<50	50	7508790
Dissolved Uranium (U)	ug/L	<5.0	5.0	<5.0	5.0	<1.0	1.0	<5.0	5.0	7508790
Dissolved Vanadium (V)	ug/L	<25	25	<25	25	<5.0	5.0	<25	25	7508790
Dissolved Zinc (Zn)	ug/L	<250	250	<250	250	<50	50	<250	250	7508790
Dissolved Zirconium (Zr)	ug/L	<50	50	<50	50	<10	10	<50	50	7508790
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										



BUREAU  
VERITAS

BV Labs Job #: C1M0725  
Report Date: 2021/08/18

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QHL468  
**Sample ID:** 77-I  
**Matrix:** Water

**Collected:** 2021/08/04  
**Shipped:**  
**Received:** 2021/08/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506959	N/A	2021/08/09	Surinder Rai
Anions	IC	7507315	N/A	2021/08/11	Fari Dehdezi
Conductivity	AT	7506960	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506955	2021/08/07	2021/08/09	Surinder Rai
Hardness (calculated as CaCO3)		7502115	N/A	2021/08/17	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7508790	N/A	2021/08/17	Daniel Teclu
Total Ammonia-N	LACH/NH4	7508398	N/A	2021/08/10	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506950	N/A	2021/08/10	Chandra Nandlal
pH	AT	7506962	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7504589	N/A	2021/08/06	Deonarine Ramnarine
Orthophosphate	KONE	7506989	N/A	2021/08/10	Avneet Kour Sudan
Total Dissolved Solids	BAL	7506051	2021/08/09	2021/08/10	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7508358	2021/08/09	2021/08/10	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7508893	N/A	2021/08/09	Julianna Castiglione

**BV Labs ID:** QHL468 Dup  
**Sample ID:** 77-I  
**Matrix:** Water

**Collected:** 2021/08/04  
**Shipped:**  
**Received:** 2021/08/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	7506051	2021/08/09	2021/08/10	Kristen Chan

**BV Labs ID:** QHL469  
**Sample ID:** 77-II  
**Matrix:** Water

**Collected:** 2021/08/04  
**Shipped:**  
**Received:** 2021/08/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506959	N/A	2021/08/09	Surinder Rai
Anions	IC	7507315	N/A	2021/08/11	Fari Dehdezi
Conductivity	AT	7506960	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506955	2021/08/07	2021/08/09	Surinder Rai
Hardness (calculated as CaCO3)		7502115	N/A	2021/08/17	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7508790	N/A	2021/08/17	Daniel Teclu
Total Ammonia-N	LACH/NH4	7507946	N/A	2021/08/10	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506950	N/A	2021/08/10	Chandra Nandlal
pH	AT	7506962	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7504589	N/A	2021/08/06	Deonarine Ramnarine
Orthophosphate	KONE	7506987	N/A	2021/08/09	Avneet Kour Sudan
Total Dissolved Solids	BAL	7506051	2021/08/09	2021/08/10	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7503330	2021/08/09	2021/08/10	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7507940	N/A	2021/08/09	Julianna Castiglione



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BV Labs Job #: C1M0725  
Report Date: 2021/08/18

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QHL469 Dup  
**Sample ID:** 77-II  
**Matrix:** Water

**Collected:** 2021/08/04  
**Shipped:**  
**Received:** 2021/08/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Ammonia-N	LACH/NH4	7507946	N/A	2021/08/10	Amanpreet Sappal
Total Organic Carbon (TOC)	TOCV/NDIR	7507940	N/A	2021/08/09	Julianna Castiglione

**BV Labs ID:** QHL470  
**Sample ID:** 77-III  
**Matrix:** Water

**Collected:** 2021/08/04  
**Shipped:**  
**Received:** 2021/08/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506959	N/A	2021/08/09	Surinder Rai
Anions	IC	7507315	N/A	2021/08/11	Fari Dehdezi
Conductivity	AT	7506960	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506955	2021/08/07	2021/08/09	Surinder Rai
Hardness (calculated as CaCO3)		7502115	N/A	2021/08/17	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7508790	N/A	2021/08/17	Daniel Teclu
Total Ammonia-N	LACH/NH4	7508398	N/A	2021/08/10	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506947	N/A	2021/08/09	Chandra Nandlal
pH	AT	7506962	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7504589	N/A	2021/08/06	Deonarine Ramnarine
Orthophosphate	KONE	7506989	N/A	2021/08/10	Avneet Kour Sudan
Total Dissolved Solids	BAL	7506051	2021/08/09	2021/08/10	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7508358	2021/08/09	2021/08/10	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7508893	N/A	2021/08/09	Julianna Castiglione

**BV Labs ID:** QHL470 Dup  
**Sample ID:** 77-III  
**Matrix:** Water

**Collected:** 2021/08/04  
**Shipped:**  
**Received:** 2021/08/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506947	N/A	2021/08/09	Chandra Nandlal
Orthophosphate	KONE	7506989	N/A	2021/08/10	Avneet Kour Sudan

**BV Labs ID:** QHL471  
**Sample ID:** 12-I  
**Matrix:** Water

**Collected:** 2021/08/04  
**Shipped:**  
**Received:** 2021/08/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506959	N/A	2021/08/09	Surinder Rai
Anions	IC	7507315	N/A	2021/08/11	Fari Dehdezi
Conductivity	AT	7506960	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506955	2021/08/07	2021/08/09	Surinder Rai
Hardness (calculated as CaCO3)		7502115	N/A	2021/08/17	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7508790	N/A	2021/08/17	Daniel Teclu
Total Ammonia-N	LACH/NH4	7508398	N/A	2021/08/10	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506950	N/A	2021/08/09	Chandra Nandlal
pH	AT	7506962	2021/08/07	2021/08/09	Surinder Rai



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BV Labs Job #: C1M0725  
Report Date: 2021/08/18

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QHL471  
**Sample ID:** 12-I  
**Matrix:** Water

**Collected:** 2021/08/04  
**Shipped:**  
**Received:** 2021/08/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Phenols (4AAP)	TECH/PHEN	7504589	N/A	2021/08/06	Deonarine Ramnarine
Orthophosphate	KONE	7506989	N/A	2021/08/10	Avneet Kour Sudan
Total Dissolved Solids	BAL	7506051	2021/08/09	2021/08/10	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7508358	2021/08/09	2021/08/10	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7508893	N/A	2021/08/09	Julianna Castiglione

**BV Labs ID:** QHL472  
**Sample ID:** 72-I  
**Matrix:** Water

**Collected:** 2021/08/04  
**Shipped:**  
**Received:** 2021/08/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506959	N/A	2021/08/09	Surinder Rai
Anions	IC	7507011	N/A	2021/08/10	Fari Dehdezi
Conductivity	AT	7506960	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506955	2021/08/07	2021/08/09	Surinder Rai
Hardness (calculated as CaCO3)		7502115	N/A	2021/08/17	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7508790	N/A	2021/08/17	Daniel Teclu
Total Ammonia-N	LACH/NH4	7508398	N/A	2021/08/10	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506950	N/A	2021/08/10	Chandra Nandlal
pH	AT	7506962	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7504589	N/A	2021/08/06	Deonarine Ramnarine
Orthophosphate	KONE	7506987	N/A	2021/08/09	Avneet Kour Sudan
Total Dissolved Solids	BAL	7506051	2021/08/09	2021/08/10	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7508358	2021/08/09	2021/08/10	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7508893	N/A	2021/08/09	Julianna Castiglione

**BV Labs ID:** QHL472 Dup  
**Sample ID:** 72-I  
**Matrix:** Water

**Collected:** 2021/08/04  
**Shipped:**  
**Received:** 2021/08/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Orthophosphate	KONE	7506987	N/A	2021/08/09	Avneet Kour Sudan

**BV Labs ID:** QHL473  
**Sample ID:** 72-II  
**Matrix:** Water

**Collected:** 2021/08/04  
**Shipped:**  
**Received:** 2021/08/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506959	N/A	2021/08/09	Surinder Rai
Anions	IC	7507315	N/A	2021/08/11	Fari Dehdezi
Conductivity	AT	7506960	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506955	2021/08/07	2021/08/09	Surinder Rai
Hardness (calculated as CaCO3)		7502115	N/A	2021/08/17	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7508790	N/A	2021/08/17	Daniel Teclu
Total Ammonia-N	LACH/NH4	7508398	N/A	2021/08/10	Amanpreet Sappal



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VERITAS

BV Labs Job #: C1M0725  
Report Date: 2021/08/18

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QHL473  
**Sample ID:** 72-II  
**Matrix:** Water

**Collected:** 2021/08/04  
**Shipped:**  
**Received:** 2021/08/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506950	N/A	2021/08/10	Chandra Nandlal
pH	AT	7506962	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7504589	N/A	2021/08/10	Deonarine Ramnarine
Orthophosphate	KONE	7506989	N/A	2021/08/10	Avneet Kour Sudan
Total Dissolved Solids	BAL	7506051	2021/08/09	2021/08/10	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7508358	2021/08/09	2021/08/10	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7508893	N/A	2021/08/09	Julianna Castiglione

**BV Labs ID:** QHL474  
**Sample ID:** 72-III  
**Matrix:** Water

**Collected:** 2021/08/04  
**Shipped:**  
**Received:** 2021/08/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506959	N/A	2021/08/09	Surinder Rai
Anions	IC	7507315	N/A	2021/08/11	Fari Dehdezi
Conductivity	AT	7506960	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506955	2021/08/07	2021/08/09	Surinder Rai
Hardness (calculated as CaCO3)		7502115	N/A	2021/08/17	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7508790	N/A	2021/08/17	Daniel Teclu
Total Ammonia-N	LACH/NH4	7508398	N/A	2021/08/10	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506950	N/A	2021/08/09	Chandra Nandlal
pH	AT	7506962	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7504589	N/A	2021/08/06	Deonarine Ramnarine
Orthophosphate	KONE	7506989	N/A	2021/08/10	Avneet Kour Sudan
Total Dissolved Solids	BAL	7506051	2021/08/09	2021/08/10	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7508358	2021/08/09	2021/08/10	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7508893	N/A	2021/08/09	Julianna Castiglione

**BV Labs ID:** QHL475  
**Sample ID:** 11-III  
**Matrix:** Water

**Collected:** 2021/08/04  
**Shipped:**  
**Received:** 2021/08/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7506959	N/A	2021/08/09	Surinder Rai
Anions	IC	7507315	N/A	2021/08/11	Fari Dehdezi
Conductivity	AT	7506960	N/A	2021/08/09	Surinder Rai
Fluoride	ISE	7506955	2021/08/07	2021/08/09	Surinder Rai
Hardness (calculated as CaCO3)		7502115	N/A	2021/08/17	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7508790	N/A	2021/08/17	Daniel Teclu
Total Ammonia-N	LACH/NH4	7508398	N/A	2021/08/10	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506950	N/A	2021/08/10	Chandra Nandlal
pH	AT	7506962	2021/08/07	2021/08/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7504589	N/A	2021/08/10	Deonarine Ramnarine
Orthophosphate	KONE	7506987	N/A	2021/08/09	Avneet Kour Sudan
Total Dissolved Solids	BAL	7506051	2021/08/09	2021/08/10	Kristen Chan





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VERITAS

BV Labs Job #: C1M0725  
Report Date: 2021/08/18

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QHL475  
**Sample ID:** 11-III  
**Matrix:** Water

**Collected:** 2021/08/04  
**Shipped:**  
**Received:** 2021/08/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Kjeldahl Nitrogen in Water	SKAL	7508358	2021/08/09	2021/08/10	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7508893	N/A	2021/08/09	Julianna Castiglione

**BV Labs ID:** QHL475 Dup  
**Sample ID:** 11-III  
**Matrix:** Water

**Collected:** 2021/08/04  
**Shipped:**  
**Received:** 2021/08/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7506950	N/A	2021/08/10	Chandra Nandlal



### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	5.0°C
Package 2	5.0°C

Anions Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample QHL468 [77-I] : Nitrite/Nitrate: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Metals Analysis: Due to the sample matrix, the sample required dilution. Detection limits were adjusted accordingly.

Sample QHL469 [77-II] : Nitrite/Nitrate: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Metals Analysis: Due to the sample matrix, the sample required dilution. Detection limits were adjusted accordingly.

Sample QHL472 [72-I] : Nitrite/Nitrate: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Metals Analysis: Due to the sample matrix, the sample required dilution. Detection limits were adjusted accordingly.

Sample QHL473 [72-II] : Nitrite/Nitrate: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Metals Analysis: Due to the sample matrix, the sample required dilution. Detection limits were adjusted accordingly.

Sample QHL474 [72-III] : Metals Analysis: Due to the sample matrix, the sample required dilution. Detection limits were adjusted accordingly.

Sample QHL475 [11-III] : Nitrite/Nitrate: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Metals Analysis: Due to the sample matrix, the sample required dilution. Detection limits were adjusted accordingly.

**Results relate only to the items tested.**



BUREAU  
VERITAS

BV Labs Job #: C1M0725  
Report Date: 2021/08/18

### QUALITY ASSURANCE REPORT

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7503330	Total Kjeldahl Nitrogen (TKN)	2021/08/10	NC	80 - 120	102	80 - 120	<0.10	mg/L	1.2	20	96	80 - 120
7504589	Phenols-4AAP	2021/08/06	101	80 - 120	102	80 - 120	<0.0010	mg/L	11	20		
7506051	Total Dissolved Solids	2021/08/10					<10	mg/L	0.079	25	97	90 - 110
7506947	Nitrate (N)	2021/08/09	96	80 - 120	100	80 - 120	<0.10	mg/L	NC	20		
7506947	Nitrite (N)	2021/08/09	106	80 - 120	110	80 - 120	<0.010	mg/L	NC	20		
7506950	Nitrate (N)	2021/08/10	95	80 - 120	96	80 - 120	<0.10	mg/L	NC	20		
7506950	Nitrite (N)	2021/08/10	109	80 - 120	109	80 - 120	<0.010	mg/L	NC	20		
7506955	Fluoride (F-)	2021/08/09	92	80 - 120	94	80 - 120	<0.10	mg/L	0.93	20		
7506959	Alkalinity (Total as CaCO3)	2021/08/09			97	85 - 115	<1.0	mg/L	0.18	20		
7506960	Conductivity	2021/08/09			102	85 - 115	<1.0	umho/cm	0.45	25		
7506962	pH	2021/08/09			102	98 - 103			0.16	N/A		
7506987	Orthophosphate (P)	2021/08/09	106	75 - 125	101	80 - 120	<0.010	mg/L	NC	25		
7506989	Orthophosphate (P)	2021/08/10	120	75 - 125	101	80 - 120	<0.010	mg/L	NC	25		
7507011	Dissolved Bromide (Br-)	2021/08/11	103	80 - 120	104	80 - 120	<1.0	mg/L	NC	20		
7507011	Dissolved Chloride (Cl-)	2021/08/11	79 (1)	80 - 120	100	70 - 130	<1.0	mg/L	16	20		
7507011	Dissolved Sulphate (SO4)	2021/08/11	93	80 - 120	100	80 - 120	<1.0	mg/L	0.49	20		
7507315	Dissolved Bromide (Br-)	2021/08/11	105	80 - 120	105	80 - 120	<1.0	mg/L	NC	20		
7507315	Dissolved Chloride (Cl-)	2021/08/11	100	80 - 120	101	70 - 130	<1.0	mg/L	16	20		
7507315	Dissolved Sulphate (SO4)	2021/08/11	101	80 - 120	101	80 - 120	<1.0	mg/L	NC	20		
7507940	Total Organic Carbon (TOC)	2021/08/09	98	80 - 120	101	80 - 120	<0.40	mg/L	0.46	20		
7507946	Total Ammonia-N	2021/08/10	NC	75 - 125	101	80 - 120	<0.050	mg/L	1.4	20		
7508358	Total Kjeldahl Nitrogen (TKN)	2021/08/10	97	80 - 120	101	80 - 120	<0.10	mg/L	NC	20	95	80 - 120
7508398	Total Ammonia-N	2021/08/10	96	75 - 125	101	80 - 120	<0.050	mg/L	NC	20		
7508790	Dissolved Aluminum (Al)	2021/08/12	100	80 - 120	104	80 - 120	<4.9	ug/L				
7508790	Dissolved Antimony (Sb)	2021/08/12	103	80 - 120	102	80 - 120	<0.50	ug/L	NC	20		
7508790	Dissolved Arsenic (As)	2021/08/12	99	80 - 120	100	80 - 120	<1.0	ug/L	NC	20		
7508790	Dissolved Barium (Ba)	2021/08/12	98	80 - 120	99	80 - 120	<2.0	ug/L	0.65	20		
7508790	Dissolved Beryllium (Be)	2021/08/12	92	80 - 120	96	80 - 120	<0.40	ug/L	NC	20		
7508790	Dissolved Bismuth (Bi)	2021/08/12	97	80 - 120	96	80 - 120	<1.0	ug/L				
7508790	Dissolved Boron (B)	2021/08/12	89	80 - 120	96	80 - 120	<10	ug/L	1.0	20		



BUREAU  
VERITAS

BV Labs Job #: C1M0725  
Report Date: 2021/08/18

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7508790	Dissolved Cadmium (Cd)	2021/08/12	100	80 - 120	100	80 - 120	<0.090	ug/L	NC	20		
7508790	Dissolved Calcium (Ca)	2021/08/12	NC	80 - 120	103	80 - 120	<200	ug/L				
7508790	Dissolved Chromium (Cr)	2021/08/12	97	80 - 120	100	80 - 120	<5.0	ug/L	NC	20		
7508790	Dissolved Cobalt (Co)	2021/08/12	97	80 - 120	99	80 - 120	<0.50	ug/L	NC	20		
7508790	Dissolved Copper (Cu)	2021/08/12	100	80 - 120	101	80 - 120	<0.90	ug/L	2.7	20		
7508790	Dissolved Iron (Fe)	2021/08/12	97	80 - 120	97	80 - 120	<100	ug/L				
7508790	Dissolved Lead (Pb)	2021/08/12	95	80 - 120	101	80 - 120	<0.50	ug/L	NC	20		
7508790	Dissolved Lithium (Li)	2021/08/12	90	80 - 120	98	80 - 120	<5.0	ug/L				
7508790	Dissolved Magnesium (Mg)	2021/08/12	97	80 - 120	100	80 - 120	<50	ug/L				
7508790	Dissolved Manganese (Mn)	2021/08/12	99	80 - 120	100	80 - 120	<2.0	ug/L				
7508790	Dissolved Molybdenum (Mo)	2021/08/12	102	80 - 120	101	80 - 120	<0.50	ug/L	1.8	20		
7508790	Dissolved Nickel (Ni)	2021/08/12	94	80 - 120	100	80 - 120	<1.0	ug/L	13	20		
7508790	Dissolved Phosphorus (P)	2021/08/12	105	80 - 120	105	80 - 120	<100	ug/L				
7508790	Dissolved Potassium (K)	2021/08/12	101	80 - 120	102	80 - 120	<200	ug/L				
7508790	Dissolved Selenium (Se)	2021/08/12	99	80 - 120	102	80 - 120	<2.0	ug/L	0.21	20		
7508790	Dissolved Silicon (Si)	2021/08/12	107	80 - 120	106	80 - 120	<50	ug/L				
7508790	Dissolved Silver (Ag)	2021/08/12	95	80 - 120	96	80 - 120	<0.090	ug/L	NC	20		
7508790	Dissolved Sodium (Na)	2021/08/12	NC	80 - 120	97	80 - 120	<100	ug/L				
7508790	Dissolved Strontium (Sr)	2021/08/12	NC	80 - 120	101	80 - 120	<1.0	ug/L				
7508790	Dissolved Tellurium (Te)	2021/08/12	103	80 - 120	102	80 - 120	<1.0	ug/L				
7508790	Dissolved Thallium (Tl)	2021/08/12	97	80 - 120	97	80 - 120	<0.050	ug/L	NC	20		
7508790	Dissolved Tin (Sn)	2021/08/12	103	80 - 120	102	80 - 120	<1.0	ug/L				
7508790	Dissolved Titanium (Ti)	2021/08/12	102	80 - 120	104	80 - 120	<5.0	ug/L				
7508790	Dissolved Tungsten (W)	2021/08/12	102	80 - 120	103	80 - 120	<1.0	ug/L				
7508790	Dissolved Uranium (U)	2021/08/12	98	80 - 120	102	80 - 120	<0.10	ug/L	0.99	20		
7508790	Dissolved Vanadium (V)	2021/08/12	96	80 - 120	97	80 - 120	<0.50	ug/L	1.3	20		
7508790	Dissolved Zinc (Zn)	2021/08/12	97	80 - 120	99	80 - 120	<5.0	ug/L	NC	20		
7508790	Dissolved Zirconium (Zr)	2021/08/12	101	80 - 120	99	80 - 120	<1.0	ug/L				



BUREAU  
VERITAS

BV Labs Job #: C1M0725  
Report Date: 2021/08/18

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7508893	Total Organic Carbon (TOC)	2021/08/09	102	80 - 120	101	80 - 120	<0.40	mg/L	0.96	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



BUREAU  
VERITAS

BV Labs Job #: C1M0725  
Report Date: 2021/08/18

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

A handwritten signature in black ink, appearing to read "Brad Newman".

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Brad Newman, B.Sc., C.Chem., Scientific Service Specialist

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Bureau Veritas Laboratories  
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free 800-563-6266 Fax: (905) 817-5777 www.bvnlabs.com

05-Aug-21 15:33

Page 6 of 9

Jolanta Goralczyk  
C1M0725

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Only:	
Company Name: #16786 Terrapure Environmental	Company Name: Brad Mullin - GHD Reporting	Quotation #: B60569	P.O. #: KSE		ENV-610		Bottle Order #:
Attention: Accounting	Attention: Brad Mullin - GHD Reporting	P.O. #:	Project: GW		COC #:		Barcode: 834487
Address: 65 Green Mountain Rd West Stoney Creek ON L8J 1X5	Address:	Project Name:	Site #:		Project Manager:		Jolanta Goralczyk
Tel: (905) 561-0305 Fax: (905) 561-1674	Tel:	Sampled By:	Barcode: C#634487-13-01				
Email: kbailey@terrapureenv.com	Email: bmulin@terrapureenv.com; dtaylor2@terrapureenv.com						

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)		Other Regulations		Special Instructions
<input type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality: _____
<input type="checkbox"/> Table _____			<input type="checkbox"/> FWOO	Reg 405 Table: _____
			<input type="checkbox"/> Other	

Field Filtered (please circle): Metals Hg / Cr / V	Last "A" GW Monitoring	ANALYSIS REQUESTED (PLEASE BE SPECIFIC)									

Turnaround Time (TAT) Required:  
Please provide advance notice for rush projects

**Regular (Standard) TAT:**  
(will be applied if Rush TAT is not specified)  
Standard TAT = 5-7 Working days for most tests.  
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

**Job Specific Rush TAT (if applies to entire submission):**  
Date Required: \_\_\_\_\_ Time Required: \_\_\_\_\_  
Rush Confirmation Number: \_\_\_\_\_ (call lab for #)

Regular (Standard) TAT

Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered	Last "A" GW Monitoring													
1	77-I	Aug 4 2021	NA	-GW	Y	X													6
2	77-II			GW	Y	X													6
3	77-III			GW	Y	X													6
4	12-I			GW	Y	X													6
5	72-I			GW	Y	X													6
6	72-II			GW	Y	X													6
7	72-III			GW	Y	X													6
8	11-II			GW	Y	X													6
9				GW	Y	X													6
10				GW	Y	X													6

* RELINQUISHED BY: (Signature/Print) Dan Taylor	Date: (YY/MM/DD) 21/08/05	Time 9:15	RECEIVED BY: (Signature/Print) SHANNON KERR	Date: (YY/MM/DD) 21/08/05	Time 15:33	# Jars used and not submitted	Laboratory Use Only		
Time Sensitive	Temperature (°C) on Receipt 7/3/5	Custody Seal Present	Yes	No					

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

\*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C ) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client

9/1/5.



Your Project #: SW  
Your C.O.C. #: 835825-01-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/08/13**  
Report #: R6764020  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1M2489**

**Received: 2021/08/06, 16:23**

Sample Matrix: Water  
# Samples Received: 16

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Analytical Method</b>
ABN Compounds in Water by GC/MS	6	2021/08/10	2021/08/11	CAM SOP-00301	EPA 8270 m
Dissolved Aluminum (0.2 u, clay free)	13	N/A	2021/08/11	CAM SOP-00447	EPA 6020B m
Alkalinity	1	N/A	2021/08/10	CAM SOP-00448	SM 23 2320 B m
Alkalinity	2	N/A	2021/08/11	CAM SOP-00448	SM 23 2320 B m
Alkalinity	13	N/A	2021/08/12	CAM SOP-00448	SM 23 2320 B m
Biochemical Oxygen Demand (BOD)	13	2021/08/08	2021/08/13	CAM SOP-00427	SM 23 5210B m
Chloride by Automated Colourimetry	2	N/A	2021/08/10	CAM SOP-00463	SM 23 4500-Cl E m
Chloride by Automated Colourimetry	13	N/A	2021/08/11	CAM SOP-00463	SM 23 4500-Cl E m
Chloride by Automated Colourimetry	1	N/A	2021/08/12	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	1	N/A	2021/08/10	CAM SOP-00414	SM 23 2510 m
Conductivity	2	N/A	2021/08/12	CAM SOP-00414	SM 23 2510 m
Dissolved Organic Carbon (DOC) (1)	13	N/A	2021/08/10	CAM SOP-00446	SM 23 5310 B m
Hardness (calculated as CaCO3)	13	N/A	2021/08/11	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	3	2021/08/10	2021/08/10	CAM SOP-00453	EPA 7470A m
Mercury in Water by CVAA	1	2021/08/09	2021/08/10	CAM SOP-00453	EPA 7470A m
Mercury in Water by CVAA	9	2021/08/09	2021/08/09	CAM SOP-00453	EPA 7470A m
Total Metals Analysis by ICPMS	1	N/A	2021/08/10	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICPMS	15	N/A	2021/08/11	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	16	N/A	2021/08/11	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (2)	13	N/A	2021/08/11	CAM SOP-00440	SM 23 4500-NO3I/NO2B
OC Pesticides (Selected) & PCB (3)	6	2021/08/11	2021/08/12	CAM SOP-00307	EPA 8081A/8082B m
OC Pesticides Summed Parameters	6	N/A	2021/08/10	CAM SOP-00307	EPA 8081A/8082B m
pH	13	2021/08/10	2021/08/12	CAM SOP-00413	SM 4500H+ B m
pH	1	2021/08/11	2021/08/11	CAM SOP-00413	SM 4500H+ B m
pH	1	2021/08/09	2021/08/10	CAM SOP-00413	SM 4500H+ B m
pH	1	2021/08/09	2021/08/11	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	2	N/A	2021/08/10	CAM SOP-00444	OMOE E3179 m
Phenols (4AAP)	14	N/A	2021/08/09	CAM SOP-00444	OMOE E3179 m
Sulphate by Automated Colourimetry	11	N/A	2021/08/11	CAM SOP-00464	EPA 375.4 m
Sulphate by Automated Colourimetry	2	N/A	2021/08/12	CAM SOP-00464	EPA 375.4 m





Your Project #: SW  
Your C.O.C. #: 835825-01-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/08/13**  
Report #: R6764020  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1M2489**

**Received: 2021/08/06, 16:23**

Sample Matrix: Water  
# Samples Received: 16

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Total Kjeldahl Nitrogen in Water	1	2021/08/10	2021/08/11	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (4)	1	N/A	2021/08/10	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric)	12	2021/08/10	2021/08/12	CAM SOP-00407	SM 23 4500 P B H m
Total Phosphorus (Colourimetric)	1	2021/08/10	2021/08/13	CAM SOP-00407	SM 23 4500 P B H m
Total Suspended Solids	16	2021/08/09	2021/08/10	CAM SOP-00428	SM 23 2540D m
Volatile Organic Compounds in Water	6	N/A	2021/08/09	CAM SOP-00226	EPA 8260C m
Non-Routine Volatile Organic Compounds	6	N/A	2021/08/09	CAM SOP-00226	EPA 8260 m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (2) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (3) Chlordane ( Total) = Alpha Chlordane + Gamma Chlordane
- (4) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key



**AUTHORIZED REPORT  
RAPPORT AUTORISÉ**

Bureau Veritas  
13 Aug 2021 16:14:24

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

=====  
This report has been generated and distributed using a secure automated process.

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



BUREAU  
VERITAS

BV Labs Job #: C1M2489  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QHU566			QHU566			QHU567		
Sampling Date		2021/08/05			2021/08/05			2021/08/05		
COC Number		835825-01-01			835825-01-01			835825-01-01		
	UNITS	T-1R	RDL	QC Batch	T-1R Lab-Dup	RDL	QC Batch	T-3A	RDL	QC Batch
<b>Calculated Parameters</b>										
Hardness (CaCO3)	mg/L	880	1.0	7506368				1200	1.0	7506368
<b>Inorganics</b>										
Total Ammonia-N	mg/L	50	0.25	7510570				0.51	0.050	7510570
Total BOD	mg/L	10	2	7507517				2	2	7507517
Dissolved Organic Carbon	mg/L	18	0.40	7509562	18	0.40	7509562	5.1	0.40	7509562
pH	pH	7.92		7511218				8.06		7512948
Phenols-4AAP	mg/L	0.080	0.0050	7508742				<0.0010	0.0010	7508755
Total Phosphorus	mg/L	0.034	0.004	7511471				0.021	0.004	7511471
Total Suspended Solids	mg/L	10	10	7506924				19	10	7506924
Dissolved Sulphate (SO4)	mg/L	980	5.0	7511144				990	5.0	7512808
Alkalinity (Total as CaCO3)	mg/L	110	1.0	7511211				160	1.0	7512902
Dissolved Chloride (Cl-)	mg/L	1500	20	7511133				600	7.0	7512785
Nitrite (N)	mg/L	0.010	0.010	7511168	0.010	0.010	7511168	0.453	0.010	7512960
Nitrate (N)	mg/L	<0.10	0.10	7511168	<0.10	0.10	7511168	1.74	0.10	7512960
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7511168	<0.10	0.10	7511168	2.19	0.10	7512960
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate										



**RESULTS OF ANALYSES OF WATER**

BV Labs ID		QHU568	QHU569		QHU570		QHU571		
Sampling Date		2021/08/05	2021/08/05		2021/08/05		2021/08/05		
COC Number		835825-01-01	835825-01-01		835825-01-01		835825-01-01		
	UNITS	T-12	T-13	QC Batch	T-15R	QC Batch	T-16	RDL	QC Batch
<b>Calculated Parameters</b>									
Hardness (CaCO3)	mg/L	500	460	7506368	560	7506368	440	1.0	7506368
<b>Inorganics</b>									
Total Ammonia-N	mg/L	<0.050	<0.050	7510570	<0.050	7510570	<0.050	0.050	7510570
Total BOD	mg/L	<2	<2	7507517	<2	7507517	<2	2	7507517
Dissolved Organic Carbon	mg/L	2.4	2.5	7509562	2.5	7510708	2.8	0.40	7510708
pH	pH	8.50	8.45	7511218	8.18	7511218	8.46		7511218
Phenols-4AAP	mg/L	<0.0010	<0.0010	7508755	<0.0010	7508755	<0.0010	0.0010	7508742
Total Phosphorus	mg/L	0.046	0.080	7511471	0.006	7511471	0.084	0.004	7511471
Total Suspended Solids	mg/L	<10	10	7506924	<10	7506924	<10	10	7506924
Dissolved Sulphate (SO4)	mg/L	270	260	7511144	350	7511144	250	1.0	7511144
Alkalinity (Total as CaCO3)	mg/L	240	210	7511211	230	7511211	210	1.0	7511211
Dissolved Chloride (Cl-)	mg/L	190	190	7511133	160	7511133	200	2.0	7511133
Nitrite (N)	mg/L	<0.010	<0.010	7510923	<0.010	7510932	<0.010	0.010	7510923
Nitrate (N)	mg/L	0.38	0.35	7510923	0.16	7510932	0.40	0.10	7510923
Nitrate + Nitrite (N)	mg/L	0.38	0.35	7510923	0.16	7510932	0.40	0.10	7510923
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									

BV Labs ID		QHU572		QHU573			QHU574		
Sampling Date		2021/08/05		2021/08/05			2021/08/05		
COC Number		835825-01-01		835825-01-01			835825-01-01		
	UNITS	T-21	QC Batch	T-23	RDL	QC Batch	T-28	RDL	QC Batch
<b>Inorganics</b>									
Total Ammonia-N	mg/L	0.071	7509303	0.16	0.050	7509303	<0.050	0.050	7509303
Conductivity	umho/cm	1500	7509323	1400	1.0	7511205	1500	1.0	7511205
pH	pH	8.22	7509324	8.44		7511206	8.44		7511206
Phenols-4AAP	mg/L	<0.0010	7508742	<0.0010	0.0010	7508742	<0.0010	0.0010	7508755
Total Suspended Solids	mg/L	48	7506924	<10	10	7506924	<10	10	7506931
Alkalinity (Total as CaCO3)	mg/L	200	7509314	200	1.0	7511199	210	1.0	7511199
Dissolved Chloride (Cl-)	mg/L	180	7509866	150	2.0	7511783	220	3.0	7511783
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									



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### RESULTS OF ANALYSES OF WATER

BV Labs ID		QHU574			QHU575		QHU576		
Sampling Date		2021/08/05			2021/08/05		2021/08/05		
COC Number		835825-01-01			835825-01-01		835825-01-01		
	UNITS	T-28 Lab-Dup	RDL	QC Batch	T-29	QC Batch	T-30	RDL	QC Batch
<b>Calculated Parameters</b>									
Hardness (CaCO3)	mg/L				510	7506368	500	1.0	7506368
<b>Inorganics</b>									
Total Ammonia-N	mg/L				<0.050	7510570	0.069	0.050	7510570
Total BOD	mg/L				<2	7507517	<2	2	7507517
Dissolved Organic Carbon	mg/L				2.3	7510708	2.6	0.40	7509562
pH	pH				8.53	7511218	8.48		7511218
Phenols-4AAP	mg/L				<0.0010	7508742	<0.0010	0.0010	7508755
Total Phosphorus	mg/L				0.043	7511471	0.062	0.004	7511471
Total Suspended Solids	mg/L	<10	10	7506931	<10	7506924	<10	10	7506924
Dissolved Sulphate (SO4)	mg/L				270	7511144	280	1.0	7511144
Alkalinity (Total as CaCO3)	mg/L				230	7511211	230	1.0	7511211
Dissolved Chloride (Cl-)	mg/L				180	7511133	190	2.0	7511133
Nitrite (N)	mg/L				<0.010	7510923	0.015	0.010	7510923
Nitrate (N)	mg/L				0.43	7510923	0.43	0.10	7510923
Nitrate + Nitrite (N)	mg/L				0.43	7510923	0.45	0.10	7510923
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate									



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### RESULTS OF ANALYSES OF WATER

BV Labs ID		QHU577			QHU578			QHU578		
Sampling Date		2021/08/05			2021/08/05			2021/08/05		
COC Number		835825-01-01			835825-01-01			835825-01-01		
	UNITS	T-31	RDL	QC Batch	T-32	RDL	QC Batch	T-32 Lab-Dup	RDL	QC Batch
<b>Calculated Parameters</b>										
Hardness (CaCO3)	mg/L	510	1.0	7506368	500	1.0	7506368			
<b>Inorganics</b>										
Total Ammonia-N	mg/L	<0.050	0.050	7510570	0.13	0.050	7510570			
Total BOD	mg/L	<2	2	7507517	<2	2	7507517			
Dissolved Organic Carbon	mg/L	2.9	0.40	7509562	2.5	0.40	7509562			
pH	pH	8.53		7511218	8.44		7511218	8.48		7511218
Phenols-4AAP	mg/L	<0.0010	0.0010	7508742	<0.0010	0.0010	7508742			
Total Phosphorus	mg/L	0.034	0.004	7511471	0.074	0.004	7511471			
Total Suspended Solids	mg/L	<10	10	7506924	<10	10	7506924			
Dissolved Sulphate (SO4)	mg/L	250	2.0	7512090	280	1.0	7511144			
Alkalinity (Total as CaCO3)	mg/L	230	1.0	7511211	220	1.0	7511211	230	1.0	7511211
Dissolved Chloride (Cl-)	mg/L	190	2.0	7512104	190	2.0	7511133			
Nitrite (N)	mg/L	0.014	0.010	7510923	0.011	0.010	7510932			
Nitrate (N)	mg/L	0.41	0.10	7510923	0.42	0.10	7510932			
Nitrate + Nitrite (N)	mg/L	0.42	0.10	7510923	0.43	0.10	7510932			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate										



RESULTS OF ANALYSES OF WATER

BV Labs ID		QHU579				QHU580				QHU580	
Sampling Date		2021/08/05				2021/08/05				2021/08/05	
COC Number		835825-01-01				835825-01-01				835825-01-01	
	UNITS	NORTH SUMP	RDL	QC Batch	TS-1	RDL	QC Batch	TS-1 Lab-Dup	RDL	QC Batch	
<b>Calculated Parameters</b>											
Hardness (CaCO3)	mg/L	1200	1.0	7506368	110	1.0	7506368				
<b>Inorganics</b>											
Total Ammonia-N	mg/L	0.086	0.050	7510570	<0.050	0.050	7510570				
Total BOD	mg/L	<2	2	7507517	<2	2	7507517				
Total Kjeldahl Nitrogen (TKN)	mg/L				0.69	0.10	7510727				
Dissolved Organic Carbon	mg/L	3.6	0.40	7510708	7.1	0.40	7510708	7.1	0.40	7510708	
Total Organic Carbon (TOC)	mg/L				8.4	0.40	7510748				
pH	pH	8.15		7509830	8.97		7511218				
Phenols-4AAP	mg/L	<0.0010	0.0010	7508742	<0.0010	0.0010	7508755				
Total Phosphorus	mg/L	0.09	0.02	7511471	0.077	0.004	7511471				
Total Suspended Solids	mg/L	12	10	7506924	17	10	7506924				
Dissolved Sulphate (SO4)	mg/L	840	5.0	7509876	84	1.0	7511144				
Alkalinity (Total as CaCO3)	mg/L	170	1.0	7509796	57	1.0	7511211				
Dissolved Chloride (Cl-)	mg/L	570	6.0	7509872	34	1.0	7511133				
Nitrite (N)	mg/L	<0.010	0.010	7509280	<0.010	0.010	7510923				
Nitrate (N)	mg/L	0.16	0.10	7509280	<0.10	0.10	7510923				
Nitrate + Nitrite (N)	mg/L	0.16	0.10	7509280	<0.10	0.10	7510923				
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate											



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### RESULTS OF ANALYSES OF WATER

BV Labs ID		QHU581			QHU581		
Sampling Date		2021/08/05			2021/08/05		
COC Number		835825-01-01			835825-01-01		
	UNITS	T-35	RDL	QC Batch	T-35 Lab-Dup	RDL	QC Batch
<b>Calculated Parameters</b>							
Hardness (CaCO3)	mg/L	520	1.0	7504818			
<b>Inorganics</b>							
Total Ammonia-N	mg/L	<0.050	0.050	7510570			
Total BOD	mg/L	<2	2	7507517	<2	2	7507517
Dissolved Organic Carbon	mg/L	2.8	0.40	7510708			
pH	pH	8.53		7511218			
Phenols-4AAP	mg/L	<0.0010	0.0010	7508742			
Total Phosphorus	mg/L	0.048	0.004	7511471			
Total Suspended Solids	mg/L	<10	10	7506924	<10	10	7506924
Dissolved Sulphate (SO4)	mg/L	300	1.0	7511144	300	1.0	7511144
Alkalinity (Total as CaCO3)	mg/L	230	1.0	7511211			
Dissolved Chloride (Cl-)	mg/L	180	2.0	7511133	190	2.0	7511133
Nitrite (N)	mg/L	0.013	0.010	7510923			
Nitrate (N)	mg/L	0.37	0.10	7510923			
Nitrate + Nitrite (N)	mg/L	0.38	0.10	7510923			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							



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### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QHU566		QHU567		QHU568		
Sampling Date		2021/08/05		2021/08/05		2021/08/05		
COC Number		835825-01-01		835825-01-01		835825-01-01		
	UNITS	T-1R	RDL	T-3A	QC Batch	T-12	RDL	QC Batch
<b>Metals</b>								
Dissolved (0.2u) Aluminum (Al)	ug/L	14	5	6	7511379	9	5	7511379
Mercury (Hg)	mg/L	<0.00010	0.00010	<0.00010	7508011	<0.00010	0.00010	7510370
Total Aluminum (Al)	mg/L	0.017	0.0049	0.063	7512709	0.070	0.0049	7512709
Total Arsenic (As)	mg/L	0.0061	0.0010	<0.0010	7512709	<0.0010	0.0010	7512709
Total Beryllium (Be)	mg/L	<0.00040	0.00040	<0.00040	7512709	<0.00040	0.00040	7512709
Total Boron (B)	mg/L	0.46	0.010	0.62	7512709	0.077	0.010	7512709
Total Cadmium (Cd)	mg/L	<0.000090	0.000090	<0.000090	7512709	0.00017	0.000090	7512709
Total Calcium (Ca)	mg/L	280	0.20	350	7512709	120	0.20	7512709
Total Chromium (Cr)	mg/L	<0.0050	0.0050	<0.0050	7512709	<0.0050	0.0050	7512709
Total Cobalt (Co)	mg/L	<0.00050	0.00050	<0.00050	7512709	<0.00050	0.00050	7512709
Total Copper (Cu)	mg/L	0.00091	0.00090	0.0014	7512709	0.0019	0.00090	7512709
Total Iron (Fe)	mg/L	0.20	0.10	0.15	7512709	0.13	0.10	7512709
Total Lead (Pb)	mg/L	0.00068	0.00050	0.0013	7512709	<0.00050	0.00050	7512709
Total Magnesium (Mg)	mg/L	41	0.050	90	7512709	50	0.050	7512709
Total Manganese (Mn)	mg/L	0.072	0.0020	0.039	7512709	0.013	0.0020	7512709
Total Molybdenum (Mo)	mg/L	0.035	0.00050	0.0055	7512709	0.0043	0.00050	7512709
Total Nickel (Ni)	mg/L	0.0095	0.0010	0.0042	7512709	0.0030	0.0010	7512709
Total Selenium (Se)	mg/L	<0.0020	0.0020	<0.0020	7512709	<0.0020	0.0020	7512709
Total Silver (Ag)	mg/L	<0.000090	0.000090	<0.000090	7512709	<0.000090	0.000090	7512709
Total Sodium (Na)	mg/L	980	0.50	360	7512709	120	0.10	7512709
Total Strontium (Sr)	mg/L	4.9	0.0010	4.5	7512709	2.5	0.0010	7512709
Total Vanadium (V)	mg/L	0.0017	0.00050	0.00067	7512709	0.00070	0.00050	7512709
Total Zinc (Zn)	mg/L	0.0057	0.0050	0.014	7512709	0.12	0.0050	7512709
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								





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### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QHU569		QHU570		QHU571		
Sampling Date		2021/08/05		2021/08/05		2021/08/05		
COC Number		835825-01-01		835825-01-01		835825-01-01		
	UNITS	T-13	QC Batch	T-15R	QC Batch	T-16	RDL	QC Batch
<b>Metals</b>								
Dissolved (0.2u) Aluminum (Al)	ug/L	6	7511379	<5	7511379	<5	5	7511379
Mercury (Hg)	mg/L	<0.00010	7508011	<0.00010	7508011	<0.00010	0.00010	7510370
Total Aluminum (Al)	mg/L	0.093	7512709	0.038	7510116	0.061	0.0049	7512709
Total Arsenic (As)	mg/L	<0.0010	7512709	<0.0010	7510116	0.0011	0.0010	7512709
Total Beryllium (Be)	mg/L	<0.00040	7512709	<0.00040	7510116	<0.00040	0.00040	7512709
Total Boron (B)	mg/L	0.090	7512709	0.11	7510116	0.11	0.010	7512709
Total Cadmium (Cd)	mg/L	<0.000090	7512709	0.00026	7510116	<0.000090	0.000090	7512709
Total Calcium (Ca)	mg/L	120	7512709	150	7510116	110	0.20	7512709
Total Chromium (Cr)	mg/L	<0.0050	7512709	<0.0050	7510116	<0.0050	0.0050	7512709
Total Cobalt (Co)	mg/L	<0.00050	7512709	<0.00050	7510116	<0.00050	0.00050	7512709
Total Copper (Cu)	mg/L	0.0030	7512709	<0.00090	7510116	0.0017	0.00090	7512709
Total Iron (Fe)	mg/L	0.14	7512709	<0.10	7510116	0.10	0.10	7512709
Total Lead (Pb)	mg/L	0.00059	7512709	<0.00050	7510116	<0.00050	0.00050	7512709
Total Magnesium (Mg)	mg/L	43	7512709	40	7510116	40	0.050	7512709
Total Manganese (Mn)	mg/L	0.0082	7512709	0.19	7510116	0.024	0.0020	7512709
Total Molybdenum (Mo)	mg/L	0.0034	7512709	0.0016	7510116	0.0030	0.00050	7512709
Total Nickel (Ni)	mg/L	0.0018	7512709	0.0046	7510116	0.0013	0.0010	7512709
Total Selenium (Se)	mg/L	<0.0020	7512709	<0.0020	7510116	<0.0020	0.0020	7512709
Total Silver (Ag)	mg/L	<0.000090	7512709	<0.000090	7510116	<0.000090	0.000090	7512709
Total Sodium (Na)	mg/L	130	7512709	100	7510116	140	0.10	7512709
Total Strontium (Sr)	mg/L	2.1	7512709	4.7	7510116	2.2	0.0010	7512709
Total Vanadium (V)	mg/L	0.0012	7512709	<0.00050	7510116	0.0011	0.00050	7512709
Total Zinc (Zn)	mg/L	0.035	7512709	0.13	7510116	0.0081	0.0050	7512709
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								



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BV Labs Job #: C1M2489  
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Client Project #: SW  
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### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QHU572	QHU573	QHU574			QHU575		
Sampling Date		2021/08/05	2021/08/05	2021/08/05			2021/08/05		
COC Number		835825-01-01	835825-01-01	835825-01-01			835825-01-01		
	UNITS	T-21	T-23	T-28	RDL	QC Batch	T-29	RDL	QC Batch
<b>Metals</b>									
Dissolved (0.2u) Aluminum (Al)	ug/L						9	5	7511379
Mercury (Hg)	mg/L						<0.00010	0.00010	7508011
Total Aluminum (Al)	mg/L						0.065	0.0049	7512709
Total Arsenic (As)	mg/L						<0.0010	0.0010	7512709
Total Beryllium (Be)	mg/L						<0.00040	0.00040	7512709
Total Boron (B)	mg/L	0.10	0.12	0.090	0.010	7512709	0.073	0.010	7512709
Total Cadmium (Cd)	mg/L						0.00012	0.000090	7512709
Total Calcium (Ca)	mg/L						120	0.20	7512709
Total Chromium (Cr)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	7512709	<0.0050	0.0050	7512709
Total Cobalt (Co)	mg/L						<0.00050	0.00050	7512709
Total Copper (Cu)	mg/L						0.0015	0.00090	7512709
Total Iron (Fe)	mg/L						<0.10	0.10	7512709
Total Lead (Pb)	mg/L						<0.00050	0.00050	7512709
Total Magnesium (Mg)	mg/L						50	0.050	7512709
Total Manganese (Mn)	mg/L						0.0098	0.0020	7512709
Total Molybdenum (Mo)	mg/L						0.0043	0.00050	7512709
Total Nickel (Ni)	mg/L	0.0024	0.0011	0.0015	0.0010	7512709	0.0029	0.0010	7512709
Total Selenium (Se)	mg/L						<0.0020	0.0020	7512709
Total Silver (Ag)	mg/L						<0.000090	0.000090	7512709
Total Sodium (Na)	mg/L						120	0.10	7512709
Total Strontium (Sr)	mg/L						2.6	0.0010	7512709
Total Vanadium (V)	mg/L						0.00068	0.00050	7512709
Total Zinc (Zn)	mg/L						0.12	0.0050	7512709
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									



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BV Labs Job #: C1M2489  
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### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QHU576	QHU577	QHU578	QHU579		
Sampling Date		2021/08/05	2021/08/05	2021/08/05	2021/08/05		
COC Number		835825-01-01	835825-01-01	835825-01-01	835825-01-01		
	UNITS	T-30	T-31	T-32	NORTH SUMP	RDL	QC Batch
<b>Metals</b>							
Dissolved (0.2u) Aluminum (Al)	ug/L	7	9	6	10	5	7511379
Mercury (Hg)	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	7508011
Total Aluminum (Al)	mg/L	0.14	0.051	0.069	0.084	0.0049	7512709
Total Arsenic (As)	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7512709
Total Beryllium (Be)	mg/L	<0.00040	<0.00040	<0.00040	<0.00040	0.00040	7512709
Total Boron (B)	mg/L	0.080	0.088	0.095	0.54	0.010	7512709
Total Cadmium (Cd)	mg/L	0.00019	0.00013	0.000095	<0.000090	0.000090	7512709
Total Calcium (Ca)	mg/L	120	130	120	300	0.20	7512709
Total Chromium (Cr)	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7512709
Total Cobalt (Co)	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	7512709
Total Copper (Cu)	mg/L	0.0033	0.0021	0.0024	0.0038	0.00090	7512709
Total Iron (Fe)	mg/L	0.27	<0.10	0.12	0.40	0.10	7512709
Total Lead (Pb)	mg/L	0.00077	<0.00050	<0.00050	0.0057	0.00050	7512709
Total Magnesium (Mg)	mg/L	52	52	47	110	0.050	7512709
Total Manganese (Mn)	mg/L	0.022	0.014	0.010	0.15	0.0020	7512709
Total Molybdenum (Mo)	mg/L	0.0041	0.0042	0.0036	0.0065	0.00050	7512709
Total Nickel (Ni)	mg/L	0.0034	0.0029	0.0025	0.0032	0.0010	7512709
Total Selenium (Se)	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	7512709
Total Silver (Ag)	mg/L	<0.000090	<0.000090	<0.000090	<0.000090	0.000090	7512709
Total Sodium (Na)	mg/L	120	120	130	330	0.10	7512709
Total Strontium (Sr)	mg/L	2.6	2.6	2.2	4.4	0.0010	7512709
Total Vanadium (V)	mg/L	0.00094	0.00084	0.00090	0.0014	0.00050	7512709
Total Zinc (Zn)	mg/L	0.15	0.089	0.091	0.017	0.0050	7512709
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							



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BV Labs Job #: C1M2489  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QHU580			QHU581		
Sampling Date		2021/08/05			2021/08/05		
COC Number		835825-01-01			835825-01-01		
	UNITS	TS-1	RDL	QC Batch	T-35	RDL	QC Batch
<b>Metals</b>							
Dissolved (0.2u) Aluminum (Al)	ug/L	<5	5	7511379	13	5	7511379
Mercury (Hg)	mg/L	<0.00010	0.00010	7510370	<0.00010	0.00010	7510370
Total Aluminum (Al)	mg/L	0.25	0.0049	7512709	0.049	0.0049	7512709
Total Arsenic (As)	mg/L	0.0028	0.0010	7512709	<0.0010	0.0010	7512709
Total Beryllium (Be)	mg/L	<0.00040	0.00040	7512709	<0.00040	0.00040	7512709
Total Boron (B)	mg/L	0.12	0.010	7512709	0.088	0.010	7512709
Total Cadmium (Cd)	mg/L	<0.000090	0.000090	7512709	0.00011	0.000090	7512709
Total Calcium (Ca)	mg/L	23	0.20	7512709	120	0.20	7512709
Total Chromium (Cr)	mg/L	<0.0050	0.0050	7512709	<0.0050	0.0050	7512709
Total Cobalt (Co)	mg/L	<0.00050	0.00050	7512709	<0.00050	0.00050	7512709
Total Copper (Cu)	mg/L	0.0021	0.00090	7512709	0.0014	0.00090	7512709
Total Iron (Fe)	mg/L	0.38	0.10	7512709	<0.10	0.10	7512709
Total Lead (Pb)	mg/L	0.0015	0.00050	7512709	<0.00050	0.00050	7512709
Total Magnesium (Mg)	mg/L	14	0.050	7512709	51	0.050	7512709
Total Manganese (Mn)	mg/L	0.023	0.0020	7512709	0.016	0.0020	7512709
Total Molybdenum (Mo)	mg/L	0.0054	0.00050	7512709	0.0041	0.00050	7512709
Total Nickel (Ni)	mg/L	0.0028	0.0010	7512709	0.0029	0.0010	7512709
Total Potassium (K)	mg/L	11	0.20	7512709			
Total Selenium (Se)	mg/L	<0.0020	0.0020	7512709	<0.0020	0.0020	7512709
Total Silver (Ag)	mg/L	<0.000090	0.000090	7512709	<0.000090	0.000090	7512709
Total Sodium (Na)	mg/L	31	0.10	7512709	120	0.10	7512709
Total Strontium (Sr)	mg/L	0.35	0.0010	7512709	2.5	0.0010	7512709
Total Vanadium (V)	mg/L	0.0030	0.00050	7512709	0.00081	0.00050	7512709
Total Zinc (Zn)	mg/L	0.0084	0.0050	7512709	0.094	0.0050	7512709
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							



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BV Labs Job #: C1M2489  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### SEMI-VOLATILE ORGANICS BY GC-MS (WATER)

BV Labs ID		QHU566		QHU567	QHU568	QHU570	QHU579		
Sampling Date		2021/08/05		2021/08/05	2021/08/05	2021/08/05	2021/08/05		
COC Number		835825-01-01		835825-01-01	835825-01-01	835825-01-01	835825-01-01		
	UNITS	T-1R	RDL	T-3A	T-12	T-15R	NORTH SUMP	RDL	QC Batch

Semivolatile Organics									
Acenaphthene	ug/L	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	0.20	7510203
Acenaphthylene	ug/L	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	0.20	7510203
Anthracene	ug/L	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	0.20	7510203
Benzo(a)anthracene	ug/L	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	0.20	7510203
Benzo(a)pyrene	ug/L	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	0.20	7510203
Benzo(b/j)fluoranthene	ug/L	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	0.20	7510203
Benzo(g,h,i)perylene	ug/L	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	0.20	7510203
Benzo(k)fluoranthene	ug/L	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	0.20	7510203
1-Chloronaphthalene	ug/L	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	1.0	7510203
2-Chloronaphthalene	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
Chrysene	ug/L	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	0.20	7510203
Dibenzo(a,h)anthracene	ug/L	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	0.20	7510203
Fluoranthene	ug/L	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	0.20	7510203
Fluorene	ug/L	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	0.20	7510203
Indeno(1,2,3-cd)pyrene	ug/L	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	0.20	7510203
1-Methylnaphthalene	ug/L	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	0.20	7510203
2-Methylnaphthalene	ug/L	0.25	0.20	<0.20	<0.20	<0.20	<0.20	0.20	7510203
Naphthalene	ug/L	<0.70 (1)	0.70	<0.20	<0.20	<0.20	<0.20	0.20	7510203
5-Nitroacenaphthene	ug/L	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	1.0	7510203
Perylene	ug/L	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	0.20	7510203
Phenanthrene	ug/L	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	0.20	7510203
Pyrene	ug/L	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	0.20	7510203
1,4-Dichlorobenzene	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
Hexachlorobenzene	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
Pentachlorobenzene	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
1,2,3,5-Tetrachlorobenzene	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
1,2,4,5-Tetrachlorobenzene	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
1,2,3-Trichlorobenzene	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
1,2,4-Trichlorobenzene	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
2-Chlorophenol	ug/L	<0.30	0.30	<0.30	<0.30	<0.30	<0.30	0.30	7510203
4-Chloro-3-Methylphenol	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
m/p-Cresol	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
o-Cresol	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
1,2,3,4-Tetrachlorobenzene	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
2,4-Dichlorophenol	ug/L	<0.30	0.30	<0.30	<0.30	<0.30	<0.30	0.30	7510203

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
(1) Detection limit was raised due to matrix interference.



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VERITAS

BV Labs Job #: C1M2489  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

**SEMI-VOLATILE ORGANICS BY GC-MS (WATER)**

BV Labs ID		QHU566		QHU567	QHU568	QHU570	QHU579		
Sampling Date		2021/08/05		2021/08/05	2021/08/05	2021/08/05	2021/08/05		
COC Number		835825-01-01		835825-01-01	835825-01-01	835825-01-01	835825-01-01		
	UNITS	T-1R	RDL	T-3A	T-12	T-15R	NORTH SUMP	RDL	QC Batch
2,6-Dichlorophenol	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
2,4-Dimethylphenol	ug/L	4.3	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
2,4-Dinitrophenol	ug/L	<2.0	2.0	<2.0	<2.0	<2.0	<2.0	2.0	7510203
4,6-Dinitro-2-methylphenol	ug/L	<2.0	2.0	<2.0	<2.0	<2.0	<2.0	2.0	7510203
2-Nitrophenol	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
4-Nitrophenol	ug/L	<1.4	1.4	<1.4	<1.4	<1.4	<1.4	1.4	7510203
Pentachlorophenol	ug/L	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	1.0	7510203
Phenol	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
2,3,4,5-Tetrachlorophenol	ug/L	<0.40	0.40	<0.40	<0.40	<0.40	<0.40	0.40	7510203
2,3,4,6-Tetrachlorophenol	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
2,3,5,6-Tetrachlorophenol	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
2,3,4-Trichlorophenol	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
2,3,5-Trichlorophenol	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
2,4,5-Trichlorophenol	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
2,4,6-Trichlorophenol	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
3,4,5-Trichlorophenol	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
Benzyl butyl phthalate	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
Biphenyl	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
Bis(2-chloroethyl)ether	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
Bis(2-chloroethoxy)methane	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
Bis(2-chloroisopropyl)ether	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
Bis(2-ethylhexyl)phthalate	ug/L	<2.0	2.0	<2.0	<2.0	<2.0	<2.0	2.0	7510203
4-Bromophenyl phenyl ether	ug/L	<0.30	0.30	<0.30	<0.30	<0.30	<0.30	0.30	7510203
Camphene	ug/L	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	1.0	7510203
p-Chloroaniline	ug/L	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	1.0	7510203
4-Chlorophenyl phenyl ether	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
Di-N-butyl phthalate	ug/L	<2.0	2.0	<2.0	<2.0	<2.0	<2.0	2.0	7510203
di-n-octyl phthalate	ug/L	<0.80	0.80	<0.80	<0.80	<0.80	<0.80	0.80	7510203
2,4-Dinitrotoluene	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
Diethyl phthalate	ug/L	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	1.0	7510203
3,3'-Dichlorobenzidine	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
Dimethyl phthalate	ug/L	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	1.0	7510203
2,6-Dinitrotoluene	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
Diphenyl Ether	ug/L	<0.30	0.30	<0.30	<0.30	<0.30	<0.30	0.30	7510203
Hexachlorobutadiene	ug/L	<0.40	0.40	<0.40	<0.40	<0.40	<0.40	0.40	7510203
Hexachlorocyclopentadiene	ug/L	<2.0	2.0	<2.0	<2.0	<2.0	<2.0	2.0	7510203
Hexachloroethane	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									



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BV Labs Job #: C1M2489  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

**SEMI-VOLATILE ORGANICS BY GC-MS (WATER)**

BV Labs ID		QHU566		QHU567	QHU568	QHU570	QHU579		
Sampling Date		2021/08/05		2021/08/05	2021/08/05	2021/08/05	2021/08/05		
COC Number		835825-01-01		835825-01-01	835825-01-01	835825-01-01	835825-01-01		
	UNITS	T-1R	RDL	T-3A	T-12	T-15R	NORTH SUMP	RDL	QC Batch
Indole	ug/L	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	1.0	7510203
Isophorone	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
Nitrobenzene	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
Nitrosodiphenylamine/Diphenylamine	ug/L	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	1.0	7510203
N-Nitroso-di-n-propylamine	ug/L	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7510203
<b>Surrogate Recovery (%)</b>									
2,4,6-Tribromophenol	%	91		92	85	87	89		7510203
2-Fluorobiphenyl	%	61		72	68	73	74		7510203
2-Fluorophenol	%	37		58	44	49	45		7510203
D14-Terphenyl	%	99		98	102	97	99		7510203
D5-Nitrobenzene	%	59		80	79	82	82		7510203
D5-Phenol	%	32		45	36	36	36		7510203
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									



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VERITAS

BV Labs Job #: C1M2489  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### SEMI-VOLATILE ORGANICS BY GC-MS (WATER)

BV Labs ID		QHU580		
Sampling Date		2021/08/05		
COC Number		835825-01-01		
	UNITS	TS-1	RDL	QC Batch
<b>Semivolatile Organics</b>				
Acenaphthene	ug/L	<0.20	0.20	7510203
Acenaphthylene	ug/L	<0.20	0.20	7510203
Anthracene	ug/L	<0.20	0.20	7510203
Benzo(a)anthracene	ug/L	<0.20	0.20	7510203
Benzo(a)pyrene	ug/L	<0.20	0.20	7510203
Benzo(b/j)fluoranthene	ug/L	<0.20	0.20	7510203
Benzo(g,h,i)perylene	ug/L	<0.20	0.20	7510203
Benzo(k)fluoranthene	ug/L	<0.20	0.20	7510203
1-Chloronaphthalene	ug/L	<1.0	1.0	7510203
2-Chloronaphthalene	ug/L	<0.50	0.50	7510203
Chrysene	ug/L	<0.20	0.20	7510203
Dibenzo(a,h)anthracene	ug/L	<0.20	0.20	7510203
Fluoranthene	ug/L	<0.20	0.20	7510203
Fluorene	ug/L	<0.20	0.20	7510203
Indeno(1,2,3-cd)pyrene	ug/L	<0.20	0.20	7510203
1-Methylnaphthalene	ug/L	<0.20	0.20	7510203
2-Methylnaphthalene	ug/L	<0.20	0.20	7510203
Naphthalene	ug/L	<0.20	0.20	7510203
5-Nitroacenaphthene	ug/L	<1.0	1.0	7510203
Perylene	ug/L	<0.20	0.20	7510203
Phenanthrene	ug/L	<0.20	0.20	7510203
Pyrene	ug/L	<0.20	0.20	7510203
1,4-Dichlorobenzene	ug/L	<0.50	0.50	7510203
Hexachlorobenzene	ug/L	<0.50	0.50	7510203
Pentachlorobenzene	ug/L	<0.50	0.50	7510203
1,2,3,5-Tetrachlorobenzene	ug/L	<0.50	0.50	7510203
1,2,4,5-Tetrachlorobenzene	ug/L	<0.50	0.50	7510203
1,2,3-Trichlorobenzene	ug/L	<0.50	0.50	7510203
1,2,4-Trichlorobenzene	ug/L	<0.50	0.50	7510203
2-Chlorophenol	ug/L	<0.30	0.30	7510203
4-Chloro-3-Methylphenol	ug/L	<0.50	0.50	7510203
m/p-Cresol	ug/L	<0.50	0.50	7510203
o-Cresol	ug/L	<0.50	0.50	7510203
1,2,3,4-Tetrachlorobenzene	ug/L	<0.50	0.50	7510203
2,4-Dichlorophenol	ug/L	<0.30	0.30	7510203
2,6-Dichlorophenol	ug/L	<0.50	0.50	7510203
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				





**SEMI-VOLATILE ORGANICS BY GC-MS (WATER)**

BV Labs ID		QHU580		
Sampling Date		2021/08/05		
COC Number		835825-01-01		
	UNITS	TS-1	RDL	QC Batch
2,4-Dimethylphenol	ug/L	<0.50	0.50	7510203
2,4-Dinitrophenol	ug/L	<2.0	2.0	7510203
4,6-Dinitro-2-methylphenol	ug/L	<2.0	2.0	7510203
2-Nitrophenol	ug/L	<0.50	0.50	7510203
4-Nitrophenol	ug/L	<1.4	1.4	7510203
Pentachlorophenol	ug/L	<1.0	1.0	7510203
Phenol	ug/L	<0.50	0.50	7510203
2,3,4,5-Tetrachlorophenol	ug/L	<0.40	0.40	7510203
2,3,4,6-Tetrachlorophenol	ug/L	<0.50	0.50	7510203
2,3,5,6-Tetrachlorophenol	ug/L	<0.50	0.50	7510203
2,3,4-Trichlorophenol	ug/L	<0.50	0.50	7510203
2,3,5-Trichlorophenol	ug/L	<0.50	0.50	7510203
2,4,5-Trichlorophenol	ug/L	<0.50	0.50	7510203
2,4,6-Trichlorophenol	ug/L	<0.50	0.50	7510203
3,4,5-Trichlorophenol	ug/L	<0.50	0.50	7510203
Benzyl butyl phthalate	ug/L	<0.50	0.50	7510203
Biphenyl	ug/L	<0.50	0.50	7510203
Bis(2-chloroethyl)ether	ug/L	<0.50	0.50	7510203
Bis(2-chloroethoxy)methane	ug/L	<0.50	0.50	7510203
Bis(2-chloroisopropyl)ether	ug/L	<0.50	0.50	7510203
Bis(2-ethylhexyl)phthalate	ug/L	<2.0	2.0	7510203
4-Bromophenyl phenyl ether	ug/L	<0.30	0.30	7510203
Camphene	ug/L	<1.0	1.0	7510203
p-Chloroaniline	ug/L	<1.0	1.0	7510203
4-Chlorophenyl phenyl ether	ug/L	<0.50	0.50	7510203
Di-N-butyl phthalate	ug/L	<2.0	2.0	7510203
di-n-octyl phthalate	ug/L	<0.80	0.80	7510203
2,4-Dinitrotoluene	ug/L	<0.50	0.50	7510203
Diethyl phthalate	ug/L	<1.0	1.0	7510203
3,3'-Dichlorobenzidine	ug/L	<0.50	0.50	7510203
Dimethyl phthalate	ug/L	<1.0	1.0	7510203
2,6-Dinitrotoluene	ug/L	<0.50	0.50	7510203
Diphenyl Ether	ug/L	<0.30	0.30	7510203
Hexachlorobutadiene	ug/L	<0.40	0.40	7510203
Hexachlorocyclopentadiene	ug/L	<2.0	2.0	7510203
Hexachloroethane	ug/L	<0.50	0.50	7510203
Indole	ug/L	<1.0	1.0	7510203
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				



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BV Labs Job #: C1M2489  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### SEMI-VOLATILE ORGANICS BY GC-MS (WATER)

<b>BV Labs ID</b>		QHU580		
<b>Sampling Date</b>		2021/08/05		
<b>COC Number</b>		835825-01-01		
	<b>UNITS</b>	<b>TS-1</b>	<b>RDL</b>	<b>QC Batch</b>
Isophorone	ug/L	<0.50	0.50	7510203
Nitrobenzene	ug/L	<0.50	0.50	7510203
Nitrosodiphenylamine/Diphenylamine	ug/L	<1.0	1.0	7510203
N-Nitroso-di-n-propylamine	ug/L	<0.50	0.50	7510203
<b>Surrogate Recovery (%)</b>				
2,4,6-Tribromophenol	%	85		7510203
2-Fluorobiphenyl	%	69		7510203
2-Fluorophenol	%	40		7510203
D14-Terphenyl	%	92		7510203
D5-Nitrobenzene	%	79		7510203
D5-Phenol	%	32		7510203
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



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BV Labs Job #: C1M2489  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### VOLATILE ORGANICS BY GC/MS (WATER)

BV Labs ID		QHU566		QHU567	QHU568	QHU570	QHU579		
Sampling Date		2021/08/05		2021/08/05	2021/08/05	2021/08/05	2021/08/05		
COC Number		835825-01-01		835825-01-01	835825-01-01	835825-01-01	835825-01-01		
	UNITS	T-1R	RDL	T-3A	T-12	T-15R	NORTH SUMP	RDL	QC Batch

Volatile Organics									
Acetone (2-Propanone)	ug/L	72	50	<10	<10	<10	<10	10	7506997
Benzene	ug/L	0.72	0.50	<0.10	<0.10	<0.10	<0.10	0.10	7506997
Bromodichloromethane	ug/L	<0.50	0.50	<0.10	<0.10	<0.10	<0.10	0.10	7506997
Acrolein	ug/L	<50	50	<10	<10	<10	<10	10	7507007
Bromoform	ug/L	<1.0	1.0	<0.20	<0.20	<0.20	<0.20	0.20	7506997
Bromomethane	ug/L	<2.5	2.5	<0.50	<0.50	<0.50	<0.50	0.50	7506997
Carbon Tetrachloride	ug/L	<0.50	0.50	<0.10	<0.10	<0.10	<0.10	0.10	7506997
Chlorobenzene	ug/L	<0.50	0.50	<0.10	<0.10	<0.10	<0.10	0.10	7506997
Chloroethane	ug/L	<1.0	1.0	<0.20	<0.20	<0.20	<0.20	0.20	7506997
Chloroform	ug/L	<0.50	0.50	<0.10	<0.10	<0.10	<0.10	0.10	7506997
Acrylonitrile	ug/L	<25	25	<5.0	<5.0	<5.0	<5.0	5.0	7507007
Chloromethane	ug/L	<2.5	2.5	<0.50	<0.50	<0.50	<0.50	0.50	7506997
Dibromochloromethane	ug/L	<1.0	1.0	<0.20	<0.20	<0.20	<0.20	0.20	7506997
1,2-Dichlorobenzene	ug/L	<1.0	1.0	<0.20	<0.20	<0.20	<0.20	0.20	7506997
1,3-Dichlorobenzene	ug/L	<1.0	1.0	<0.20	<0.20	<0.20	<0.20	0.20	7506997
1,4-Dichlorobenzene	ug/L	<1.0	1.0	<0.20	<0.20	<0.20	<0.20	0.20	7506997
1,1-Dichloroethane	ug/L	<0.50	0.50	<0.10	<0.10	<0.10	<0.10	0.10	7506997
1,2-Dichloroethane	ug/L	<1.0	1.0	<0.20	<0.20	<0.20	<0.20	0.20	7506997
1,1-Dichloroethylene	ug/L	<0.50	0.50	<0.10	<0.10	<0.10	<0.10	0.10	7506997
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	<0.10	<0.10	<0.10	<0.10	0.10	7506997
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	<0.10	<0.10	<0.10	<0.10	0.10	7506997
1,2-Dichloropropane	ug/L	<0.50	0.50	<0.10	<0.10	<0.10	<0.10	0.10	7506997
cis-1,3-Dichloropropene	ug/L	<1.0	1.0	<0.20	<0.20	<0.20	<0.20	0.20	7506997
trans-1,3-Dichloropropene	ug/L	<1.0	1.0	<0.20	<0.20	<0.20	<0.20	0.20	7506997
Ethylbenzene	ug/L	<0.50	0.50	<0.10	<0.10	<0.10	<0.10	0.10	7506997
Ethylene Dibromide	ug/L	<1.0	1.0	<0.20	<0.20	<0.20	<0.20	0.20	7506997
Methylene Chloride(Dichloromethane)	ug/L	<2.5	2.5	<0.50	<0.50	<0.50	<0.50	0.50	7506997
Methyl Ethyl Ketone (2-Butanone)	ug/L	<25	25	<5.0	<5.0	<5.0	<5.0	5.0	7506997
Methyl Isobutyl Ketone	ug/L	<25	25	<5.0	<5.0	<5.0	<5.0	5.0	7506997
Methyl t-butyl ether (MTBE)	ug/L	<1.0	1.0	<0.20	<0.20	<0.20	<0.20	0.20	7506997
Styrene	ug/L	<1.0	1.0	<0.20	<0.20	<0.20	<0.20	0.20	7506997
1,1,1,2-Tetrachloroethane	ug/L	<1.0	1.0	<0.20	<0.20	<0.20	<0.20	0.20	7506997
1,1,2,2-Tetrachloroethane	ug/L	<1.0	1.0	<0.20	<0.20	<0.20	<0.20	0.20	7506997
Tetrachloroethylene	ug/L	<0.50	0.50	<0.10	<0.10	<0.10	<0.10	0.10	7506997
Toluene	ug/L	<1.0	1.0	<0.20	<0.20	<0.20	<0.20	0.20	7506997
1,1,1-Trichloroethane	ug/L	<0.50	0.50	<0.10	<0.10	<0.10	<0.10	0.10	7506997

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch



**VOLATILE ORGANICS BY GC/MS (WATER)**

BV Labs ID		QHU566		QHU567	QHU568	QHU570	QHU579		
Sampling Date		2021/08/05		2021/08/05	2021/08/05	2021/08/05	2021/08/05		
COC Number		835825-01-01		835825-01-01	835825-01-01	835825-01-01	835825-01-01		
	UNITS	T-1R	RDL	T-3A	T-12	T-15R	NORTH SUMP	RDL	QC Batch
1,1,2-Trichloroethane	ug/L	<1.0	1.0	<0.20	<0.20	<0.20	<0.20	0.20	7506997
Trichloroethylene	ug/L	<0.50	0.50	<0.10	<0.10	<0.10	<0.10	0.10	7506997
Trichlorofluoromethane (FREON 11)	ug/L	<1.0	1.0	<0.20	<0.20	<0.20	<0.20	0.20	7506997
Vinyl Chloride	ug/L	<1.0	1.0	<0.20	<0.20	<0.20	<0.20	0.20	7506997
p+m-Xylene	ug/L	<0.50	0.50	<0.10	<0.10	<0.10	<0.10	0.10	7506997
Methyl Butyl Ketone (2-Hexanone)	ug/L	<25	25	<5.0	<5.0	<5.0	<5.0	5.0	7507007
o-Xylene	ug/L	<0.50	0.50	<0.10	<0.10	<0.10	<0.10	0.10	7506997
Total Xylenes	ug/L	<0.50	0.50	<0.10	<0.10	<0.10	<0.10	0.10	7506997
<b>Surrogate Recovery (%)</b>									
4-Bromofluorobenzene	%	98		101	101	101	104		7506997
D4-1,2-Dichloroethane	%	107		106	108	107	107		7506997
D8-Toluene	%	95		94	94	93	96		7506997
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									



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BV Labs Job #: C1M2489  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### VOLATILE ORGANICS BY GC/MS (WATER)

BV Labs ID		QHU580		
Sampling Date		2021/08/05		
COC Number		835825-01-01		
	UNITS	TS-1	RDL	QC Batch
<b>Volatile Organics</b>				
Acetone (2-Propanone)	ug/L	<10	10	7506997
Benzene	ug/L	<0.10	0.10	7506997
Bromodichloromethane	ug/L	<0.10	0.10	7506997
Acrolein	ug/L	<10	10	7507007
Bromoform	ug/L	<0.20	0.20	7506997
Bromomethane	ug/L	<0.50	0.50	7506997
Carbon Tetrachloride	ug/L	<0.10	0.10	7506997
Chlorobenzene	ug/L	<0.10	0.10	7506997
Chloroethane	ug/L	<0.20	0.20	7506997
Chloroform	ug/L	<0.10	0.10	7506997
Acrylonitrile	ug/L	<5.0	5.0	7507007
Chloromethane	ug/L	<0.50	0.50	7506997
Dibromochloromethane	ug/L	<0.20	0.20	7506997
1,2-Dichlorobenzene	ug/L	<0.20	0.20	7506997
1,3-Dichlorobenzene	ug/L	<0.20	0.20	7506997
1,4-Dichlorobenzene	ug/L	<0.20	0.20	7506997
1,1-Dichloroethane	ug/L	<0.10	0.10	7506997
1,2-Dichloroethane	ug/L	<0.20	0.20	7506997
1,1-Dichloroethylene	ug/L	<0.10	0.10	7506997
cis-1,2-Dichloroethylene	ug/L	<0.10	0.10	7506997
trans-1,2-Dichloroethylene	ug/L	<0.10	0.10	7506997
1,2-Dichloropropane	ug/L	<0.10	0.10	7506997
cis-1,3-Dichloropropene	ug/L	<0.20	0.20	7506997
trans-1,3-Dichloropropene	ug/L	<0.20	0.20	7506997
Ethylbenzene	ug/L	<0.10	0.10	7506997
Ethylene Dibromide	ug/L	<0.20	0.20	7506997
Methylene Chloride(Dichloromethane)	ug/L	<0.50	0.50	7506997
Methyl Ethyl Ketone (2-Butanone)	ug/L	<5.0	5.0	7506997
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	7506997
Methyl t-butyl ether (MTBE)	ug/L	<0.20	0.20	7506997
Styrene	ug/L	<0.20	0.20	7506997
1,1,1,2-Tetrachloroethane	ug/L	<0.20	0.20	7506997
1,1,1,2-Tetrachloroethane	ug/L	<0.20	0.20	7506997
Tetrachloroethylene	ug/L	<0.10	0.10	7506997
Toluene	ug/L	<0.20	0.20	7506997
1,1,1-Trichloroethane	ug/L	<0.10	0.10	7506997
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				



**VOLATILE ORGANICS BY GC/MS (WATER)**

<b>BV Labs ID</b>		QHU580		
<b>Sampling Date</b>		2021/08/05		
<b>COC Number</b>		835825-01-01		
	<b>UNITS</b>	<b>TS-1</b>	<b>RDL</b>	<b>QC Batch</b>
1,1,2-Trichloroethane	ug/L	<0.20	0.20	7506997
Trichloroethylene	ug/L	<0.10	0.10	7506997
Trichlorofluoromethane (FREON 11)	ug/L	<0.20	0.20	7506997
Vinyl Chloride	ug/L	<0.20	0.20	7506997
p+m-Xylene	ug/L	<0.10	0.10	7506997
Methyl Butyl Ketone (2-Hexanone)	ug/L	<5.0	5.0	7507007
o-Xylene	ug/L	<0.10	0.10	7506997
Total Xylenes	ug/L	<0.10	0.10	7506997
<b>Surrogate Recovery (%)</b>				
4-Bromofluorobenzene	%	105		7506997
D4-1,2-Dichloroethane	%	107		7506997
D8-Toluene	%	96		7506997
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				



**ORGANOCHLORINATED PESTICIDES BY GC-ECD (WATER)**

BV Labs ID		QHU566		QHU567	QHU568	QHU570	QHU579		
Sampling Date		2021/08/05		2021/08/05	2021/08/05	2021/08/05	2021/08/05		
COC Number		835825-01-01		835825-01-01	835825-01-01	835825-01-01	835825-01-01		
	UNITS	T-1R	RDL	T-3A	T-12	T-15R	NORTH SUMP	RDL	QC Batch
<b>Calculated Parameters</b>									
Aldrin + Dieldrin	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7506187
Chlordane (Total)	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7506187
DDT+ Metabolites	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7506187
Heptachlor + Heptachlor epoxide	ug/L	<0.007	0.007	<0.005	<0.005	<0.005	<0.005	0.005	7506187
o,p-DDD + p,p-DDD	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7506187
o,p-DDE + p,p-DDE	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7506187
o,p-DDT + p,p-DDT	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7506187
Total Endosulfan	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7506187
Total PCB	ug/L	<0.05	0.05	<0.05	<0.05	<0.05	<0.05	0.05	7506187
Total Trichlorobenzenes	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	0.5	7506187
<b>Pesticides &amp; Herbicides</b>									
Aldrin	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
Dieldrin	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
a-Chlordane	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
g-Chlordane	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
o,p-DDD	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
p,p-DDD	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
o,p-DDE	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
p,p-DDE	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
o,p-DDT	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
p,p-DDT	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
Lindane	ug/L	<0.003	0.003	<0.003	<0.003	<0.003	<0.003	0.003	7512766
Endosulfan I (alpha)	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
Endosulfan II (beta)	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
Endrin	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
Heptachlor	ug/L	<0.007	0.007	<0.005	<0.005	<0.005	<0.005	0.005	7512766
Heptachlor epoxide	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
Hexachlorobenzene	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
Methoxychlor	ug/L	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.01	7512766
alpha-BHC	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
beta-BHC	ug/L	<0.007	0.007	<0.005	<0.005	<0.005	<0.005	0.005	7512766
delta-BHC	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
Endosulfan sulfate	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
Endrin aldehyde	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
Endrin ketone	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
Mirex	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									



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BV Labs Job #: C1M2489  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### ORGANOCHLORINATED PESTICIDES BY GC-ECD (WATER)

BV Labs ID		QHU566		QHU567	QHU568	QHU570	QHU579		
Sampling Date		2021/08/05		2021/08/05	2021/08/05	2021/08/05	2021/08/05		
COC Number		835825-01-01		835825-01-01	835825-01-01	835825-01-01	835825-01-01		
	UNITS	T-1R	RDL	T-3A	T-12	T-15R	NORTH SUMP	RDL	QC Batch
Octachlorostyrene	ug/L	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005	7512766
Toxaphene	ug/L	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	0.2	7512766
Surrogate Recovery (%)									
2,4,5,6-Tetrachloro-m-xylene	%	80		83	76	72	75		7512766
Decachlorobiphenyl	%	89		75	84	88	81		7512766
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									





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BV Labs Job #: C1M2489  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### ORGANOCHLORINATED PESTICIDES BY GC-ECD (WATER)

BV Labs ID		QHU580			QHU580		
Sampling Date		2021/08/05			2021/08/05		
COC Number		835825-01-01			835825-01-01		
	UNITS	TS-1	RDL	QC Batch	TS-1 Lab-Dup	RDL	QC Batch
<b>Calculated Parameters</b>							
Aldrin + Dieldrin	ug/L	<0.005	0.005	7506187			
Chlordane (Total)	ug/L	<0.005	0.005	7506187			
DDT+ Metabolites	ug/L	<0.005	0.005	7506187			
Heptachlor + Heptachlor epoxide	ug/L	<0.005	0.005	7506187			
o,p-DDD + p,p-DDD	ug/L	<0.005	0.005	7506187			
o,p-DDE + p,p-DDE	ug/L	<0.005	0.005	7506187			
o,p-DDT + p,p-DDT	ug/L	<0.005	0.005	7506187			
Total Endosulfan	ug/L	<0.005	0.005	7506187			
Total PCB	ug/L	<0.05	0.05	7506187			
Total Trichlorobenzenes	ug/L	<0.5	0.5	7506187			
<b>Pesticides &amp; Herbicides</b>							
Aldrin	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
Dieldrin	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
a-Chlordane	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
g-Chlordane	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
o,p-DDD	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
p,p-DDD	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
o,p-DDE	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
p,p-DDE	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
o,p-DDT	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
p,p-DDT	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
Lindane	ug/L	<0.003	0.003	7512766	<0.003	0.003	7512766
Endosulfan I (alpha)	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
Endosulfan II (beta)	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
Endrin	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
Heptachlor	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
Heptachlor epoxide	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
Hexachlorobenzene	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
Methoxychlor	ug/L	<0.01	0.01	7512766	<0.01	0.01	7512766
alpha-BHC	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
beta-BHC	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
delta-BHC	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
Endosulfan sulfate	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
Endrin aldehyde	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
Endrin ketone	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							



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**ORGANOCHLORINATED PESTICIDES BY GC-ECD (WATER)**

<b>BV Labs ID</b>		QHU580			QHU580		
<b>Sampling Date</b>		2021/08/05			2021/08/05		
<b>COC Number</b>		835825-01-01			835825-01-01		
	<b>UNITS</b>	<b>TS-1</b>	<b>RDL</b>	<b>QC Batch</b>	<b>TS-1 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>
Mirex	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
Octachlorostyrene	ug/L	<0.005	0.005	7512766	<0.005	0.005	7512766
Toxaphene	ug/L	<0.2	0.2	7512766	<0.2	0.2	7512766
<b>Surrogate Recovery (%)</b>							
2,4,5,6-Tetrachloro-m-xylene	%	63		7512766	73		7512766
Decachlorobiphenyl	%	68		7512766	73		7512766
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							



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BV Labs Job #: C1M2489  
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### TEST SUMMARY

**BV Labs ID:** QHU566  
**Sample ID:** T-1R  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by GC/MS	GC/MS	7510203	2021/08/10	2021/08/11	Anh Lieu
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7511379	N/A	2021/08/11	Nan Raykha
Alkalinity	AT	7511211	N/A	2021/08/12	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7507517	2021/08/08	2021/08/13	Frank Zhang
Chloride by Automated Colourimetry	KONE	7511133	N/A	2021/08/11	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7509562	N/A	2021/08/10	Julianna Castiglione
Hardness (calculated as CaCO3)		7506368	N/A	2021/08/11	Automated Statchk
Mercury in Water by CVAA	CV/AA	7508011	2021/08/09	2021/08/09	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7512709	N/A	2021/08/11	Nan Raykha
Total Ammonia-N	LACH/NH4	7510570	N/A	2021/08/11	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7511168	N/A	2021/08/11	Chandra Nandlal
OC Pesticides (Selected) & PCB	GC/ECD	7512766	2021/08/11	2021/08/12	Li Peng
OC Pesticides Summed Parameters	CALC	7506187	N/A	2021/08/10	Automated Statchk
pH	AT	7511218	2021/08/10	2021/08/12	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7508742	N/A	2021/08/09	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7511144	N/A	2021/08/11	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7511471	2021/08/10	2021/08/12	Shivani Shivani
Total Suspended Solids	BAL	7506924	2021/08/09	2021/08/10	Sandeep Kaur
Volatile Organic Compounds in Water	P&T/MS	7506997	N/A	2021/08/09	Gladys Guerrero
Non-Routine Volatile Organic Compounds	P&T/MS	7507007	N/A	2021/08/09	Gladys Guerrero

**BV Labs ID:** QHU566 Dup  
**Sample ID:** T-1R  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7509562	N/A	2021/08/10	Julianna Castiglione
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7511168	N/A	2021/08/11	Chandra Nandlal

**BV Labs ID:** QHU567  
**Sample ID:** T-3A  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by GC/MS	GC/MS	7510203	2021/08/10	2021/08/11	Anh Lieu
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7511379	N/A	2021/08/11	Nan Raykha
Alkalinity	AT	7512902	N/A	2021/08/11	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7507517	2021/08/08	2021/08/13	Frank Zhang
Chloride by Automated Colourimetry	KONE	7512785	N/A	2021/08/11	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7509562	N/A	2021/08/10	Julianna Castiglione
Hardness (calculated as CaCO3)		7506368	N/A	2021/08/11	Automated Statchk
Mercury in Water by CVAA	CV/AA	7508011	2021/08/09	2021/08/09	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7512709	N/A	2021/08/11	Nan Raykha
Total Ammonia-N	LACH/NH4	7510570	N/A	2021/08/11	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7512960	N/A	2021/08/11	Chandra Nandlal



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### TEST SUMMARY

**BV Labs ID:** QHU567  
**Sample ID:** T-3A  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
OC Pesticides (Selected) & PCB	GC/ECD	7512766	2021/08/11	2021/08/12	Li Peng
OC Pesticides Summed Parameters	CALC	7506187	N/A	2021/08/10	Automated Statchk
pH	AT	7512948	2021/08/11	2021/08/11	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7508755	N/A	2021/08/10	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7512808	N/A	2021/08/11	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7511471	2021/08/10	2021/08/12	Shivani Shivani
Total Suspended Solids	BAL	7506924	2021/08/09	2021/08/10	Sandeep Kaur
Volatile Organic Compounds in Water	P&T/MS	7506997	N/A	2021/08/09	Gladys Guerrero
Non-Routine Volatile Organic Compounds	P&T/MS	7507007	N/A	2021/08/09	Gladys Guerrero

**BV Labs ID:** QHU568  
**Sample ID:** T-12  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by GC/MS	GC/MS	7510203	2021/08/10	2021/08/11	Anh Lieu
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7511379	N/A	2021/08/11	Nan Raykha
Alkalinity	AT	7511211	N/A	2021/08/12	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7507517	2021/08/08	2021/08/13	Frank Zhang
Chloride by Automated Colourimetry	KONE	7511133	N/A	2021/08/11	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7509562	N/A	2021/08/10	Julianna Castiglione
Hardness (calculated as CaCO3)		7506368	N/A	2021/08/11	Automated Statchk
Mercury in Water by CVAA	CV/AA	7510370	2021/08/10	2021/08/10	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7512709	N/A	2021/08/11	Nan Raykha
Total Ammonia-N	LACH/NH4	7510570	N/A	2021/08/11	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7510923	N/A	2021/08/11	Chandra Nandlal
OC Pesticides (Selected) & PCB	GC/ECD	7512766	2021/08/11	2021/08/12	Li Peng
OC Pesticides Summed Parameters	CALC	7506187	N/A	2021/08/10	Automated Statchk
pH	AT	7511218	2021/08/10	2021/08/12	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7508755	N/A	2021/08/09	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7511144	N/A	2021/08/11	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7511471	2021/08/10	2021/08/12	Shivani Shivani
Total Suspended Solids	BAL	7506924	2021/08/09	2021/08/10	Sandeep Kaur
Volatile Organic Compounds in Water	P&T/MS	7506997	N/A	2021/08/09	Gladys Guerrero
Non-Routine Volatile Organic Compounds	P&T/MS	7507007	N/A	2021/08/09	Gladys Guerrero

**BV Labs ID:** QHU569  
**Sample ID:** T-13  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7511379	N/A	2021/08/11	Nan Raykha
Alkalinity	AT	7511211	N/A	2021/08/12	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7507517	2021/08/08	2021/08/13	Frank Zhang
Chloride by Automated Colourimetry	KONE	7511133	N/A	2021/08/11	Alina Dobreanu



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### TEST SUMMARY

**BV Labs ID:** QHU569  
**Sample ID:** T-13  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7509562	N/A	2021/08/10	Julianna Castiglione
Hardness (calculated as CaCO3)		7506368	N/A	2021/08/11	Automated Statchk
Mercury in Water by CVAA	CV/AA	7508011	2021/08/09	2021/08/09	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7512709	N/A	2021/08/11	Nan Raykha
Total Ammonia-N	LACH/NH4	7510570	N/A	2021/08/11	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7510923	N/A	2021/08/11	Chandra Nandlal
pH	AT	7511218	2021/08/10	2021/08/12	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7508755	N/A	2021/08/09	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7511144	N/A	2021/08/11	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7511471	2021/08/10	2021/08/12	Shivani Shivani
Total Suspended Solids	BAL	7506924	2021/08/09	2021/08/10	Sandeep Kaur

**BV Labs ID:** QHU570  
**Sample ID:** T-15R  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by GC/MS	GC/MS	7510203	2021/08/10	2021/08/11	Anh Lieu
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7511379	N/A	2021/08/11	Nan Raykha
Alkalinity	AT	7511211	N/A	2021/08/12	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7507517	2021/08/08	2021/08/13	Frank Zhang
Chloride by Automated Colourimetry	KONE	7511133	N/A	2021/08/11	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7510708	N/A	2021/08/10	Julianna Castiglione
Hardness (calculated as CaCO3)		7506368	N/A	2021/08/11	Automated Statchk
Mercury in Water by CVAA	CV/AA	7508011	2021/08/09	2021/08/09	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7510116	N/A	2021/08/10	Nan Raykha
Total Ammonia-N	LACH/NH4	7510570	N/A	2021/08/11	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7510932	N/A	2021/08/11	Chandra Nandlal
OC Pesticides (Selected) & PCB	GC/ECD	7512766	2021/08/11	2021/08/12	Li Peng
OC Pesticides Summed Parameters	CALC	7506187	N/A	2021/08/10	Automated Statchk
pH	AT	7511218	2021/08/10	2021/08/12	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7508755	N/A	2021/08/09	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7511144	N/A	2021/08/11	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7511471	2021/08/10	2021/08/12	Shivani Shivani
Total Suspended Solids	BAL	7506924	2021/08/09	2021/08/10	Sandeep Kaur
Volatile Organic Compounds in Water	P&T/MS	7506997	N/A	2021/08/09	Gladys Guerrero
Non-Routine Volatile Organic Compounds	P&T/MS	7507007	N/A	2021/08/09	Gladys Guerrero

**BV Labs ID:** QHU571  
**Sample ID:** T-16  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7511379	N/A	2021/08/11	Nan Raykha
Alkalinity	AT	7511211	N/A	2021/08/12	Surinder Rai



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### TEST SUMMARY

**BV Labs ID:** QHU571  
**Sample ID:** T-16  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Biochemical Oxygen Demand (BOD)	DO	7507517	2021/08/08	2021/08/13	Frank Zhang
Chloride by Automated Colourimetry	KONE	7511133	N/A	2021/08/11	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7510708	N/A	2021/08/10	Julianna Castiglione
Hardness (calculated as CaCO3)		7506368	N/A	2021/08/11	Automated Statchk
Mercury in Water by CVAA	CV/AA	7510370	2021/08/10	2021/08/10	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7512709	N/A	2021/08/11	Nan Raykha
Total Ammonia-N	LACH/NH4	7510570	N/A	2021/08/11	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7510923	N/A	2021/08/11	Chandra Nandlal
pH	AT	7511218	2021/08/10	2021/08/12	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7508742	N/A	2021/08/09	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7511144	N/A	2021/08/11	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7511471	2021/08/10	2021/08/12	Shivani Shivani
Total Suspended Solids	BAL	7506924	2021/08/09	2021/08/10	Sandeep Kaur

**BV Labs ID:** QHU572  
**Sample ID:** T-21  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7509314	N/A	2021/08/10	Surinder Rai
Chloride by Automated Colourimetry	KONE	7509866	N/A	2021/08/10	Alina Dobreanu
Conductivity	AT	7509323	N/A	2021/08/10	Surinder Rai
Total Metals Analysis by ICPMS	ICP/MS	7512709	N/A	2021/08/11	Nan Raykha
Total Ammonia-N	LACH/NH4	7509303	N/A	2021/08/11	Amanpreet Sappal
pH	AT	7509324	2021/08/09	2021/08/10	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7508742	N/A	2021/08/10	Deonarine Ramnarine
Total Suspended Solids	BAL	7506924	2021/08/09	2021/08/10	Sandeep Kaur

**BV Labs ID:** QHU573  
**Sample ID:** T-23  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7511199	N/A	2021/08/12	Surinder Rai
Chloride by Automated Colourimetry	KONE	7511783	N/A	2021/08/11	Alina Dobreanu
Conductivity	AT	7511205	N/A	2021/08/12	Surinder Rai
Total Metals Analysis by ICPMS	ICP/MS	7512709	N/A	2021/08/11	Nan Raykha
Total Ammonia-N	LACH/NH4	7509303	N/A	2021/08/11	Amanpreet Sappal
pH	AT	7511206	2021/08/10	2021/08/12	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7508742	N/A	2021/08/09	Deonarine Ramnarine
Total Suspended Solids	BAL	7506924	2021/08/09	2021/08/10	Sandeep Kaur



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Client Project #: SW  
Sampler Initials: CR

### TEST SUMMARY

**BV Labs ID:** QHU574  
**Sample ID:** T-28  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7511199	N/A	2021/08/12	Surinder Rai
Chloride by Automated Colourimetry	KONE	7511783	N/A	2021/08/11	Alina Dobreanu
Conductivity	AT	7511205	N/A	2021/08/12	Surinder Rai
Total Metals Analysis by ICPMS	ICP/MS	7512709	N/A	2021/08/11	Nan Raykha
Total Ammonia-N	LACH/NH4	7509303	N/A	2021/08/11	Amanpreet Sappal
pH	AT	7511206	2021/08/10	2021/08/12	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7508755	N/A	2021/08/09	Deonarine Ramnarine
Total Suspended Solids	BAL	7506931	2021/08/09	2021/08/10	Kristen Chan

**BV Labs ID:** QHU574 Dup  
**Sample ID:** T-28  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Suspended Solids	BAL	7506931	2021/08/09	2021/08/10	Kristen Chan

**BV Labs ID:** QHU575  
**Sample ID:** T-29  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7511379	N/A	2021/08/11	Nan Raykha
Alkalinity	AT	7511211	N/A	2021/08/12	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7507517	2021/08/08	2021/08/13	Frank Zhang
Chloride by Automated Colourimetry	KONE	7511133	N/A	2021/08/11	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7510708	N/A	2021/08/10	Julianna Castiglione
Hardness (calculated as CaCO3)		7506368	N/A	2021/08/11	Automated Statchk
Mercury in Water by CVAA	CV/AA	7508011	2021/08/09	2021/08/09	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7512709	N/A	2021/08/11	Nan Raykha
Total Ammonia-N	LACH/NH4	7510570	N/A	2021/08/11	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7510923	N/A	2021/08/11	Chandra Nandlal
pH	AT	7511218	2021/08/10	2021/08/12	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7508742	N/A	2021/08/09	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7511144	N/A	2021/08/11	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7511471	2021/08/10	2021/08/12	Shivani Shivani
Total Suspended Solids	BAL	7506924	2021/08/09	2021/08/10	Sandeep Kaur

**BV Labs ID:** QHU576  
**Sample ID:** T-30  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7511379	N/A	2021/08/11	Nan Raykha
Alkalinity	AT	7511211	N/A	2021/08/12	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7507517	2021/08/08	2021/08/13	Frank Zhang



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VERITAS

BV Labs Job #: C1M2489  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### TEST SUMMARY

**BV Labs ID:** QHU576  
**Sample ID:** T-30  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	7511133	N/A	2021/08/11	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7509562	N/A	2021/08/10	Julianna Castiglione
Hardness (calculated as CaCO3)		7506368	N/A	2021/08/11	Automated Statchk
Mercury in Water by CVAA	CV/AA	7508011	2021/08/09	2021/08/09	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7512709	N/A	2021/08/11	Nan Raykha
Total Ammonia-N	LACH/NH4	7510570	N/A	2021/08/11	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7510923	N/A	2021/08/11	Chandra Nandlal
pH	AT	7511218	2021/08/10	2021/08/12	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7508755	N/A	2021/08/09	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7511144	N/A	2021/08/11	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7511471	2021/08/10	2021/08/12	Shivani Shivani
Total Suspended Solids	BAL	7506924	2021/08/09	2021/08/10	Sandeep Kaur

**BV Labs ID:** QHU577  
**Sample ID:** T-31  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7511379	N/A	2021/08/11	Nan Raykha
Alkalinity	AT	7511211	N/A	2021/08/12	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7507517	2021/08/08	2021/08/13	Frank Zhang
Chloride by Automated Colourimetry	KONE	7512104	N/A	2021/08/12	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7509562	N/A	2021/08/10	Julianna Castiglione
Hardness (calculated as CaCO3)		7506368	N/A	2021/08/11	Automated Statchk
Mercury in Water by CVAA	CV/AA	7508011	2021/08/09	2021/08/09	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7512709	N/A	2021/08/11	Nan Raykha
Total Ammonia-N	LACH/NH4	7510570	N/A	2021/08/11	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7510923	N/A	2021/08/11	Chandra Nandlal
pH	AT	7511218	2021/08/10	2021/08/12	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7508742	N/A	2021/08/09	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7512090	N/A	2021/08/12	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7511471	2021/08/10	2021/08/12	Shivani Shivani
Total Suspended Solids	BAL	7506924	2021/08/09	2021/08/10	Sandeep Kaur

**BV Labs ID:** QHU578  
**Sample ID:** T-32  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7511379	N/A	2021/08/11	Nan Raykha
Alkalinity	AT	7511211	N/A	2021/08/12	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7507517	2021/08/08	2021/08/13	Frank Zhang
Chloride by Automated Colourimetry	KONE	7511133	N/A	2021/08/11	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7509562	N/A	2021/08/10	Julianna Castiglione
Hardness (calculated as CaCO3)		7506368	N/A	2021/08/11	Automated Statchk





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BV Labs Job #: C1M2489  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### TEST SUMMARY

**BV Labs ID:** QHU578  
**Sample ID:** T-32  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Water by CVAA	CV/AA	7508011	2021/08/09	2021/08/09	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7512709	N/A	2021/08/11	Nan Raykha
Total Ammonia-N	LACH/NH4	7510570	N/A	2021/08/11	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7510932	N/A	2021/08/11	Chandra Nandlal
pH	AT	7511218	2021/08/10	2021/08/12	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7508742	N/A	2021/08/09	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7511144	N/A	2021/08/11	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7511471	2021/08/10	2021/08/12	Shivani Shivani
Total Suspended Solids	BAL	7506924	2021/08/09	2021/08/10	Sandeep Kaur

**BV Labs ID:** QHU578 Dup  
**Sample ID:** T-32  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7511211	N/A	2021/08/12	Surinder Rai
pH	AT	7511218	2021/08/10	2021/08/12	Surinder Rai

**BV Labs ID:** QHU579  
**Sample ID:** NORTH SUMP  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by GC/MS	GC/MS	7510203	2021/08/10	2021/08/11	Anh Lieu
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7511379	N/A	2021/08/11	Nan Raykha
Alkalinity	AT	7509796	N/A	2021/08/11	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7507517	2021/08/08	2021/08/13	Frank Zhang
Chloride by Automated Colourimetry	KONE	7509872	N/A	2021/08/10	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7510708	N/A	2021/08/10	Julianna Castiglione
Hardness (calculated as CaCO3)		7506368	N/A	2021/08/11	Automated Statchk
Mercury in Water by CVAA	CV/AA	7508011	2021/08/09	2021/08/09	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7512709	N/A	2021/08/11	Nan Raykha
Total Ammonia-N	LACH/NH4	7510570	N/A	2021/08/11	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7509280	N/A	2021/08/11	Chandra Nandlal
OC Pesticides (Selected) & PCB	GC/ECD	7512766	2021/08/11	2021/08/12	Li Peng
OC Pesticides Summed Parameters	CALC	7506187	N/A	2021/08/10	Automated Statchk
pH	AT	7509830	2021/08/09	2021/08/11	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7508742	N/A	2021/08/09	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7509876	N/A	2021/08/12	Avneet Kour Sudan
Total Phosphorus (Colourimetric)	LACH/P	7511471	2021/08/10	2021/08/13	Shivani Shivani
Total Suspended Solids	BAL	7506924	2021/08/09	2021/08/10	Sandeep Kaur
Volatile Organic Compounds in Water	P&T/MS	7506997	N/A	2021/08/09	Gladys Guerrero
Non-Routine Volatile Organic Compounds	P&T/MS	7507007	N/A	2021/08/09	Gladys Guerrero



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BV Labs Job #: C1M2489  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### TEST SUMMARY

**BV Labs ID:** QHU580  
**Sample ID:** TS-1  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by GC/MS	GC/MS	7510203	2021/08/10	2021/08/11	Anh Lieu
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7511379	N/A	2021/08/11	Nan Raykha
Alkalinity	AT	7511211	N/A	2021/08/12	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7507517	2021/08/08	2021/08/13	Frank Zhang
Chloride by Automated Colourimetry	KONE	7511133	N/A	2021/08/11	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7510708	N/A	2021/08/10	Julianna Castiglione
Hardness (calculated as CaCO3)		7506368	N/A	2021/08/11	Automated Statchk
Mercury in Water by CVAA	CV/AA	7510370	2021/08/10	2021/08/10	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7512709	N/A	2021/08/11	Nan Raykha
Total Ammonia-N	LACH/NH4	7510570	N/A	2021/08/11	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7510923	N/A	2021/08/11	Chandra Nandlal
OC Pesticides (Selected) & PCB	GC/ECD	7512766	2021/08/11	2021/08/12	Li Peng
OC Pesticides Summed Parameters	CALC	7506187	N/A	2021/08/10	Automated Statchk
pH	AT	7511218	2021/08/10	2021/08/12	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7508755	N/A	2021/08/09	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7511144	N/A	2021/08/11	Alina Dobreanu
Total Kjeldahl Nitrogen in Water	SKAL	7510727	2021/08/10	2021/08/11	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7510748	N/A	2021/08/10	Julianna Castiglione
Total Phosphorus (Colourimetric)	LACH/P	7511471	2021/08/10	2021/08/12	Shivani Shivani
Total Suspended Solids	BAL	7506924	2021/08/09	2021/08/10	Sandeep Kaur
Volatile Organic Compounds in Water	P&T/MS	7506997	N/A	2021/08/09	Gladys Guerrero
Non-Routine Volatile Organic Compounds	P&T/MS	7507007	N/A	2021/08/09	Gladys Guerrero

**BV Labs ID:** QHU580 Dup  
**Sample ID:** TS-1  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7510708	N/A	2021/08/10	Julianna Castiglione
OC Pesticides (Selected) & PCB	GC/ECD	7512766	2021/08/11	2021/08/12	Li Peng

**BV Labs ID:** QHU581  
**Sample ID:** T-35  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7511379	N/A	2021/08/11	Nan Raykha
Alkalinity	AT	7511211	N/A	2021/08/12	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7507517	2021/08/08	2021/08/13	Frank Zhang
Chloride by Automated Colourimetry	KONE	7511133	N/A	2021/08/11	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7510708	N/A	2021/08/10	Julianna Castiglione
Hardness (calculated as CaCO3)		7504818	N/A	2021/08/11	Automated Statchk
Mercury in Water by CVAA	CV/AA	7510370	2021/08/09	2021/08/10	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7512709	N/A	2021/08/11	Nan Raykha
Total Ammonia-N	LACH/NH4	7510570	N/A	2021/08/11	Amanpreet Sappal



**TEST SUMMARY**

**BV Labs ID:** QHU581  
**Sample ID:** T-35  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7510923	N/A	2021/08/11	Chandra Nandlal
pH	AT	7511218	2021/08/10	2021/08/12	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7508742	N/A	2021/08/09	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7511144	N/A	2021/08/11	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7511471	2021/08/10	2021/08/12	Shivani Shivani
Total Suspended Solids	BAL	7506924	2021/08/09	2021/08/10	Sandeep Kaur

**BV Labs ID:** QHU581 Dup  
**Sample ID:** T-35  
**Matrix:** Water

**Collected:** 2021/08/05  
**Shipped:**  
**Received:** 2021/08/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Biochemical Oxygen Demand (BOD)	DO	7507517	2021/08/08	2021/08/13	Frank Zhang
Chloride by Automated Colourimetry	KONE	7511133	N/A	2021/08/11	Alina Dobreanu
Sulphate by Automated Colourimetry	KONE	7511144	N/A	2021/08/11	Alina Dobreanu
Total Suspended Solids	BAL	7506924	2021/08/09	2021/08/10	Sandeep Kaur



### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.3°C
Package 2	5.3°C
Package 3	3.0°C
Package 4	6.7°C
Package 5	6.7°C
Package 6	6.0°C

Sample QHU566 [T-1R] : VOC Water Analysis: Due to foaming, sample required dilution. The detection limits were adjusted accordingly.

OC Pesticide Analysis: Detection Limits were raised due to matrix interferences.

**Results relate only to the items tested.**



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BV Labs Job #: C1M2489  
Report Date: 2021/08/13

### QUALITY ASSURANCE REPORT

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7506997	4-Bromofluorobenzene	2021/08/09	102	70 - 130	103	70 - 130	99	%				
7506997	D4-1,2-Dichloroethane	2021/08/09	99	70 - 130	102	70 - 130	101	%				
7506997	D8-Toluene	2021/08/09	96	70 - 130	97	70 - 130	97	%				
7510203	2,4,6-Tribromophenol	2021/08/10	86	10 - 130	84	10 - 130	80	%				
7510203	2-Fluorobiphenyl	2021/08/10	69	30 - 130	48	30 - 130	55	%				
7510203	2-Fluorophenol	2021/08/10	52	10 - 130	38	10 - 130	45	%				
7510203	D14-Terphenyl	2021/08/10	95	30 - 130	93	30 - 130	96	%				
7510203	D5-Nitrobenzene	2021/08/10	83	30 - 130	61	30 - 130	72	%				
7510203	D5-Phenol	2021/08/10	39	10 - 130	29	10 - 130	37	%				
7512766	2,4,5,6-Tetrachloro-m-xylene	2021/08/12	74	50 - 130	80	50 - 130	71	%				
7512766	Decachlorobiphenyl	2021/08/12	82	50 - 130	88	50 - 130	98	%				
7506924	Total Suspended Solids	2021/08/10					<10	mg/L	NC	25	96	85 - 115
7506931	Total Suspended Solids	2021/08/10					<10	mg/L	NC	25	96	85 - 115
7506997	1,1,1,2-Tetrachloroethane	2021/08/09	96	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
7506997	1,1,1-Trichloroethane	2021/08/09	106	70 - 130	101	70 - 130	<0.10	ug/L				
7506997	1,1,2,2-Tetrachloroethane	2021/08/09	87	70 - 130	86	70 - 130	<0.20	ug/L	NC	30		
7506997	1,1,2-Trichloroethane	2021/08/09	91	70 - 130	91	70 - 130	<0.20	ug/L				
7506997	1,1-Dichloroethane	2021/08/09	90	70 - 130	83	70 - 130	<0.10	ug/L	NC	30		
7506997	1,1-Dichloroethylene	2021/08/09	108	70 - 130	84	70 - 130	<0.10	ug/L				
7506997	1,2-Dichlorobenzene	2021/08/09	94	70 - 130	91	70 - 130	<0.20	ug/L	NC	30		
7506997	1,2-Dichloroethane	2021/08/09	92	70 - 130	92	70 - 130	<0.20	ug/L	NC	30		
7506997	1,2-Dichloropropane	2021/08/09	88	70 - 130	87	70 - 130	<0.10	ug/L	NC	30		
7506997	1,3-Dichlorobenzene	2021/08/09	98	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
7506997	1,4-Dichlorobenzene	2021/08/09	115	70 - 130	108	70 - 130	<0.20	ug/L	NC	30		
7506997	Acetone (2-Propanone)	2021/08/09	122	60 - 140	60 (1)	60 - 140	<10	ug/L				
7506997	Benzene	2021/08/09	91	70 - 130	87	70 - 130	<0.10	ug/L				
7506997	Bromodichloromethane	2021/08/09	98	70 - 130	98	70 - 130	<0.10	ug/L	NC	30		
7506997	Bromoform	2021/08/09	95	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
7506997	Bromomethane	2021/08/09	71	60 - 140	71	60 - 140	<0.50	ug/L	NC	30		
7506997	Carbon Tetrachloride	2021/08/09	107	70 - 130	102	70 - 130	<0.10	ug/L	NC	30		
7506997	Chlorobenzene	2021/08/09	98	70 - 130	93	70 - 130	<0.10	ug/L	NC	30		



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BV Labs Job #: C1M2489  
Report Date: 2021/08/13

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7506997	Chloroethane	2021/08/09	82	70 - 130	78	70 - 130	<0.20	ug/L	NC	30		
7506997	Chloroform	2021/08/09	93	70 - 130	90	70 - 130	<0.10	ug/L	NC	30		
7506997	Chloromethane	2021/08/09	80	60 - 140	74	60 - 140	<0.50	ug/L	NC	30		
7506997	cis-1,2-Dichloroethylene	2021/08/09	98	70 - 130	94	70 - 130	<0.10	ug/L				
7506997	cis-1,3-Dichloropropene	2021/08/09	114	70 - 130	110	70 - 130	<0.20	ug/L	NC	30		
7506997	Dibromochloromethane	2021/08/09	94	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
7506997	Ethylbenzene	2021/08/09	93	70 - 130	88	70 - 130	<0.10	ug/L				
7506997	Ethylene Dibromide	2021/08/09	88	70 - 130	86	70 - 130	<0.20	ug/L				
7506997	Methyl Ethyl Ketone (2-Butanone)	2021/08/09	92	60 - 140	89	60 - 140	<5.0	ug/L				
7506997	Methyl Isobutyl Ketone	2021/08/09	97	70 - 130	94	70 - 130	<5.0	ug/L				
7506997	Methyl t-butyl ether (MTBE)	2021/08/09	95	70 - 130	92	70 - 130	<0.20	ug/L				
7506997	Methylene Chloride(Dichloromethane)	2021/08/09	94	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
7506997	o-Xylene	2021/08/09	93	70 - 130	89	70 - 130	<0.10	ug/L				
7506997	p+m-Xylene	2021/08/09	98	70 - 130	93	70 - 130	<0.10	ug/L				
7506997	Styrene	2021/08/09	105	70 - 130	101	70 - 130	<0.20	ug/L				
7506997	Tetrachloroethylene	2021/08/09	99	70 - 130	90	70 - 130	<0.10	ug/L	NC	30		
7506997	Toluene	2021/08/09	95	70 - 130	89	70 - 130	<0.20	ug/L				
7506997	Total Xylenes	2021/08/09					<0.10	ug/L				
7506997	trans-1,2-Dichloroethylene	2021/08/09	104	70 - 130	95	70 - 130	<0.10	ug/L	NC	30		
7506997	trans-1,3-Dichloropropene	2021/08/09	112	70 - 130	108	70 - 130	<0.20	ug/L	NC	30		
7506997	Trichloroethylene	2021/08/09	109	70 - 130	101	70 - 130	<0.10	ug/L	NC	30		
7506997	Trichlorofluoromethane (FREON 11)	2021/08/09	102	70 - 130	160 (2)	70 - 130	<0.20	ug/L	NC	30		
7506997	Vinyl Chloride	2021/08/09	84	70 - 130	72	70 - 130	<0.20	ug/L	NC	30		
7507007	Acrolein	2021/08/09			93	60 - 140	<10	ug/L	NC	30		
7507007	Acrylonitrile	2021/08/09			107	60 - 140	<5.0	ug/L				
7507007	Methyl Butyl Ketone (2-Hexanone)	2021/08/09	104	60 - 140	86	60 - 140	<5.0	ug/L				
7507517	Total BOD	2021/08/13					<2	mg/L	NC	30	101	80 - 120
7508011	Mercury (Hg)	2021/08/09	94	75 - 125	96	80 - 120	<0.00010	mg/L	NC	20		
7508742	Phenols-4AAP	2021/08/09	100	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20		
7508755	Phenols-4AAP	2021/08/10	103	80 - 120	100	80 - 120	<0.0010	mg/L	0.97	20		
7509280	Nitrate (N)	2021/08/11	115	80 - 120	108	80 - 120	<0.10	mg/L	7.4	20		



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			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7509280	Nitrite (N)	2021/08/11	94	80 - 120	110	80 - 120	<0.010	mg/L	NC	20		
7509303	Total Ammonia-N	2021/08/11	NC	75 - 125	99	80 - 120	<0.050	mg/L	0.79	20		
7509314	Alkalinity (Total as CaCO3)	2021/08/10			96	85 - 115	<1.0	mg/L	0.89	20		
7509323	Conductivity	2021/08/10			99	85 - 115	<1.0	umho/cm	0.85	25		
7509324	pH	2021/08/10			102	98 - 103			0.18	N/A		
7509562	Dissolved Organic Carbon	2021/08/10	100	80 - 120	98	80 - 120	<0.40	mg/L	0.45	20		
7509796	Alkalinity (Total as CaCO3)	2021/08/11			96	85 - 115	<1.0	mg/L	1.1	20		
7509830	pH	2021/08/11			102	98 - 103			0.45	N/A		
7509866	Dissolved Chloride (Cl-)	2021/08/10	NC	80 - 120	106	80 - 120	<1.0	mg/L	4.2	20		
7509872	Dissolved Chloride (Cl-)	2021/08/10	NC	80 - 120	102	80 - 120	<1.0	mg/L	2.9	20		
7509876	Dissolved Sulphate (SO4)	2021/08/12	92	75 - 125	103	80 - 120	<1.0	mg/L	1.5	20		
7510116	Total Aluminum (Al)	2021/08/10	98	80 - 120	99	80 - 120	<0.0049	mg/L	5.8	20		
7510116	Total Arsenic (As)	2021/08/10	98	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20		
7510116	Total Beryllium (Be)	2021/08/10	102	80 - 120	96	80 - 120	<0.00040	mg/L	NC	20		
7510116	Total Boron (B)	2021/08/10	94	80 - 120	91	80 - 120	<0.010	mg/L	7.0	20		
7510116	Total Cadmium (Cd)	2021/08/10	99	80 - 120	99	80 - 120	<0.000090	mg/L	NC	20		
7510116	Total Calcium (Ca)	2021/08/10	NC	80 - 120	102	80 - 120	<0.20	mg/L	3.4	20		
7510116	Total Chromium (Cr)	2021/08/10	93	80 - 120	95	80 - 120	<0.0050	mg/L	NC	20		
7510116	Total Cobalt (Co)	2021/08/10	97	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20		
7510116	Total Copper (Cu)	2021/08/10	99	80 - 120	99	80 - 120	<0.00090	mg/L	NC	20		
7510116	Total Iron (Fe)	2021/08/10	94	80 - 120	94	80 - 120	<0.10	mg/L	NC	20		
7510116	Total Lead (Pb)	2021/08/10	98	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20		
7510116	Total Magnesium (Mg)	2021/08/10	99	80 - 120	102	80 - 120	<0.050	mg/L	2.5	20		
7510116	Total Manganese (Mn)	2021/08/10	95	80 - 120	98	80 - 120	<0.0020	mg/L	3.0	20		
7510116	Total Molybdenum (Mo)	2021/08/10	95	80 - 120	93	80 - 120	<0.00050	mg/L	4.0	20		
7510116	Total Nickel (Ni)	2021/08/10	94	80 - 120	96	80 - 120	<0.0010	mg/L	NC	20		
7510116	Total Selenium (Se)	2021/08/10	100	80 - 120	100	80 - 120	<0.0020	mg/L	NC	20		
7510116	Total Silver (Ag)	2021/08/10	94	80 - 120	94	80 - 120	<0.000090	mg/L	NC	20		
7510116	Total Sodium (Na)	2021/08/10	NC	80 - 120	99	80 - 120	<0.10	mg/L	6.3	20		
7510116	Total Strontium (Sr)	2021/08/10	95	80 - 120	97	80 - 120	<0.0010	mg/L	3.7	20		



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			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7510116	Total Vanadium (V)	2021/08/10	93	80 - 120	93	80 - 120	<0.00050	mg/L	NC	20		
7510116	Total Zinc (Zn)	2021/08/10	95	80 - 120	98	80 - 120	<0.0050	mg/L	1.9	20		
7510203	1,2,3,4-Tetrachlorobenzene	2021/08/10	59	30 - 130	40	30 - 130	<0.50	ug/L				
7510203	1,2,3,5-Tetrachlorobenzene	2021/08/10	74	30 - 130	49	30 - 130	<0.50	ug/L				
7510203	1,2,3-Trichlorobenzene	2021/08/10	62	30 - 130	42	30 - 130	<0.50	ug/L				
7510203	1,2,4,5-Tetrachlorobenzene	2021/08/10	60	30 - 130	39	30 - 130	<0.50	ug/L				
7510203	1,2,4-Trichlorobenzene	2021/08/10	67	30 - 130	44	30 - 130	<0.50	ug/L				
7510203	1,4-Dichlorobenzene	2021/08/10	66	30 - 130	38	30 - 130	<0.50	ug/L				
7510203	1-Chloronaphthalene	2021/08/10	71	30 - 130	50	30 - 130	<1.0	ug/L				
7510203	1-Methylnaphthalene	2021/08/10	90	30 - 130	63	30 - 130	<0.20	ug/L				
7510203	2,3,4,5-Tetrachlorophenol	2021/08/10	96	10 - 130	88	10 - 130	<0.40	ug/L				
7510203	2,3,4,6-Tetrachlorophenol	2021/08/10	103	10 - 130	96	10 - 130	<0.50	ug/L				
7510203	2,3,4-Trichlorophenol	2021/08/10	94	10 - 130	78	10 - 130	<0.50	ug/L				
7510203	2,3,5,6-Tetrachlorophenol	2021/08/10	95	10 - 130	99	10 - 130	<0.50	ug/L				
7510203	2,3,5-Trichlorophenol	2021/08/10	95	10 - 130	85	10 - 130	<0.50	ug/L				
7510203	2,4,5-Trichlorophenol	2021/08/10	103	10 - 130	94	10 - 130	<0.50	ug/L				
7510203	2,4,6-Trichlorophenol	2021/08/10	97	10 - 130	80	10 - 130	<0.50	ug/L				
7510203	2,4-Dichlorophenol	2021/08/10	89	10 - 130	68	10 - 130	<0.30	ug/L				
7510203	2,4-Dimethylphenol	2021/08/10	35	10 - 130	50	10 - 130	<0.50	ug/L				
7510203	2,4-Dinitrophenol	2021/08/10	95	10 - 130	93	10 - 130	<2.0	ug/L				
7510203	2,4-Dinitrotoluene	2021/08/10	91	30 - 130	93	30 - 130	<0.50	ug/L				
7510203	2,6-Dichlorophenol	2021/08/10	85	10 - 130	66	10 - 130	<0.50	ug/L				
7510203	2,6-Dinitrotoluene	2021/08/10	82	30 - 130	77	30 - 130	<0.50	ug/L				
7510203	2-Chloronaphthalene	2021/08/10	83	30 - 130	61	30 - 130	<0.50	ug/L				
7510203	2-Chlorophenol	2021/08/10	90	10 - 130	66	10 - 130	<0.30	ug/L				
7510203	2-Methylnaphthalene	2021/08/10	82	30 - 130	58	30 - 130	<0.20	ug/L				
7510203	2-Nitrophenol	2021/08/10	81	10 - 130	68	10 - 130	<0.50	ug/L				
7510203	3,3'-Dichlorobenzidine	2021/08/10	5.7 (3)	30 - 130	81	30 - 130	<0.50	ug/L				
7510203	3,4,5-Trichlorophenol	2021/08/10	97	10 - 130	96	10 - 130	<0.50	ug/L				
7510203	4,6-Dinitro-2-methylphenol	2021/08/10	98	10 - 130	109	10 - 130	<2.0	ug/L				
7510203	4-Bromophenyl phenyl ether	2021/08/10	85	30 - 130	71	30 - 130	<0.30	ug/L				





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			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7510203	4-Chloro-3-Methylphenol	2021/08/10	94	10 - 130	79	10 - 130	<0.50	ug/L				
7510203	4-Chlorophenyl phenyl ether	2021/08/10	81	30 - 130	68	30 - 130	<0.50	ug/L				
7510203	4-Nitrophenol	2021/08/10	40	10 - 130	37	10 - 130	<1.4	ug/L				
7510203	5-Nitroacenaphthene	2021/08/10	94	30 - 130	92	30 - 130	<1.0	ug/L				
7510203	Acenaphthene	2021/08/10	86	30 - 130	70	30 - 130	<0.20	ug/L				
7510203	Acenaphthylene	2021/08/10	86	30 - 130	68	30 - 130	<0.20	ug/L				
7510203	Anthracene	2021/08/10	83	30 - 130	80	30 - 130	<0.20	ug/L				
7510203	Benzo(a)anthracene	2021/08/10	102	30 - 130	102	30 - 130	<0.20	ug/L				
7510203	Benzo(a)pyrene	2021/08/10	89	30 - 130	88	30 - 130	<0.20	ug/L				
7510203	Benzo(b/j)fluoranthene	2021/08/10	104	30 - 130	102	30 - 130	<0.20	ug/L				
7510203	Benzo(g,h,i)perylene	2021/08/10	99	30 - 130	96	30 - 130	<0.20	ug/L				
7510203	Benzo(k)fluoranthene	2021/08/10	106	30 - 130	102	30 - 130	<0.20	ug/L				
7510203	Benzyl butyl phthalate	2021/08/10	95	30 - 130	90	30 - 130	<0.50	ug/L				
7510203	Biphenyl	2021/08/10	87	30 - 130	63	30 - 130	<0.50	ug/L				
7510203	Bis(2-chloroethoxy)methane	2021/08/10	69	30 - 130	56	30 - 130	<0.50	ug/L				
7510203	Bis(2-chloroethyl)ether	2021/08/10	87	30 - 130	62	30 - 130	<0.50	ug/L				
7510203	Bis(2-chloroisopropyl)ether	2021/08/10	72	30 - 130	54	30 - 130	<0.50	ug/L				
7510203	Bis(2-ethylhexyl)phthalate	2021/08/11	94	30 - 130	91	30 - 130	<2.0	ug/L	NC	40		
7510203	Camphene	2021/08/10	64	30 - 130	39	30 - 130	<1.0	ug/L				
7510203	Chrysene	2021/08/10	103	30 - 130	100	30 - 130	<0.20	ug/L				
7510203	Dibenzo(a,h)anthracene	2021/08/10	102	30 - 130	97	30 - 130	<0.20	ug/L				
7510203	Diethyl phthalate	2021/08/10	87	30 - 130	83	30 - 130	<1.0	ug/L				
7510203	Dimethyl phthalate	2021/08/10	85	30 - 130	79	30 - 130	<1.0	ug/L				
7510203	Di-N-butyl phthalate	2021/08/11	95	30 - 130	96	30 - 130	<2.0	ug/L	NC	40		
7510203	di-n-octyl phthalate	2021/08/10	104	30 - 130	99	30 - 130	<0.80	ug/L				
7510203	Diphenyl Ether	2021/08/10	81	30 - 130	60	30 - 130	<0.30	ug/L				
7510203	Fluoranthene	2021/08/10	104	30 - 130	98	30 - 130	<0.20	ug/L				
7510203	Fluorene	2021/08/10	92	30 - 130	80	30 - 130	<0.20	ug/L				
7510203	Hexachlorobenzene	2021/08/10	82	30 - 130	80	30 - 130	<0.50	ug/L				
7510203	Hexachlorobutadiene	2021/08/10	56	30 - 130	34	30 - 130	<0.40	ug/L				
7510203	Hexachlorocyclopentadiene	2021/08/10	53	30 - 130	33	30 - 130	<2.0	ug/L				



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			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7510203	Hexachloroethane	2021/08/10	60	30 - 130	37	30 - 130	<0.50	ug/L				
7510203	Indeno(1,2,3-cd)pyrene	2021/08/10	104	30 - 130	99	30 - 130	<0.20	ug/L				
7510203	Indole	2021/08/10	62	30 - 130	61	30 - 130	<1.0	ug/L				
7510203	Isophorone	2021/08/10	91	30 - 130	74	30 - 130	<0.50	ug/L				
7510203	m/p-Cresol	2021/08/10	81	10 - 130	64	10 - 130	<0.50	ug/L				
7510203	Naphthalene	2021/08/10	67	30 - 130	45	30 - 130	<0.20	ug/L				
7510203	Nitrobenzene	2021/08/10	77	30 - 130	64	30 - 130	<0.50	ug/L				
7510203	Nitrosodiphenylamine/Diphenylamine	2021/08/10	103	30 - 130	99	30 - 130	<1.0	ug/L				
7510203	N-Nitroso-di-n-propylamine	2021/08/10	89	30 - 130	69	30 - 130	<0.50	ug/L				
7510203	o-Cresol	2021/08/10	76	10 - 130	61	10 - 130	<0.50	ug/L				
7510203	p-Chloroaniline	2021/08/10	52	30 - 130	74	30 - 130	<1.0	ug/L				
7510203	Pentachlorobenzene	2021/08/10	72	30 - 130	52	30 - 130	<0.50	ug/L				
7510203	Pentachlorophenol	2021/08/10	84	10 - 130	86	10 - 130	<1.0	ug/L				
7510203	Perylene	2021/08/10	99	30 - 130	96	30 - 130	<0.20	ug/L				
7510203	Phenanthrene	2021/08/10	94	30 - 130	89	30 - 130	<0.20	ug/L				
7510203	Phenol	2021/08/10	42	10 - 130	33	10 - 130	<0.50	ug/L				
7510203	Pyrene	2021/08/10	96	30 - 130	95	30 - 130	<0.20	ug/L				
7510370	Mercury (Hg)	2021/08/10	94	75 - 125	96	80 - 120	<0.00010	mg/L	NC	20		
7510570	Total Ammonia-N	2021/08/11	NC	75 - 125	100	80 - 120	<0.050	mg/L	0.24	20		
7510708	Dissolved Organic Carbon	2021/08/10	95	80 - 120	99	80 - 120	<0.40	mg/L	0.42	20		
7510727	Total Kjeldahl Nitrogen (TKN)	2021/08/12	NC	80 - 120	101	80 - 120	<0.10	mg/L	0.44	20	97	80 - 120
7510748	Total Organic Carbon (TOC)	2021/08/10	100	80 - 120	100	80 - 120	<0.40	mg/L	1.2	20		
7510923	Nitrate (N)	2021/08/11	95	80 - 120	98	80 - 120	<0.10	mg/L	1.4	20		
7510923	Nitrite (N)	2021/08/11	108	80 - 120	109	80 - 120	<0.010	mg/L	NC	20		
7510932	Nitrate (N)	2021/08/11	101	80 - 120	103	80 - 120	<0.10	mg/L	2.1	20		
7510932	Nitrite (N)	2021/08/11	107	80 - 120	109	80 - 120	<0.010	mg/L	NC	20		
7511133	Dissolved Chloride (Cl-)	2021/08/11	NC	80 - 120	102	80 - 120	<1.0	mg/L	4.6	20		
7511144	Dissolved Sulphate (SO4)	2021/08/11	NC	75 - 125	106	80 - 120	<1.0	mg/L	0.35	20		
7511168	Nitrate (N)	2021/08/11	95	80 - 120	98	80 - 120	<0.10	mg/L	NC	20		
7511168	Nitrite (N)	2021/08/11	107	80 - 120	108	80 - 120	<0.010	mg/L	2.0	20		
7511199	Alkalinity (Total as CaCO3)	2021/08/12			96	85 - 115	<1.0	mg/L	1.3	20		



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			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7511205	Conductivity	2021/08/12			100	85 - 115	<1.0	umho/cm	0	25		
7511206	pH	2021/08/12			102	98 - 103			0.58	N/A		
7511211	Alkalinity (Total as CaCO3)	2021/08/12			96	85 - 115	<1.0	mg/L	2.1	20		
7511218	pH	2021/08/12			102	98 - 103			0.49	N/A		
7511379	Dissolved (0.2u) Aluminum (Al)	2021/08/11	95	80 - 120	93	80 - 120	<5	ug/L	NC	20		
7511471	Total Phosphorus	2021/08/12	105	80 - 120	100	80 - 120	<0.004	mg/L	2.1	20	102	80 - 120
7511783	Dissolved Chloride (Cl-)	2021/08/11	106	80 - 120	106	80 - 120	<1.0	mg/L	4.1	20		
7512090	Dissolved Sulphate (SO4)	2021/08/12	NC	75 - 125	103	80 - 120	<1.0	mg/L	3.4	20		
7512104	Dissolved Chloride (Cl-)	2021/08/12	NC	80 - 120	103	80 - 120	<1.0	mg/L	1.3	20		
7512709	Total Aluminum (Al)	2021/08/11	98	80 - 120	95	80 - 120	<0.0049	mg/L	1.6	20		
7512709	Total Arsenic (As)	2021/08/11	105	80 - 120	105	80 - 120	<0.0010	mg/L	1.7	20		
7512709	Total Beryllium (Be)	2021/08/11	99	80 - 120	97	80 - 120	<0.00040	mg/L	NC	20		
7512709	Total Boron (B)	2021/08/11	94	80 - 120	90	80 - 120	<0.010	mg/L	4.7	20		
7512709	Total Cadmium (Cd)	2021/08/11	104	80 - 120	103	80 - 120	<0.000090	mg/L	NC	20		
7512709	Total Calcium (Ca)	2021/08/11	NC	80 - 120	95	80 - 120	<0.20	mg/L	2.2	20		
7512709	Total Chromium (Cr)	2021/08/11	98	80 - 120	100	80 - 120	<0.0050	mg/L	NC	20		
7512709	Total Cobalt (Co)	2021/08/11	100	80 - 120	100	80 - 120	<0.00050	mg/L	NC	20		
7512709	Total Copper (Cu)	2021/08/11	102	80 - 120	98	80 - 120	<0.00090	mg/L	3.5	20		
7512709	Total Iron (Fe)	2021/08/11	100	80 - 120	101	80 - 120	<0.10	mg/L				
7512709	Total Lead (Pb)	2021/08/11	100	80 - 120	100	80 - 120	<0.00050	mg/L	NC	20		
7512709	Total Magnesium (Mg)	2021/08/11	103	80 - 120	103	80 - 120	<0.050	mg/L	1.0	20		
7512709	Total Manganese (Mn)	2021/08/11	97	80 - 120	98	80 - 120	<0.0020	mg/L	0.36	20		
7512709	Total Molybdenum (Mo)	2021/08/11	106	80 - 120	102	80 - 120	<0.00050	mg/L	0.40	20		
7512709	Total Nickel (Ni)	2021/08/11	97	80 - 120	99	80 - 120	<0.0010	mg/L	1.1	20		
7512709	Total Potassium (K)	2021/08/11	104	80 - 120	96	80 - 120	<0.20	mg/L	0.31	20		
7512709	Total Selenium (Se)	2021/08/11	102	80 - 120	102	80 - 120	<0.0020	mg/L	NC	20		
7512709	Total Silver (Ag)	2021/08/11	102	80 - 120	100	80 - 120	<0.000090	mg/L	NC	20		
7512709	Total Sodium (Na)	2021/08/11	NC	80 - 120	101	80 - 120	<0.10	mg/L	0.36	20		
7512709	Total Strontium (Sr)	2021/08/11	102	80 - 120	100	80 - 120	<0.0010	mg/L	1.0	20		
7512709	Total Vanadium (V)	2021/08/11	100	80 - 120	101	80 - 120	<0.00050	mg/L	0.84	20		



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Sampler Initials: CR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7512709	Total Zinc (Zn)	2021/08/11	101	80 - 120	104	80 - 120	<0.0050	mg/L	NC	20		
7512766	a-Chlordane	2021/08/12	70	50 - 130	88	50 - 130	<0.005	ug/L	NC	30		
7512766	Aldrin	2021/08/12	65	50 - 130	78	50 - 130	<0.005	ug/L	NC	30		
7512766	alpha-BHC	2021/08/12	86	30 - 130	84	30 - 130	<0.005	ug/L	NC	40		
7512766	beta-BHC	2021/08/12	69	30 - 130	80	30 - 130	<0.005	ug/L	NC	40		
7512766	delta-BHC	2021/08/12	64	30 - 130	82	30 - 130	<0.005	ug/L	NC	40		
7512766	Dieldrin	2021/08/12	78	50 - 130	105	50 - 130	<0.005	ug/L	NC	30		
7512766	Endosulfan I (alpha)	2021/08/12	68	50 - 130	83	50 - 130	<0.005	ug/L	NC	30		
7512766	Endosulfan II (beta)	2021/08/12	64	50 - 130	87	50 - 130	<0.005	ug/L	NC	30		
7512766	Endosulfan sulfate	2021/08/12	85	30 - 130	110	30 - 130	<0.005	ug/L	NC	40		
7512766	Endrin aldehyde	2021/08/12	63	30 - 130	89	30 - 130	<0.005	ug/L	NC	40		
7512766	Endrin ketone	2021/08/12	75	30 - 130	87	30 - 130	<0.005	ug/L	NC	40		
7512766	Endrin	2021/08/12	73	50 - 130	96	50 - 130	<0.005	ug/L	NC	30		
7512766	g-Chlordane	2021/08/12	76	50 - 130	86	50 - 130	<0.005	ug/L	NC	30		
7512766	Heptachlor epoxide	2021/08/12	66	50 - 130	88	50 - 130	<0.005	ug/L	NC	30		
7512766	Heptachlor	2021/08/12	75	50 - 130	78	50 - 130	<0.005	ug/L	NC	30		
7512766	Hexachlorobenzene	2021/08/12	66	50 - 130	86	50 - 130	<0.005	ug/L	NC	30		
7512766	Lindane	2021/08/12	70	50 - 130	83	50 - 130	<0.003	ug/L	NC	30		
7512766	Methoxychlor	2021/08/12	82	50 - 130	90	50 - 130	<0.01	ug/L	NC	30		
7512766	Mirex	2021/08/12	72	30 - 130	88	30 - 130	<0.005	ug/L	NC	40		
7512766	o,p-DDD	2021/08/12	77	50 - 130	93	50 - 130	<0.005	ug/L	NC	30		
7512766	o,p-DDE	2021/08/12	65	50 - 130	83	50 - 130	<0.005	ug/L	NC	30		
7512766	o,p-DDT	2021/08/12	79	50 - 130	86	50 - 130	<0.005	ug/L	NC	30		
7512766	Octachlorostyrene	2021/08/12	72	30 - 130	91	30 - 130	<0.005	ug/L	NC	40		
7512766	p,p-DDD	2021/08/12	76	50 - 130	87	50 - 130	<0.005	ug/L	NC	30		
7512766	p,p-DDE	2021/08/12	78	50 - 130	86	50 - 130	<0.005	ug/L	NC	30		
7512766	p,p-DDT	2021/08/12	83	50 - 130	85	50 - 130	<0.005	ug/L	NC	30		
7512766	Toxaphene	2021/08/12					<0.2	ug/L	NC	40		
7512785	Dissolved Chloride (Cl-)	2021/08/11	NC	80 - 120	104	80 - 120	<1.0	mg/L	0.56	20		
7512808	Dissolved Sulphate (SO4)	2021/08/11	NC	75 - 125	103	80 - 120	<1.0	mg/L	2.1	20		
7512902	Alkalinity (Total as CaCO3)	2021/08/11			96	85 - 115	<1.0	mg/L	0.56	20		



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BV Labs Job #: C1M2489  
Report Date: 2021/08/13

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7512948	pH	2021/08/11			102	98 - 103			0.52	N/A		
7512960	Nitrate (N)	2021/08/11	97	80 - 120	98	80 - 120	<0.10	mg/L	15	20		
7512960	Nitrite (N)	2021/08/11	109	80 - 120	108	80 - 120	<0.010	mg/L	NC	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) The recovery was below the lower control limit. This may represent a low bias in some results for this specific analyte.

(2) The recovery was above the upper control limit. This may represent a high bias in some results for this specific analyte. For results that were not detected (ND), this potential bias has no impact.

(3) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



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VERITAS

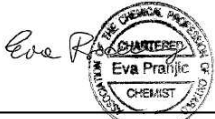
BV Labs Job #: C1M2489  
Report Date: 2021/08/13

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

\_\_\_\_\_  
Anastassia Hamanov, Scientific Specialist



\_\_\_\_\_  
Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.





INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name: #16786 Terrapure Environmental	Company Name: Accounting	Company Name: Brad Mullin - GHD Reporting	Quotation #: B60569	BV Labs Job #:	Bottle Order #:		
Attention: Accounting	Attention: 65 Green Mountain Rd West	Attention: Stoney Creek ON L8J 1X5	P O #:	Barcode: 815513			
Address: Stoney Creek ON L8J 1X5	Address: (905) 561-0305	Address: (905) 561-1674	Project: SW	COC #:	Project Manager:		
Tel: (905) 561-0305	Fax: (905) 561-1674	Fax: kbailey@terrapureenv.com	Project Name: SW	Barcode: C#815513-01-01		Jolanta Goralczyk	
Email: kbailey@terrapureenv.com	Email: bmulin@terrapureenv.com	Email: dtaylor2@terrapureenv.com	Site #:				
				Sampled By:			

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)						Turnaround Time (TAT) Required: Please provide advance notice for rush projects					
Regulation 153 (2011)			Other Regulations			Special Instructions			Field Filtered (please circle): Metals / Cr VI			Regular (Standard) TAT: (will be applied if Rush TAT is not specified): Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.			Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)		
Table 1	Table 2	Table 3	CCME	Reg 558	MISA	PWQO	Other	Sanitary Sewer Bylaw	Storm Sewer Bylaw	Municipality	Reg 406 Table	Other	TOC	TKN	K	# of Bottles	Comments
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RELINQUISHED BY: (Signature/Print) C. Richardson / Cooper Richardson	Date: (YY/MM/DD) 21/8/16	Time 9:40	RECEIVED BY: (Signature/Print) see page 1	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only					
						Time Sensitive			Temperature (°C) on Receipt	Custody Seal Present	Yes	No

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

\*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client





Your Project #: GW  
Your C.O.C. #: 808571-24-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/08/18**  
Report #: R6771100  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1M3984**

**Received: 2021/08/09, 15:51**

Sample Matrix: Water  
# Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity	4	N/A	2021/08/13	CAM SOP-00448	SM 23 2320 B m
Anions	4	N/A	2021/08/11	CAM SOP-00435	SM 23 4110 B m
Conductivity	4	N/A	2021/08/13	CAM SOP-00414	SM 23 2510 m
Fluoride	4	2021/08/11	2021/08/13	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	4	N/A	2021/08/18	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Metals by ICPMS	2	N/A	2021/08/16	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS	2	N/A	2021/08/18	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	4	N/A	2021/08/13	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1)	4	N/A	2021/08/12	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	4	2021/08/11	2021/08/13	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	4	N/A	2021/08/10	CAM SOP-00444	OMOE E3179 m
Orthophosphate	4	N/A	2021/08/13	CAM SOP-00461	EPA 365.1 m
Total Dissolved Solids	4	2021/08/11	2021/08/12	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water	4	2021/08/10	2021/08/11	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (2)	4	N/A	2021/08/10	CAM SOP-00446	SM 23 5310B m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

(2) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key



**AUTHORIZED REPORT  
RAPPORT AUTORISÉ**

Bureau Veritas  
18 Aug 2021 17:27:30

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

=====  
This report has been generated and distributed using a secure automated process.

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Total Cover Pages : 1  
Page 1 of 11



**RESULTS OF ANALYSES OF WATER**

<b>BV Labs ID</b>		QID549		QID550			QID550		
<b>Sampling Date</b>		2021/08/06		2021/08/06			2021/08/06		
<b>COC Number</b>		808571-24-01		808571-24-01			808571-24-01		
	<b>UNITS</b>	<b>57-II</b>	<b>RDL</b>	<b>P14</b>	<b>RDL</b>	<b>QC Batch</b>	<b>P14 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Calculated Parameters</b>									
Hardness (CaCO3)	mg/L	600	1.0	130	1.0	7508163			
<b>Inorganics</b>									
Total Ammonia-N	mg/L	6.6	0.050	100 (1)	0.50	7510734	100 (1)	0.50	7510734
Conductivity	umho/cm	3100	1.0	8100	1.0	7513963			
Total Dissolved Solids	mg/L	740	10	3840	20	7504829			
Fluoride (F-)	mg/L	0.72	0.10	3.0	0.10	7513928			
Total Kjeldahl Nitrogen (TKN)	mg/L	7.2	0.20	95 (1)	5.0	7510700			
Total Organic Carbon (TOC)	mg/L	4.6	0.40	31	0.40	7510748			
Orthophosphate (P)	mg/L	<0.010	0.010	0.014	0.010	7513759			
pH	pH	12.0		9.33		7513961			
Phenols-4AAP	mg/L	0.0062	0.0010	0.65	0.010	7510289			
Alkalinity (Total as CaCO3)	mg/L	690	1.0	240	1.0	7513959			
Nitrite (N)	mg/L	<0.010	0.010	<0.010	0.010	7513736			
Dissolved Chloride (Cl-)	mg/L	39	5.0	2100	20	7513750			
Nitrate (N)	mg/L	<0.10	0.10	<0.10	0.10	7513736			
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	<0.10	0.10	7513736			
Dissolved Bromide (Br-)	mg/L	<5.0	5.0	<10	10	7513750			
Dissolved Sulphate (SO4)	mg/L	35	5.0	180	10	7513750			

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 (1) TKN < NH4: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.



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VERITAS

BV Labs Job #: C1M3984  
Report Date: 2021/08/18

Terrapure Environmental  
Client Project #: GW

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QID551			QID551			QID552		
Sampling Date		2021/08/06			2021/08/06			2021/08/06		
COC Number		808571-24-01			808571-24-01			808571-24-01		
	UNITS	51-IV	RDL	QC Batch	51-IV Lab-Dup	RDL	QC Batch	51-V	RDL	QC Batch
<b>Calculated Parameters</b>										
Hardness (CaCO3)	mg/L	2000	1.0	7508163				590	1.0	7508163
<b>Inorganics</b>										
Total Ammonia-N	mg/L	5.0	0.050	7510734				0.16	0.050	7510734
Conductivity	umho/cm	5000	1.0	7513963				2000	1.0	7513963
Total Dissolved Solids	mg/L	3810	10	7504829				1180	10	7504829
Fluoride (F-)	mg/L	1.3	0.10	7513928				1.3	0.10	7513928
Total Kjeldahl Nitrogen (TKN)	mg/L	5.4	0.20	7510700				0.29	0.10	7510700
Total Organic Carbon (TOC)	mg/L	2.0	0.40	7510748				3.6	0.40	7510748
Orthophosphate (P)	mg/L	<0.010	0.010	7513759				<0.010	0.010	7513759
pH	pH	7.42		7513961				7.77		7513961
Phenols-4AAP	mg/L	<0.0010	0.0010	7510289				<0.0010	0.0010	7510289
Alkalinity (Total as CaCO3)	mg/L	280	1.0	7513959				220	1.0	7513959
Nitrite (N)	mg/L	<0.010	0.010	7513736				<0.010	0.010	7513736
Dissolved Chloride (Cl-)	mg/L	640	5.0	7513750	630	5.0	7513750	260	5.0	7513750
Nitrate (N)	mg/L	<0.10	0.10	7513736				<0.10	0.10	7513736
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7513736				<0.10	0.10	7513736
Dissolved Bromide (Br-)	mg/L	<5.0	5.0	7513750	<5.0	5.0	7513750	<5.0	5.0	7513750
Dissolved Sulphate (SO4)	mg/L	1600	5.0	7513750	1600	5.0	7513750	410	5.0	7513750
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate										



BUREAU  
VERITAS

BV Labs Job #: C1M3984  
Report Date: 2021/08/18

Terrapure Environmental  
Client Project #: GW

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QID549		QID550		QID551		QID552		
Sampling Date		2021/08/06		2021/08/06		2021/08/06		2021/08/06		
COC Number		808571-24-01		808571-24-01		808571-24-01		808571-24-01		
	UNITS	57-II	RDL	P14	RDL	51-IV	RDL	51-V	RDL	QC Batch
<b>Metals</b>										
Dissolved Aluminum (Al)	ug/L	260	4.9	<4.9	4.9	<4.9	4.9	6.0	4.9	7512127
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7512127
Dissolved Arsenic (As)	ug/L	<1.0	1.0	1.8	1.0	<1.0	1.0	<1.0	1.0	7512127
Dissolved Barium (Ba)	ug/L	120	2.0	14	2.0	9.6	2.0	25	2.0	7512127
Dissolved Beryllium (Be)	ug/L	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40	7512127
Dissolved Bismuth (Bi)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7512127
Dissolved Boron (B)	ug/L	45	10	330	10	1400	10	100	10	7512127
Dissolved Cadmium (Cd)	ug/L	<0.090	0.090	<0.090	0.090	<0.090	0.090	0.16	0.090	7512127
Dissolved Calcium (Ca)	ug/L	240000	200	40000	200	630000	2000	150000	200	7512127
Dissolved Chromium (Cr)	ug/L	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	7512127
Dissolved Cobalt (Co)	ug/L	<0.50	0.50	<0.50	0.50	<0.50	0.50	0.76	0.50	7512127
Dissolved Copper (Cu)	ug/L	12	0.90	<0.90	0.90	<0.90	0.90	<0.90	0.90	7512127
Dissolved Iron (Fe)	ug/L	<100	100	<100	100	<100	100	150	100	7512127
Dissolved Lead (Pb)	ug/L	9.3	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7512127
Dissolved Lithium (Li)	ug/L	11	5.0	18	5.0	310	5.0	18	5.0	7512127
Dissolved Magnesium (Mg)	ug/L	51	50	8700	50	120000	50	53000	50	7512127
Dissolved Manganese (Mn)	ug/L	<2.0	2.0	<2.0	2.0	45	2.0	58	2.0	7512127
Dissolved Molybdenum (Mo)	ug/L	26	0.50	25	0.50	<0.50	0.50	5.1	0.50	7512127
Dissolved Nickel (Ni)	ug/L	2.4	1.0	13	1.0	<1.0	1.0	3.8	1.0	7512127
Dissolved Phosphorus (P)	ug/L	<100	100	<100	100	<100	100	<100	100	7512127
Dissolved Potassium (K)	ug/L	20000	200	86000	200	29000	200	3700	200	7512127
Dissolved Selenium (Se)	ug/L	<2.0	2.0	3.5	2.0	<2.0	2.0	<2.0	2.0	7512127
Dissolved Silicon (Si)	ug/L	1100	50	4300	50	5100	50	3700	50	7512127
Dissolved Silver (Ag)	ug/L	<0.090	0.090	<0.090	0.090	<0.090	0.090	<0.090	0.090	7512127
Dissolved Sodium (Na)	ug/L	59000	100	1300000	500	390000	100	140000	100	7512127
Dissolved Strontium (Sr)	ug/L	360	1.0	1000	1.0	6900	1.0	2000	1.0	7512127
Dissolved Tellurium (Te)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7512127
Dissolved Thallium (Tl)	ug/L	<0.050	0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	7512127
Dissolved Tin (Sn)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7512127
Dissolved Titanium (Ti)	ug/L	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	7512127
Dissolved Tungsten (W)	ug/L	1.5	1.0	15	1.0	<1.0	1.0	<1.0	1.0	7512127
Dissolved Uranium (U)	ug/L	<0.10	0.10	<0.10	0.10	0.17	0.10	4.8	0.10	7512127
Dissolved Vanadium (V)	ug/L	5.9	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7512127
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	<5.0	5.0	<5.0	5.0	60	5.0	7512127
Dissolved Zirconium (Zr)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7512127
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										



BUREAU  
VERITAS

BV Labs Job #: C1M3984  
Report Date: 2021/08/18

Terrapure Environmental  
Client Project #: GW

### TEST SUMMARY

**BV Labs ID:** QID549  
**Sample ID:** 57-II  
**Matrix:** Water

**Collected:** 2021/08/06  
**Shipped:**  
**Received:** 2021/08/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7513959	N/A	2021/08/13	Yogesh Patel
Anions	IC	7513750	N/A	2021/08/11	Fari Dehdezi
Conductivity	AT	7513963	N/A	2021/08/13	Yogesh Patel
Fluoride	ISE	7513928	2021/08/11	2021/08/13	Yogesh Patel
Hardness (calculated as CaCO3)		7508163	N/A	2021/08/18	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7512127	N/A	2021/08/16	Azita Fazaeli
Total Ammonia-N	LACH/NH4	7510734	N/A	2021/08/13	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7513736	N/A	2021/08/12	Chandra Nandlal
pH	AT	7513961	2021/08/11	2021/08/13	Yogesh Patel
Phenols (4AAP)	TECH/PHEN	7510289	N/A	2021/08/10	Deonarine Ramnarine
Orthophosphate	KONE	7513759	N/A	2021/08/13	Avneet Kour Sudan
Total Dissolved Solids	BAL	7504829	2021/08/11	2021/08/12	Shivani Desai
Total Kjeldahl Nitrogen in Water	SKAL	7510700	2021/08/10	2021/08/11	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7510748	N/A	2021/08/10	Julianna Castiglione

**BV Labs ID:** QID550  
**Sample ID:** P14  
**Matrix:** Water

**Collected:** 2021/08/06  
**Shipped:**  
**Received:** 2021/08/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7513959	N/A	2021/08/13	Yogesh Patel
Anions	IC	7513750	N/A	2021/08/11	Fari Dehdezi
Conductivity	AT	7513963	N/A	2021/08/13	Yogesh Patel
Fluoride	ISE	7513928	2021/08/11	2021/08/13	Yogesh Patel
Hardness (calculated as CaCO3)		7508163	N/A	2021/08/18	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7512127	N/A	2021/08/18	Azita Fazaeli
Total Ammonia-N	LACH/NH4	7510734	N/A	2021/08/13	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7513736	N/A	2021/08/12	Chandra Nandlal
pH	AT	7513961	2021/08/11	2021/08/13	Yogesh Patel
Phenols (4AAP)	TECH/PHEN	7510289	N/A	2021/08/10	Deonarine Ramnarine
Orthophosphate	KONE	7513759	N/A	2021/08/13	Avneet Kour Sudan
Total Dissolved Solids	BAL	7504829	2021/08/11	2021/08/12	Shivani Desai
Total Kjeldahl Nitrogen in Water	SKAL	7510700	2021/08/10	2021/08/11	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7510748	N/A	2021/08/10	Julianna Castiglione

**BV Labs ID:** QID550 Dup  
**Sample ID:** P14  
**Matrix:** Water

**Collected:** 2021/08/06  
**Shipped:**  
**Received:** 2021/08/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Ammonia-N	LACH/NH4	7510734	N/A	2021/08/13	Amanpreet Sappal



BUREAU  
VERITAS

BV Labs Job #: C1M3984  
Report Date: 2021/08/18

Terrapure Environmental  
Client Project #: GW

### TEST SUMMARY

**BV Labs ID:** QID551  
**Sample ID:** 51-IV  
**Matrix:** Water

**Collected:** 2021/08/06  
**Shipped:**  
**Received:** 2021/08/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7513959	N/A	2021/08/13	Yogesh Patel
Anions	IC	7513750	N/A	2021/08/11	Fari Dehdezi
Conductivity	AT	7513963	N/A	2021/08/13	Yogesh Patel
Fluoride	ISE	7513928	2021/08/11	2021/08/13	Yogesh Patel
Hardness (calculated as CaCO3)		7508163	N/A	2021/08/18	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7512127	N/A	2021/08/18	Azita Fazaeli
Total Ammonia-N	LACH/NH4	7510734	N/A	2021/08/13	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7513736	N/A	2021/08/12	Chandra Nandlal
pH	AT	7513961	2021/08/11	2021/08/13	Yogesh Patel
Phenols (4AAP)	TECH/PHEN	7510289	N/A	2021/08/10	Deonarine Ramnarine
Orthophosphate	KONE	7513759	N/A	2021/08/13	Avneet Kour Sudan
Total Dissolved Solids	BAL	7504829	2021/08/11	2021/08/12	Shivani Desai
Total Kjeldahl Nitrogen in Water	SKAL	7510700	2021/08/10	2021/08/11	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7510748	N/A	2021/08/10	Julianna Castiglione

**BV Labs ID:** QID551 Dup  
**Sample ID:** 51-IV  
**Matrix:** Water

**Collected:** 2021/08/06  
**Shipped:**  
**Received:** 2021/08/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Anions	IC	7513750	N/A	2021/08/11	Fari Dehdezi

**BV Labs ID:** QID552  
**Sample ID:** 51-V  
**Matrix:** Water

**Collected:** 2021/08/06  
**Shipped:**  
**Received:** 2021/08/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7513959	N/A	2021/08/13	Yogesh Patel
Anions	IC	7513750	N/A	2021/08/11	Fari Dehdezi
Conductivity	AT	7513963	N/A	2021/08/13	Yogesh Patel
Fluoride	ISE	7513928	2021/08/11	2021/08/13	Yogesh Patel
Hardness (calculated as CaCO3)		7508163	N/A	2021/08/18	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7512127	N/A	2021/08/16	Azita Fazaeli
Total Ammonia-N	LACH/NH4	7510734	N/A	2021/08/13	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7513736	N/A	2021/08/12	Chandra Nandlal
pH	AT	7513961	2021/08/11	2021/08/13	Yogesh Patel
Phenols (4AAP)	TECH/PHEN	7510289	N/A	2021/08/10	Deonarine Ramnarine
Orthophosphate	KONE	7513759	N/A	2021/08/13	Avneet Kour Sudan
Total Dissolved Solids	BAL	7504829	2021/08/11	2021/08/12	Shivani Desai
Total Kjeldahl Nitrogen in Water	SKAL	7510700	2021/08/10	2021/08/11	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7510748	N/A	2021/08/10	Julianna Castiglione



### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	5.3°C
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Sample QID550 [P14] : TKN < Ammonia: Both values fall within the method uncertainty for duplicates and are likely equivalent.

**Results relate only to the items tested.**



BUREAU  
VERITAS

BV Labs Job #: C1M3984  
Report Date: 2021/08/18

### QUALITY ASSURANCE REPORT

Terrapure Environmental  
Client Project #: GW

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7504829	Total Dissolved Solids	2021/08/12					<10	mg/L	NC	25	100	90 - 110
7510289	Phenols-4AAP	2021/08/10	102	80 - 120	102	80 - 120	<0.0010	mg/L	NC	20		
7510700	Total Kjeldahl Nitrogen (TKN)	2021/08/11	101	80 - 120	101	80 - 120	<0.10	mg/L	NC	20	104	80 - 120
7510734	Total Ammonia-N	2021/08/13	NC	75 - 125	100	80 - 120	<0.050	mg/L	0.74 (1)	20		
7510748	Total Organic Carbon (TOC)	2021/08/10	100	80 - 120	100	80 - 120	<0.40	mg/L	1.2	20		
7512127	Dissolved Aluminum (Al)	2021/08/16	99	80 - 120	99	80 - 120	<4.9	ug/L				
7512127	Dissolved Antimony (Sb)	2021/08/16	104	80 - 120	103	80 - 120	<0.50	ug/L	13	20		
7512127	Dissolved Arsenic (As)	2021/08/16	100	80 - 120	99	80 - 120	<1.0	ug/L	NC	20		
7512127	Dissolved Barium (Ba)	2021/08/16	98	80 - 120	97	80 - 120	<2.0	ug/L	1.3	20		
7512127	Dissolved Beryllium (Be)	2021/08/16	99	80 - 120	98	80 - 120	<0.40	ug/L	NC	20		
7512127	Dissolved Bismuth (Bi)	2021/08/16	99	80 - 120	100	80 - 120	<1.0	ug/L				
7512127	Dissolved Boron (B)	2021/08/16	97	80 - 120	98	80 - 120	<10	ug/L	1.0	20		
7512127	Dissolved Cadmium (Cd)	2021/08/16	101	80 - 120	101	80 - 120	<0.090	ug/L	NC	20		
7512127	Dissolved Calcium (Ca)	2021/08/16	NC	80 - 120	97	80 - 120	<200	ug/L				
7512127	Dissolved Chromium (Cr)	2021/08/16	97	80 - 120	97	80 - 120	<5.0	ug/L	NC	20		
7512127	Dissolved Cobalt (Co)	2021/08/16	97	80 - 120	97	80 - 120	<0.50	ug/L	11	20		
7512127	Dissolved Copper (Cu)	2021/08/16	98	80 - 120	99	80 - 120	<0.90	ug/L	NC	20		
7512127	Dissolved Iron (Fe)	2021/08/16	95	80 - 120	96	80 - 120	<100	ug/L				
7512127	Dissolved Lead (Pb)	2021/08/16	96	80 - 120	96	80 - 120	<0.50	ug/L	NC	20		
7512127	Dissolved Lithium (Li)	2021/08/16	101	80 - 120	102	80 - 120	<5.0	ug/L				
7512127	Dissolved Magnesium (Mg)	2021/08/16	NC	80 - 120	96	80 - 120	<50	ug/L				
7512127	Dissolved Manganese (Mn)	2021/08/16	97	80 - 120	97	80 - 120	<2.0	ug/L				
7512127	Dissolved Molybdenum (Mo)	2021/08/16	104	80 - 120	101	80 - 120	<0.50	ug/L	2.4	20		
7512127	Dissolved Nickel (Ni)	2021/08/16	96	80 - 120	96	80 - 120	<1.0	ug/L	0.30	20		
7512127	Dissolved Phosphorus (P)	2021/08/16	102	80 - 120	103	80 - 120	<100	ug/L				
7512127	Dissolved Potassium (K)	2021/08/16	98	80 - 120	95	80 - 120	<200	ug/L				
7512127	Dissolved Selenium (Se)	2021/08/16	103	80 - 120	100	80 - 120	<2.0	ug/L	NC	20		
7512127	Dissolved Silicon (Si)	2021/08/16	98	80 - 120	97	80 - 120	<50	ug/L				
7512127	Dissolved Silver (Ag)	2021/08/16	85	80 - 120	101	80 - 120	<0.090	ug/L	NC	20		
7512127	Dissolved Sodium (Na)	2021/08/16	94	80 - 120	96	80 - 120	<100	ug/L	2.2	20		
7512127	Dissolved Strontium (Sr)	2021/08/16	NC	80 - 120	97	80 - 120	<1.0	ug/L				





BUREAU  
VERITAS

BV Labs Job #: C1M3984  
Report Date: 2021/08/18

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: GW

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7512127	Dissolved Tellurium (Te)	2021/08/16	100	80 - 120	100	80 - 120	<1.0	ug/L				
7512127	Dissolved Thallium (Tl)	2021/08/16	95	80 - 120	95	80 - 120	<0.050	ug/L	NC	20		
7512127	Dissolved Tin (Sn)	2021/08/16	103	80 - 120	102	80 - 120	<1.0	ug/L				
7512127	Dissolved Titanium (Ti)	2021/08/16	97	80 - 120	96	80 - 120	<5.0	ug/L				
7512127	Dissolved Tungsten (W)	2021/08/16	99	80 - 120	99	80 - 120	<1.0	ug/L				
7512127	Dissolved Uranium (U)	2021/08/16	105	80 - 120	104	80 - 120	<0.10	ug/L	0.57	20		
7512127	Dissolved Vanadium (V)	2021/08/16	99	80 - 120	97	80 - 120	<0.50	ug/L	NC	20		
7512127	Dissolved Zinc (Zn)	2021/08/16	97	80 - 120	97	80 - 120	<5.0	ug/L	NC	20		
7512127	Dissolved Zirconium (Zr)	2021/08/16	105	80 - 120	102	80 - 120	<1.0	ug/L				
7513736	Nitrate (N)	2021/08/12	101	80 - 120	106	80 - 120	<0.10	mg/L	NC	20		
7513736	Nitrite (N)	2021/08/12	106	80 - 120	109	80 - 120	<0.010	mg/L	NC	20		
7513750	Dissolved Bromide (Br-)	2021/08/11	105	80 - 120	105	80 - 120	<1.0	mg/L	NC	20		
7513750	Dissolved Chloride (Cl-)	2021/08/11	NC	80 - 120	102	70 - 130	<1.0	mg/L	0.31	20		
7513750	Dissolved Sulphate (SO4)	2021/08/11	NC	80 - 120	102	80 - 120	<1.0	mg/L	1.5	20		
7513759	Orthophosphate (P)	2021/08/13	110	75 - 125	100	80 - 120	<0.010	mg/L	4.7	25		
7513928	Fluoride (F-)	2021/08/13	107	80 - 120	103	80 - 120	<0.10	mg/L	5.2	20		
7513959	Alkalinity (Total as CaCO3)	2021/08/13			97	85 - 115	<1.0	mg/L	2.3	20		
7513961	pH	2021/08/13			102	98 - 103			0.33	N/A		
7513963	Conductivity	2021/08/13			101	85 - 115	<1.0	umho/cm	0.99	25		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) TKN < NH4: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.




BUREAU  
VERITAS

BV Labs Job #: C1M3984  
Report Date: 2021/08/18

Terrapure Environmental  
Client Project #: GW

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

*Eva Pranjic*  


Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Bureau Veritas Laboratories  
 6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

CHAIN OF CUSTODY RECORD

<b>INVOICE TO:</b> Company Name: #16786 Terrapure Environmental Attention: Accounting Address: 65 Green Mountain Rd West Stoney Creek ON L8J 1X5 Tel: (905) 561-0305 Fax: (905) 561-1674 Email: kbailey@terrapureenv.com		<b>REPORT TO:</b> Company Name: Attention: Brad Mullin - GHD Reporting Address: Tel: Email: bmullin@terrapureenv.com; dtaylor2@terrapureenv.com		<b>PROJECT INFORMATION:</b> Quotation #: B60569 P.O. #: Project: GW Project Name: Site #: Sampled By:		<b>Laboratory Use Only:</b> BV Labs Job #:  808571 Bottle Order #: 808571 COC #: C#808571-24-01 Project Manager: Jolanta Goralczyk	
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MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required: Please provide advance notice for rush projects							
Regulation 153 (2011)		Other Regulations		Special Instructions		Field Filtered (please circle): Metals Hg / Cr / V	List "A" GW Monitoring											Regular (Standard) TAT: <i>(will be applied if Rush TAT is not specified):</i> Standard TAT = 5-7 Working days for most tests. <i>Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are &gt; 5 days - contact your Project Manager for details.</i>					
<input type="checkbox"/> Table 1 <input type="checkbox"/> Res/Park <input type="checkbox"/> Medium/Fine <input type="checkbox"/> Table 2 <input type="checkbox"/> Ind/Comm <input type="checkbox"/> Coarse <input type="checkbox"/> Table 3 <input type="checkbox"/> Agri/Other <input type="checkbox"/> For RSC <input type="checkbox"/> Table		<input type="checkbox"/> CCME <input type="checkbox"/> Sanitary Sewer Bylaw <input type="checkbox"/> Reg 558 <input type="checkbox"/> Storm Sewer Bylaw <input type="checkbox"/> MISA <input type="checkbox"/> Municipality <input type="checkbox"/> PWQO <input type="checkbox"/> Reg 406 Table <input type="checkbox"/> Other																Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)					
Include Criteria on Certificate of Analysis (Y/N)?																		# of Bottles		Comments			
1		57-II	Aug 6 2009	NA	Ground Water	Y	X															6	
2		P14				Y	X															6	
3		51-IV				Y	X															6	
4		51-V				Y	X															6	
5																							
6																							
7																							
8																							
9																							
10																							

09-Aug-21 15:51  
 Jolanta Goralczyk  
 C1M3984  
 KTN ENV-912

* RELINQUISHED BY: (Signature/Print) Dan Taylor		Date: (YY/MM/DD) 21/08/09	Time 9:45	RECEIVED BY: (Signature/Print) Dan Taylor		Date: (YY/MM/DD) 20091108/09	Time 15:57	# jars used and not submitted	Laboratory Use Only				
								Time Sensitive	Temperature (°C) on Recept 81513	Custody Seal Present Intact		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.  
 \*\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.  
 \*\*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

# U85266



Your Project #: GW  
Your C.O.C. #: 808571-27-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/08/19**  
Report #: R6772731  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1M8798**  
**Received: 2021/08/12, 16:55**

Sample Matrix: Water  
# Samples Received: 1

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Alkalinity	1	N/A	2021/08/17	CAM SOP-00448	SM 23 2320 B m
Anions	1	N/A	2021/08/17	CAM SOP-00435	SM 23 4110 B m
Conductivity	1	N/A	2021/08/17	CAM SOP-00414	SM 23 2510 m
Fluoride	1	2021/08/17	2021/08/17	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2021/08/19	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Metals by ICPMS	1	N/A	2021/08/18	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	1	N/A	2021/08/17	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1)	1	N/A	2021/08/16	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	1	2021/08/17	2021/08/17	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2021/08/16	CAM SOP-00444	OMOE E3179 m
Orthophosphate	1	N/A	2021/08/16	CAM SOP-00461	EPA 365.1 m
Total Dissolved Solids	1	2021/08/14	2021/08/16	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water	1	2021/08/13	2021/08/16	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (2)	1	N/A	2021/08/14	CAM SOP-00446	SM 23 5310B m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (2) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key



**AUTHORIZED REPORT**  
**RAPPORT AUTORISÉ**

Bureau Veritas  
19 Aug 2021 15:49:35

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

=====  
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BUREAU  
VERITAS

BV Labs Job #: C1M8798  
Report Date: 2021/08/19

Terrapure Environmental  
Client Project #: GW

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QJE132			QJE132		
Sampling Date		2021/08/11			2021/08/11		
COC Number		808571-27-01			808571-27-01		
	UNITS	52-III	RDL	QC Batch	52-III Lab-Dup	RDL	QC Batch
<b>Calculated Parameters</b>							
Hardness (CaCO3)	mg/L	500	1.0	7515421			
<b>Inorganics</b>							
Total Ammonia-N	mg/L	0.058	0.050	7518679			
Conductivity	umho/cm	1000	1.0	7524208	1000	1.0	7524208
Total Dissolved Solids	mg/L	700	10	7520798			
Fluoride (F-)	mg/L	0.40	0.10	7524204	0.39	0.10	7524204
Total Kjeldahl Nitrogen (TKN)	mg/L	0.45	0.10	7518647			
Total Organic Carbon (TOC)	mg/L	3.2	0.40	7518665			
Orthophosphate (P)	mg/L	<0.010	0.010	7520872			
pH	pH	7.89		7524214	7.92		7524214
Phenols-4AAP	mg/L	0.0011	0.0010	7521335			
Alkalinity (Total as CaCO3)	mg/L	250	1.0	7524202	250	1.0	7524202
Nitrite (N)	mg/L	<0.010	0.010	7520842			
Dissolved Chloride (Cl-)	mg/L	11	1.0	7520933			
Nitrate (N)	mg/L	0.81	0.10	7520842			
Nitrate + Nitrite (N)	mg/L	0.81	0.10	7520842			
Dissolved Bromide (Br-)	mg/L	<1.0	1.0	7520933			
Dissolved Sulphate (SO4)	mg/L	280	1.0	7520933			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							



BUREAU  
VERITAS

BV Labs Job #: C1M8798  
Report Date: 2021/08/19

Terrapure Environmental  
Client Project #: GW

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QJE132		
Sampling Date		2021/08/11		
COC Number		808571-27-01		
	UNITS	52-III	RDL	QC Batch
<b>Metals</b>				
Dissolved Aluminum (Al)	ug/L	6.5	4.9	7521618
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	7521618
Dissolved Arsenic (As)	ug/L	<1.0	1.0	7521618
Dissolved Barium (Ba)	ug/L	48	2.0	7521618
Dissolved Beryllium (Be)	ug/L	<0.40	0.40	7521618
Dissolved Bismuth (Bi)	ug/L	<1.0	1.0	7521618
Dissolved Boron (B)	ug/L	45	10	7521618
Dissolved Cadmium (Cd)	ug/L	0.98	0.090	7521618
Dissolved Calcium (Ca)	ug/L	140000	200	7521618
Dissolved Chromium (Cr)	ug/L	<5.0	5.0	7521618
Dissolved Cobalt (Co)	ug/L	<0.50	0.50	7521618
Dissolved Copper (Cu)	ug/L	2.5	0.90	7521618
Dissolved Iron (Fe)	ug/L	<100	100	7521618
Dissolved Lead (Pb)	ug/L	<0.50	0.50	7521618
Dissolved Lithium (Li)	ug/L	<5.0	5.0	7521618
Dissolved Magnesium (Mg)	ug/L	38000	50	7521618
Dissolved Manganese (Mn)	ug/L	9.6	2.0	7521618
Dissolved Molybdenum (Mo)	ug/L	1.8	0.50	7521618
Dissolved Nickel (Ni)	ug/L	9.8	1.0	7521618
Dissolved Phosphorus (P)	ug/L	<100	100	7521618
Dissolved Potassium (K)	ug/L	1700	200	7521618
Dissolved Selenium (Se)	ug/L	<2.0	2.0	7521618
Dissolved Silicon (Si)	ug/L	3000	50	7521618
Dissolved Silver (Ag)	ug/L	<0.090	0.090	7521618
Dissolved Sodium (Na)	ug/L	24000	100	7521618
Dissolved Strontium (Sr)	ug/L	700	1.0	7521618
Dissolved Tellurium (Te)	ug/L	<1.0	1.0	7521618
Dissolved Thallium (Tl)	ug/L	<0.050	0.050	7521618
Dissolved Tin (Sn)	ug/L	<1.0	1.0	7521618
Dissolved Titanium (Ti)	ug/L	<5.0	5.0	7521618
Dissolved Tungsten (W)	ug/L	<1.0	1.0	7521618
Dissolved Uranium (U)	ug/L	3.7	0.10	7521618
Dissolved Vanadium (V)	ug/L	<0.50	0.50	7521618
Dissolved Zinc (Zn)	ug/L	470	5.0	7521618
Dissolved Zirconium (Zr)	ug/L	<1.0	1.0	7521618
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU  
VERITAS

BV Labs Job #: C1M8798  
Report Date: 2021/08/19

Terrapure Environmental  
Client Project #: GW

### TEST SUMMARY

**BV Labs ID:** QJE132  
**Sample ID:** 52-III  
**Matrix:** Water

**Collected:** 2021/08/11  
**Shipped:**  
**Received:** 2021/08/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7524202	N/A	2021/08/17	Surinder Rai
Anions	IC	7520933	N/A	2021/08/17	Fari Dehdezi
Conductivity	AT	7524208	N/A	2021/08/17	Surinder Rai
Fluoride	ISE	7524204	2021/08/17	2021/08/17	Surinder Rai
Hardness (calculated as CaCO3)		7515421	N/A	2021/08/19	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7521618	N/A	2021/08/18	Daniel Teclu
Total Ammonia-N	LACH/NH4	7518679	N/A	2021/08/17	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7520842	N/A	2021/08/16	Chandra Nandlal
pH	AT	7524214	2021/08/17	2021/08/17	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7521335	N/A	2021/08/16	Deonarine Ramnarine
Orthophosphate	KONE	7520872	N/A	2021/08/16	Avneet Kour Sudan
Total Dissolved Solids	BAL	7520798	2021/08/14	2021/08/16	Shivani Desai
Total Kjeldahl Nitrogen in Water	SKAL	7518647	2021/08/13	2021/08/16	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7518665	N/A	2021/08/14	Julianna Castiglione

**BV Labs ID:** QJE132 Dup  
**Sample ID:** 52-III  
**Matrix:** Water

**Collected:** 2021/08/11  
**Shipped:**  
**Received:** 2021/08/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7524202	N/A	2021/08/17	Surinder Rai
Conductivity	AT	7524208	N/A	2021/08/17	Surinder Rai
Fluoride	ISE	7524204	2021/08/17	2021/08/17	Surinder Rai
pH	AT	7524214	2021/08/17	2021/08/17	Surinder Rai



### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.7°C
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**Results relate only to the items tested.**





BUREAU  
VERITAS

BV Labs Job #: C1M8798  
Report Date: 2021/08/19

### QUALITY ASSURANCE REPORT

Terrapure Environmental  
Client Project #: GW

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7518647	Total Kjeldahl Nitrogen (TKN)	2021/08/16	91	80 - 120	102	80 - 120	<0.10	mg/L	13	20	97	80 - 120
7518665	Total Organic Carbon (TOC)	2021/08/14	98	80 - 120	97	80 - 120	<0.40	mg/L	0	20		
7518679	Total Ammonia-N	2021/08/17	97	75 - 125	99	80 - 120	<0.050	mg/L	6.2	20		
7520798	Total Dissolved Solids	2021/08/16					<10	mg/L	5.1	25	102	90 - 110
7520842	Nitrate (N)	2021/08/16	100	80 - 120	104	80 - 120	<0.10	mg/L	NC	20		
7520842	Nitrite (N)	2021/08/16	105	80 - 120	108	80 - 120	<0.010	mg/L	NC	20		
7520872	Orthophosphate (P)	2021/08/16	100	75 - 125	99	80 - 120	<0.010	mg/L	4.4	25		
7520933	Dissolved Bromide (Br-)	2021/08/17	105	80 - 120	102	80 - 120	<1.0	mg/L	NC	20		
7520933	Dissolved Chloride (Cl-)	2021/08/17	NC	80 - 120	99	70 - 130	<1.0	mg/L	0.37	20		
7520933	Dissolved Sulphate (SO4)	2021/08/17	NC	80 - 120	95	80 - 120	<1.0	mg/L	2.1	20		
7521335	Phenols-4AAP	2021/08/16	99	80 - 120	102	80 - 120	<0.0010	mg/L	NC	20		
7521618	Dissolved Aluminum (Al)	2021/08/18	99	80 - 120	98	80 - 120	<4.9	ug/L				
7521618	Dissolved Antimony (Sb)	2021/08/18	106	80 - 120	105	80 - 120	<0.50	ug/L	NC	20		
7521618	Dissolved Arsenic (As)	2021/08/18	101	80 - 120	100	80 - 120	<1.0	ug/L	NC	20		
7521618	Dissolved Barium (Ba)	2021/08/18	102	80 - 120	101	80 - 120	<2.0	ug/L	4.6	20		
7521618	Dissolved Beryllium (Be)	2021/08/18	103	80 - 120	103	80 - 120	<0.40	ug/L	NC	20		
7521618	Dissolved Bismuth (Bi)	2021/08/18	100	80 - 120	98	80 - 120	<1.0	ug/L				
7521618	Dissolved Boron (B)	2021/08/18	101	80 - 120	103	80 - 120	<10	ug/L	NC	20		
7521618	Dissolved Cadmium (Cd)	2021/08/18	103	80 - 120	102	80 - 120	<0.090	ug/L	NC	20		
7521618	Dissolved Calcium (Ca)	2021/08/18	99	80 - 120	98	80 - 120	<200	ug/L				
7521618	Dissolved Chromium (Cr)	2021/08/18	96	80 - 120	95	80 - 120	<5.0	ug/L	NC	20		
7521618	Dissolved Cobalt (Co)	2021/08/18	99	80 - 120	99	80 - 120	<0.50	ug/L	NC	20		
7521618	Dissolved Copper (Cu)	2021/08/18	101	80 - 120	103	80 - 120	<0.90	ug/L	NC	20		
7521618	Dissolved Iron (Fe)	2021/08/18	97	80 - 120	97	80 - 120	<100	ug/L				
7521618	Dissolved Lead (Pb)	2021/08/18	102	80 - 120	100	80 - 120	<0.50	ug/L	NC	20		
7521618	Dissolved Lithium (Li)	2021/08/18	106	80 - 120	105	80 - 120	<5.0	ug/L				
7521618	Dissolved Magnesium (Mg)	2021/08/18	98	80 - 120	99	80 - 120	<50	ug/L				
7521618	Dissolved Manganese (Mn)	2021/08/18	100	80 - 120	99	80 - 120	<2.0	ug/L				
7521618	Dissolved Molybdenum (Mo)	2021/08/18	101	80 - 120	100	80 - 120	<0.50	ug/L	NC	20		
7521618	Dissolved Nickel (Ni)	2021/08/18	96	80 - 120	96	80 - 120	<1.0	ug/L	NC	20		
7521618	Dissolved Phosphorus (P)	2021/08/18	109	80 - 120	107	80 - 120	<100	ug/L				



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VERITAS

BV Labs Job #: C1M8798  
Report Date: 2021/08/19

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: GW

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7521618	Dissolved Potassium (K)	2021/08/18	102	80 - 120	102	80 - 120	<200	ug/L				
7521618	Dissolved Selenium (Se)	2021/08/18	103	80 - 120	100	80 - 120	<2.0	ug/L	NC	20		
7521618	Dissolved Silicon (Si)	2021/08/18	101	80 - 120	99	80 - 120	<50	ug/L				
7521618	Dissolved Silver (Ag)	2021/08/18	100	80 - 120	100	80 - 120	<0.090	ug/L	NC	20		
7521618	Dissolved Sodium (Na)	2021/08/18	97	80 - 120	95	80 - 120	<100	ug/L	1.5	20		
7521618	Dissolved Strontium (Sr)	2021/08/18	101	80 - 120	101	80 - 120	<1.0	ug/L				
7521618	Dissolved Tellurium (Te)	2021/08/18	105	80 - 120	107	80 - 120	<1.0	ug/L				
7521618	Dissolved Thallium (Tl)	2021/08/18	106	80 - 120	101	80 - 120	<0.050	ug/L	NC	20		
7521618	Dissolved Tin (Sn)	2021/08/18	106	80 - 120	105	80 - 120	<1.0	ug/L				
7521618	Dissolved Titanium (Ti)	2021/08/18	99	80 - 120	97	80 - 120	<5.0	ug/L				
7521618	Dissolved Tungsten (W)	2021/08/18	101	80 - 120	99	80 - 120	<1.0	ug/L				
7521618	Dissolved Uranium (U)	2021/08/18	100	80 - 120	99	80 - 120	<0.10	ug/L	NC	20		
7521618	Dissolved Vanadium (V)	2021/08/18	98	80 - 120	97	80 - 120	<0.50	ug/L	NC	20		
7521618	Dissolved Zinc (Zn)	2021/08/18	98	80 - 120	97	80 - 120	<5.0	ug/L	2.6	20		
7521618	Dissolved Zirconium (Zr)	2021/08/18	106	80 - 120	106	80 - 120	<1.0	ug/L				
7524202	Alkalinity (Total as CaCO3)	2021/08/17			98	85 - 115	<1.0	mg/L	0.15	20		
7524204	Fluoride (F-)	2021/08/17	99	80 - 120	103	80 - 120	<0.10	mg/L	2.8	20		
7524208	Conductivity	2021/08/17			102	85 - 115	<1.0	umho/cm	0.90	25		
7524214	pH	2021/08/17			102	98 - 103			0.44	N/A		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).




BUREAU  
VERITAS

BV Labs Job #: C1M8798  
Report Date: 2021/08/19

Terrapure Environmental  
Client Project #: GW

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

*Eva Pranjic*  


Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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Bureau Veritas Laboratoriis  
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

CHAIN OF CUSTODY RECORD

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name: #16786 Terrapure Environmental		Company Name:		Quotation #: B60569		BV Labs Job #:	
Attention: Accounting		Attention: Brad Mullin - GHD Reporting		P.O. #:		Bottle Order #:	
Address: 65 Green Mountain Rd West		Address:		Project: GW		COC #:	
Address: Stoney Creek ON L8J 1X5		Address:		Project Name:		Project Manager:	
Tel: (905) 561-0305 Fax: (905) 561-1674		Tel: Fax:		Site #:		Jolanta Goralczyk	
Email: kbailey@terrapureenv.com		Email: bmullin@terrapureenv.com, dtaylor2@terrapureenv.com		Sampled By:		C#808571-27-01	

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY				ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required:						
Regulation 153 (2011)			Other Regulations			Special Instructions			Field Filtered (please circle) Metals / Hg / Cr VI										Please provide advance notice for rush projects	
<input type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw		<input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> X List "A" GW Monitoring										Regular (Standard) TAT:				
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw												Job Specific Rush TAT (if applies to entire submission)				
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality		Date Required: _____ Time Required: _____														
<input type="checkbox"/> Table			<input type="checkbox"/> PWQO	Reg 406 Table		Rush Confirmation Number: _____ (call lab for #)														
Include Criteria on Certificate of Analysis (Y/N)?								# of Bottles		Comments										
1		52-III	21/8/11	PM	Water	Y	X							6						
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

12-Aug-21 16:55  
Jolanta Goralczyk  
C1M8798  
DSG ENV-1151

RELINQUISHED BY: (Signature/Print) C. Richardson / Cooper Richardson	Date: (YY/MM/DD) 21/8/12	Time 9:15	RECEIVED BY: (Signature/Print) AISHANNY KERR	Date: (YY/MM/DD) 21/08/12	Time 16:55	# jars used and not submitted	Laboratory Use Only			
						Time Sensitive	Temperature (°C) on Recept 7/12/12	Custody Seal Present Intact	Yes	No

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

\*\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

\*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client

on ice



Your Project #: GW  
 Your C.O.C. #: 834487-17-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
 65 Green Mountain Rd West  
 Stoney Creek, ON  
 CANADA L8J 1X5

**Report Date: 2021/08/20**  
 Report #: R6773974  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1N0562**  
**Received: 2021/08/13, 16:00**

Sample Matrix: Water  
 # Samples Received: 4

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Alkalinity	4	N/A	2021/08/18	CAM SOP-00448	SM 23 2320 B m
Anions	4	N/A	2021/08/18	CAM SOP-00435	SM 23 4110 B m
Conductivity	4	N/A	2021/08/18	CAM SOP-00414	SM 23 2510 m
Fluoride	1	2021/08/17	2021/08/18	CAM SOP-00449	SM 23 4500-F C m
Fluoride	3	2021/08/18	2021/08/18	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	4	N/A	2021/08/19	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Metals by ICPMS	4	N/A	2021/08/19	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	4	N/A	2021/08/17	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1)	1	N/A	2021/08/18	CAM SOP-00440	SM 23 4500-NO3I/NO2B
Nitrate (NO3) and Nitrite (NO2) in Water (1)	3	N/A	2021/08/19	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	1	2021/08/17	2021/08/18	CAM SOP-00413	SM 4500H+ B m
pH	3	2021/08/18	2021/08/18	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	4	N/A	2021/08/16	CAM SOP-00444	OMOE E3179 m
Orthophosphate	4	N/A	2021/08/18	CAM SOP-00461	EPA 365.1 m
Total Dissolved Solids	4	2021/08/16	2021/08/17	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water	4	2021/08/16	2021/08/17	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (2)	4	N/A	2021/08/17	CAM SOP-00446	SM 23 5310B m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

(2) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.



Your Project #: GW  
Your C.O.C. #: 834487-17-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/08/20**  
Report #: R6773974  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1N0562**  
**Received: 2021/08/13, 16:00**

Encryption Key



**AUTHORIZED REPORT**  
**RAPPORT AUTORISÉ**

Bureau Veritas  
20 Aug 2021 09:46:20

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

=====  
This report has been generated and distributed using a secure automated process.  
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BUREAU  
VERITAS

BV Labs Job #: C1N0562  
Report Date: 2021/08/20

Terrapure Environmental  
Client Project #: GW

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QJN031				QJN031				QJN032			
Sampling Date		2021/08/12				2021/08/12				2021/08/12			
COC Number		834487-17-01				834487-17-01				834487-17-01			
	UNITS	M5R	RDL	QC Batch	M5R Lab-Dup	RDL	QC Batch	CW16	RDL	QC Batch			
<b>Calculated Parameters</b>													
Hardness (CaCO3)	mg/L	460	1.0	7517792				760	1.0	7517792			
<b>Inorganics</b>													
Total Ammonia-N	mg/L	42	0.25	7522371				6.0	0.050	7522371			
Conductivity	umho/cm	4800	1.0	7525913	4800	1.0	7525913	2000	1.0	7526577			
Total Dissolved Solids	mg/L	2850	10	7520680				1380	10	7520680			
Fluoride (F-)	mg/L	1.6	0.10	7525906	1.6	0.10	7525906	1.5	0.10	7526580			
Total Kjeldahl Nitrogen (TKN)	mg/L	48	2.0	7522679				6.6	0.20	7522679			
Total Organic Carbon (TOC)	mg/L	20	0.40	7522314				6.9	0.40	7522314			
Orthophosphate (P)	mg/L	<0.010	0.010	7525858				<0.010	0.010	7526587			
pH	pH	7.56		7525919	7.60		7525919	7.63		7526574			
Phenols-4AAP	mg/L	0.024	0.0010	7521429				0.015	0.0010	7521413			
Alkalinity (Total as CaCO3)	mg/L	51	1.0	7525909	50	1.0	7525909	190	1.0	7526571			
Nitrite (N)	mg/L	1.32	0.010	7525925				<0.010	0.010	7526633			
Dissolved Chloride (Cl-)	mg/L	1200	10	7525873				160	5.0	7525873			
Nitrate (N)	mg/L	1.52	0.10	7525925				<0.10	0.10	7526633			
Nitrate + Nitrite (N)	mg/L	2.84	0.10	7525925				<0.10	0.10	7526633			
Dissolved Bromide (Br-)	mg/L	<10	10	7525873				<5.0	5.0	7525873			
Dissolved Sulphate (SO4)	mg/L	450	10	7525873				410	5.0	7525873			
RDL = Reportable Detection Limit													
QC Batch = Quality Control Batch													
Lab-Dup = Laboratory Initiated Duplicate													



BUREAU  
VERITAS

BV Labs Job #: C1N0562  
Report Date: 2021/08/20

Terrapure Environmental  
Client Project #: GW

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QJN032			QJN033		QJN034		
Sampling Date		2021/08/12			2021/08/12		2021/08/12		
COC Number		834487-17-01			834487-17-01		834487-17-01		
	UNITS	CW16 Lab-Dup	RDL	QC Batch	L1	RDL	M4	RDL	QC Batch
<b>Calculated Parameters</b>									
Hardness (CaCO3)	mg/L				2100	1.0	1500	1.0	7517792
<b>Inorganics</b>									
Total Ammonia-N	mg/L				15	0.050	10	0.050	7522371
Conductivity	umho/cm				5700	1.0	4200	1.0	7526577
Total Dissolved Solids	mg/L				4140	10	3010	10	7520680
Fluoride (F-)	mg/L				0.87	0.10	1.3	0.10	7526580
Total Kjeldahl Nitrogen (TKN)	mg/L	6.6	0.20	7522679	16	2.0	11	1.0	7522679
Total Organic Carbon (TOC)	mg/L				3.3	0.40	4.6	0.40	7522314
Orthophosphate (P)	mg/L				<0.010	0.010	<0.010	0.010	7526587
pH	pH				7.55		7.66		7526574
Phenols-4AAP	mg/L				<0.0010	0.0010	<0.0010	0.0010	7521413
Alkalinity (Total as CaCO3)	mg/L				240	1.0	200	1.0	7526571
Nitrite (N)	mg/L				<0.010	0.010	0.053	0.010	7526633
Dissolved Chloride (Cl-)	mg/L				1100	10	650	10	7525873
Nitrate (N)	mg/L				<0.10	0.10	1.18	0.10	7526633
Nitrate + Nitrite (N)	mg/L				<0.10	0.10	1.23	0.10	7526633
Dissolved Bromide (Br-)	mg/L				<10	10	<10	10	7525873
Dissolved Sulphate (SO4)	mg/L				1300	10	870	10	7525873
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate									





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VERITAS

BV Labs Job #: C1N0562  
Report Date: 2021/08/20

Terrapure Environmental  
Client Project #: GW

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QJN031		QJN032		QJN033		QJN034		
Sampling Date		2021/08/12		2021/08/12		2021/08/12		2021/08/12		
COC Number		834487-17-01		834487-17-01		834487-17-01		834487-17-01		
	UNITS	M5R	RDL	CW16	RDL	L1	RDL	M4	RDL	QC Batch
<b>Metals</b>										
Dissolved Aluminum (Al)	ug/L	47	4.9	6.0	4.9	<4.9	4.9	<4.9	4.9	7524230
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7524230
Dissolved Arsenic (As)	ug/L	1.6	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7524230
Dissolved Barium (Ba)	ug/L	28	2.0	19	2.0	17	2.0	26	2.0	7524230
Dissolved Beryllium (Be)	ug/L	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40	7524230
Dissolved Bismuth (Bi)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7524230
Dissolved Boron (B)	ug/L	380	10	330	10	720	10	800	10	7524230
Dissolved Cadmium (Cd)	ug/L	<0.090	0.090	<0.090	0.090	<0.090	0.090	<0.090	0.090	7524230
Dissolved Calcium (Ca)	ug/L	140000	200	170000	200	710000	1000	460000	200	7524230
Dissolved Chromium (Cr)	ug/L	<5.0	5.0	14	5.0	<5.0	5.0	<5.0	5.0	7524230
Dissolved Cobalt (Co)	ug/L	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7524230
Dissolved Copper (Cu)	ug/L	<0.90	0.90	<0.90	0.90	<0.90	0.90	<0.90	0.90	7524230
Dissolved Iron (Fe)	ug/L	<100	100	200	100	<100	100	140	100	7524230
Dissolved Lead (Pb)	ug/L	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7524230
Dissolved Lithium (Li)	ug/L	36	5.0	22	5.0	150	5.0	73	5.0	7524230
Dissolved Magnesium (Mg)	ug/L	30000	50	81000	50	81000	50	88000	50	7524230
Dissolved Manganese (Mn)	ug/L	91	2.0	86	2.0	76	2.0	330	2.0	7524230
Dissolved Molybdenum (Mo)	ug/L	17	0.50	6.6	0.50	<0.50	0.50	3.0	0.50	7524230
Dissolved Nickel (Ni)	ug/L	9.0	1.0	1.8	1.0	<1.0	1.0	3.9	1.0	7524230
Dissolved Phosphorus (P)	ug/L	<100	100	<100	100	<100	100	<100	100	7524230
Dissolved Potassium (K)	ug/L	57000	200	27000	200	37000	200	36000	200	7524230
Dissolved Selenium (Se)	ug/L	<2.0	2.0	<2.0	2.0	<2.0	2.0	<2.0	2.0	7524230
Dissolved Silicon (Si)	ug/L	5400	50	5600	50	4700	50	7200	50	7524230
Dissolved Silver (Ag)	ug/L	<0.090	0.090	<0.090	0.090	<0.090	0.090	<0.090	0.090	7524230
Dissolved Sodium (Na)	ug/L	890000	500	160000	100	600000	500	460000	100	7524230
Dissolved Strontium (Sr)	ug/L	2500	1.0	2200	1.0	9100	1.0	4500	1.0	7524230
Dissolved Tellurium (Te)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7524230
Dissolved Thallium (Tl)	ug/L	<0.050	0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	7524230
Dissolved Tin (Sn)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7524230
Dissolved Titanium (Ti)	ug/L	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	7524230
Dissolved Tungsten (W)	ug/L	3.5	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7524230
Dissolved Uranium (U)	ug/L	<0.10	0.10	0.49	0.10	0.18	0.10	1.1	0.10	7524230
Dissolved Vanadium (V)	ug/L	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7524230
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	<5.0	5.0	<5.0	5.0	21	5.0	7524230
Dissolved Zirconium (Zr)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7524230
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										



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VERITAS

BV Labs Job #: C1N0562  
Report Date: 2021/08/20

Terrapure Environmental  
Client Project #: GW

### TEST SUMMARY

**BV Labs ID:** QJN031  
**Sample ID:** M5R  
**Matrix:** Water

**Collected:** 2021/08/12  
**Shipped:**  
**Received:** 2021/08/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7525909	N/A	2021/08/18	Surinder Rai
Anions	IC	7525873	N/A	2021/08/18	Fari Dehdezi
Conductivity	AT	7525913	N/A	2021/08/18	Surinder Rai
Fluoride	ISE	7525906	2021/08/17	2021/08/18	Surinder Rai
Hardness (calculated as CaCO3)		7517792	N/A	2021/08/19	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7524230	N/A	2021/08/19	Daniel Teclu
Total Ammonia-N	LACH/NH4	7522371	N/A	2021/08/17	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7525925	N/A	2021/08/18	Amanpreet Sappal
pH	AT	7525919	2021/08/17	2021/08/18	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7521429	N/A	2021/08/16	Deonarine Ramnarine
Orthophosphate	KONE	7525858	N/A	2021/08/18	Avneet Kour Sudan
Total Dissolved Solids	BAL	7520680	2021/08/16	2021/08/17	Sandeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	7522679	2021/08/16	2021/08/17	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7522314	N/A	2021/08/17	Julianna Castiglione

**BV Labs ID:** QJN031 Dup  
**Sample ID:** M5R  
**Matrix:** Water

**Collected:** 2021/08/12  
**Shipped:**  
**Received:** 2021/08/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7525909	N/A	2021/08/18	Surinder Rai
Conductivity	AT	7525913	N/A	2021/08/18	Surinder Rai
Fluoride	ISE	7525906	2021/08/17	2021/08/18	Surinder Rai
pH	AT	7525919	2021/08/17	2021/08/18	Surinder Rai

**BV Labs ID:** QJN032  
**Sample ID:** CW16  
**Matrix:** Water

**Collected:** 2021/08/12  
**Shipped:**  
**Received:** 2021/08/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7526571	N/A	2021/08/18	Surinder Rai
Anions	IC	7525873	N/A	2021/08/18	Fari Dehdezi
Conductivity	AT	7526577	N/A	2021/08/18	Surinder Rai
Fluoride	ISE	7526580	2021/08/18	2021/08/18	Surinder Rai
Hardness (calculated as CaCO3)		7517792	N/A	2021/08/19	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7524230	N/A	2021/08/19	Daniel Teclu
Total Ammonia-N	LACH/NH4	7522371	N/A	2021/08/17	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7526633	N/A	2021/08/19	Chandra Nandlal
pH	AT	7526574	2021/08/18	2021/08/18	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7521413	N/A	2021/08/16	Deonarine Ramnarine
Orthophosphate	KONE	7526587	N/A	2021/08/18	Avneet Kour Sudan
Total Dissolved Solids	BAL	7520680	2021/08/16	2021/08/17	Sandeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	7522679	2021/08/16	2021/08/17	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7522314	N/A	2021/08/17	Julianna Castiglione



BUREAU  
VERITAS

BV Labs Job #: C1N0562  
Report Date: 2021/08/20

Terrapure Environmental  
Client Project #: GW

### TEST SUMMARY

**BV Labs ID:** QJN032 Dup  
**Sample ID:** CW16  
**Matrix:** Water

**Collected:** 2021/08/12  
**Shipped:**  
**Received:** 2021/08/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Kjeldahl Nitrogen in Water	SKAL	7522679	2021/08/16	2021/08/17	Rajni Tyagi

**BV Labs ID:** QJN033  
**Sample ID:** L1  
**Matrix:** Water

**Collected:** 2021/08/12  
**Shipped:**  
**Received:** 2021/08/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7526571	N/A	2021/08/18	Surinder Rai
Anions	IC	7525873	N/A	2021/08/18	Fari Dehdezi
Conductivity	AT	7526577	N/A	2021/08/18	Surinder Rai
Fluoride	ISE	7526580	2021/08/18	2021/08/18	Surinder Rai
Hardness (calculated as CaCO3)		7517792	N/A	2021/08/19	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7524230	N/A	2021/08/19	Daniel Teclu
Total Ammonia-N	LACH/NH4	7522371	N/A	2021/08/17	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7526633	N/A	2021/08/19	Chandra Nandlal
pH	AT	7526574	2021/08/18	2021/08/18	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7521413	N/A	2021/08/16	Deonarine Ramnarine
Orthophosphate	KONE	7526587	N/A	2021/08/18	Avneet Kour Sudan
Total Dissolved Solids	BAL	7520680	2021/08/16	2021/08/17	Sandeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	7522679	2021/08/16	2021/08/17	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7522314	N/A	2021/08/17	Julianna Castiglione

**BV Labs ID:** QJN034  
**Sample ID:** M4  
**Matrix:** Water

**Collected:** 2021/08/12  
**Shipped:**  
**Received:** 2021/08/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7526571	N/A	2021/08/18	Surinder Rai
Anions	IC	7525873	N/A	2021/08/18	Fari Dehdezi
Conductivity	AT	7526577	N/A	2021/08/18	Surinder Rai
Fluoride	ISE	7526580	2021/08/18	2021/08/18	Surinder Rai
Hardness (calculated as CaCO3)		7517792	N/A	2021/08/19	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7524230	N/A	2021/08/19	Daniel Teclu
Total Ammonia-N	LACH/NH4	7522371	N/A	2021/08/17	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7526633	N/A	2021/08/19	Chandra Nandlal
pH	AT	7526574	2021/08/18	2021/08/18	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7521413	N/A	2021/08/16	Deonarine Ramnarine
Orthophosphate	KONE	7526587	N/A	2021/08/18	Avneet Kour Sudan
Total Dissolved Solids	BAL	7520680	2021/08/16	2021/08/17	Sandeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	7522679	2021/08/16	2021/08/17	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7522314	N/A	2021/08/17	Julianna Castiglione



### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.0°C
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Anions Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

**Results relate only to the items tested.**



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VERITAS

BV Labs Job #: C1N0562  
Report Date: 2021/08/20

### QUALITY ASSURANCE REPORT

Terrapure Environmental  
Client Project #: GW

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7520680	Total Dissolved Solids	2021/08/17					<10	mg/L	1.3	25	100	90 - 110
7521413	Phenols-4AAP	2021/08/16	102	80 - 120	101	80 - 120	<0.0010	mg/L	NC	20		
7521429	Phenols-4AAP	2021/08/16	102	80 - 120	102	80 - 120	<0.0010	mg/L	NC	20		
7522314	Total Organic Carbon (TOC)	2021/08/17	99	80 - 120	97	80 - 120	<0.40	mg/L	1.7	20		
7522371	Total Ammonia-N	2021/08/17	97	75 - 125	99	80 - 120	<0.050	mg/L	6.3	20		
7522679	Total Kjeldahl Nitrogen (TKN)	2021/08/17	NC	80 - 120	103	80 - 120	<0.10	mg/L	0.98	20	105	80 - 120
7524230	Dissolved Aluminum (Al)	2021/08/19	106	80 - 120	105	80 - 120	<4.9	ug/L	NC	20		
7524230	Dissolved Antimony (Sb)	2021/08/19	105	80 - 120	103	80 - 120	<0.50	ug/L	NC	20		
7524230	Dissolved Arsenic (As)	2021/08/19	100	80 - 120	101	80 - 120	<1.0	ug/L	1.3	20		
7524230	Dissolved Barium (Ba)	2021/08/19	98	80 - 120	100	80 - 120	<2.0	ug/L	1.9	20		
7524230	Dissolved Beryllium (Be)	2021/08/19	102	80 - 120	101	80 - 120	<0.40	ug/L	NC	20		
7524230	Dissolved Bismuth (Bi)	2021/08/19	100	80 - 120	99	80 - 120	<1.0	ug/L	NC	20		
7524230	Dissolved Boron (B)	2021/08/19	97	80 - 120	100	80 - 120	<10	ug/L	0.65	20		
7524230	Dissolved Cadmium (Cd)	2021/08/19	102	80 - 120	100	80 - 120	<0.090	ug/L	NC	20		
7524230	Dissolved Calcium (Ca)	2021/08/19	NC	80 - 120	102	80 - 120	<200	ug/L	1.4	20		
7524230	Dissolved Chromium (Cr)	2021/08/19	99	80 - 120	100	80 - 120	<5.0	ug/L	NC	20		
7524230	Dissolved Cobalt (Co)	2021/08/19	100	80 - 120	104	80 - 120	<0.50	ug/L	NC	20		
7524230	Dissolved Copper (Cu)	2021/08/19	102	80 - 120	104	80 - 120	<0.90	ug/L	NC	20		
7524230	Dissolved Iron (Fe)	2021/08/19	99	80 - 120	100	80 - 120	<100	ug/L	2.6	20		
7524230	Dissolved Lead (Pb)	2021/08/19	101	80 - 120	101	80 - 120	<0.50	ug/L	NC	20		
7524230	Dissolved Lithium (Li)	2021/08/19	104	80 - 120	105	80 - 120	<5.0	ug/L				
7524230	Dissolved Magnesium (Mg)	2021/08/19	NC	80 - 120	102	80 - 120	<50	ug/L	0.23	20		
7524230	Dissolved Manganese (Mn)	2021/08/19	100	80 - 120	100	80 - 120	<2.0	ug/L	2.0	20		
7524230	Dissolved Molybdenum (Mo)	2021/08/19	106	80 - 120	102	80 - 120	<0.50	ug/L	2.6	20		
7524230	Dissolved Nickel (Ni)	2021/08/19	96	80 - 120	98	80 - 120	<1.0	ug/L	NC	20		
7524230	Dissolved Phosphorus (P)	2021/08/19	113	80 - 120	118	80 - 120	<100	ug/L	NC	20		
7524230	Dissolved Potassium (K)	2021/08/19	103	80 - 120	107	80 - 120	<200	ug/L	1.3	20		
7524230	Dissolved Selenium (Se)	2021/08/19	103	80 - 120	102	80 - 120	<2.0	ug/L	NC	20		
7524230	Dissolved Silicon (Si)	2021/08/19	105	80 - 120	106	80 - 120	<50	ug/L	0.58	20		
7524230	Dissolved Silver (Ag)	2021/08/19	105	80 - 120	102	80 - 120	<0.090	ug/L	NC	20		
7524230	Dissolved Sodium (Na)	2021/08/19	102	80 - 120	101	80 - 120	<100	ug/L	0.72	20		



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BV Labs Job #: C1N0562  
Report Date: 2021/08/20

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: GW

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7524230	Dissolved Strontium (Sr)	2021/08/19	NC	80 - 120	99	80 - 120	<1.0	ug/L	4.2	20		
7524230	Dissolved Tellurium (Te)	2021/08/19	100	80 - 120	99	80 - 120	<1.0	ug/L				
7524230	Dissolved Thallium (Tl)	2021/08/19	101	80 - 120	100	80 - 120	<0.050	ug/L	NC	20		
7524230	Dissolved Tin (Sn)	2021/08/19	105	80 - 120	103	80 - 120	<1.0	ug/L				
7524230	Dissolved Titanium (Ti)	2021/08/19	100	80 - 120	100	80 - 120	<5.0	ug/L	NC	20		
7524230	Dissolved Tungsten (W)	2021/08/19	100	80 - 120	100	80 - 120	<1.0	ug/L				
7524230	Dissolved Uranium (U)	2021/08/19	99	80 - 120	101	80 - 120	<0.10	ug/L	5.2	20		
7524230	Dissolved Vanadium (V)	2021/08/19	98	80 - 120	99	80 - 120	<0.50	ug/L	NC	20		
7524230	Dissolved Zinc (Zn)	2021/08/19	97	80 - 120	98	80 - 120	<5.0	ug/L	NC	20		
7524230	Dissolved Zirconium (Zr)	2021/08/19	108	80 - 120	104	80 - 120	<1.0	ug/L				
7525858	Orthophosphate (P)	2021/08/18	117	75 - 125	100	80 - 120	<0.010	mg/L	NC	25		
7525873	Dissolved Bromide (Br-)	2021/08/18	103	80 - 120	102	80 - 120	<1.0	mg/L	NC	20		
7525873	Dissolved Chloride (Cl-)	2021/08/18	99	80 - 120	99	70 - 130	<1.0	mg/L	2.8	20		
7525873	Dissolved Sulphate (SO4)	2021/08/18	97	80 - 120	96	80 - 120	<1.0	mg/L	0.85	20		
7525906	Fluoride (F-)	2021/08/18	107	80 - 120	98	80 - 120	<0.10	mg/L	0.97	20		
7525909	Alkalinity (Total as CaCO3)	2021/08/18			94	85 - 115	<1.0	mg/L	1.1	20		
7525913	Conductivity	2021/08/18			102	85 - 115	<1.0	umho/cm	0.84	25		
7525919	pH	2021/08/18			102	98 - 103			0.60	N/A		
7525925	Nitrate (N)	2021/08/18	NC	80 - 120	102	80 - 120	<0.10	mg/L	0.67	20		
7525925	Nitrite (N)	2021/08/18	102	80 - 120	105	80 - 120	<0.010	mg/L	NC	20		
7526571	Alkalinity (Total as CaCO3)	2021/08/18			95	85 - 115	<1.0	mg/L	1.2	20		
7526574	pH	2021/08/18			102	98 - 103			0.31	N/A		
7526577	Conductivity	2021/08/18			102	85 - 115	<1.0	umho/cm	1.4	25		
7526580	Fluoride (F-)	2021/08/18	92	80 - 120	99	80 - 120	<0.10	mg/L	11	20		
7526587	Orthophosphate (P)	2021/08/18	117	75 - 125	100	80 - 120	<0.010	mg/L	NC	25		
7526633	Nitrate (N)	2021/08/19	97	80 - 120	97	80 - 120	<0.10	mg/L	2.0	20		



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BV Labs Job #: C1N0562  
Report Date: 2021/08/20

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: GW

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7526633	Nitrite (N)	2021/08/19	107	80 - 120	106	80 - 120	<0.010	mg/L	19	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference  $\leq 2x$  RDL).



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BV Labs Job #: C1N0562

Report Date: 2021/08/20

Terrapure Environmental

Client Project #: GW

## VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

A handwritten signature in black ink, appearing to read 'Brad Newman', written over a horizontal line.

Brad Newman, B.Sc., C.Chem., Scientific Service Specialist

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.





Bureau Veritas Laboratories  
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free: 800-563-6286 Fax (905) 817-5777 www.bvlabs.com

CHAIN OF CUSTODY RECORD

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name: #16786 Terrapure Environmental	Company Name: Accounting	Company Name: Brad Mullin - GHD Reporting	Quotation #: B60569	BV Labs Job #:	Bottle Order #:		
Attention: Accounting	Address: 65 Green Mountain Rd West	Address: Stoney Creek ON L8J 1X5	P.O. #:	COC #:	Project Manager:		
Tel: (905) 561-0305 Fax: (905) 561-1674	Tel: kbailey@terrapureenv.com	Tel: bmulin@terrapureenv.com; dtaylor2@terrapureenv.com	Project: GW	Site #:	Sampled By:	Jolanta Goralczyk	

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY					ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required: Please provide advance notice for rush projects						
Regulation 153 (2011)			Other Regulations			Special Instructions												Regular (Standard) TAT: <small>(will be applied if Rush TAT is not specified)</small> Standard TAT = 5-7 Working days for most tests. <small>Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are &gt; 5 days - contact your Project Manager for details.</small>			
<input type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw													Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ <small>(call lab for #)</small>				
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw													# of Bottles				
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality _____													Comments				
<input type="checkbox"/> Table _____			<input type="checkbox"/> PWQG	Reg 406 Table _____																	
Include Criteria on Certificate of Analysis (Y/N)?																					
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr / V	Last "A" - GW Monitoring											# of Bottles	Comments			
1	M5 R.	21/8/12	AM	Water	Y	X													6		
2	CW16	↓	↓	↓	Y	X													6		
3	L1	↓	↓	↓	Y	X													6		
4	M4	↓	↓	↓	Y	X													6		
5																					
6																					
7																					
8																					
9																					
10																					

13-Aug-21 16:00  
Jolanta Goralczyk

RELINQUISHED BY: (Signature/Print) C. Richardson / Cooper Richardson	Date: (YY/MM/DD) 21/8/13	Time 10:00	RECEIVED BY: (Signature/Print) DIPKA SINGH	Date: (YY/MM/DD) 2021/08/13	Time 16:00	# jars used and not submitted	Laboratory Use Only		
Time Sensitive	Temperature (°C) on Rece: 4/5/3	Custody Seal Present/Intact	Yes	No					

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.  
\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.  
\*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client  
ICE:Y



Your Project #: GW  
Your C.O.C. #: 834487-22-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/08/23**  
Report #: R6777456  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1N2135**

**Received: 2021/08/16, 15:45**

Sample Matrix: Water  
# Samples Received: 1

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Alkalinity	1	N/A	2021/08/18	CAM SOP-00448	SM 23 2320 B m
Anions	1	N/A	2021/08/18	CAM SOP-00435	SM 23 4110 B m
Conductivity	1	N/A	2021/08/18	CAM SOP-00414	SM 23 2510 m
Fluoride	1	2021/08/17	2021/08/18	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2021/08/20	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Metals by ICPMS	1	N/A	2021/08/20	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	1	N/A	2021/08/19	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1)	1	N/A	2021/08/19	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	1	2021/08/17	2021/08/18	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2021/08/17	CAM SOP-00444	OMOE E3179 m
Orthophosphate	1	N/A	2021/08/18	CAM SOP-00461	EPA 365.1 m
Total Dissolved Solids	1	2021/08/17	2021/08/18	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water	1	2021/08/17	2021/08/18	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (2)	1	N/A	2021/08/18	CAM SOP-00446	SM 23 5310B m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

(2) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key



**AUTHORIZED REPORT  
RAPPORT AUTORISÉ**

Bureau Veritas  
23 Aug 2021 11:18:12

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

=====  
This report has been generated and distributed using a secure automated process.

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



**RESULTS OF ANALYSES OF WATER**

<b>BV Labs ID</b>		QJV692		
<b>Sampling Date</b>		2021/08/13		
<b>COC Number</b>		834487-22-01		
	<b>UNITS</b>	<b>CW5R</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Calculated Parameters</b>				
Hardness (CaCO3)	mg/L	170	1.0	7521489
<b>Inorganics</b>				
Total Ammonia-N	mg/L	150	1.0	7524961
Conductivity	umho/cm	9200	1.0	7525913
Total Dissolved Solids	mg/L	4980	20	7524904
Fluoride (F-)	mg/L	3.8	0.10	7525906
Total Kjeldahl Nitrogen (TKN)	mg/L	140	5.0	7524859
Total Organic Carbon (TOC)	mg/L	37	0.40	7524750
Orthophosphate (P)	mg/L	0.037	0.010	7525858
pH	pH	9.47		7525919
Phenols-4AAP	mg/L	0.77	0.020	7524140
Alkalinity (Total as CaCO3)	mg/L	360	1.0	7525909
Nitrite (N)	mg/L	<0.010	0.010	7525091
Dissolved Chloride (Cl-)	mg/L	2700	20	7525873
Nitrate (N)	mg/L	<0.10	0.10	7525091
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7525091
Dissolved Bromide (Br-)	mg/L	<20	20	7525873
Dissolved Sulphate (SO4)	mg/L	200	20	7525873
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				



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BV Labs Job #: C1N2135  
Report Date: 2021/08/23

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QJV692		
Sampling Date		2021/08/13		
COC Number		834487-22-01		
	UNITS	CW5R	RDL	QC Batch
<b>Metals</b>				
Dissolved Aluminum (Al)	ug/L	15	4.9	7525507
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	7525507
Dissolved Arsenic (As)	ug/L	2.6	1.0	7525507
Dissolved Barium (Ba)	ug/L	14	2.0	7525507
Dissolved Beryllium (Be)	ug/L	<0.40	0.40	7525507
Dissolved Bismuth (Bi)	ug/L	<1.0	1.0	7525507
Dissolved Boron (B)	ug/L	580	10	7525507
Dissolved Cadmium (Cd)	ug/L	<0.090	0.090	7525507
Dissolved Calcium (Ca)	ug/L	40000	200	7525507
Dissolved Chromium (Cr)	ug/L	<5.0	5.0	7525507
Dissolved Cobalt (Co)	ug/L	<0.50	0.50	7525507
Dissolved Copper (Cu)	ug/L	<0.90	0.90	7525507
Dissolved Iron (Fe)	ug/L	<100	100	7525507
Dissolved Lead (Pb)	ug/L	0.66	0.50	7525507
Dissolved Lithium (Li)	ug/L	29	5.0	7525507
Dissolved Magnesium (Mg)	ug/L	17000	50	7525507
Dissolved Manganese (Mn)	ug/L	<2.0	2.0	7525507
Dissolved Molybdenum (Mo)	ug/L	55	0.50	7525507
Dissolved Nickel (Ni)	ug/L	18	1.0	7525507
Dissolved Phosphorus (P)	ug/L	170	100	7525507
Dissolved Potassium (K)	ug/L	120000	200	7525507
Dissolved Selenium (Se)	ug/L	<2.0	2.0	7525507
Dissolved Silicon (Si)	ug/L	5800	50	7525507
Dissolved Silver (Ag)	ug/L	<0.090	0.090	7525507
Dissolved Sodium (Na)	ug/L	1900000	500	7525507
Dissolved Strontium (Sr)	ug/L	1800	1.0	7525507
Dissolved Tellurium (Te)	ug/L	<1.0	1.0	7525507
Dissolved Thallium (Tl)	ug/L	<0.050	0.050	7525507
Dissolved Tin (Sn)	ug/L	<1.0	1.0	7525507
Dissolved Titanium (Ti)	ug/L	<5.0	5.0	7525507
Dissolved Tungsten (W)	ug/L	20	1.0	7525507
Dissolved Uranium (U)	ug/L	<0.10	0.10	7525507
Dissolved Vanadium (V)	ug/L	0.80	0.50	7525507
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	7525507
Dissolved Zirconium (Zr)	ug/L	<1.0	1.0	7525507
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



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BV Labs Job #: C1N2135  
Report Date: 2021/08/23

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QJV692  
**Sample ID:** CW5R  
**Matrix:** Water

**Collected:** 2021/08/13  
**Shipped:**  
**Received:** 2021/08/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7525909	N/A	2021/08/18	Surinder Rai
Anions	IC	7525873	N/A	2021/08/18	Fari Dehdezi
Conductivity	AT	7525913	N/A	2021/08/18	Surinder Rai
Fluoride	ISE	7525906	2021/08/17	2021/08/18	Surinder Rai
Hardness (calculated as CaCO3)		7521489	N/A	2021/08/20	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7525507	N/A	2021/08/20	Daniel Teclu
Total Ammonia-N	LACH/NH4	7524961	N/A	2021/08/19	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7525091	N/A	2021/08/19	Chandra Nandlal
pH	AT	7525919	2021/08/17	2021/08/18	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7524140	N/A	2021/08/17	Deonarine Ramnarine
Orthophosphate	KONE	7525858	N/A	2021/08/18	Avneet Kour Sudan
Total Dissolved Solids	BAL	7524904	2021/08/17	2021/08/18	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7524859	2021/08/17	2021/08/18	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7524750	N/A	2021/08/18	Julianna Castiglione



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BV Labs Job #: C1N2135  
Report Date: 2021/08/23

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	1.3°C
-----------	-------

Sample QJV692 [CW5R] : TKN < Ammonia: Both values fall within the method uncertainty for duplicates and are likely equivalent.

**Results relate only to the items tested.**



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BV Labs Job #: C1N2135  
Report Date: 2021/08/23

### QUALITY ASSURANCE REPORT

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7524140	Phenols-4AAP	2021/08/17	101	80 - 120	102	80 - 120	<0.0010	mg/L	9.5	20		
7524750	Total Organic Carbon (TOC)	2021/08/17	99	80 - 120	98	80 - 120	<0.40	mg/L	3.0	20		
7524859	Total Kjeldahl Nitrogen (TKN)	2021/08/18	NC	80 - 120	105	80 - 120	<0.10	mg/L	3.4	20	111	80 - 120
7524904	Total Dissolved Solids	2021/08/18					<10	mg/L	0	25	97	90 - 110
7524961	Total Ammonia-N	2021/08/19	98	75 - 125	98	80 - 120	<0.050	mg/L	10	20		
7525091	Nitrate (N)	2021/08/19	89	80 - 120	92	80 - 120	<0.10	mg/L	NC	20		
7525091	Nitrite (N)	2021/08/19	103	80 - 120	106	80 - 120	<0.010	mg/L	NC	20		
7525507	Dissolved Aluminum (Al)	2021/08/19	108	80 - 120	105	80 - 120	<4.9	ug/L	NC	20		
7525507	Dissolved Antimony (Sb)	2021/08/19	104	80 - 120	104	80 - 120	<0.50	ug/L				
7525507	Dissolved Arsenic (As)	2021/08/19	101	80 - 120	100	80 - 120	<1.0	ug/L				
7525507	Dissolved Barium (Ba)	2021/08/19	99	80 - 120	103	80 - 120	<2.0	ug/L	1.7	20		
7525507	Dissolved Beryllium (Be)	2021/08/19	99	80 - 120	99	80 - 120	<0.40	ug/L				
7525507	Dissolved Bismuth (Bi)	2021/08/19	98	80 - 120	102	80 - 120	<1.0	ug/L				
7525507	Dissolved Boron (B)	2021/08/19	NC	80 - 120	95	80 - 120	<10	ug/L	0.95	20		
7525507	Dissolved Cadmium (Cd)	2021/08/19	99	80 - 120	100	80 - 120	<0.090	ug/L	NC	20		
7525507	Dissolved Calcium (Ca)	2021/08/19	NC	80 - 120	105	80 - 120	<200	ug/L	1.3	20		
7525507	Dissolved Chromium (Cr)	2021/08/19	99	80 - 120	99	80 - 120	<5.0	ug/L	NC	20		
7525507	Dissolved Cobalt (Co)	2021/08/19	102	80 - 120	104	80 - 120	<0.50	ug/L				
7525507	Dissolved Copper (Cu)	2021/08/19	103	80 - 120	103	80 - 120	<0.90	ug/L	NC	20		
7525507	Dissolved Iron (Fe)	2021/08/19	100	80 - 120	100	80 - 120	<100	ug/L	0.90	20		
7525507	Dissolved Lead (Pb)	2021/08/19	97	80 - 120	104	80 - 120	<0.50	ug/L	NC	20		
7525507	Dissolved Lithium (Li)	2021/08/19	101	80 - 120	101	80 - 120	<5.0	ug/L				
7525507	Dissolved Magnesium (Mg)	2021/08/19	NC	80 - 120	103	80 - 120	<50	ug/L	0.65	20		
7525507	Dissolved Manganese (Mn)	2021/08/19	98	80 - 120	99	80 - 120	<2.0	ug/L	1.4	20		
7525507	Dissolved Molybdenum (Mo)	2021/08/19	110	80 - 120	101	80 - 120	<0.50	ug/L				
7525507	Dissolved Nickel (Ni)	2021/08/19	95	80 - 120	97	80 - 120	<1.0	ug/L				
7525507	Dissolved Phosphorus (P)	2021/08/19	110	80 - 120	109	80 - 120	<100	ug/L				
7525507	Dissolved Potassium (K)	2021/08/19	101	80 - 120	104	80 - 120	<200	ug/L	1.0	20		
7525507	Dissolved Selenium (Se)	2021/08/19	87	80 - 120	101	80 - 120	<2.0	ug/L				
7525507	Dissolved Silicon (Si)	2021/08/19	110	80 - 120	106	80 - 120	<50	ug/L				
7525507	Dissolved Silver (Ag)	2021/08/19	77 (1)	80 - 120	99	80 - 120	<0.090	ug/L	NC	20		



BUREAU  
VERITAS

BV Labs Job #: C1N2135  
Report Date: 2021/08/23

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7525507	Dissolved Sodium (Na)	2021/08/19	NC	80 - 120	101	80 - 120	<100	ug/L	0.54	20		
7525507	Dissolved Strontium (Sr)	2021/08/19	NC	80 - 120	99	80 - 120	<1.0	ug/L				
7525507	Dissolved Tellurium (Te)	2021/08/19	88	80 - 120	100	80 - 120	<1.0	ug/L				
7525507	Dissolved Thallium (Tl)	2021/08/19	99	80 - 120	104	80 - 120	<0.050	ug/L				
7525507	Dissolved Tin (Sn)	2021/08/19	105	80 - 120	103	80 - 120	<1.0	ug/L				
7525507	Dissolved Titanium (Ti)	2021/08/19	102	80 - 120	99	80 - 120	<5.0	ug/L				
7525507	Dissolved Tungsten (W)	2021/08/19	103	80 - 120	102	80 - 120	<1.0	ug/L				
7525507	Dissolved Uranium (U)	2021/08/19	98	80 - 120	102	80 - 120	<0.10	ug/L				
7525507	Dissolved Vanadium (V)	2021/08/19	101	80 - 120	98	80 - 120	<0.50	ug/L				
7525507	Dissolved Zinc (Zn)	2021/08/19	92	80 - 120	97	80 - 120	<5.0	ug/L	NC	20		
7525507	Dissolved Zirconium (Zr)	2021/08/19	111	80 - 120	104	80 - 120	<1.0	ug/L				
7525858	Orthophosphate (P)	2021/08/18	117	75 - 125	100	80 - 120	<0.010	mg/L	NC	25		
7525873	Dissolved Bromide (Br-)	2021/08/18	103	80 - 120	102	80 - 120	<1.0	mg/L	NC	20		
7525873	Dissolved Chloride (Cl-)	2021/08/18	99	80 - 120	99	70 - 130	<1.0	mg/L	2.8	20		
7525873	Dissolved Sulphate (SO4)	2021/08/18	97	80 - 120	96	80 - 120	<1.0	mg/L	0.85	20		
7525906	Fluoride (F-)	2021/08/18	107	80 - 120	98	80 - 120	<0.10	mg/L	0.97	20		
7525909	Alkalinity (Total as CaCO3)	2021/08/18			94	85 - 115	<1.0	mg/L	1.1	20		
7525913	Conductivity	2021/08/18			102	85 - 115	<1.0	umho/cm	0.84	25		





BUREAU  
VERITAS

BV Labs Job #: C1N2135  
Report Date: 2021/08/23

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7525919	pH	2021/08/18			102	98 - 103			0.60	N/A		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Matrix Spike exceeds acceptance limits, sample inhomogeneity suspected.



BUREAU  
VERITAS

BV Labs Job #: C1N2135  
Report Date: 2021/08/23

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

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Brad Newman, B.Sc., C.Chem., Scientific Service Specialist

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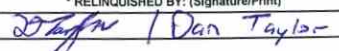
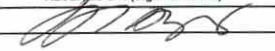
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INVOICE TO:	REPORT TO:	PROJECT INFORMATION:	Laboratory Use Only:
Company Name: #16786 Terrapure Environmental Attention: Accounting Address: 65 Green Mountain Rd West Stoney Creek ON L8J 1X5 Tel: (905) 561-0305 Fax: (905) 561-1674 Email: kbailey@terrapureenv.com	Company Name: _____ Attention: Brad Mullin - GHD Reporting Address: _____ Tel: _____ Fax: _____ Email: bmullin@terrapureenv.com; dtaylor2@terrapureenv.com	Quotation #: B60569 P.O. #: _____ Project: GW Project Name: _____ Site #: _____ Sampled By: _____	BV Labs Job #: _____ Bottle Order #:  834487 COC #: _____ Project Manager: Jolanta Goralczyk  C#834487-22-01

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY					ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required: Please provide advance notice for rush projects			
<b>Regulation 153 (2011)</b> <input type="checkbox"/> Table 1 <input type="checkbox"/> Res/Park <input type="checkbox"/> Medium/Fine <input type="checkbox"/> Table 2 <input type="checkbox"/> Ind/Comm <input type="checkbox"/> Coarse <input type="checkbox"/> Table 3 <input type="checkbox"/> Agri/Other <input type="checkbox"/> For RSC <input type="checkbox"/> Table _____		<b>Other Regulations</b> <input type="checkbox"/> CCME <input type="checkbox"/> Sanitary Sewer Bylaw <input type="checkbox"/> Reg 558 <input type="checkbox"/> Storm Sewer Bylaw <input type="checkbox"/> MISA Municipality _____ <input type="checkbox"/> PWOO <input type="checkbox"/> Reg 406 Table _____ <input type="checkbox"/> Other _____		<b>Special Instructions</b>   	Field Filtered (please circle): <input checked="" type="checkbox"/> Metals <input type="checkbox"/> Hg <input type="checkbox"/> Cr VI	List "A" GW Monitoring											<b>Regular (Standard) TAT:</b> (will be applied if Rush TAT is not specified): Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.	
Include Criteria on Certificate of Analysis (Y/N)? _____							<b>Job Specific Rush TAT (if applies to entire submission)</b> Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)		# of Bottles: 6 Comments:									
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix														
1	CW5R	Aug 13 2001	NA	water	<input checked="" type="checkbox"/>	X												
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

16-Aug-21 15:45  
Jolanta Goralczyk  
  
C1N2135  
AVV ENV-1117

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# Jars used and not submitted	Laboratory Use Only		
 Dan Taylor	21/08/16	4:00		20/08/16	15:45		Time Sensitive	Temperature (°C) on Recl	Custody Seal
								8/9/10	Present <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

\*\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

\*\*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

Bureau Veritas Canada (2019) Inc.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client



Your Project #: GW  
Your C.O.C. #: 834487-32-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/08/26**  
Report #: R6782777  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1N6741**  
**Received: 2021/08/19, 16:07**

Sample Matrix: Water  
# Samples Received: 1

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Alkalinity	1	N/A	2021/08/23	CAM SOP-00448	SM 23 2320 B m
Anions	1	N/A	2021/08/23	CAM SOP-00435	SM 23 4110 B m
Conductivity	1	N/A	2021/08/23	CAM SOP-00414	SM 23 2510 m
Fluoride	1	2021/08/21	2021/08/23	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2021/08/25	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Metals by ICPMS	1	N/A	2021/08/23	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	1	N/A	2021/08/23	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1)	1	N/A	2021/08/23	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	1	2021/08/21	2021/08/23	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2021/08/20	CAM SOP-00444	OMOE E3179 m
Orthophosphate	1	N/A	2021/08/23	CAM SOP-00461	EPA 365.1 m
Total Dissolved Solids	1	2021/08/23	2021/08/24	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water	1	2021/08/23	2021/08/25	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (2)	1	N/A	2021/08/24	CAM SOP-00446	SM 23 5310B m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (2) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key



**AUTHORIZED REPORT**  
**RAPPORT AUTORISÉ**

Bureau Veritas  
26 Aug 2021 12:03:11

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

=====  
This report has been generated and distributed using a secure automated process.

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BV Labs Job #: C1N6741  
Report Date: 2021/08/26

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QKT908			QKT908		
Sampling Date		2021/08/18			2021/08/18		
COC Number		834487-32-01			834487-32-01		
	UNITS	CW3	RDL	QC Batch	CW3 Lab-Dup	RDL	QC Batch
<b>Calculated Parameters</b>							
Hardness (CaCO <sub>3</sub> )	mg/L	59	1.0	7529273			
<b>Inorganics</b>							
Total Ammonia-N	mg/L	8.1	0.050	7535563			
Conductivity	umho/cm	1300	1.0	7534666	1300	1.0	7534666
Total Dissolved Solids	mg/L	650	10	7535698			
Fluoride (F <sup>-</sup> )	mg/L	1.2	0.10	7534664	1.2	0.10	7534664
Total Kjeldahl Nitrogen (TKN)	mg/L	9.1	1.0	7535588			
Total Organic Carbon (TOC)	mg/L	27	0.40	7536641			
Orthophosphate (P)	mg/L	0.013	0.010	7532933			
pH	pH	9.19		7534667	9.24		7534667
Phenols-4AAP	mg/L	0.33	0.0050	7532689			
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	72	1.0	7534665	74	1.0	7534665
Nitrite (N)	mg/L	<0.010	0.010	7532996			
Dissolved Chloride (Cl <sup>-</sup> )	mg/L	260	5.0	7534616			
Nitrate (N)	mg/L	<0.10	0.10	7532996			
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7532996			
Dissolved Bromide (Br <sup>-</sup> )	mg/L	<5.0	5.0	7534616			
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	100	5.0	7534616			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							



**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>BV Labs ID</b>		QKT908		
<b>Sampling Date</b>		2021/08/18		
<b>COC Number</b>		834487-32-01		
	<b>UNITS</b>	<b>CW3</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Metals</b>				
Dissolved Aluminum (Al)	ug/L	<4.9	4.9	7534614
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	7534614
Dissolved Arsenic (As)	ug/L	2.0	1.0	7534614
Dissolved Barium (Ba)	ug/L	23	2.0	7534614
Dissolved Beryllium (Be)	ug/L	<0.40	0.40	7534614
Dissolved Bismuth (Bi)	ug/L	<1.0	1.0	7534614
Dissolved Boron (B)	ug/L	190	10	7534614
Dissolved Cadmium (Cd)	ug/L	<0.090	0.090	7534614
Dissolved Calcium (Ca)	ug/L	19000	200	7534614
Dissolved Chromium (Cr)	ug/L	<5.0	5.0	7534614
Dissolved Cobalt (Co)	ug/L	<0.50	0.50	7534614
Dissolved Copper (Cu)	ug/L	<0.90	0.90	7534614
Dissolved Iron (Fe)	ug/L	<100	100	7534614
Dissolved Lead (Pb)	ug/L	<0.50	0.50	7534614
Dissolved Lithium (Li)	ug/L	17	5.0	7534614
Dissolved Magnesium (Mg)	ug/L	2800	50	7534614
Dissolved Manganese (Mn)	ug/L	<2.0	2.0	7534614
Dissolved Molybdenum (Mo)	ug/L	12	0.50	7534614
Dissolved Nickel (Ni)	ug/L	3.6	1.0	7534614
Dissolved Phosphorus (P)	ug/L	<100	100	7534614
Dissolved Potassium (K)	ug/L	44000	200	7534614
Dissolved Selenium (Se)	ug/L	2.9	2.0	7534614
Dissolved Silicon (Si)	ug/L	10000	50	7534614
Dissolved Silver (Ag)	ug/L	<0.090	0.090	7534614
Dissolved Sodium (Na)	ug/L	200000	100	7534614
Dissolved Strontium (Sr)	ug/L	850	1.0	7534614
Dissolved Tellurium (Te)	ug/L	<1.0	1.0	7534614
Dissolved Thallium (Tl)	ug/L	<0.050	0.050	7534614
Dissolved Tin (Sn)	ug/L	<1.0	1.0	7534614
Dissolved Titanium (Ti)	ug/L	<5.0	5.0	7534614
Dissolved Tungsten (W)	ug/L	3.4	1.0	7534614
Dissolved Uranium (U)	ug/L	<0.10	0.10	7534614
Dissolved Vanadium (V)	ug/L	0.55	0.50	7534614
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	7534614
Dissolved Zirconium (Zr)	ug/L	<1.0	1.0	7534614
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU  
VERITAS

BV Labs Job #: C1N6741  
Report Date: 2021/08/26

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QKT908  
**Sample ID:** CW3  
**Matrix:** Water

**Collected:** 2021/08/18  
**Shipped:**  
**Received:** 2021/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7534665	N/A	2021/08/23	Surinder Rai
Anions	IC	7534616	N/A	2021/08/23	Fari Dehdezi
Conductivity	AT	7534666	N/A	2021/08/23	Surinder Rai
Fluoride	ISE	7534664	2021/08/21	2021/08/23	Surinder Rai
Hardness (calculated as CaCO3)		7529273	N/A	2021/08/25	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7534614	N/A	2021/08/23	Nan Raykha
Total Ammonia-N	LACH/NH4	7535563	N/A	2021/08/23	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7532996	N/A	2021/08/23	Chandra Nandlal
pH	AT	7534667	2021/08/21	2021/08/23	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7532689	N/A	2021/08/20	Deonarine Ramnarine
Orthophosphate	KONE	7532933	N/A	2021/08/23	Avneet Kour Sudan
Total Dissolved Solids	BAL	7535698	2021/08/23	2021/08/24	Kristen Chan
Total Kjeldahl Nitrogen in Water	SKAL	7535588	2021/08/23	2021/08/25	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7536641	N/A	2021/08/24	Julianna Castiglione

**BV Labs ID:** QKT908 Dup  
**Sample ID:** CW3  
**Matrix:** Water

**Collected:** 2021/08/18  
**Shipped:**  
**Received:** 2021/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7534665	N/A	2021/08/23	Surinder Rai
Conductivity	AT	7534666	N/A	2021/08/23	Surinder Rai
Fluoride	ISE	7534664	2021/08/21	2021/08/23	Surinder Rai
pH	AT	7534667	2021/08/21	2021/08/23	Surinder Rai



### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	5.0°C
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Sample QKT908 [CW3] : Anions Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

**Results relate only to the items tested.**





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BV Labs Job #: C1N6741  
Report Date: 2021/08/26

### QUALITY ASSURANCE REPORT

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7532689	Phenols-4AAP	2021/08/20	99	80 - 120	102	80 - 120	<0.0010	mg/L	NC	20		
7532933	Orthophosphate (P)	2021/08/23	104	75 - 125	99	80 - 120	<0.010	mg/L	0.78	25		
7532996	Nitrate (N)	2021/08/23	102	80 - 120	100	80 - 120	<0.10	mg/L	0.80	20		
7532996	Nitrite (N)	2021/08/23	101	80 - 120	104	80 - 120	<0.010	mg/L	2.0	20		
7534614	Dissolved Aluminum (Al)	2021/08/23	99	80 - 120	95	80 - 120	<4.9	ug/L	4.5	20		
7534614	Dissolved Antimony (Sb)	2021/08/23	105	80 - 120	104	80 - 120	<0.50	ug/L	NC	20		
7534614	Dissolved Arsenic (As)	2021/08/23	99	80 - 120	97	80 - 120	<1.0	ug/L	NC	20		
7534614	Dissolved Barium (Ba)	2021/08/23	101	80 - 120	102	80 - 120	<2.0	ug/L	0.25	20		
7534614	Dissolved Beryllium (Be)	2021/08/23	110	80 - 120	102	80 - 120	<0.40	ug/L	NC	20		
7534614	Dissolved Bismuth (Bi)	2021/08/23	96	80 - 120	100	80 - 120	<1.0	ug/L	NC	20		
7534614	Dissolved Boron (B)	2021/08/23	100	80 - 120	98	80 - 120	<10	ug/L	0.31	20		
7534614	Dissolved Cadmium (Cd)	2021/08/23	100	80 - 120	100	80 - 120	<0.090	ug/L	NC	20		
7534614	Dissolved Calcium (Ca)	2021/08/23	NC	80 - 120	99	80 - 120	<200	ug/L	6.4	20		
7534614	Dissolved Chromium (Cr)	2021/08/23	97	80 - 120	95	80 - 120	<5.0	ug/L	NC	20		
7534614	Dissolved Cobalt (Co)	2021/08/23	95	80 - 120	98	80 - 120	<0.50	ug/L	NC	20		
7534614	Dissolved Copper (Cu)	2021/08/23	100	80 - 120	101	80 - 120	<0.90	ug/L	2.8	20		
7534614	Dissolved Iron (Fe)	2021/08/23	96	80 - 120	96	80 - 120	<100	ug/L	NC	20		
7534614	Dissolved Lead (Pb)	2021/08/23	97	80 - 120	101	80 - 120	<0.50	ug/L	NC	20		
7534614	Dissolved Lithium (Li)	2021/08/23	102	80 - 120	104	80 - 120	<5.0	ug/L	1.8	20		
7534614	Dissolved Magnesium (Mg)	2021/08/23	NC	80 - 120	97	80 - 120	<50	ug/L	3.0	20		
7534614	Dissolved Manganese (Mn)	2021/08/23	96	80 - 120	94	80 - 120	<2.0	ug/L	0.72	20		
7534614	Dissolved Molybdenum (Mo)	2021/08/23	108	80 - 120	103	80 - 120	<0.50	ug/L	1.2	20		
7534614	Dissolved Nickel (Ni)	2021/08/23	91	80 - 120	94	80 - 120	<1.0	ug/L	15	20		
7534614	Dissolved Phosphorus (P)	2021/08/23	94	80 - 120	106	80 - 120	<100	ug/L	NC	20		
7534614	Dissolved Potassium (K)	2021/08/23	104	80 - 120	98	80 - 120	<200	ug/L	2.1	20		
7534614	Dissolved Selenium (Se)	2021/08/23	100	80 - 120	98	80 - 120	<2.0	ug/L	1.4	20		
7534614	Dissolved Silicon (Si)	2021/08/23	102	80 - 120	98	80 - 120	<50	ug/L	4.6	20		
7534614	Dissolved Silver (Ag)	2021/08/23	94	80 - 120	96	80 - 120	<0.090	ug/L	NC	20		
7534614	Dissolved Sodium (Na)	2021/08/23	NC	80 - 120	96	80 - 120	<100	ug/L	4.3	20		
7534614	Dissolved Strontium (Sr)	2021/08/23	NC	80 - 120	93	80 - 120	<1.0	ug/L	3.1	20		
7534614	Dissolved Tellurium (Te)	2021/08/23	95	80 - 120	97	80 - 120	<1.0	ug/L	NC	20		



**BUREAU**  
**VERITAS**

BV Labs Job #: C1N6741  
Report Date: 2021/08/26

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7534614	Dissolved Thallium (Tl)	2021/08/23	98	80 - 120	101	80 - 120	<0.050	ug/L	NC	20		
7534614	Dissolved Tin (Sn)	2021/08/23	104	80 - 120	101	80 - 120	<1.0	ug/L	NC	20		
7534614	Dissolved Titanium (Ti)	2021/08/23	94	80 - 120	95	80 - 120	<5.0	ug/L	NC	20		
7534614	Dissolved Tungsten (W)	2021/08/23	104	80 - 120	102	80 - 120	<1.0	ug/L	NC	20		
7534614	Dissolved Uranium (U)	2021/08/23	99	80 - 120	98	80 - 120	<0.10	ug/L	0.88	20		
7534614	Dissolved Vanadium (V)	2021/08/23	101	80 - 120	97	80 - 120	<0.50	ug/L	2.4	20		
7534614	Dissolved Zinc (Zn)	2021/08/23	94	80 - 120	95	80 - 120	<5.0	ug/L	NC	20		
7534614	Dissolved Zirconium (Zr)	2021/08/23	109	80 - 120	103	80 - 120	<1.0	ug/L	NC	20		
7534616	Dissolved Bromide (Br-)	2021/08/23	100	80 - 120	103	80 - 120	<1.0	mg/L	NC	20		
7534616	Dissolved Chloride (Cl-)	2021/08/23	96	80 - 120	100	70 - 130	<1.0	mg/L				
7534616	Dissolved Sulphate (SO4)	2021/08/23	95	80 - 120	97	80 - 120	<1.0	mg/L				
7534664	Fluoride (F-)	2021/08/23	100	80 - 120	98	80 - 120	<0.10	mg/L	1.9	20		
7534665	Alkalinity (Total as CaCO3)	2021/08/23			93	85 - 115	<1.0	mg/L	1.9	20		
7534666	Conductivity	2021/08/23			102	85 - 115	<1.0	umho/cm	0.31	25		
7534667	pH	2021/08/23			102	98 - 103			0.49	N/A		
7535563	Total Ammonia-N	2021/08/23	97	75 - 125	100	80 - 120	<0.050	mg/L	NC	20		
7535588	Total Kjeldahl Nitrogen (TKN)	2021/08/25	97	80 - 120	99	80 - 120	<0.10	mg/L	NC (1)	20	100	80 - 120
7535698	Total Dissolved Solids	2021/08/24					<10	mg/L	1.7	25	98	90 - 110



BUREAU  
VERITAS

BV Labs Job #: C1N6741  
Report Date: 2021/08/26

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7536641	Total Organic Carbon (TOC)	2021/08/24	103	80 - 120	102	80 - 120	<0.40	mg/L	1.3	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Due to a high concentration of NOx, the sample required dilution. The detection limit was adjusted accordingly.



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BV Labs Job #: C1N6741

Report Date: 2021/08/26

Terrapure Environmental

Client Project #: GW

Sampler Initials: DT

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

A handwritten signature in black ink, appearing to read 'Brad Newman', written over a horizontal line.

Brad Newman, B.Sc., C.Chem., Scientific Service Specialist

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



<b>INVOICE TO:</b>		<b>REPORT TO:</b>		<b>PROJECT INFORMATION:</b>		<b>Laboratory Use Only:</b>	
Company Name: #16786 Terrapure Environmental	Attention: Accounting	Company Name: Brad Mullin - GHD Reporting	Attention: Brad Mullin - GHD Reporting	Quotation #: B60569	P.O. #: GW	BV Labs Job #:	Bottle Order #:
Address: 65 Green Mountain Rd West Stoney Creek ON L8J 1X5	Tel: (905) 561-0305 Fax: (905) 561-1674	Address:	Tel:	Project Name:	Site #:	COC #:	Project Manager:
Email: kbailey@terrapureenv.com	Email: kmullin@terrapureenv.com; dtaylor2@terrapureenv.com			Sampled By:			Jolanta Goralczyk

<b>MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY</b>						<b>ANALYSIS REQUESTED (PLEASE BE SPECIFIC)</b>						<b>Turnaround Time (TAT) Required:</b> Please provide advance notice for rush projects		
<b>Regulation 153 (2011)</b> <input type="checkbox"/> Table 1 <input type="checkbox"/> Res/Park <input type="checkbox"/> Medium/Fine <input type="checkbox"/> Table 2 <input type="checkbox"/> Ind/Comm <input type="checkbox"/> Coarse <input type="checkbox"/> Table 3 <input type="checkbox"/> Agri/Other <input type="checkbox"/> For RSC <input type="checkbox"/> Table		<b>Other Regulations</b> <input type="checkbox"/> CCME <input type="checkbox"/> Sanitary Sewer Bylaw <input type="checkbox"/> Reg 558 <input type="checkbox"/> Storm Sewer Bylaw <input type="checkbox"/> MISA Municipality _____ <input type="checkbox"/> PWQO <input type="checkbox"/> Reg 406 Table _____ <input type="checkbox"/> Other _____		<b>Special Instructions</b>		Field Filtered (please circle): Metals <input checked="" type="checkbox"/> Hg / Cr / V List "A" GW Monitoring							<b>Regular (Standard) TAT:</b> (will be applied if Rush TAT is not specified): Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.	
Include Criteria on Certificate of Analysis (Y/N)?							<b>Job Specific Rush TAT (if applies to entire submission)</b> Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)							
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix								# of Bottles	Comments	
1	CW3	Aug 18 2021	NA	water	Y	X						6		
2														
3														
4														
5														
6														
7														
8														
9														
10														

19-Aug-21 16:07  
 Jolanta Goralczyk  
  
**C1N6741**  
 NP4 ENV-1301

* RELINQUISHED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
		21/08/19	9:15			20/08/19	16:07		Time Sensitive	Temperature (°C) at Recl	Custody Seal Present	Yes	No
										5/5/5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.  
 \* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.  
 \*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client

*Rv*



Your Project #: HCL  
Your C.O.C. #: 834487-31-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/08/30**  
Report #: R6787973  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1N9863**

**Received: 2021/08/23, 15:40**

Sample Matrix: Water  
# Samples Received: 1

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Alkalinity	1	N/A	2021/08/25	CAM SOP-00448	SM 23 2320 B m
Anions	1	N/A	2021/08/25	CAM SOP-00435	SM 23 4110 B m
Conductivity	1	N/A	2021/08/25	CAM SOP-00414	SM 23 2510 m
Fluoride	1	2021/08/24	2021/08/25	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2021/08/27	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Calcium and Magnesium	1	2021/08/24	2021/08/26	CAM SOP-00408	EPA 6010D m
Total Metals Analysis by ICPMS	1	N/A	2021/08/26	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	1	N/A	2021/08/26	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1)	1	N/A	2021/08/25	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	1	2021/08/24	2021/08/25	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2021/08/24	CAM SOP-00444	OMOE E3179 m
Orthophosphate	1	N/A	2021/08/25	CAM SOP-00461	EPA 365.1 m
Total Kjeldahl Nitrogen in Water	1	2021/08/24	2021/08/25	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (2)	1	N/A	2021/08/26	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric)	1	2021/08/25	2021/08/25	CAM SOP-00407	SM 23 4500 P B H m
Total Suspended Solids	1	2021/08/24	2021/08/25	CAM SOP-00428	SM 23 2540D m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (2) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.



Your Project #: HCL  
Your C.O.C. #: 834487-31-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/08/30**  
Report #: R6787973  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1N9863**

**Received: 2021/08/23, 15:40**

Encryption Key



**AUTHORIZED REPORT  
RAPPORT AUTORISÉ**

Bureau Veritas  
30 Aug 2021 09:38:57

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

=====  
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VERITAS

BV Labs Job #: C1N9863  
Report Date: 2021/08/30

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QLK725			QLK725		
Sampling Date		2021/08/20 13:40			2021/08/20 13:40		
COC Number		834487-31-01			834487-31-01		
	UNITS	HCL 1:40	RDL	QC Batch	HCL 1:40 Lab-Dup	RDL	QC Batch
<b>Calculated Parameters</b>							
Hardness (CaCO3)	mg/L	2400	1.0	7535863			
<b>Inorganics</b>							
Total Ammonia-N	mg/L	0.25	0.050	7540264			
Conductivity	umho/cm	3500	1.0	7538941	3500	1.0	7538941
Fluoride (F-)	mg/L	1.2	0.10	7538930	1.2	0.10	7538930
Total Kjeldahl Nitrogen (TKN)	mg/L	0.51	0.10	7538781			
Total Organic Carbon (TOC)	mg/L	2.7	0.40	7541356			
Orthophosphate (P)	mg/L	<0.010	0.010	7538976			
pH	pH	7.37		7538937	7.33		7538937
Phenols-4AAP	mg/L	<0.0010	0.0010	7537363			
Total Phosphorus	mg/L	0.042	0.020	7540047			
Total Suspended Solids	mg/L	12	10	7538754			
Alkalinity (Total as CaCO3)	mg/L	380	1.0	7538933	380	1.0	7538933
Nitrite (N)	mg/L	<0.010	0.010	7538378			
Dissolved Chloride (Cl-)	mg/L	95	10	7538854			
Nitrate (N)	mg/L	<0.10	0.10	7538378			
Dissolved Bromide (Br-)	mg/L	<10	10	7538854			
Dissolved Sulphate (SO4)	mg/L	1800	10	7538854			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							





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VERITAS

BV Labs Job #: C1N9863  
Report Date: 2021/08/30

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QLK725		
Sampling Date		2021/08/20 13:40		
COC Number		834487-31-01		
	UNITS	HCL 1:40	RDL	QC Batch
<b>Metals</b>				
Dissolved Calcium (Ca)	mg/L	510	0.50	7538566
Dissolved Magnesium (Mg)	mg/L	270	0.50	7538566
Total Aluminum (Al)	mg/L	0.0066	0.0049	7540458
Total Barium (Ba)	mg/L	0.019	0.0020	7540458
Total Beryllium (Be)	mg/L	<0.00040	0.00040	7540458
Total Boron (B)	mg/L	0.33	0.010	7540458
Total Cadmium (Cd)	mg/L	<0.000090	0.000090	7540458
Total Calcium (Ca)	mg/L	490	0.20	7540458
Total Chromium (Cr)	mg/L	<0.0050	0.0050	7540458
Total Cobalt (Co)	mg/L	0.0036	0.00050	7540458
Total Copper (Cu)	mg/L	<0.00090	0.00090	7540458
Total Iron (Fe)	mg/L	2.2	0.10	7540458
Total Lead (Pb)	mg/L	<0.00050	0.00050	7540458
Total Magnesium (Mg)	mg/L	260	0.050	7540458
Total Manganese (Mn)	mg/L	1.5	0.0020	7540458
Total Molybdenum (Mo)	mg/L	0.0063	0.00050	7540458
Total Nickel (Ni)	mg/L	0.022	0.0010	7540458
Total Potassium (K)	mg/L	3.4	0.20	7540458
Total Silicon (Si)	mg/L	5.7	0.050	7540458
Total Sodium (Na)	mg/L	75	0.10	7540458
Total Strontium (Sr)	mg/L	3.6	0.0010	7540458
Total Titanium (Ti)	mg/L	<0.0050	0.0050	7540458
Total Vanadium (V)	mg/L	<0.00050	0.00050	7540458
Total Zinc (Zn)	mg/L	<0.0050	0.0050	7540458
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



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BV Labs Job #: C1N9863  
Report Date: 2021/08/30

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QLK725  
**Sample ID:** HCL 1:40  
**Matrix:** Water

**Collected:** 2021/08/20  
**Shipped:**  
**Received:** 2021/08/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7538933	N/A	2021/08/25	Surinder Rai
Anions	IC	7538854	N/A	2021/08/25	Fari Dehdezi
Conductivity	AT	7538941	N/A	2021/08/25	Surinder Rai
Fluoride	ISE	7538930	2021/08/24	2021/08/25	Surinder Rai
Hardness (calculated as CaCO3)		7535863	N/A	2021/08/27	Automated Statchk
Dissolved Calcium and Magnesium	ICP	7538566	2021/08/24	2021/08/26	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7540458	N/A	2021/08/26	Azita Fazaali
Total Ammonia-N	LACH/NH4	7540264	N/A	2021/08/26	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7538378	N/A	2021/08/25	Chandra Nandlal
pH	AT	7538937	2021/08/24	2021/08/25	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7537363	N/A	2021/08/24	Deonarine Ramnarine
Orthophosphate	KONE	7538976	N/A	2021/08/25	Avneet Kour Sudan
Total Kjeldahl Nitrogen in Water	SKAL	7538781	2021/08/24	2021/08/25	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7541356	N/A	2021/08/26	Julianna Castiglione
Total Phosphorus (Colourimetric)	LACH/P	7540047	2021/08/25	2021/08/25	Shivani Shivani
Total Suspended Solids	BAL	7538754	2021/08/24	2021/08/25	Sandeep Kaur

**BV Labs ID:** QLK725 Dup  
**Sample ID:** HCL 1:40  
**Matrix:** Water

**Collected:** 2021/08/20  
**Shipped:**  
**Received:** 2021/08/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7538933	N/A	2021/08/25	Surinder Rai
Conductivity	AT	7538941	N/A	2021/08/25	Surinder Rai
Fluoride	ISE	7538930	2021/08/24	2021/08/25	Surinder Rai
pH	AT	7538937	2021/08/24	2021/08/25	Surinder Rai



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VERITAS

BV Labs Job #: C1N9863  
Report Date: 2021/08/30

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: DT

### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.7°C
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Sample QLK725 [HCL 1:40] : Anions Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

**Results relate only to the items tested.**



BUREAU  
VERITAS

BV Labs Job #: C1N9863  
Report Date: 2021/08/30

### QUALITY ASSURANCE REPORT

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7537363	Phenols-4AAP	2021/08/24	97	80 - 120	101	80 - 120	<0.0010	mg/L	12	20		
7538378	Nitrate (N)	2021/08/25	NC	80 - 120	93	80 - 120	<0.10	mg/L	0.91	20		
7538378	Nitrite (N)	2021/08/25	100	80 - 120	103	80 - 120	<0.010	mg/L	0.47	20		
7538566	Dissolved Calcium (Ca)	2021/08/26	97	80 - 120	99	80 - 120	<0.050	mg/L				
7538566	Dissolved Magnesium (Mg)	2021/08/26	93	80 - 120	96	80 - 120	<0.050	mg/L				
7538754	Total Suspended Solids	2021/08/25					<10	mg/L	3.3	25	99	85 - 115
7538781	Total Kjeldahl Nitrogen (TKN)	2021/08/25	NC	80 - 120	98	80 - 120	<0.10	mg/L	0.58	20	106	80 - 120
7538854	Dissolved Bromide (Br-)	2021/08/25	102	80 - 120	104	80 - 120	<1.0	mg/L	NC	20		
7538854	Dissolved Chloride (Cl-)	2021/08/25	100	80 - 120	100	70 - 130	<1.0	mg/L	1.7	20		
7538854	Dissolved Sulphate (SO4)	2021/08/25	96	80 - 120	97	80 - 120	<1.0	mg/L	19	20		
7538930	Fluoride (F-)	2021/08/25	96	80 - 120	98	80 - 120	<0.10	mg/L	1.4	20		
7538933	Alkalinity (Total as CaCO3)	2021/08/25			95	85 - 115	<1.0	mg/L	0.27	20		
7538937	pH	2021/08/25			102	98 - 103			0.53	N/A		
7538941	Conductivity	2021/08/25			103	85 - 115	<1.0	umho/cm	0.57	25		
7538976	Orthophosphate (P)	2021/08/25	NC	75 - 125	101	80 - 120	<0.010	mg/L	0.41	25		
7540047	Total Phosphorus	2021/08/25	101	80 - 120	103	80 - 120	<0.020	mg/L	0.075	20	103	80 - 120
7540264	Total Ammonia-N	2021/08/26	96	75 - 125	97	80 - 120	<0.050	mg/L	NC	20		
7540458	Total Aluminum (Al)	2021/08/27	98	80 - 120	99	80 - 120	<0.0049	mg/L	NC	20		
7540458	Total Barium (Ba)	2021/08/27	99	80 - 120	100	80 - 120	<0.0020	mg/L	7.1	20		
7540458	Total Beryllium (Be)	2021/08/27	103	80 - 120	102	80 - 120	<0.00040	mg/L	NC	20		
7540458	Total Boron (B)	2021/08/27	91	80 - 120	86	80 - 120	<0.010	mg/L	3.9	20		
7540458	Total Cadmium (Cd)	2021/08/27	97	80 - 120	99	80 - 120	<0.000090	mg/L	NC	20		
7540458	Total Calcium (Ca)	2021/08/27	NC	80 - 120	97	80 - 120	<0.20	mg/L	4.1	20		
7540458	Total Chromium (Cr)	2021/08/27	95	80 - 120	97	80 - 120	<0.0050	mg/L	NC	20		
7540458	Total Cobalt (Co)	2021/08/27	94	80 - 120	96	80 - 120	<0.00050	mg/L	NC	20		
7540458	Total Copper (Cu)	2021/08/27	97	80 - 120	99	80 - 120	<0.00090	mg/L	NC	20		
7540458	Total Iron (Fe)	2021/08/27	92	80 - 120	93	80 - 120	<0.10	mg/L	2.8	20		
7540458	Total Lead (Pb)	2021/08/27	95	80 - 120	95	80 - 120	<0.00050	mg/L	NC	20		
7540458	Total Magnesium (Mg)	2021/08/27	NC	80 - 120	95	80 - 120	<0.050	mg/L	3.2	20		
7540458	Total Manganese (Mn)	2021/08/27	95	80 - 120	95	80 - 120	<0.0020	mg/L	4.0	20		



BUREAU  
VERITAS

BV Labs Job #: C1N9863  
Report Date: 2021/08/30

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7540458	Total Molybdenum (Mo)	2021/08/27	100	80 - 120	100	80 - 120	<0.00050	mg/L	7.7	20		
7540458	Total Nickel (Ni)	2021/08/27	94	80 - 120	95	80 - 120	<0.0010	mg/L	NC	20		
7540458	Total Potassium (K)	2021/08/27	95	80 - 120	96	80 - 120	<0.20	mg/L	4.6	20		
7540458	Total Silicon (Si)	2021/08/27	96	80 - 120	96	80 - 120	<0.050	mg/L	4.0	20		
7540458	Total Sodium (Na)	2021/08/27	NC	80 - 120	95	80 - 120	<0.10	mg/L	4.6	20		
7540458	Total Strontium (Sr)	2021/08/27	NC	80 - 120	97	80 - 120	<0.0010	mg/L	4.9	20		
7540458	Total Titanium (Ti)	2021/08/27	96	80 - 120	93	80 - 120	<0.0050	mg/L	NC	20		
7540458	Total Vanadium (V)	2021/08/27	95	80 - 120	96	80 - 120	<0.00050	mg/L	NC	20		
7540458	Total Zinc (Zn)	2021/08/27	96	80 - 120	98	80 - 120	<0.0050	mg/L	NC	20		
7541356	Total Organic Carbon (TOC)	2021/08/26	89	80 - 120	93	80 - 120	<0.40	mg/L	11	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).



BUREAU  
VERITAS

BV Labs Job #: C1N9863

Report Date: 2021/08/30

Terrapure Environmental

Client Project #: HCL

Sampler Initials: DT

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

A handwritten signature in black ink, appearing to read "Brad Newman", written over a horizontal line.

Brad Newman, B.Sc., C.Chem., Scientific Service Specialist

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



<b>INVOICE TO:</b>		<b>REPORT TO:</b>		<b>PROJECT INFORMATION:</b>		<b>Laboratory Use Only:</b>	
Company Name: #16786 Terrapure Environmental	Company Name: Brad Mullin - GHD Reporting	Quotation #: B60569	BV Labs Job #:	Bottle Order #:	834487		
Attention: Accounting	Attention: Brad Mullin - GHD Reporting	P.O. #:	COC #:		Project Manager: Jolanta Goralczyk		
Address: 65 Green Mountain Rd West Stoney Creek ON L8J 1X5	Address:	Project: <b>GW HCL</b>	C#834487-31-01				
Tel: (905) 561-0305 Fax: (905) 561-1674	Tel: Fax:	Project Name:	COC #:				
Email: kbailey@terrapureenv.com	Email: bmullin@terrapureenv.com; dtaylor2@terrapureenv.com	Site #:	C#834487-31-01				
		Sampled By:					

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY					ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required: Please provide advance notice for rush projects		
Regulation 153 (2011)			Other Regulations			Special Instructions										Regular (Standard) TAT:	
<input type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw	Field Filtered (please circle): Metals / Hg / Cr / V List "A" GW Monitoring EQ LEACH "List B" Excluding BOD										Regular (Standard) TAT: (will be applied if Rush TAT is not specified): Standard TAT = 5-7 Working days for most tests.		
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw											Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.		
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality											Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____		
<input type="checkbox"/> Table			<input type="checkbox"/> PWQO	<input type="checkbox"/> Reg 406 Table											Rush Confirmation Number: _____ (call lab for #)		
Include Criteria on Certificate of Analysis (Y/N)?																	
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix											# of Bottles	Comments	
1	HCL1:40	Aug 20 2023	1:40pm	water	NA											6	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

23-Aug-21 15:40  
Jolanta Goralczyk  
C1N9863  
ATM ENV-861

* RELINQUISHED BY: (Signature/Print) <i>DTaylor / Dan Taylor</i>	Date: (YY/MM/DD) 21/08/23	Time 9:20	RECEIVED BY: (Signature/Print) <i>[Signature]</i>	Date: (YY/MM/DD) 21/08/23	Time 15:40	# jars used and not submitted	Laboratory Use Only				
							Time Sensitive	Temperature (°C) on Recept 4/13/19	Custody Seal Present	Yes	No
							SAMPLER MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS		White: BV Labs		Yellow: Client

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.  
 \*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.



Your Project #: HCL  
Your C.O.C. #: 834487-15-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/09/02**  
Report #: R6794764  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C106057**  
**Received: 2021/08/27, 15:11**

Sample Matrix: Water  
# Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity	1	N/A	2021/08/30	CAM SOP-00448	SM 23 2320 B m
Anions	1	N/A	2021/09/01	CAM SOP-00435	SM 23 4110 B m
Conductivity	1	N/A	2021/08/30	CAM SOP-00414	SM 23 2510 m
Fluoride	1	2021/08/28	2021/08/30	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2021/09/01	CAM SOP 00102/00408/00447	SM 2340 B
Total Metals Analysis by ICPMS	1	N/A	2021/09/02	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	1	N/A	2021/08/31	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1)	1	N/A	2021/08/31	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	1	2021/08/28	2021/08/30	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2021/08/30	CAM SOP-00444	OMOE E3179 m
Orthophosphate	1	N/A	2021/08/30	CAM SOP-00461	EPA 365.1 m
Total Kjeldahl Nitrogen in Water	1	2021/08/31	2021/09/02	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (2)	1	N/A	2021/08/31	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric)	1	2021/08/31	2021/08/31	CAM SOP-00407	SM 23 4500 P B H m
Total Suspended Solids	1	2021/08/31	2021/09/01	CAM SOP-00428	SM 23 2540D m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

(2) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key



**AUTHORIZED REPORT**  
**RAPPORT AUTORISÉ**

Bureau Veritas  
02 Sep 2021 18:12:17

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

=====  
This report has been generated and distributed using a secure automated process.

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total Cover Pages : 1  
Page 1 of 10





**RESULTS OF ANALYSES OF WATER**

BV Labs ID		QMR033			QMR033		
Sampling Date		2021/08/26 10:30			2021/08/26 10:30		
COC Number		834487-15-01			834487-15-01		
	UNITS	HCL10:30	RDL	QC Batch	HCL10:30 Lab-Dup	RDL	QC Batch
<b>Calculated Parameters</b>							
Hardness (CaCO3)	mg/L	2300	1.0	7545480			
<b>Inorganics</b>							
Total Ammonia-N	mg/L	0.26	0.050	7550934	0.24	0.050	7550934
Conductivity	umho/cm	3300	1.0	7547887			
Fluoride (F-)	mg/L	1.1	0.10	7547885			
Total Kjeldahl Nitrogen (TKN)	mg/L	0.69	0.10	7551046	0.70	0.10	7551046
Total Organic Carbon (TOC)	mg/L	3.0	0.40	7551534			
Orthophosphate (P)	mg/L	<0.010	0.010	7547943			
pH	pH	7.38		7547888			
Phenols-4AAP	mg/L	<0.0010	0.0010	7548445			
Total Phosphorus	mg/L	0.054	0.020	7550892			
Total Suspended Solids	mg/L	22	10	7547856			
Alkalinity (Total as CaCO3)	mg/L	380	1.0	7547886			
Nitrite (N)	mg/L	<0.010	0.010	7547924			
Dissolved Chloride (Cl-)	mg/L	92	5.0	7547906			
Nitrate (N)	mg/L	<0.10	0.10	7547924			
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7547924			
Dissolved Bromide (Br-)	mg/L	<5.0	5.0	7547906			
Dissolved Sulphate (SO4)	mg/L	2000	5.0	7547906			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							



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VERITAS

BV Labs Job #: C106057  
Report Date: 2021/09/02

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QMR033		
Sampling Date		2021/08/26 10:30		
COC Number		834487-15-01		
	UNITS	HCL10:30	RDL	QC Batch
<b>Metals</b>				
Total Aluminum (Al)	mg/L	0.011	0.0049	7553621
Total Antimony (Sb)	mg/L	<0.00050	0.00050	7553621
Total Arsenic (As)	mg/L	0.0021	0.0010	7553621
Total Barium (Ba)	mg/L	0.020	0.0020	7553621
Total Beryllium (Be)	mg/L	<0.00040	0.00040	7553621
Total Bismuth (Bi)	mg/L	<0.0010	0.0010	7553621
Total Boron (B)	mg/L	0.36	0.010	7553621
Total Cadmium (Cd)	mg/L	<0.000090	0.000090	7553621
Total Calcium (Ca)	mg/L	490	0.20	7553621
Total Chromium (Cr)	mg/L	<0.0050	0.0050	7553621
Total Cobalt (Co)	mg/L	0.0021	0.00050	7553621
Total Copper (Cu)	mg/L	<0.00090	0.00090	7553621
Total Iron (Fe)	mg/L	3.4	0.10	7553621
Total Lead (Pb)	mg/L	<0.00050	0.00050	7553621
Total Lithium (Li)	mg/L	0.015	0.0050	7553621
Total Magnesium (Mg)	mg/L	260	0.050	7553621
Total Manganese (Mn)	mg/L	1.7	0.0020	7553621
Total Molybdenum (Mo)	mg/L	0.0062	0.00050	7553621
Total Nickel (Ni)	mg/L	0.018	0.0010	7553621
Total Potassium (K)	mg/L	3.3	0.20	7553621
Total Selenium (Se)	mg/L	<0.0020	0.0020	7553621
Total Silicon (Si)	mg/L	5.9	0.050	7553621
Total Silver (Ag)	mg/L	<0.000090	0.000090	7553621
Total Sodium (Na)	mg/L	78	0.10	7553621
Total Strontium (Sr)	mg/L	3.6	0.0010	7553621
Total Tellurium (Te)	mg/L	<0.0010	0.0010	7553621
Total Thallium (Tl)	mg/L	<0.000050	0.000050	7553621
Total Tin (Sn)	mg/L	<0.0010	0.0010	7553621
Total Titanium (Ti)	mg/L	<0.0050	0.0050	7553621
Total Tungsten (W)	mg/L	<0.0010	0.0010	7553621
Total Uranium (U)	mg/L	0.036	0.00010	7553621
Total Vanadium (V)	mg/L	<0.00050	0.00050	7553621
Total Zinc (Zn)	mg/L	<0.0050	0.0050	7553621
Total Zirconium (Zr)	mg/L	<0.0010	0.0010	7553621
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU  
VERITAS

BV Labs Job #: C106057  
Report Date: 2021/09/02

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QMR033  
**Sample ID:** HCL10:30  
**Matrix:** Water

**Collected:** 2021/08/26  
**Shipped:**  
**Received:** 2021/08/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7547886	N/A	2021/08/30	Surinder Rai
Anions	IC	7547906	N/A	2021/09/01	Fari Dehdezi
Conductivity	AT	7547887	N/A	2021/08/30	Surinder Rai
Fluoride	ISE	7547885	2021/08/28	2021/08/30	Surinder Rai
Hardness (calculated as CaCO3)		7545480	N/A	2021/09/01	Automated Statchk
Total Metals Analysis by ICPMS	ICP/MS	7553621	N/A	2021/09/02	Nan Raykha
Total Ammonia-N	LACH/NH4	7550934	N/A	2021/08/31	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7547924	N/A	2021/08/31	Nimarta Singh
pH	AT	7547888	2021/08/28	2021/08/30	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7548445	N/A	2021/08/30	Deonarine Ramnarine
Orthophosphate	KONE	7547943	N/A	2021/08/30	Avneet Kour Sudan
Total Kjeldahl Nitrogen in Water	SKAL	7551046	2021/08/31	2021/09/02	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7551534	N/A	2021/08/31	Julianna Castiglione
Total Phosphorus (Colourimetric)	LACH/P	7550892	2021/08/31	2021/08/31	Shivani Shivani
Total Suspended Solids	BAL	7547856	2021/08/31	2021/09/01	Shaneil Hall

**BV Labs ID:** QMR033 Dup  
**Sample ID:** HCL10:30  
**Matrix:** Water

**Collected:** 2021/08/26  
**Shipped:**  
**Received:** 2021/08/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Ammonia-N	LACH/NH4	7550934	N/A	2021/08/31	Amanpreet Sappal
Total Kjeldahl Nitrogen in Water	SKAL	7551046	2021/08/31	2021/09/02	Massarat Jan



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VERITAS

BV Labs Job #: C1O6057  
Report Date: 2021/09/02

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: DT

### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.3°C
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Sample QMR033 [HCL10:30] : Anions: Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

**Results relate only to the items tested.**



BUREAU  
VERITAS

BV Labs Job #: C106057  
Report Date: 2021/09/02

### QUALITY ASSURANCE REPORT

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7547856	Total Suspended Solids	2021/09/01					<10	mg/L	9.5	25	101	85 - 115
7547885	Fluoride (F-)	2021/08/30	97	80 - 120	99	80 - 120	<0.10	mg/L	12	20		
7547886	Alkalinity (Total as CaCO3)	2021/08/30			94	85 - 115	<1.0	mg/L	0.98	20		
7547887	Conductivity	2021/08/30			103	85 - 115	<1.0	umho/cm	0.15	25		
7547888	pH	2021/08/30			102	98 - 103			1.4	N/A		
7547906	Dissolved Bromide (Br-)	2021/09/01	102	80 - 120	105	80 - 120	<1.0	mg/L	NC	20		
7547906	Dissolved Chloride (Cl-)	2021/09/01	97	80 - 120	101	70 - 130	<1.0	mg/L	2.2	20		
7547906	Dissolved Sulphate (SO4)	2021/09/01	97	80 - 120	100	80 - 120	<1.0	mg/L	12	20		
7547924	Nitrate (N)	2021/08/31	100	80 - 120	99	80 - 120	<0.10	mg/L	10	20		
7547924	Nitrite (N)	2021/08/31	103	80 - 120	107	80 - 120	<0.010	mg/L	3.9	20		
7547943	Orthophosphate (P)	2021/08/30	115	75 - 125	99	80 - 120	<0.010	mg/L	0.35	25		
7548445	Phenols-4AAP	2021/08/30	92	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20		
7550892	Total Phosphorus	2021/08/31	97	80 - 120	99	80 - 120	<0.020	mg/L	0.30	20	98	80 - 120
7550934	Total Ammonia-N	2021/08/31	97	75 - 125	101	80 - 120	<0.050	mg/L	10	20		
7551046	Total Kjeldahl Nitrogen (TKN)	2021/09/02	94	80 - 120	94	80 - 120	<0.10	mg/L	1.9	20	94	80 - 120
7551534	Total Organic Carbon (TOC)	2021/08/31	94	80 - 120	96	80 - 120	<0.40	mg/L	3.2	20		
7553621	Total Aluminum (Al)	2021/09/02	89	80 - 120	94	80 - 120	<0.0049	mg/L	0.26	20		
7553621	Total Antimony (Sb)	2021/09/02	100	80 - 120	100	80 - 120	<0.00050	mg/L	0.44	20		
7553621	Total Arsenic (As)	2021/09/02	95	80 - 120	99	80 - 120	<0.0010	mg/L	1.9	20		
7553621	Total Barium (Ba)	2021/09/02	95	80 - 120	103	80 - 120	<0.0020	mg/L	2.7	20		
7553621	Total Beryllium (Be)	2021/09/02	102	80 - 120	104	80 - 120	<0.00040	mg/L	NC	20		
7553621	Total Bismuth (Bi)	2021/09/02	88	80 - 120	94	80 - 120	<0.0010	mg/L	NC	20		
7553621	Total Boron (B)	2021/09/02	NC	80 - 120	102	80 - 120	<0.010	mg/L	3.0	20		
7553621	Total Cadmium (Cd)	2021/09/02	96	80 - 120	99	80 - 120	<0.000090	mg/L	NC	20		
7553621	Total Calcium (Ca)	2021/09/02	NC	80 - 120	93	80 - 120	<0.20	mg/L	1.1	20		
7553621	Total Chromium (Cr)	2021/09/02	93	80 - 120	98	80 - 120	<0.0050	mg/L	NC	20		
7553621	Total Cobalt (Co)	2021/09/02	90	80 - 120	97	80 - 120	<0.00050	mg/L	0.20	20		
7553621	Total Copper (Cu)	2021/09/02	98	80 - 120	106	80 - 120	<0.00090	mg/L	NC	20		
7553621	Total Iron (Fe)	2021/09/02	91	80 - 120	97	80 - 120	<0.10	mg/L	2.3	20		
7553621	Total Lead (Pb)	2021/09/02	91	80 - 120	95	80 - 120	<0.00050	mg/L	4.8	20		



BUREAU  
VERITAS

BV Labs Job #: C106057  
Report Date: 2021/09/02

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7553621	Total Lithium (Li)	2021/09/02	97	80 - 120	101	80 - 120	<0.0050	mg/L	2.5	20		
7553621	Total Magnesium (Mg)	2021/09/02	NC	80 - 120	100	80 - 120	<0.050	mg/L	1.0	20		
7553621	Total Manganese (Mn)	2021/09/02	92	80 - 120	97	80 - 120	<0.0020	mg/L	2.3	20		
7553621	Total Molybdenum (Mo)	2021/09/02	104	80 - 120	103	80 - 120	<0.00050	mg/L	1.1	20		
7553621	Total Nickel (Ni)	2021/09/02	86	80 - 120	97	80 - 120	<0.0010	mg/L	3.2	20		
7553621	Total Potassium (K)	2021/09/02	NC	80 - 120	101	80 - 120	<0.20	mg/L	0.31	20		
7553621	Total Selenium (Se)	2021/09/02	93	80 - 120	97	80 - 120	<0.0020	mg/L	1.6	20		
7553621	Total Silicon (Si)	2021/09/02	87	80 - 120	93	80 - 120	<0.050	mg/L	2.6	20		
7553621	Total Silver (Ag)	2021/09/02	96	80 - 120	99	80 - 120	<0.000090	mg/L	NC	20		
7553621	Total Sodium (Na)	2021/09/02	NC	80 - 120	100	80 - 120	0.13, RDL=0.10 (1)	mg/L	2.0	20		
7553621	Total Strontium (Sr)	2021/09/02	NC	80 - 120	94	80 - 120	<0.0010	mg/L	4.3	20		
7553621	Total Tellurium (Te)	2021/09/02	100	80 - 120	109	80 - 120	<0.0010	mg/L	NC	20		
7553621	Total Thallium (Tl)	2021/09/02	90	80 - 120	94	80 - 120	<0.000050	mg/L	6.8	20		
7553621	Total Tin (Sn)	2021/09/02	100	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
7553621	Total Titanium (Ti)	2021/09/02	87	80 - 120	92	80 - 120	<0.0050	mg/L	4.0	20		
7553621	Total Tungsten (W)	2021/09/02	99	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20		
7553621	Total Uranium (U)	2021/09/02	94	80 - 120	89	80 - 120	<0.00010	mg/L	3.6	20		
7553621	Total Vanadium (V)	2021/09/02	96	80 - 120	101	80 - 120	<0.00050	mg/L	4.3	20		
7553621	Total Zinc (Zn)	2021/09/02	90	80 - 120	101	80 - 120	<0.0050	mg/L	1.1	20		



BUREAU  
VERITAS

BV Labs Job #: C106057  
Report Date: 2021/09/02

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7553621	Total Zirconium (Zr)	2021/09/02	108	80 - 120	107	80 - 120	<0.0010	mg/L	NC	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Analyte was detected in the method blank at a level marginally above the detection limit. Sample results have not been blank corrected. Those results at or near the detection limit may be biased high..



BUREAU  
VERITAS

BV Labs Job #: C1O6057

Report Date: 2021/09/02

Terrapure Environmental

Client Project #: HCL

Sampler Initials: DT

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

*Eva Pranjic*  


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Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.





<b>INVOICE TO:</b> Company Name: #16786 Terrapure Environmental Attention: Accounting Address: 65 Green Mountain Rd West Stoney Creek ON L8J 1X5 Tel: (905) 561-0305 Fax: (905) 561-1674 Email: kbailey@terrapureenv.com		<b>REPORT TO:</b> Company Name: Attention: Brad Mullin - GHD Reporting Address: Tel: Email: bmullin@terrapureenv.com; dtaylor2@terrapureenv.com		<b>PROJECT INFORMATION:</b> Quotation #: B60569 P.O. #: Project: HCL Project Name: Site #: Sampled By:		<b>Laboratory Use Only:</b> BV Labs Job #: Bottle Order #: COC #: Project Manager: Jolanta Goralczyk C#834487-15-01	
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MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY.						Field Filtered (please circle): Metals / Hg / Cr / VI	ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required: Please provide advance notice for rush projects	
Regulation 153 (2011)		Other Regulations		Special Instructions													Regular (Standard) TAT: (will be applied if Rush TAT is not specified): Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.	
Include Criteria on Certificate of Analysis (Y/N)?																	Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)	
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix												# of Bottles	Comments	
1	HCL 10:30	AUG 26 2021	10:30	water	NA												6 *excluding BOD*	
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

27-Aug-21 15:11  
Jolanta Goralczyk  
C106057  
ENV 1105

RELINQUISHED BY: (Signature/Print) Dan Taylor	Date: (YY/MM/DD) 21/08/21	Time 9:40	RECEIVED BY: (Signature/Print) DIPKA SINHA	Date: (YY/MM/DD) 22/08/21	Time 15:11	# jars used and not submitted	Laboratory Use Only			
							Time Sensitive	Temperature (°C) on Receipt 2/5/6	Custody Seal Present/Intact	Yes/No

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS AN ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.  
 \* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.  
 \*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS



Your Project #: GW  
Your C.O.C. #: 834487-19-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/09/07**  
Report #: R6799967  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C109098**

**Received: 2021/08/31, 15:30**

Sample Matrix: Water  
# Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity	1	N/A	2021/09/03	CAM SOP-00448	SM 23 2320 B m
Anions	1	N/A	2021/09/03	CAM SOP-00435	SM 23 4110 B m
Conductivity	1	N/A	2021/09/03	CAM SOP-00414	SM 23 2510 m
Fluoride	1	2021/09/02	2021/09/03	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2021/09/03	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Metals by ICPMS	1	N/A	2021/09/03	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	1	N/A	2021/09/02	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1)	1	N/A	2021/09/03	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	1	2021/09/02	2021/09/03	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2021/09/01	CAM SOP-00444	OMOE E3179 m
Orthophosphate	1	N/A	2021/09/01	CAM SOP-00461	EPA 365.1 m
Total Dissolved Solids	1	2021/09/02	2021/09/03	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water	1	2021/09/01	2021/09/02	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (2)	1	N/A	2021/09/02	CAM SOP-00446	SM 23 5310B m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

(2) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key



**AUTHORIZED REPORT  
RAPPORT AUTORISÉ**

Bureau Veritas

07 Sep 2021 15:23:41

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager

Email: Jolanta.Goralczyk@bureauveritas.com

Phone# (905)817-5751

=====  
This report has been generated and distributed using a secure automated process.

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total Cover Pages : 1

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BUREAU  
VERITAS

BV Labs Job #: C109098  
Report Date: 2021/09/07

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QNI485			QNI485		
Sampling Date		2021/08/30			2021/08/30		
COC Number		834487-19-01			834487-19-01		
	UNITS	50-II	RDL	QC Batch	50-II Lab-Dup	RDL	QC Batch
<b>Calculated Parameters</b>							
Hardness (CaCO3)	mg/L	3000	1.0	7551575			
<b>Inorganics</b>							
Total Ammonia-N	mg/L	<0.050	0.050	7553987			
Conductivity	umho/cm	4000	1.0	7557431	4000	1.0	7557431
Total Dissolved Solids	mg/L	4190	10	7556125			
Fluoride (F-)	mg/L	0.48	0.10	7557416	0.47	0.10	7557416
Total Kjeldahl Nitrogen (TKN)	mg/L	0.44	0.10	7553997			
Total Organic Carbon (TOC)	mg/L	2.3	0.40	7555140			
Orthophosphate (P)	mg/L	0.011	0.010	7553950			
pH	pH	7.55		7557444	7.49		7557444
Phenols-4AAP	mg/L	<0.0010	0.0010	7553181			
Alkalinity (Total as CaCO3)	mg/L	360	1.0	7557422	360	1.0	7557422
Nitrite (N)	mg/L	<0.010	0.010	7553385			
Dissolved Chloride (Cl-)	mg/L	140	10	7553389	140	10	7553389
Nitrate (N)	mg/L	<0.10	0.10	7553385			
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7553385			
Dissolved Bromide (Br-)	mg/L	<10	10	7553389	<10	10	7553389
Dissolved Sulphate (SO4)	mg/L	2700	10	7553389	2700	10	7553389
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							



BUREAU  
VERITAS

BV Labs Job #: C109098  
Report Date: 2021/09/07

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QNI485		
Sampling Date		2021/08/30		
COC Number		834487-19-01		
	UNITS	50-II	RDL	QC Batch
<b>Metals</b>				
Dissolved Aluminum (Al)	ug/L	<4.9	4.9	7554207
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	7554207
Dissolved Arsenic (As)	ug/L	<1.0	1.0	7554207
Dissolved Barium (Ba)	ug/L	8.8	2.0	7554207
Dissolved Beryllium (Be)	ug/L	<0.40	0.40	7554207
Dissolved Bismuth (Bi)	ug/L	<1.0	1.0	7554207
Dissolved Boron (B)	ug/L	120	10	7554207
Dissolved Cadmium (Cd)	ug/L	<0.090	0.090	7554207
Dissolved Calcium (Ca)	ug/L	470000	200	7554207
Dissolved Chromium (Cr)	ug/L	<5.0	5.0	7554207
Dissolved Cobalt (Co)	ug/L	0.79	0.50	7554207
Dissolved Copper (Cu)	ug/L	<0.90	0.90	7554207
Dissolved Iron (Fe)	ug/L	<100	100	7554207
Dissolved Lead (Pb)	ug/L	<0.50	0.50	7554207
Dissolved Lithium (Li)	ug/L	190	5.0	7554207
Dissolved Magnesium (Mg)	ug/L	450000	250	7554207
Dissolved Manganese (Mn)	ug/L	1100	2.0	7554207
Dissolved Molybdenum (Mo)	ug/L	1.3	0.50	7554207
Dissolved Nickel (Ni)	ug/L	6.6	1.0	7554207
Dissolved Phosphorus (P)	ug/L	<100	100	7554207
Dissolved Potassium (K)	ug/L	7800	200	7554207
Dissolved Selenium (Se)	ug/L	<2.0	2.0	7554207
Dissolved Silicon (Si)	ug/L	6100	50	7554207
Dissolved Silver (Ag)	ug/L	<0.090	0.090	7554207
Dissolved Sodium (Na)	ug/L	140000	100	7554207
Dissolved Strontium (Sr)	ug/L	4000	1.0	7554207
Dissolved Tellurium (Te)	ug/L	<1.0	1.0	7554207
Dissolved Thallium (Tl)	ug/L	<0.050	0.050	7554207
Dissolved Tin (Sn)	ug/L	<1.0	1.0	7554207
Dissolved Titanium (Ti)	ug/L	<5.0	5.0	7554207
Dissolved Tungsten (W)	ug/L	<1.0	1.0	7554207
Dissolved Uranium (U)	ug/L	26	0.10	7554207
Dissolved Vanadium (V)	ug/L	<0.50	0.50	7554207
Dissolved Zinc (Zn)	ug/L	73	5.0	7554207
Dissolved Zirconium (Zr)	ug/L	<1.0	1.0	7554207
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU  
VERITAS

BV Labs Job #: C109098  
Report Date: 2021/09/07

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QNI485  
**Sample ID:** 50-II  
**Matrix:** Water

**Collected:** 2021/08/30  
**Shipped:**  
**Received:** 2021/08/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7557422	N/A	2021/09/03	Surinder Rai
Anions	IC	7553389	N/A	2021/09/03	Fari Dehdezi
Conductivity	AT	7557431	N/A	2021/09/03	Surinder Rai
Fluoride	ISE	7557416	2021/09/02	2021/09/03	Surinder Rai
Hardness (calculated as CaCO3)		7551575	N/A	2021/09/03	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7554207	N/A	2021/09/03	Nan Raykha
Total Ammonia-N	LACH/NH4	7553987	N/A	2021/09/02	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7553385	N/A	2021/09/03	Nimarta Singh
pH	AT	7557444	2021/09/02	2021/09/03	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7553181	N/A	2021/09/01	Deonarine Ramnarine
Orthophosphate	KONE	7553950	N/A	2021/09/01	Avneet Kour Sudan
Total Dissolved Solids	BAL	7556125	2021/09/02	2021/09/03	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	7553997	2021/09/01	2021/09/02	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7555140	N/A	2021/09/02	Julianna Castiglione

**BV Labs ID:** QNI485 Dup  
**Sample ID:** 50-II  
**Matrix:** Water

**Collected:** 2021/08/30  
**Shipped:**  
**Received:** 2021/08/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7557422	N/A	2021/09/03	Surinder Rai
Anions	IC	7553389	N/A	2021/09/03	Fari Dehdezi
Conductivity	AT	7557431	N/A	2021/09/03	Surinder Rai
Fluoride	ISE	7557416	2021/09/02	2021/09/03	Surinder Rai
pH	AT	7557444	2021/09/02	2021/09/03	Surinder Rai



BUREAU  
VERITAS

BV Labs Job #: C109098

Report Date: 2021/09/07

Terrapure Environmental

Client Project #: GW

Sampler Initials: DT

### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.7°C
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Sample QNI485 [50-II] : Anions Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

**Results relate only to the items tested.**



BUREAU  
VERITAS

BV Labs Job #: C109098

Report Date: 2021/09/07

### QUALITY ASSURANCE REPORT

Terrapure Environmental

Client Project #: GW

Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7553181	Phenols-4AAP	2021/09/01	91	80 - 120	99	80 - 120	<0.0010	mg/L	9.5	20		
7553385	Nitrate (N)	2021/09/03	106	80 - 120	108	80 - 120	<0.10	mg/L	NC	20		
7553385	Nitrite (N)	2021/09/03	104	80 - 120	104	80 - 120	<0.010	mg/L				
7553389	Dissolved Bromide (Br-)	2021/09/03	106	80 - 120	104	80 - 120	<1.0	mg/L	NC	20		
7553389	Dissolved Chloride (Cl-)	2021/09/03	NC	80 - 120	100	70 - 130	<1.0	mg/L	1.6	20		
7553389	Dissolved Sulphate (SO4)	2021/09/03	NC	80 - 120	99	80 - 120	<1.0	mg/L	0.51	20		
7553950	Orthophosphate (P)	2021/09/01	116	75 - 125	98	80 - 120	<0.010	mg/L	NC	25		
7553987	Total Ammonia-N	2021/09/02	94	75 - 125	99	80 - 120	<0.050	mg/L	2.2	20		
7553997	Total Kjeldahl Nitrogen (TKN)	2021/09/02	105	80 - 120	93	80 - 120	<0.10	mg/L	8.8	20	102	80 - 120
7554207	Dissolved Aluminum (Al)	2021/09/03	103	80 - 120	102	80 - 120	<4.9	ug/L				
7554207	Dissolved Antimony (Sb)	2021/09/03	104	80 - 120	102	80 - 120	<0.50	ug/L				
7554207	Dissolved Arsenic (As)	2021/09/03	101	80 - 120	99	80 - 120	<1.0	ug/L				
7554207	Dissolved Barium (Ba)	2021/09/03	100	80 - 120	97	80 - 120	<2.0	ug/L	1.9	20		
7554207	Dissolved Beryllium (Be)	2021/09/03	102	80 - 120	100	80 - 120	<0.40	ug/L				
7554207	Dissolved Bismuth (Bi)	2021/09/03	100	80 - 120	99	80 - 120	<1.0	ug/L				
7554207	Dissolved Boron (B)	2021/09/03	99	80 - 120	96	80 - 120	<10	ug/L	1.2	20		
7554207	Dissolved Cadmium (Cd)	2021/09/03	101	80 - 120	101	80 - 120	<0.090	ug/L				
7554207	Dissolved Calcium (Ca)	2021/09/03	NC	80 - 120	99	80 - 120	<200	ug/L	2.2	20		
7554207	Dissolved Chromium (Cr)	2021/09/03	104	80 - 120	103	80 - 120	<5.0	ug/L				
7554207	Dissolved Cobalt (Co)	2021/09/03	102	80 - 120	100	80 - 120	<0.50	ug/L				
7554207	Dissolved Copper (Cu)	2021/09/03	101	80 - 120	102	80 - 120	<0.90	ug/L				
7554207	Dissolved Iron (Fe)	2021/09/03	99	80 - 120	97	80 - 120	<100	ug/L	NC	20		
7554207	Dissolved Lead (Pb)	2021/09/03	101	80 - 120	101	80 - 120	<0.50	ug/L				
7554207	Dissolved Lithium (Li)	2021/09/03	103	80 - 120	100	80 - 120	<5.0	ug/L				
7554207	Dissolved Magnesium (Mg)	2021/09/03	105	80 - 120	102	80 - 120	<50	ug/L	1.3	20		
7554207	Dissolved Manganese (Mn)	2021/09/03	102	80 - 120	100	80 - 120	<2.0	ug/L				
7554207	Dissolved Molybdenum (Mo)	2021/09/03	105	80 - 120	105	80 - 120	<0.50	ug/L				
7554207	Dissolved Nickel (Ni)	2021/09/03	100	80 - 120	101	80 - 120	<1.0	ug/L				
7554207	Dissolved Phosphorus (P)	2021/09/03	111	80 - 120	110	80 - 120	<100	ug/L				
7554207	Dissolved Potassium (K)	2021/09/03	102	80 - 120	101	80 - 120	<200	ug/L				
7554207	Dissolved Selenium (Se)	2021/09/03	103	80 - 120	102	80 - 120	<2.0	ug/L				



BUREAU  
VERITAS

BV Labs Job #: C109098  
Report Date: 2021/09/07

**QUALITY ASSURANCE REPORT(CONT'D)**

Terrapure Environmental  
Client Project #: GW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7554207	Dissolved Silicon (Si)	2021/09/03	101	80 - 120	101	80 - 120	<50	ug/L				
7554207	Dissolved Silver (Ag)	2021/09/03	102	80 - 120	102	80 - 120	<0.090	ug/L				
7554207	Dissolved Sodium (Na)	2021/09/03	102	80 - 120	99	80 - 120	<100	ug/L	0.57	20		
7554207	Dissolved Strontium (Sr)	2021/09/03	100	80 - 120	98	80 - 120	<1.0	ug/L				
7554207	Dissolved Tellurium (Te)	2021/09/03	101	80 - 120	100	80 - 120	<1.0	ug/L				
7554207	Dissolved Thallium (Tl)	2021/09/03	102	80 - 120	101	80 - 120	<0.050	ug/L				
7554207	Dissolved Tin (Sn)	2021/09/03	104	80 - 120	103	80 - 120	<1.0	ug/L				
7554207	Dissolved Titanium (Ti)	2021/09/03	101	80 - 120	98	80 - 120	<5.0	ug/L				
7554207	Dissolved Tungsten (W)	2021/09/03	103	80 - 120	103	80 - 120	<1.0	ug/L				
7554207	Dissolved Uranium (U)	2021/09/03	98	80 - 120	99	80 - 120	<0.10	ug/L				
7554207	Dissolved Vanadium (V)	2021/09/03	104	80 - 120	103	80 - 120	<0.50	ug/L				
7554207	Dissolved Zinc (Zn)	2021/09/03	100	80 - 120	100	80 - 120	<5.0	ug/L				
7554207	Dissolved Zirconium (Zr)	2021/09/03	102	80 - 120	101	80 - 120	<1.0	ug/L				
7555140	Total Organic Carbon (TOC)	2021/09/02	95	80 - 120	94	80 - 120	<0.40	mg/L	1.4	20		
7556125	Total Dissolved Solids	2021/09/03					<10	mg/L	3.0	25	95	90 - 110
7557416	Fluoride (F-)	2021/09/03	84	80 - 120	103	80 - 120	<0.10	mg/L	2.4	20		
7557422	Alkalinity (Total as CaCO3)	2021/09/03			96	85 - 115	<1.0	mg/L	0.30	20		
7557431	Conductivity	2021/09/03			102	85 - 115	<1.0	umho/cm	0.51	25		
7557444	pH	2021/09/03			102	98 - 103			0.80	N/A		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).





BUREAU  
VERITAS

BV Labs Job #: C109098

Report Date: 2021/09/07

Terrapure Environmental

Client Project #: GW

Sampler Initials: DT

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

*Eva Pranjic*  


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Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Bureau Veritas Laboratories  
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

CHAIN OF CUSTODY RECORD

<b>INVOICE TO:</b> Company Name: #16786 Terrapure Environmental Attention: Accounting Address: 65 Green Mountain Rd West Stoney Creek ON L8J 1X5 Tel: (905) 561-0305 Fax: (905) 561-1674 Email: kbailey@terrapureenv.com		<b>REPORT TO:</b> Company Name: Attention: Brad Mullin - GHD Reporting Address: Tel: Email: bmullin@terrapureenv.com; dtaylor2@terrapureenv.com		<b>PROJECT INFORMATION:</b> Quotation #: B60569 P.O. #: Project: GW Project Name: Site #: Sampled By:		<b>Laboratory Use Only:</b> BV Labs Job #: Bottle Order #: 834497 COC #: Project Manager: Jolanta Goralczyk C#834487-19-01	
--	--	--	--	---	--	---	--

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required: Please provide advance notice for rush projects			
Regulation 153 (2011)		Other Regulations		Special Instructions		Field Filtered (please circle) Metals Hg / Cr / VI	List "A" GW Monitoring											Regular (Standard) TAT: (will be applied if Rush TAT is not specified): Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.	
<input type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw														Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)	
<input type="checkbox"/> Table 2	<input type="checkbox"/> Indi/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw												# of Bottles		Comments	
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality _____															
<input type="checkbox"/> Table _____			<input type="checkbox"/> PWQO	<input type="checkbox"/> Reg 406 Table _____															
Include Criteria on Certificate of Analysis (Y/N)?																			
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix															
	50-II	Aug 30 2021	AM	water	Y	X											6		

31-Aug-21 15:30  
Jolanta Goralczyk  
C109098  
DSC ENW 772

* RELINQUISHED BY: (Signature/Print) Dan Taylor		Date: (YY/MM/DD) 21/08/21	Time 9:50	RECEIVED BY: (Signature/Print) Pawel Poczter		Date: (YY/MM/DD) 2021-08-21	Time 15:30	# jars used and not submitted	Laboratory Use Only			
Time Sensitive	Temperature (°C) on Receipt 4/6/4	Custody Seal Present	Yes	No								

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.  
 \* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.  
 \*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.  
 White: BV Labs Yellow: Client  
 SAMPLES MUST BE KEPT COOL (< 10° C ) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS



Your Project #: HCL  
Your C.O.C. #: 834487-25-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/09/17**  
Report #: R6815279  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1Q1149**  
**Received: 2021/09/10, 17:03**

Sample Matrix: Water  
# Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity	1	N/A	2021/09/14	CAM SOP-00448	SM 23 2320 B m
Anions	1	N/A	2021/09/15	CAM SOP-00435	SM 23 4110 B m
Conductivity	1	N/A	2021/09/14	CAM SOP-00414	SM 23 2510 m
Fluoride	1	2021/09/13	2021/09/14	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2021/09/16	CAM SOP 00102/00408/00447	SM 2340 B
Total Metals Analysis by ICPMS	1	N/A	2021/09/16	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	1	N/A	2021/09/16	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1)	1	N/A	2021/09/14	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	1	2021/09/13	2021/09/14	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2021/09/14	CAM SOP-00444	OMOE E3179 m
Orthophosphate	1	N/A	2021/09/14	CAM SOP-00461	EPA 365.1 m
Total Kjeldahl Nitrogen in Water	1	2021/09/14	2021/09/16	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (2)	1	N/A	2021/09/14	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric)	1	2021/09/15	2021/09/15	CAM SOP-00407	SM 23 4500 P B H m
Total Suspended Solids	1	2021/09/15	2021/09/16	CAM SOP-00428	SM 23 2540D m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

(2) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key



**AUTHORIZED REPORT**  
**RAPPORT AUTORISÉ**

Bureau Veritas  
17 Sep 2021 14:08:27

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

=====  
This report has been generated and distributed using a secure automated process.

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Total Cover Pages : 1  
Page 1 of 9



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VERITAS

BV Labs Job #: C1Q1149  
Report Date: 2021/09/17

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

<b>BV Labs ID</b>		QPU623		
<b>Sampling Date</b>		2021/09/09 15:00		
<b>COC Number</b>		834487-25-01		
	<b>UNITS</b>	<b>HCL 3:00</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Calculated Parameters</b>				
Hardness (CaCO <sub>3</sub> )	mg/L	1500	1.0	7573183
<b>Inorganics</b>				
Total Ammonia-N	mg/L	0.19	0.050	7576539
Conductivity	umho/cm	2200	1.0	7574572
Fluoride (F <sup>-</sup> )	mg/L	0.73	0.10	7574549
Total Kjeldahl Nitrogen (TKN)	mg/L	0.66	0.10	7576615
Total Organic Carbon (TOC)	mg/L	4.1	0.40	7576362
Orthophosphate (P)	mg/L	<0.010	0.010	7574899
pH	pH	7.82		7574564
Phenols-4AAP	mg/L	<0.0010	0.0010	7575307
Total Phosphorus	mg/L	0.099	0.020	7578147
Total Suspended Solids	mg/L	83	10	7575685
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	280	1.0	7574560
Nitrite (N)	mg/L	0.020	0.010	7574009
Dissolved Chloride (Cl <sup>-</sup> )	mg/L	60	5.0	7574016
Nitrate (N)	mg/L	<0.10	0.10	7574009
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7574009
Dissolved Bromide (Br <sup>-</sup> )	mg/L	<5.0	5.0	7574016
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	1200	5.0	7574016
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				



BUREAU  
VERITAS

BV Labs Job #: C1Q1149  
Report Date: 2021/09/17

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QPU623		
Sampling Date		2021/09/09 15:00		
COC Number		834487-25-01		
	UNITS	HCL 3:00	RDL	QC Batch
<b>Metals</b>				
Total Aluminum (Al)	mg/L	1.4	0.0049	7580854
Total Antimony (Sb)	mg/L	0.0011	0.00050	7580854
Total Arsenic (As)	mg/L	0.0024	0.0010	7580854
Total Barium (Ba)	mg/L	0.12	0.0020	7580854
Total Beryllium (Be)	mg/L	<0.00040	0.00040	7580854
Total Bismuth (Bi)	mg/L	<0.0010	0.0010	7580854
Total Boron (B)	mg/L	0.30	0.010	7580854
Total Cadmium (Cd)	mg/L	<0.000090	0.000090	7580854
Total Calcium (Ca)	mg/L	380	0.20	7580854
Total Chromium (Cr)	mg/L	<0.0050	0.0050	7580854
Total Cobalt (Co)	mg/L	0.012	0.00050	7580854
Total Copper (Cu)	mg/L	0.0058	0.00090	7580854
Total Iron (Fe)	mg/L	3.4	0.10	7580854
Total Lead (Pb)	mg/L	0.0069	0.00050	7580854
Total Lithium (Li)	mg/L	0.012	0.0050	7580854
Total Magnesium (Mg)	mg/L	180	0.050	7580854
Total Manganese (Mn)	mg/L	1.7	0.0020	7580854
Total Molybdenum (Mo)	mg/L	0.0091	0.00050	7580854
Total Nickel (Ni)	mg/L	0.042	0.0010	7580854
Total Potassium (K)	mg/L	4.1	0.20	7580854
Total Selenium (Se)	mg/L	<0.0020	0.0020	7580854
Total Silicon (Si)	mg/L	9.0	0.050	7580854
Total Silver (Ag)	mg/L	<0.000090	0.000090	7580854
Total Sodium (Na)	mg/L	51	0.10	7580854
Total Strontium (Sr)	mg/L	2.5	0.0010	7580854
Total Tellurium (Te)	mg/L	<0.0010	0.0010	7580854
Total Thallium (Tl)	mg/L	0.00026	0.000050	7580854
Total Tin (Sn)	mg/L	0.0011	0.0010	7580854
Total Titanium (Ti)	mg/L	0.037	0.0050	7580854
Total Tungsten (W)	mg/L	<0.0010	0.0010	7580854
Total Uranium (U)	mg/L	0.047	0.00010	7580854
Total Vanadium (V)	mg/L	0.0055	0.00050	7580854
Total Zinc (Zn)	mg/L	0.041	0.0050	7580854
Total Zirconium (Zr)	mg/L	0.0012	0.0010	7580854
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU  
VERITAS

BV Labs Job #: C1Q1149  
Report Date: 2021/09/17

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QPU623  
**Sample ID:** HCL 3:00  
**Matrix:** Water

**Collected:** 2021/09/09  
**Shipped:**  
**Received:** 2021/09/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7574560	N/A	2021/09/14	Surinder Rai
Anions	IC	7574016	N/A	2021/09/15	Fari Dehdezi
Conductivity	AT	7574572	N/A	2021/09/14	Surinder Rai
Fluoride	ISE	7574549	2021/09/13	2021/09/14	Surinder Rai
Hardness (calculated as CaCO3)		7573183	N/A	2021/09/16	Automated Statchk
Total Metals Analysis by ICPMS	ICP/MS	7580854	N/A	2021/09/16	Azita Fazaeli
Total Ammonia-N	LACH/NH4	7576539	N/A	2021/09/16	Viorica Rotaru
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7574009	N/A	2021/09/14	Chandra Nandlal
pH	AT	7574564	2021/09/13	2021/09/14	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7575307	N/A	2021/09/14	Deonarine Ramnarine
Orthophosphate	KONE	7574899	N/A	2021/09/14	Avneet Kour Sudan
Total Kjeldahl Nitrogen in Water	SKAL	7576615	2021/09/14	2021/09/16	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7576362	N/A	2021/09/14	Julianna Castiglione
Total Phosphorus (Colourimetric)	LACH/P	7578147	2021/09/15	2021/09/15	Shivani Shivani
Total Suspended Solids	BAL	7575685	2021/09/15	2021/09/16	Shaneil Hall



### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.3°C
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Sample QPU623 [HCL 3:00] : Anions Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

**Results relate only to the items tested.**



BUREAU  
VERITAS

BV Labs Job #: C1Q1149  
Report Date: 2021/09/17

### QUALITY ASSURANCE REPORT

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7574009	Nitrate (N)	2021/09/14	101	80 - 120	94	80 - 120	<0.10	mg/L	NC	20		
7574009	Nitrite (N)	2021/09/14	110	80 - 120	104	80 - 120	<0.010	mg/L	19	20		
7574016	Dissolved Bromide (Br-)	2021/09/15	100	80 - 120	102	80 - 120	<1.0	mg/L	NC	20		
7574016	Dissolved Chloride (Cl-)	2021/09/15	95	80 - 120	99	70 - 130	<1.0	mg/L				
7574016	Dissolved Sulphate (SO4)	2021/09/15	97	80 - 120	100	80 - 120	<1.0	mg/L				
7574549	Fluoride (F-)	2021/09/14	102	80 - 120	100	80 - 120	<0.10	mg/L	NC	20		
7574560	Alkalinity (Total as CaCO3)	2021/09/14			98	85 - 115	<1.0	mg/L	1.2	20		
7574564	pH	2021/09/14			102	98 - 103			0.62	N/A		
7574572	Conductivity	2021/09/14			103	85 - 115	<1.0	umho/cm	0.77	25		
7574899	Orthophosphate (P)	2021/09/14	113	75 - 125	98	80 - 120	<0.010	mg/L	19	25		
7575307	Phenols-4AAP	2021/09/14	98	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
7575685	Total Suspended Solids	2021/09/16					<10	mg/L	NC	25	98	85 - 115
7576362	Total Organic Carbon (TOC)	2021/09/14	93	80 - 120	95	80 - 120	<0.40	mg/L	1.3	20		
7576539	Total Ammonia-N	2021/09/16	100	75 - 125	99	80 - 120	<0.050	mg/L	5.0	20		
7576615	Total Kjeldahl Nitrogen (TKN)	2021/09/15	107	80 - 120	102	80 - 120	<0.10	mg/L	18	20	101	80 - 120
7578147	Total Phosphorus	2021/09/15	98	80 - 120	100	80 - 120	<0.020	mg/L	11	20	98	80 - 120
7580854	Total Aluminum (Al)	2021/09/16	108	80 - 120	97	80 - 120	<0.0049	mg/L				
7580854	Total Antimony (Sb)	2021/09/16	103	80 - 120	101	80 - 120	<0.00050	mg/L				
7580854	Total Arsenic (As)	2021/09/16	105	80 - 120	102	80 - 120	<0.0010	mg/L				
7580854	Total Barium (Ba)	2021/09/16	97	80 - 120	95	80 - 120	<0.0020	mg/L				
7580854	Total Beryllium (Be)	2021/09/16	101	80 - 120	100	80 - 120	<0.00040	mg/L				
7580854	Total Bismuth (Bi)	2021/09/16	95	80 - 120	95	80 - 120	<0.0010	mg/L				
7580854	Total Boron (B)	2021/09/16	99	80 - 120	99	80 - 120	<0.010	mg/L				
7580854	Total Cadmium (Cd)	2021/09/16	101	80 - 120	99	80 - 120	<0.000090	mg/L				
7580854	Total Calcium (Ca)	2021/09/16	NC	80 - 120	98	80 - 120	<0.20	mg/L				
7580854	Total Chromium (Cr)	2021/09/16	98	80 - 120	96	80 - 120	<0.0050	mg/L				
7580854	Total Cobalt (Co)	2021/09/16	97	80 - 120	95	80 - 120	<0.00050	mg/L				
7580854	Total Copper (Cu)	2021/09/16	100	80 - 120	98	80 - 120	<0.00090	mg/L	4.3	20		
7580854	Total Iron (Fe)	2021/09/16	98	80 - 120	97	80 - 120	<0.10	mg/L				
7580854	Total Lead (Pb)	2021/09/16	95	80 - 120	94	80 - 120	<0.00050	mg/L				





BUREAU  
VERITAS

BV Labs Job #: C1Q1149  
Report Date: 2021/09/17

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7580854	Total Lithium (Li)	2021/09/16	102	80 - 120	101	80 - 120	<0.0050	mg/L				
7580854	Total Magnesium (Mg)	2021/09/16	97	80 - 120	97	80 - 120	<0.050	mg/L				
7580854	Total Manganese (Mn)	2021/09/16	97	80 - 120	96	80 - 120	<0.0020	mg/L				
7580854	Total Molybdenum (Mo)	2021/09/16	102	80 - 120	98	80 - 120	<0.00050	mg/L				
7580854	Total Nickel (Ni)	2021/09/16	96	80 - 120	96	80 - 120	<0.0010	mg/L				
7580854	Total Potassium (K)	2021/09/16	97	80 - 120	95	80 - 120	<0.20	mg/L				
7580854	Total Selenium (Se)	2021/09/16	105	80 - 120	104	80 - 120	<0.0020	mg/L				
7580854	Total Silicon (Si)	2021/09/16	98	80 - 120	98	80 - 120	<0.050	mg/L				
7580854	Total Silver (Ag)	2021/09/16	98	80 - 120	96	80 - 120	<0.000090	mg/L				
7580854	Total Sodium (Na)	2021/09/16	NC	80 - 120	96	80 - 120	<0.10	mg/L				
7580854	Total Strontium (Sr)	2021/09/16	94	80 - 120	95	80 - 120	<0.0010	mg/L				
7580854	Total Tellurium (Te)	2021/09/16	104	80 - 120	103	80 - 120	<0.0010	mg/L				
7580854	Total Thallium (Tl)	2021/09/16	94	80 - 120	94	80 - 120	<0.000050	mg/L				
7580854	Total Tin (Sn)	2021/09/16	100	80 - 120	97	80 - 120	<0.0010	mg/L				
7580854	Total Titanium (Ti)	2021/09/16	97	80 - 120	98	80 - 120	<0.0050	mg/L				
7580854	Total Tungsten (W)	2021/09/16	98	80 - 120	94	80 - 120	<0.0010	mg/L				
7580854	Total Uranium (U)	2021/09/16	96	80 - 120	94	80 - 120	<0.00010	mg/L				
7580854	Total Vanadium (V)	2021/09/16	98	80 - 120	96	80 - 120	<0.00050	mg/L				
7580854	Total Zinc (Zn)	2021/09/16	103	80 - 120	103	80 - 120	<0.0050	mg/L	4.6	20		
7580854	Total Zirconium (Zr)	2021/09/16	103	80 - 120	99	80 - 120	<0.0010	mg/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).



BUREAU  
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BV Labs Job #: C1Q1149  
Report Date: 2021/09/17

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: DT

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

A handwritten signature in black ink, appearing to read "B. Newman", written over a horizontal line.

Brad Newman, B.Sc., C.Chem., Scientific Service Specialist

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.





Your Project #: HCL  
Your C.O.C. #: 845501-01-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/09/21**  
Report #: R6820882  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1Q6150**  
**Received: 2021/09/15, 16:00**

Sample Matrix: Water  
# Samples Received: 1

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Alkalinity	1	N/A	2021/09/20	CAM SOP-00448	SM 23 2320 B m
Anions	1	N/A	2021/09/20	CAM SOP-00435	SM 23 4110 B m
Conductivity	1	N/A	2021/09/20	CAM SOP-00414	SM 23 2510 m
Fluoride	1	2021/09/18	2021/09/20	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2021/09/20	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Calcium and Magnesium	1	2021/09/17	2021/09/20	CAM SOP-00408	EPA 6010D m
Total Metals Analysis by ICPMS	1	N/A	2021/09/21	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	1	N/A	2021/09/18	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1)	1	N/A	2021/09/21	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	1	2021/09/18	2021/09/20	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2021/09/17	CAM SOP-00444	OMOE E3179 m
Orthophosphate	1	N/A	2021/09/17	CAM SOP-00461	EPA 365.1 m
Total Kjeldahl Nitrogen in Water	1	2021/09/17	2021/09/20	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (2)	1	N/A	2021/09/18	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric)	1	2021/09/17	2021/09/17	CAM SOP-00407	SM 23 4500 P B H m
Total Suspended Solids	1	2021/09/17	2021/09/20	CAM SOP-00428	SM 23 2540D m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (2) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.



Your Project #: HCL  
Your C.O.C. #: 845501-01-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/09/21**  
Report #: R6820882  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1Q6150**  
**Received: 2021/09/15, 16:00**

Encryption Key



**AUTHORIZED REPORT**  
**RAPPORT AUTORISÉ**

Bureau Veritas  
21 Sep 2021 17:39:36

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

=====  
This report has been generated and distributed using a secure automated process.  
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



**RESULTS OF ANALYSES OF WATER**

<b>BV Labs ID</b>		QQW402		
<b>Sampling Date</b>		2021/09/14 10:50		
<b>COC Number</b>		845501-01-01		
	<b>UNITS</b>	<b>HCL 10:50</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Calculated Parameters</b>				
Hardness (CaCO <sub>3</sub> )	mg/L	1400	1.0	7581122
<b>Inorganics</b>				
Total Ammonia-N	mg/L	0.17	0.050	7584428
Conductivity	umho/cm	2200	1.0	7586597
Fluoride (F <sup>-</sup> )	mg/L	0.76	0.10	7586594
Total Kjeldahl Nitrogen (TKN)	mg/L	0.63	0.10	7584508
Total Organic Carbon (TOC)	mg/L	5.0	0.40	7583967
Orthophosphate (P)	mg/L	0.014	0.010	7585090
pH	pH	7.66		7586598
Phenols-4AAP	mg/L	<0.0010	0.0010	7583769
Total Phosphorus	mg/L	0.082	0.020	7584112
Total Suspended Solids	mg/L	34	10	7584070
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	250	1.0	7586596
Nitrite (N)	mg/L	0.044	0.010	7585887
Dissolved Chloride (Cl <sup>-</sup> )	mg/L	64	5.0	7586181
Nitrate (N)	mg/L	0.29	0.10	7585887
Dissolved Bromide (Br <sup>-</sup> )	mg/L	<5.0	5.0	7586181
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	1200	5.0	7586181
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				



BUREAU  
VERITAS

BV Labs Job #: C1Q6150  
Report Date: 2021/09/21

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: CR

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QQW402		
Sampling Date		2021/09/14 10:50		
COC Number		845501-01-01		
	UNITS	HCL 10:50	RDL	QC Batch
<b>Metals</b>				
Dissolved Calcium (Ca)	mg/L	330	0.050	7585341
Dissolved Magnesium (Mg)	mg/L	150	0.050	7585341
Total Aluminum (Al)	mg/L	0.66	0.0049	7587532
Total Barium (Ba)	mg/L	0.071	0.0020	7587532
Total Beryllium (Be)	mg/L	<0.00040	0.00040	7587532
Total Boron (B)	mg/L	0.27	0.010	7587532
Total Cadmium (Cd)	mg/L	<0.000090	0.000090	7587532
Total Calcium (Ca)	mg/L	330	0.20	7587532
Total Chromium (Cr)	mg/L	<0.0050	0.0050	7587532
Total Cobalt (Co)	mg/L	0.0068	0.00050	7587532
Total Copper (Cu)	mg/L	0.0039	0.00090	7587532
Total Iron (Fe)	mg/L	1.2	0.10	7587532
Total Lead (Pb)	mg/L	0.0040	0.00050	7587532
Total Magnesium (Mg)	mg/L	140	0.050	7587532
Total Manganese (Mn)	mg/L	1.5	0.0020	7587532
Total Molybdenum (Mo)	mg/L	0.011	0.00050	7587532
Total Nickel (Ni)	mg/L	0.022	0.0010	7587532
Total Potassium (K)	mg/L	4.7	0.20	7587532
Total Silicon (Si)	mg/L	7.5	0.050	7587532
Total Sodium (Na)	mg/L	50	0.10	7587532
Total Strontium (Sr)	mg/L	2.2	0.0010	7587532
Total Titanium (Ti)	mg/L	0.017	0.0050	7587532
Total Vanadium (V)	mg/L	0.0039	0.00050	7587532
Total Zinc (Zn)	mg/L	0.024	0.0050	7587532
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU  
VERITAS

BV Labs Job #: C1Q6150  
Report Date: 2021/09/21

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: CR

### TEST SUMMARY

**BV Labs ID:** QQW402  
**Sample ID:** HCL 10:50  
**Matrix:** Water

**Collected:** 2021/09/14  
**Shipped:**  
**Received:** 2021/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7586596	N/A	2021/09/20	Surinder Rai
Anions	IC	7586181	N/A	2021/09/20	Fari Dehdezi
Conductivity	AT	7586597	N/A	2021/09/20	Surinder Rai
Fluoride	ISE	7586594	2021/09/18	2021/09/20	Surinder Rai
Hardness (calculated as CaCO3)		7581122	N/A	2021/09/20	Automated Statchk
Dissolved Calcium and Magnesium	ICP	7585341	2021/09/17	2021/09/20	Meghaben Patel
Total Metals Analysis by ICPMS	ICP/MS	7587532	N/A	2021/09/21	Nan Raykha
Total Ammonia-N	LACH/NH4	7584428	N/A	2021/09/18	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7585887	N/A	2021/09/21	Chandra Nandlal
pH	AT	7586598	2021/09/18	2021/09/20	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7583769	N/A	2021/09/17	Deonarine Ramnarine
Orthophosphate	KONE	7585090	N/A	2021/09/17	Avneet Kour Sudan
Total Kjeldahl Nitrogen in Water	SKAL	7584508	2021/09/17	2021/09/20	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7583967	N/A	2021/09/18	Julianna Castiglione
Total Phosphorus (Colourimetric)	LACH/P	7584112	2021/09/17	2021/09/17	Shivani Shivani
Total Suspended Solids	BAL	7584070	2021/09/17	2021/09/20	Shaneil Hall





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VERITAS

BV Labs Job #: C1Q6150  
Report Date: 2021/09/21

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: CR

### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	6.7°C
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**Results relate only to the items tested.**



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VERITAS

BV Labs Job #: C1Q6150

Report Date: 2021/09/21

### QUALITY ASSURANCE REPORT

Terrapure Environmental

Client Project #: HCL

Sampler Initials: CR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7583769	Phenols-4AAP	2021/09/17	96	80 - 120	100	80 - 120	<0.0010	mg/L	0	20		
7583967	Total Organic Carbon (TOC)	2021/09/18	96	80 - 120	99	80 - 120	<0.40	mg/L	1.0	20		
7584070	Total Suspended Solids	2021/09/20					<10	mg/L	NC	25	98	85 - 115
7584112	Total Phosphorus	2021/09/17	98	80 - 120	98	80 - 120	<0.020	mg/L	6.3	20	98	80 - 120
7584428	Total Ammonia-N	2021/09/18	91	75 - 125	96	80 - 120	<0.050	mg/L	10	20		
7584508	Total Kjeldahl Nitrogen (TKN)	2021/09/20	NC	80 - 120	99	80 - 120	<0.10	mg/L	12	20	98	80 - 120
7585090	Orthophosphate (P)	2021/09/17	114	75 - 125	98	80 - 120	<0.010	mg/L	NC	25		
7585341	Dissolved Calcium (Ca)	2021/09/20	100	80 - 120	102	80 - 120	<0.050	mg/L				
7585341	Dissolved Magnesium (Mg)	2021/09/20	98	80 - 120	101	80 - 120	<0.050	mg/L				
7585887	Nitrate (N)	2021/09/21	100	80 - 120	99	80 - 120	<0.10	mg/L	NC	20		
7585887	Nitrite (N)	2021/09/21	105	80 - 120	103	80 - 120	<0.010	mg/L	10	20		
7586181	Dissolved Bromide (Br-)	2021/09/20	101	80 - 120	101	80 - 120	<1.0	mg/L	NC	20		
7586181	Dissolved Chloride (Cl-)	2021/09/20	99	80 - 120	100	70 - 130	<1.0	mg/L	0.85	20		
7586181	Dissolved Sulphate (SO4)	2021/09/20	102	80 - 120	100	80 - 120	<1.0	mg/L	0.19	20		
7586594	Fluoride (F-)	2021/09/20	99	80 - 120	100	80 - 120	<0.10	mg/L	5.2	20		
7586596	Alkalinity (Total as CaCO3)	2021/09/20			97	85 - 115	<1.0	mg/L	1.0	20		
7586597	Conductivity	2021/09/20			99	85 - 115	<1.0	umho/cm	2.3	25		
7586598	pH	2021/09/20			102	98 - 103			0.38	N/A		
7587532	Total Aluminum (Al)	2021/09/21	96	80 - 120	101	80 - 120	<0.0049	mg/L	NC	20		
7587532	Total Barium (Ba)	2021/09/21	101	80 - 120	100	80 - 120	<0.0020	mg/L	3.1	20		
7587532	Total Beryllium (Be)	2021/09/21	101	80 - 120	104	80 - 120	<0.00040	mg/L	NC	20		
7587532	Total Boron (B)	2021/09/21	NC	80 - 120	101	80 - 120	<0.010	mg/L	20	20		
7587532	Total Cadmium (Cd)	2021/09/21	101	80 - 120	105	80 - 120	<0.000090	mg/L	NC	20		
7587532	Total Calcium (Ca)	2021/09/21	NC	80 - 120	102	80 - 120	<0.20	mg/L	3.1	20		
7587532	Total Chromium (Cr)	2021/09/21	99	80 - 120	103	80 - 120	<0.0050	mg/L	NC	20		
7587532	Total Cobalt (Co)	2021/09/21	98	80 - 120	103	80 - 120	<0.00050	mg/L	NC	20		
7587532	Total Copper (Cu)	2021/09/21	103	80 - 120	106	80 - 120	<0.00090	mg/L	1.4	20		
7587532	Total Iron (Fe)	2021/09/21	100	80 - 120	104	80 - 120	<0.10	mg/L	NC	20		
7587532	Total Lead (Pb)	2021/09/21	96	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20		
7587532	Total Magnesium (Mg)	2021/09/21	96	80 - 120	103	80 - 120	<0.050	mg/L	2.0	20		



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VERITAS

BV Labs Job #: C1Q6150

Report Date: 2021/09/21

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental

Client Project #: HCL

Sampler Initials: CR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7587532	Total Manganese (Mn)	2021/09/21	97	80 - 120	101	80 - 120	<0.0020	mg/L	7.2	20		
7587532	Total Molybdenum (Mo)	2021/09/21	105	80 - 120	106	80 - 120	<0.00050	mg/L	3.2	20		
7587532	Total Nickel (Ni)	2021/09/21	94	80 - 120	99	80 - 120	<0.0010	mg/L	4.4	20		
7587532	Total Potassium (K)	2021/09/21	99	80 - 120	105	80 - 120	<0.20	mg/L	2.7	20		
7587532	Total Silicon (Si)	2021/09/21	96	80 - 120	100	80 - 120	<0.050	mg/L	3.5	20		
7587532	Total Sodium (Na)	2021/09/21	NC	80 - 120	104	80 - 120	<0.10	mg/L	4.3	20		
7587532	Total Strontium (Sr)	2021/09/21	NC	80 - 120	101	80 - 120	<0.0010	mg/L	2.9	20		
7587532	Total Titanium (Ti)	2021/09/21	95	80 - 120	100	80 - 120	<0.0050	mg/L	NC	20		
7587532	Total Vanadium (V)	2021/09/21	99	80 - 120	101	80 - 120	<0.00050	mg/L	1.4	20		
7587532	Total Zinc (Zn)	2021/09/21	98	80 - 120	106	80 - 120	<0.0050	mg/L	2.4	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).



BUREAU  
VERITAS

BV Labs Job #: C1Q6150

Report Date: 2021/09/21

Terrapure Environmental

Client Project #: HCL

Sampler Initials: CR

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

*Eva Pranjic*

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Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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Bureau Veritas Laboratories  
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free: 800-563-6266 Fax: (905) 817-5777 www.bvlab.com

CHAIN OF CUSTODY RECORD

<b>INVOICE TO:</b>		<b>REPORT TO:</b>		<b>PROJECT INFORMATION:</b>		<b>Laboratory Use Only:</b>	
Company Name: #16786 Terrapure Environmental	Attention: Accounting	Address: 65 Green Mountain Rd West Stoney Creek ON L8J 1X5	Company Name: Brad Mullin - GHD Reporting	Attention: Brad Mullin - GHD Reporting	Address: _____	Quotation #: B60569	BV Labs Job #: _____
Tel: (905) 561-0305	Fax: (905) 561-1674	Email: kbailey@terrapureenv.com	Tel: _____	Fax: _____	Email: bmullin@terrapureenv.com; dtaylor2@terrapureenv.com	P.O. #: _____	Bottle Order #: 845501
				Project Name: HCL	COC #: _____		Project Manager: Jolanta Goralczyk
				Site #: _____	C#845501-01-01		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required: Please provide advance notice for rush projects			
Regulation 153 (2011)			Other Regulations			Special Instructions	Field Filtered (please circle): Metals / Hg / Cr VI  EA LEACH Excluding BOD											Regular (Standard) TAT: (will be applied if Rush TAT is not specified): Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.	
<input type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw												Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)			
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw												# of Bottles: _____			
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality: _____												Comments: _____			
<input type="checkbox"/> Table _____			<input type="checkbox"/> PWQO	<input type="checkbox"/> Reg 406 Table															
Include Criteria on Certificate of Analysis (Y/N)?																			
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix															
	HCL 10:50	21/9/14	10:50	Water	N/A														6
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

15-Sep-21 16:00  
Jolanta Goralczyk  
C1Q6150  
ATM ENV-1211

* RELINQUISHED BY: (Signature/Print) C. Richardson/Cooper Richardson		Date: (YY/MM/DD) 21/9/15	Time 4:30	RECEIVED BY: (Signature/Print) Forest Rose/Forest		Date: (YY/MM/DD) 2011/09/15	Time 16:00	# Jars used and not submitted	Laboratory Use Only			
								Time Sensitive	Temperature (°C) on Recei 4/2/19	Custody Seal Present Intact	Yes /	No

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.  
\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.  
\*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client



Your Project #: SW  
Your C.O.C. #: 845501-07-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/09/28**  
Report #: R6831279  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1R2519**

**Received: 2021/09/21, 16:20**

Sample Matrix: Water  
# Samples Received: 5

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Dissolved Aluminum (0.2 u, clay free)	1	N/A	2021/09/23	CAM SOP-00447	EPA 6020B m
Dissolved Aluminum (0.2 u, clay free)	4	N/A	2021/09/24	CAM SOP-00447	EPA 6020B m
Alkalinity	5	N/A	2021/09/23	CAM SOP-00448	SM 23 2320 B m
Biochemical Oxygen Demand (BOD)	5	2021/09/23	2021/09/28	CAM SOP-00427	SM 23 5210B m
Chloride by Automated Colourimetry	4	N/A	2021/09/23	CAM SOP-00463	SM 23 4500-Cl E m
Chloride by Automated Colourimetry	1	N/A	2021/09/24	CAM SOP-00463	SM 23 4500-Cl E m
Dissolved Organic Carbon (DOC) (1)	3	N/A	2021/09/23	CAM SOP-00446	SM 23 5310 B m
Dissolved Organic Carbon (DOC) (1)	2	N/A	2021/09/24	CAM SOP-00446	SM 23 5310 B m
Hardness (calculated as CaCO3)	1	N/A	2021/09/23	CAM SOP 00102/00408/00447	SM 2340 B
Hardness (calculated as CaCO3)	4	N/A	2021/09/24	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	5	2021/09/23	2021/09/23	CAM SOP-00453	EPA 7470A m
Total Metals Analysis by ICPMS	4	N/A	2021/09/25	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICPMS	1	N/A	2021/09/27	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	1	N/A	2021/09/24	CAM SOP-00441	USGS I-2522-90 m
Total Ammonia-N	4	N/A	2021/09/25	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (2)	1	N/A	2021/09/23	CAM SOP-00440	SM 23 4500-NO3I/NO2B
Nitrate (NO3) and Nitrite (NO2) in Water (2)	4	N/A	2021/09/24	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	5	2021/09/22	2021/09/23	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	5	N/A	2021/09/23	CAM SOP-00444	OMOE E3179 m
Sulphate by Automated Colourimetry	4	N/A	2021/09/23	CAM SOP-00464	EPA 375.4 m
Sulphate by Automated Colourimetry	1	N/A	2021/09/24	CAM SOP-00464	EPA 375.4 m
Total Phosphorus (Colourimetric)	5	2021/09/23	2021/09/24	CAM SOP-00407	SM 23 4500 P B H m
Total Suspended Solids	5	2021/09/23	2021/09/24	CAM SOP-00428	SM 23 2540D m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.

(2) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.



Your Project #: SW  
Your C.O.C. #: 845501-07-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/09/28**  
Report #: R6831279  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1R2519**

**Received: 2021/09/21, 16:20**

Encryption Key



**AUTHORIZED REPORT  
RAPPORT AUTORISÉ**

Bureau Veritas  
28 Sep 2021 16:43:44

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

=====  
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BV Labs Job #: C1R2519  
Report Date: 2021/09/28

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QSF277			QSF278			QSF279		
Sampling Date		2021/09/20			2021/09/20			2021/09/20		
COC Number		845501-07-01			845501-07-01			845501-07-01		
	UNITS	T-1R	RDL	QC Batch	T-3R	RDL	QC Batch	T-3A	RDL	QC Batch
<b>Calculated Parameters</b>										
Hardness (CaCO3)	mg/L	590	1.0	7591480	400	1.0	7591480	1100	1.0	7591480
<b>Inorganics</b>										
Total Ammonia-N	mg/L	48	0.25	7596376	<0.050	0.050	7595499	1.9	0.050	7596376
Total BOD	mg/L	9	2	7595361	<2	2	7595361	3	2	7595361
Dissolved Organic Carbon	mg/L	20	0.40	7597248	3.2	0.40	7593818	4.0	0.40	7593818
pH	pH	8.07		7593109	8.07		7593109	7.93		7593109
Phenols-4AAP	mg/L	0.12	0.010	7593786	<0.0010	0.0010	7593786	<0.0010	0.0010	7593786
Total Phosphorus	mg/L	0.074	0.004	7595579	0.018	0.004	7595579	0.016	0.004	7595579
Total Suspended Solids	mg/L	12	10	7592865	<10	10	7592865	12	10	7592865
Dissolved Sulphate (SO4)	mg/L	710	5.0	7593056	280	1.0	7593056	830	5.0	7596501
Alkalinity (Total as CaCO3)	mg/L	130	1.0	7593096	170	1.0	7593096	210	1.0	7593096
Dissolved Chloride (Cl-)	mg/L	1400	20	7593075	81	1.0	7593075	410	5.0	7596499
Nitrite (N)	mg/L	0.015	0.010	7593085	<0.010	0.010	7592993	0.365	0.010	7593085
Nitrate (N)	mg/L	<0.10	0.10	7593085	0.15	0.10	7592993	0.52	0.10	7593085
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7593085	0.15	0.10	7592993	0.89	0.10	7593085
RDL = Reportable Detection Limit QC Batch = Quality Control Batch										





**RESULTS OF ANALYSES OF WATER**

BV Labs ID		QSF279			QSF280			QSF281		
Sampling Date		2021/09/20			2021/09/20			2021/09/20		
COC Number		845501-07-01			845501-07-01			845501-07-01		
	UNITS	T-3A Lab-Dup	RDL	QC Batch	T-15R	RDL	QC Batch	T-35	RDL	QC Batch
<b>Calculated Parameters</b>										
Hardness (CaCO3)	mg/L				470	1.0	7591480	1100	1.0	7591480
<b>Inorganics</b>										
Total Ammonia-N	mg/L				<0.050	0.050	7596376	2.0	0.050	7596376
Total BOD	mg/L				<2	2	7595361	3	2	7595361
Dissolved Organic Carbon	mg/L				2.5	0.40	7597248	4.1	0.40	7593818
pH	pH				8.13		7593109	7.91		7593109
Phenols-4AAP	mg/L				<0.0010	0.0010	7593786	<0.0010	0.0010	7593786
Total Phosphorus	mg/L	0.017	0.004	7595579	0.007	0.004	7595579	0.013	0.004	7595579
Total Suspended Solids	mg/L				<10	10	7592865	<10	10	7592865
Dissolved Sulphate (SO4)	mg/L	810	5.0	7596501	260	1.0	7593560	790	5.0	7593560
Alkalinity (Total as CaCO3)	mg/L				220	1.0	7593096	210	1.0	7593096
Dissolved Chloride (Cl-)	mg/L	410	5.0	7596499	130	1.0	7593554	420	5.0	7593554
Nitrite (N)	mg/L				<0.010	0.010	7593085	0.365	0.010	7594040
Nitrate (N)	mg/L				0.61	0.10	7593085	0.54	0.10	7594040
Nitrate + Nitrite (N)	mg/L				0.61	0.10	7593085	0.90	0.10	7594040
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate										

BV Labs ID		QSF281		
Sampling Date		2021/09/20		
COC Number		845501-07-01		
	UNITS	T-35 Lab-Dup	RDL	QC Batch
<b>Inorganics</b>				
Nitrite (N)	mg/L	0.359	0.010	7594040
Nitrate (N)	mg/L	0.54	0.10	7594040
Nitrate + Nitrite (N)	mg/L	0.90	0.10	7594040
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate				



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BV Labs Job #: C1R2519  
Report Date: 2021/09/28

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QSF277			QSF278		QSF279		
Sampling Date		2021/09/20			2021/09/20		2021/09/20		
COC Number		845501-07-01			845501-07-01		845501-07-01		
	UNITS	T-1R	RDL	QC Batch	T-3R	QC Batch	T-3A	RDL	QC Batch
<b>Metals</b>									
Dissolved (0.2u) Aluminum (Al)	ug/L	9	5	7597057	<5	7593803	<5	5	7597057
Mercury (Hg)	mg/L	<0.00010	0.00010	7595172	<0.00010	7595172	<0.00010	0.00010	7595172
Total Aluminum (Al)	mg/L	0.049	0.0049	7598186	0.093	7598186	0.13	0.0049	7598186
Total Arsenic (As)	mg/L	0.0041	0.0010	7598186	<0.0010	7598186	<0.0010	0.0010	7598186
Total Beryllium (Be)	mg/L	<0.00040	0.00040	7598186	<0.00040	7598186	<0.00040	0.00040	7598186
Total Boron (B)	mg/L	0.38	0.010	7598186	0.21	7598186	0.67	0.010	7598186
Total Cadmium (Cd)	mg/L	0.00030	0.000090	7598186	<0.000090	7598186	<0.000090	0.000090	7598186
Total Calcium (Ca)	mg/L	200	0.20	7598186	120	7598186	340	0.20	7598186
Total Chromium (Cr)	mg/L	<0.0050	0.0050	7598186	<0.0050	7598186	<0.0050	0.0050	7598186
Total Cobalt (Co)	mg/L	0.0015	0.00050	7598186	<0.00050	7598186	<0.00050	0.00050	7598186
Total Copper (Cu)	mg/L	0.0018	0.00090	7598186	0.0033	7598186	0.0023	0.00090	7598186
Total Iron (Fe)	mg/L	0.91	0.10	7598186	0.10	7598186	0.27	0.10	7598186
Total Lead (Pb)	mg/L	0.0025	0.00050	7598186	0.00080	7598186	0.0014	0.00050	7598186
Total Magnesium (Mg)	mg/L	30	0.050	7598186	26	7598186	71	0.050	7598186
Total Manganese (Mn)	mg/L	0.37	0.0020	7598186	0.0031	7598186	0.37	0.0020	7598186
Total Molybdenum (Mo)	mg/L	0.040	0.00050	7598186	0.010	7598186	0.0072	0.00050	7598186
Total Nickel (Ni)	mg/L	0.011	0.0010	7598186	0.0021	7598186	0.0062	0.0010	7598186
Total Selenium (Se)	mg/L	<0.0020	0.0020	7598186	<0.0020	7598186	<0.0020	0.0020	7598186
Total Silver (Ag)	mg/L	<0.000090	0.000090	7598186	<0.000090	7598186	<0.000090	0.000090	7598186
Total Sodium (Na)	mg/L	880	0.50	7598186	77	7598186	260	0.10	7598186
Total Strontium (Sr)	mg/L	3.3	0.0010	7598186	0.79	7598186	3.7	0.0010	7598186
Total Vanadium (V)	mg/L	0.0022	0.00050	7598186	0.0015	7598186	0.00077	0.00050	7598186
Total Zinc (Zn)	mg/L	0.028	0.0050	7598186	0.015	7598186	0.057	0.0050	7598186
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									



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BV Labs Job #: C1R2519  
Report Date: 2021/09/28

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QSF280	QSF281		
Sampling Date		2021/09/20	2021/09/20		
COC Number		845501-07-01	845501-07-01		
	UNITS	T-15R	T-35	RDL	QC Batch
<b>Metals</b>					
Dissolved (0.2u) Aluminum (Al)	ug/L	<5	<5	5	7597057
Mercury (Hg)	mg/L	<0.00010	<0.00010	0.00010	7595172
Total Aluminum (Al)	mg/L	0.025	0.036	0.0049	7598186
Total Arsenic (As)	mg/L	<0.0010	<0.0010	0.0010	7598186
Total Beryllium (Be)	mg/L	<0.00040	<0.00040	0.00040	7598186
Total Boron (B)	mg/L	0.11	0.63	0.010	7598186
Total Cadmium (Cd)	mg/L	0.00017	<0.000090	0.000090	7598186
Total Calcium (Ca)	mg/L	140	340	0.20	7598186
Total Chromium (Cr)	mg/L	<0.0050	<0.0050	0.0050	7598186
Total Cobalt (Co)	mg/L	<0.00050	<0.00050	0.00050	7598186
Total Copper (Cu)	mg/L	0.0011	0.0013	0.00090	7598186
Total Iron (Fe)	mg/L	<0.10	0.11	0.10	7598186
Total Lead (Pb)	mg/L	<0.00050	0.0012	0.00050	7598186
Total Magnesium (Mg)	mg/L	33	72	0.050	7598186
Total Manganese (Mn)	mg/L	0.081	0.36	0.0020	7598186
Total Molybdenum (Mo)	mg/L	0.0030	0.0070	0.00050	7598186
Total Nickel (Ni)	mg/L	0.0028	0.0052	0.0010	7598186
Total Selenium (Se)	mg/L	<0.0020	<0.0020	0.0020	7598186
Total Silver (Ag)	mg/L	<0.000090	<0.000090	0.000090	7598186
Total Sodium (Na)	mg/L	81	270	0.10	7598186
Total Strontium (Sr)	mg/L	3.2	3.7	0.0010	7598186
Total Vanadium (V)	mg/L	<0.00050	0.00057	0.00050	7598186
Total Zinc (Zn)	mg/L	0.070	0.049	0.0050	7598186
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					



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BV Labs Job #: C1R2519  
Report Date: 2021/09/28

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### TEST SUMMARY

**BV Labs ID:** QSF277  
**Sample ID:** T-1R  
**Matrix:** Water

**Collected:** 2021/09/20  
**Shipped:**  
**Received:** 2021/09/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7597057	N/A	2021/09/24	Arefa Dabhad
Alkalinity	AT	7593096	N/A	2021/09/23	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7595361	2021/09/23	2021/09/28	Surleen Kaur Romana
Chloride by Automated Colourimetry	KONE	7593075	N/A	2021/09/23	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7597248	N/A	2021/09/24	Julianna Castiglione
Hardness (calculated as CaCO3)		7591480	N/A	2021/09/24	Automated Statchk
Mercury in Water by CVAA	CV/AA	7595172	2021/09/23	2021/09/23	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7598186	N/A	2021/09/27	Daniel Teclu
Total Ammonia-N	LACH/NH4	7596376	N/A	2021/09/25	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7593085	N/A	2021/09/24	Chandra Nandlal
pH	AT	7593109	2021/09/22	2021/09/23	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7593786	N/A	2021/09/23	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7593056	N/A	2021/09/23	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7595579	2021/09/23	2021/09/24	Shivani Shivani
Total Suspended Solids	BAL	7592865	2021/09/23	2021/09/24	Shaneil Hall

**BV Labs ID:** QSF278  
**Sample ID:** T-3R  
**Matrix:** Water

**Collected:** 2021/09/20  
**Shipped:**  
**Received:** 2021/09/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7593803	N/A	2021/09/23	Arefa Dabhad
Alkalinity	AT	7593096	N/A	2021/09/23	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7595361	2021/09/23	2021/09/28	Surleen Kaur Romana
Chloride by Automated Colourimetry	KONE	7593075	N/A	2021/09/23	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7593818	N/A	2021/09/23	Julianna Castiglione
Hardness (calculated as CaCO3)		7591480	N/A	2021/09/23	Automated Statchk
Mercury in Water by CVAA	CV/AA	7595172	2021/09/23	2021/09/23	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7598186	N/A	2021/09/25	Daniel Teclu
Total Ammonia-N	LACH/NH4	7595499	N/A	2021/09/24	Chandra Nandlal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7592993	N/A	2021/09/24	Chandra Nandlal
pH	AT	7593109	2021/09/22	2021/09/23	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7593786	N/A	2021/09/23	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7593056	N/A	2021/09/23	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7595579	2021/09/23	2021/09/24	Shivani Shivani
Total Suspended Solids	BAL	7592865	2021/09/23	2021/09/24	Shaneil Hall

**BV Labs ID:** QSF279  
**Sample ID:** T-3A  
**Matrix:** Water

**Collected:** 2021/09/20  
**Shipped:**  
**Received:** 2021/09/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7597057	N/A	2021/09/24	Arefa Dabhad
Alkalinity	AT	7593096	N/A	2021/09/23	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7595361	2021/09/23	2021/09/28	Surleen Kaur Romana



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BV Labs Job #: C1R2519  
Report Date: 2021/09/28

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### TEST SUMMARY

**BV Labs ID:** QSF279  
**Sample ID:** T-3A  
**Matrix:** Water

**Collected:** 2021/09/20  
**Shipped:**  
**Received:** 2021/09/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	7596499	N/A	2021/09/24	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7593818	N/A	2021/09/23	Julianna Castiglione
Hardness (calculated as CaCO3)		7591480	N/A	2021/09/24	Automated Statchk
Mercury in Water by CVAA	CV/AA	7595172	2021/09/23	2021/09/23	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7598186	N/A	2021/09/25	Daniel Teclu
Total Ammonia-N	LACH/NH4	7596376	N/A	2021/09/25	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7593085	N/A	2021/09/24	Chandra Nandlal
pH	AT	7593109	2021/09/22	2021/09/23	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7593786	N/A	2021/09/23	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7596501	N/A	2021/09/24	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7595579	2021/09/23	2021/09/24	Shivani Shivani
Total Suspended Solids	BAL	7592865	2021/09/23	2021/09/24	Shaneil Hall

**BV Labs ID:** QSF279 Dup  
**Sample ID:** T-3A  
**Matrix:** Water

**Collected:** 2021/09/20  
**Shipped:**  
**Received:** 2021/09/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	7596499	N/A	2021/09/24	Alina Dobreanu
Sulphate by Automated Colourimetry	KONE	7596501	N/A	2021/09/24	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7595579	2021/09/23	2021/09/24	Shivani Shivani

**BV Labs ID:** QSF280  
**Sample ID:** T-15R  
**Matrix:** Water

**Collected:** 2021/09/20  
**Shipped:**  
**Received:** 2021/09/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7597057	N/A	2021/09/24	Arefa Dabhad
Alkalinity	AT	7593096	N/A	2021/09/23	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7595361	2021/09/23	2021/09/28	Surleen Kaur Romana
Chloride by Automated Colourimetry	KONE	7593554	N/A	2021/09/23	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7597248	N/A	2021/09/24	Julianna Castiglione
Hardness (calculated as CaCO3)		7591480	N/A	2021/09/24	Automated Statchk
Mercury in Water by CVAA	CV/AA	7595172	2021/09/23	2021/09/23	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7598186	N/A	2021/09/25	Daniel Teclu
Total Ammonia-N	LACH/NH4	7596376	N/A	2021/09/25	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7593085	N/A	2021/09/24	Chandra Nandlal
pH	AT	7593109	2021/09/22	2021/09/23	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7593786	N/A	2021/09/23	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7593560	N/A	2021/09/23	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7595579	2021/09/23	2021/09/24	Shivani Shivani
Total Suspended Solids	BAL	7592865	2021/09/23	2021/09/24	Shaneil Hall



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BV Labs Job #: C1R2519  
Report Date: 2021/09/28

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### TEST SUMMARY

**BV Labs ID:** QSF281  
**Sample ID:** T-35  
**Matrix:** Water

**Collected:** 2021/09/20  
**Shipped:**  
**Received:** 2021/09/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7597057	N/A	2021/09/24	Arefa Dabhad
Alkalinity	AT	7593096	N/A	2021/09/23	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7595361	2021/09/23	2021/09/28	Surleen Kaur Romana
Chloride by Automated Colourimetry	KONE	7593554	N/A	2021/09/23	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7593818	N/A	2021/09/23	Julianna Castiglione
Hardness (calculated as CaCO3)		7591480	N/A	2021/09/24	Automated Statchk
Mercury in Water by CVAA	CV/AA	7595172	2021/09/23	2021/09/23	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7598186	N/A	2021/09/25	Daniel Teclu
Total Ammonia-N	LACH/NH4	7596376	N/A	2021/09/25	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7594040	N/A	2021/09/23	Chandra Nandlal
pH	AT	7593109	2021/09/22	2021/09/23	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7593786	N/A	2021/09/23	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7593560	N/A	2021/09/23	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7595579	2021/09/23	2021/09/24	Shivani Shivani
Total Suspended Solids	BAL	7592865	2021/09/23	2021/09/24	Shaneil Hall

**BV Labs ID:** QSF281 Dup  
**Sample ID:** T-35  
**Matrix:** Water

**Collected:** 2021/09/20  
**Shipped:**  
**Received:** 2021/09/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7594040	N/A	2021/09/23	Chandra Nandlal



### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	7.3°C
Package 2	2.3°C

**Results relate only to the items tested.**



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BV Labs Job #: C1R2519  
Report Date: 2021/09/28

### QUALITY ASSURANCE REPORT

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7592865	Total Suspended Solids	2021/09/24					<10	mg/L	NC	25	95	85 - 115
7592993	Nitrate (N)	2021/09/24	102	80 - 120	97	80 - 120	<0.10	mg/L	0.38	20		
7592993	Nitrite (N)	2021/09/24	102	80 - 120	99	80 - 120	<0.010	mg/L	NC	20		
7593056	Dissolved Sulphate (SO4)	2021/09/23	NC	75 - 125	103	80 - 120	<1.0	mg/L	1.5	20		
7593075	Dissolved Chloride (Cl-)	2021/09/23	NC	80 - 120	106	80 - 120	<1.0	mg/L	1.6	20		
7593085	Nitrate (N)	2021/09/24	99	80 - 120	97	80 - 120	<0.10	mg/L	NC	20		
7593085	Nitrite (N)	2021/09/24	101	80 - 120	100	80 - 120	<0.010	mg/L	20	20		
7593096	Alkalinity (Total as CaCO3)	2021/09/23			96	85 - 115	<1.0	mg/L	0.12	20		
7593109	pH	2021/09/23			101	98 - 103			0.047	N/A		
7593554	Dissolved Chloride (Cl-)	2021/09/23	107	80 - 120	106	80 - 120	<1.0	mg/L	NC	20		
7593560	Dissolved Sulphate (SO4)	2021/09/23	121	75 - 125	103	80 - 120	<1.0	mg/L	NC	20		
7593786	Phenols-4AAP	2021/09/23	96	80 - 120	98	80 - 120	<0.0010	mg/L	2.1	20		
7593803	Dissolved (0.2u) Aluminum (Al)	2021/09/23	105	80 - 120	105	80 - 120	<5	ug/L	0.58	20		
7593818	Dissolved Organic Carbon	2021/09/23	95	80 - 120	97	80 - 120	<0.40	mg/L	4.4	20		
7594040	Nitrate (N)	2021/09/23	95	80 - 120	101	80 - 120	<0.10	mg/L	0.52	20		
7594040	Nitrite (N)	2021/09/23	101	80 - 120	101	80 - 120	<0.010	mg/L	1.6	20		
7595172	Mercury (Hg)	2021/09/23	97	75 - 125	95	80 - 120	<0.00010	mg/L	NC	20		
7595361	Total BOD	2021/09/28					<2	mg/L	5.7	30	96	80 - 120
7595499	Total Ammonia-N	2021/09/24	100	75 - 125	104	80 - 120	<0.050	mg/L	10	20		
7595579	Total Phosphorus	2021/09/24	99	80 - 120	85	80 - 120	<0.004	mg/L	3.7	20	93	80 - 120
7596376	Total Ammonia-N	2021/09/25	99	75 - 125	101	80 - 120	<0.050	mg/L	NC	20		
7596499	Dissolved Chloride (Cl-)	2021/09/24	NC	80 - 120	106	80 - 120	<1.0	mg/L	0.51	20		
7596501	Dissolved Sulphate (SO4)	2021/09/24	NC	75 - 125	104	80 - 120	<1.0	mg/L	2.2	20		
7597057	Dissolved (0.2u) Aluminum (Al)	2021/09/24	103	80 - 120	105	80 - 120	<5	ug/L	5.5	20		
7597248	Dissolved Organic Carbon	2021/09/24	93	80 - 120	93	80 - 120	<0.40	mg/L	0.20	20		
7598186	Total Aluminum (Al)	2021/09/24	95	80 - 120	100	80 - 120	<0.0049	mg/L	2.9	20		
7598186	Total Arsenic (As)	2021/09/24	100	80 - 120	100	80 - 120	<0.0010	mg/L	1.7	20		
7598186	Total Beryllium (Be)	2021/09/24	103	80 - 120	104	80 - 120	<0.00040	mg/L	NC	20		
7598186	Total Boron (B)	2021/09/24	98	80 - 120	100	80 - 120	<0.010	mg/L	0.37	20		
7598186	Total Cadmium (Cd)	2021/09/24	103	80 - 120	103	80 - 120	<0.000090	mg/L	NC	20		
7598186	Total Calcium (Ca)	2021/09/24	NC	80 - 120	103	80 - 120	<0.20	mg/L	0.28	20		





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BV Labs Job #: C1R2519

Report Date: 2021/09/28

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental

Client Project #: SW

Sampler Initials: CR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7598186	Total Chromium (Cr)	2021/09/24	95	80 - 120	96	80 - 120	<0.0050	mg/L	NC	20		
7598186	Total Cobalt (Co)	2021/09/24	96	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20		
7598186	Total Copper (Cu)	2021/09/24	104	80 - 120	102	80 - 120	<0.00090	mg/L	0.83	20		
7598186	Total Iron (Fe)	2021/09/24	94	80 - 120	97	80 - 120	<0.10	mg/L				
7598186	Total Lead (Pb)	2021/09/24	97	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20		
7598186	Total Magnesium (Mg)	2021/09/24	93	80 - 120	98	80 - 120	<0.050	mg/L	1.9	20		
7598186	Total Manganese (Mn)	2021/09/24	96	80 - 120	98	80 - 120	<0.0020	mg/L	0.54	20		
7598186	Total Molybdenum (Mo)	2021/09/24	105	80 - 120	105	80 - 120	<0.00050	mg/L	1.1	20		
7598186	Total Nickel (Ni)	2021/09/24	95	80 - 120	96	80 - 120	<0.0010	mg/L	0.43	20		
7598186	Total Selenium (Se)	2021/09/24	103	80 - 120	106	80 - 120	<0.0020	mg/L	NC	20		
7598186	Total Silver (Ag)	2021/09/24	101	80 - 120	101	80 - 120	<0.000090	mg/L	NC	20		
7598186	Total Sodium (Na)	2021/09/24	NC	80 - 120	94	80 - 120	<0.10	mg/L	0.24	20		
7598186	Total Strontium (Sr)	2021/09/24	97	80 - 120	99	80 - 120	<0.0010	mg/L	0.029	20		
7598186	Total Vanadium (V)	2021/09/24	97	80 - 120	97	80 - 120	<0.00050	mg/L	2.2	20		
7598186	Total Zinc (Zn)	2021/09/24	99	80 - 120	101	80 - 120	<0.0050	mg/L	NC	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Duplicate results exceeded RPD acceptance criteria. This may be due to sample heterogeneity.



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BV Labs Job #: C1R2519  
Report Date: 2021/09/28

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: CR

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

A handwritten signature in black ink, appearing to read "Brad Newman", written over a horizontal line.

Brad Newman, B.Sc., C.Chem., Scientific Service Specialist

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Bureau Veritas Laboratories  
6740 Campbell Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

21-Sep-21 16:20

Jolanta Goralczyk  
C1R2519

Only:  
Bottle Order #:   
845501  
Project Manager: Jolanta Goralczyk

INVOICE TO:  
Company Name: #16786 Terrapure Environmental  
Attention: Accounting  
Address: 65 Green Mountain Rd West  
Stoney Creek ON L8J 1X5  
Tel: (905) 561-0305 Fax: (905) 561-1674  
Email: kbailey@terrapureenv.com

REPORT TO:  
Company Name:  
Attention: Brad Mullin - GHD Reporting  
Address:  
Tel: Fax:  
Email: bmullin@terrapureenv.com; dtaylor2@terrapureenv.com

PROJECT INFORMATION:  
Quotation #: B60569  
P.O. #:  
Project: SW  
Project Name: SW  
Site #:  
Sampled By:

JKX ENV-895  
Barcode: C#845501-07-01

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
<input type="checkbox"/> Table 1 <input type="checkbox"/> Res/Park <input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME <input type="checkbox"/> Sanitary Sewer Bylaw	
<input type="checkbox"/> Table 2 <input type="checkbox"/> Ind/Comm <input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558 <input type="checkbox"/> Storm Sewer Bylaw	
<input type="checkbox"/> Table 3 <input type="checkbox"/> Agri/Other <input type="checkbox"/> For RSC	<input type="checkbox"/> MISA Municipality _____	
<input type="checkbox"/> Table _____	<input type="checkbox"/> PWQO <input type="checkbox"/> Reg 406 Table _____	
	<input type="checkbox"/> Other _____	

Include Criteria on Certificate of Analysis (Y/N)?

Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals (Hg) Cr VI	ANALYSIS REQUESTED (PLEASE BE SPECIFIC)	# of Bottles	Comments
1	T-1R	21/9/20	AM	Water	Y	X	9	
2	T-3R	↓	↓	↓	Y	X	9	
3	T-3A	↓	↓	↓	Y	X	9	
4	T-15R	↓	↓	↓	Y	X	9	
5	T-35	↓	↓	↓	Y	X	9	
6								
7								
8								
9								
10								

Turnaround Time (TAT) Required:  
Please provide advance notice for rush projects

Regular (Standard) TAT:   
(will be applied if Rush TAT is not specified)  
Standard TAT = 5-7 Working days for most tests.  
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)  
Date Required: \_\_\_\_\_ Time Required: \_\_\_\_\_  
Rush Confirmation Number: \_\_\_\_\_ (call lab for #)

* RELINQUISHED BY: (Signature/Print) C. Dombach / Cooper Richardson	Date: (YY/MM/DD) 21/9/21	Time 10:10am	RECEIVED BY: (Signature/Print) Brad Mullin	Date: (YY/MM/DD) 21/9/21	Time 16:20	# Jars used and not submitted	Laboratory Use Only
						Time Sensitive	Temperature (°C) on Recept 8/19/5
							Custody Seal Present Intact
							Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

\*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client  
01/5/2



Your Project #: HCL  
 Your C.O.C. #: 845501-08-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
 65 Green Mountain Rd West  
 Stoney Creek, ON  
 CANADA L8J 1X5

**Report Date: 2021/09/30**  
 Report #: R6834389  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1R4133**

**Received: 2021/09/22, 16:08**

Sample Matrix: Water  
 # Samples Received: 1

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Alkalinity	1	N/A	2021/09/25	CAM SOP-00448	SM 23 2320 B m
Anions	1	N/A	2021/09/27	CAM SOP-00435	SM 23 4110 B m
Conductivity	1	N/A	2021/09/25	CAM SOP-00414	SM 23 2510 m
Fluoride	1	2021/09/24	2021/09/25	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2021/09/27	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Calcium and Magnesium	1	2021/09/23	2021/09/24	CAM SOP-00408	EPA 6010D m
Total Metals Analysis by ICPMS	1	N/A	2021/09/28	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	1	N/A	2021/09/27	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1)	1	N/A	2021/09/26	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	1	2021/09/24	2021/09/25	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2021/09/24	CAM SOP-00444	OMOE E3179 m
Orthophosphate	1	N/A	2021/09/24	CAM SOP-00461	EPA 365.1 m
Total Kjeldahl Nitrogen in Water	1	2021/09/24	2021/09/27	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (2)	1	N/A	2021/09/24	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric)	1	2021/09/24	2021/09/27	CAM SOP-00407	SM 23 4500 P B H m
Total Suspended Solids	1	2021/09/24	2021/09/27	CAM SOP-00428	SM 23 2540D m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (2) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.



Your Project #: HCL  
Your C.O.C. #: 845501-08-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/09/30**  
Report #: R6834389  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1R4133**

**Received: 2021/09/22, 16:08**

Encryption Key



**AUTHORIZED REPORT  
RAPPORT AUTORISÉ**

Bureau Veritas  
30 Sep 2021 14:03:29

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

=====  
This report has been generated and distributed using a secure automated process.  
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



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BV Labs Job #: C1R4133  
Report Date: 2021/09/30

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: CR

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QSO264		
Sampling Date		2021/09/21		
COC Number		845501-08-01		
	UNITS	HCL 11:10	RDL	QC Batch
<b>Calculated Parameters</b>				
Hardness (CaCO <sub>3</sub> )	mg/L	1900	1.0	7595326
<b>Inorganics</b>				
Total Ammonia-N	mg/L	0.95	0.050	7601149
Conductivity	umho/cm	2800	1.0	7599159
Fluoride (F <sup>-</sup> )	mg/L	0.79	0.10	7599094
Total Kjeldahl Nitrogen (TKN)	mg/L	1.4	0.10	7598852
Total Organic Carbon (TOC)	mg/L	5.5	0.40	7598945
Orthophosphate (P)	mg/L	<0.010	0.010	7598891
pH	pH	8.02		7599154
Phenols-4AAP	mg/L	0.0025	0.0010	7598101
Total Phosphorus	mg/L	0.19	0.040	7598633
Total Suspended Solids	mg/L	88	10	7597498
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	350	1.0	7599158
Nitrite (N)	mg/L	<0.010	0.010	7597015
Dissolved Chloride (Cl <sup>-</sup> )	mg/L	77	5.0	7597021
Nitrate (N)	mg/L	<0.10	0.10	7597015
Dissolved Bromide (Br <sup>-</sup> )	mg/L	<5.0	5.0	7597021
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	1600	5.0	7597021
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU  
VERITAS

BV Labs Job #: C1R4133  
Report Date: 2021/09/30

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: CR

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QSO264		
Sampling Date		2021/09/21		
COC Number		845501-08-01		
	UNITS	HCL 11:10	RDL	QC Batch
<b>Metals</b>				
Dissolved Calcium (Ca)	mg/L	410	0.050	7597394
Dissolved Magnesium (Mg)	mg/L	210	0.050	7597394
Total Aluminum (Al)	mg/L	1.6	0.0049	7602812
Total Barium (Ba)	mg/L	0.098	0.0020	7602812
Total Beryllium (Be)	mg/L	<0.00040	0.00040	7602812
Total Boron (B)	mg/L	0.40	0.010	7602812
Total Cadmium (Cd)	mg/L	<0.000090	0.000090	7602812
Total Calcium (Ca)	mg/L	490	0.20	7602812
Total Chromium (Cr)	mg/L	0.0075	0.0050	7602812
Total Cobalt (Co)	mg/L	0.0079	0.00050	7602812
Total Copper (Cu)	mg/L	0.0053	0.00090	7602812
Total Iron (Fe)	mg/L	5.2	0.10	7602812
Total Lead (Pb)	mg/L	0.0080	0.00050	7602812
Total Magnesium (Mg)	mg/L	240	0.050	7602812
Total Manganese (Mn)	mg/L	3.4	0.0020	7602812
Total Molybdenum (Mo)	mg/L	0.014	0.00050	7602812
Total Nickel (Ni)	mg/L	0.029	0.0010	7602812
Total Potassium (K)	mg/L	4.7	0.20	7602812
Total Silicon (Si)	mg/L	12	0.050	7602812
Total Sodium (Na)	mg/L	69	0.10	7602812
Total Strontium (Sr)	mg/L	3.5	0.0010	7602812
Total Titanium (Ti)	mg/L	0.053	0.0050	7602812
Total Vanadium (V)	mg/L	0.0048	0.00050	7602812
Total Zinc (Zn)	mg/L	0.051	0.0050	7602812
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU  
VERITAS

BV Labs Job #: C1R4133  
Report Date: 2021/09/30

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: CR

### TEST SUMMARY

**BV Labs ID:** QSO264  
**Sample ID:** HCL 11:10  
**Matrix:** Water

**Collected:** 2021/09/21  
**Shipped:**  
**Received:** 2021/09/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7599158	N/A	2021/09/25	Surinder Rai
Anions	IC	7597021	N/A	2021/09/27	Fari Dehdezi
Conductivity	AT	7599159	N/A	2021/09/25	Surinder Rai
Fluoride	ISE	7599094	2021/09/24	2021/09/25	Surinder Rai
Hardness (calculated as CaCO3)		7595326	N/A	2021/09/27	Automated Statchk
Dissolved Calcium and Magnesium	ICP	7597394	2021/09/23	2021/09/24	Meghaben Patel
Total Metals Analysis by ICPMS	ICP/MS	7602812	N/A	2021/09/28	Azita Fazaeli
Total Ammonia-N	LACH/NH4	7601149	N/A	2021/09/27	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7597015	N/A	2021/09/26	Amanpreet Sappal
pH	AT	7599154	2021/09/24	2021/09/25	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7598101	N/A	2021/09/24	Deonarine Ramnarine
Orthophosphate	KONE	7598891	N/A	2021/09/24	Avneet Kour Sudan
Total Kjeldahl Nitrogen in Water	SKAL	7598852	2021/09/24	2021/09/27	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	7598945	N/A	2021/09/24	Julianna Castiglione
Total Phosphorus (Colourimetric)	LACH/P	7598633	2021/09/24	2021/09/27	Shivani Shivani
Total Suspended Solids	BAL	7597498	2021/09/24	2021/09/27	Shaneil Hall





### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	7.3°C
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Sample QSO264 [HCL 11:10] : Anions Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

**Results relate only to the items tested.**



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BV Labs Job #: C1R4133  
Report Date: 2021/09/30

### QUALITY ASSURANCE REPORT

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: CR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7597015	Nitrate (N)	2021/09/26	95	80 - 120	108	80 - 120	<0.10	mg/L	0.54	20		
7597015	Nitrite (N)	2021/09/26	95	80 - 120	105	80 - 120	<0.010	mg/L	NC	20		
7597021	Dissolved Bromide (Br-)	2021/09/27	97	80 - 120	101	80 - 120	<1.0	mg/L	NC	20		
7597021	Dissolved Chloride (Cl-)	2021/09/27	97	80 - 120	100	70 - 130	<1.0	mg/L	0.49	20		
7597021	Dissolved Sulphate (SO4)	2021/09/27	100	80 - 120	102	80 - 120	<1.0	mg/L	NC	20		
7597394	Dissolved Calcium (Ca)	2021/09/24	92	80 - 120	97	80 - 120	<0.050	mg/L	0.23	25		
7597394	Dissolved Magnesium (Mg)	2021/09/24	91	80 - 120	96	80 - 120	<0.050	mg/L	0.61	25		
7597498	Total Suspended Solids	2021/09/27					<10	mg/L	8.0	25	101	85 - 115
7598101	Phenols-4AAP	2021/09/24	96	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20		
7598633	Total Phosphorus	2021/09/27	96	80 - 120	98	80 - 120	<0.020	mg/L	3.3	20	97	80 - 120
7598852	Total Kjeldahl Nitrogen (TKN)	2021/09/27	NC	80 - 120	95	80 - 120	<0.10	mg/L	2.3	20	98	80 - 120
7598891	Orthophosphate (P)	2021/09/24	113	75 - 125	103	80 - 120	<0.010	mg/L	NC	25		
7598945	Total Organic Carbon (TOC)	2021/09/24	96	80 - 120	96	80 - 120	<0.40	mg/L	0.26	20		
7599094	Fluoride (F-)	2021/09/24	101	80 - 120	103	80 - 120	<0.10	mg/L	NC	20		
7599154	pH	2021/09/24			102	98 - 103			0.71	N/A		
7599158	Alkalinity (Total as CaCO3)	2021/09/24			97	85 - 115	<1.0	mg/L	1.9	20		
7599159	Conductivity	2021/09/24			98	85 - 115	<1.0	umho/cm	0.46	25		
7601149	Total Ammonia-N	2021/09/27	100	75 - 125	100	80 - 120	<0.050	mg/L	0.18	20		
7602812	Total Aluminum (Al)	2021/09/27	119	80 - 120	104	80 - 120	<0.0049	mg/L				
7602812	Total Barium (Ba)	2021/09/27	100	80 - 120	99	80 - 120	<0.0020	mg/L				
7602812	Total Beryllium (Be)	2021/09/27	100	80 - 120	95	80 - 120	<0.00040	mg/L				
7602812	Total Boron (B)	2021/09/27	98	80 - 120	94	80 - 120	<0.010	mg/L				
7602812	Total Cadmium (Cd)	2021/09/27	106	80 - 120	103	80 - 120	<0.000090	mg/L				
7602812	Total Calcium (Ca)	2021/09/27	NC	80 - 120	103	80 - 120	<0.20	mg/L				
7602812	Total Chromium (Cr)	2021/09/27	102	80 - 120	100	80 - 120	<0.0050	mg/L				
7602812	Total Cobalt (Co)	2021/09/27	108	80 - 120	103	80 - 120	<0.00050	mg/L				
7602812	Total Copper (Cu)	2021/09/27	102	80 - 120	102	80 - 120	<0.00090	mg/L				
7602812	Total Iron (Fe)	2021/09/27	106	80 - 120	103	80 - 120	<0.10	mg/L				
7602812	Total Lead (Pb)	2021/09/27	102	80 - 120	99	80 - 120	<0.00050	mg/L				
7602812	Total Magnesium (Mg)	2021/09/27	109	80 - 120	106	80 - 120	<0.050	mg/L				



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BV Labs Job #: C1R4133  
Report Date: 2021/09/30

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: CR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7602812	Total Manganese (Mn)	2021/09/27	105	80 - 120	104	80 - 120	<0.0020	mg/L				
7602812	Total Molybdenum (Mo)	2021/09/27	103	80 - 120	101	80 - 120	<0.00050	mg/L				
7602812	Total Nickel (Ni)	2021/09/27	104	80 - 120	102	80 - 120	<0.0010	mg/L				
7602812	Total Potassium (K)	2021/09/27	109	80 - 120	105	80 - 120	<0.20	mg/L				
7602812	Total Silicon (Si)	2021/09/27	102	80 - 120	102	80 - 120	<0.050	mg/L				
7602812	Total Sodium (Na)	2021/09/27	NC	80 - 120	106	80 - 120	<0.10	mg/L				
7602812	Total Strontium (Sr)	2021/09/27	104	80 - 120	101	80 - 120	<0.0010	mg/L				
7602812	Total Titanium (Ti)	2021/09/27	105	80 - 120	104	80 - 120	<0.0050	mg/L				
7602812	Total Vanadium (V)	2021/09/27	102	80 - 120	100	80 - 120	<0.00050	mg/L				
7602812	Total Zinc (Zn)	2021/09/27	107	80 - 120	105	80 - 120	<0.0050	mg/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).




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VERITAS

BV Labs Job #: C1R4133  
Report Date: 2021/09/30

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: CR

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

*Eva Pranjic*  


\_\_\_\_\_  
Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



<b>INVOICE TO:</b>		<b>REPORT TO:</b>		<b>PROJECT INFORMATION:</b>		<b>Laboratory Use Only:</b>	
Company Name: #16786 Terrapure Environmental		Company Name: Brad Mullin - GHD Reporting		Quotation #: B60569		BV Labs Job #:	
Attention: Accounting		Attention: Brad Mullin - GHD Reporting		P.O. #:		Bottle Order #:	
Address: 65 Green Mountain Rd West Stoney Creek ON L8J 1X5		Address:		Project: HCL HCL		COC #:	
Tel: (905) 561-0305 Fax: (905) 561-1674		Tel: Fax:		Project Name:		Project Manager:	
Email: kbailey@terrapureenv.com		Email: bmullin@terrapureenv.com; dtaylor2@terrapureenv.com		Site #:		Jolanta Goralczyk	
				Sampled By:		C#845501-08-01	

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required: Please provide advance notice for rush projects			
Regulation 153 (2011)			Other Regulations			Special Instructions	Field Filtered (please circle): Metals / Hg / Cr / V											Regular (Standard) TAT: (will be applied if Rush TAT is not specified): Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.	
<input type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw												Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)			
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw												# of Bottles			
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality _____												Comments			
<input type="checkbox"/> Table _____			<input type="checkbox"/> PWQO	<input type="checkbox"/> Reg 406 Table _____															
Include Criteria on Certificate of Analysis (Y/N)? _____																			
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix															
	HCL 11:10	21/09/21	AM	Water	N/A												6		
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

22-Sep-21 16:08  
Jolanta Goralczyk  
CIR4133  
KTN ENV.1167

* RELINQUISHED BY: (Signature/Print) C. Richardson / Cooper Richardson		Date: (YY/MM/DD) 21/09/22	Time 10:30am	RECEIVED BY: (Signature/Print) Ray Masari		Date: (YY/MM/DD) 21/09/22	Time 10:08	# jars used and not submitted	Laboratory Use Only			
								Time Sensitive	Temperature (°C) on Recept 5/8/19	Custody Seal	Yes	No
										Intact		

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.  
\*\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.  
\*\*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client

ON 7015



Your Project #: EQ LEACH  
Your C.O.C. #: 845501-06-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/10/05**  
Report #: R6840577  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1R2499**

**Received: 2021/09/21, 16:20**

Sample Matrix: Water  
# Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
ABN Compounds in Water by GC/MS	1	2021/09/24	2021/09/26	CAM SOP-00301	EPA 8270 m
Alkalinity	1	N/A	2021/09/23	CAM SOP-00448	SM 23 2320 B m
Anions	1	N/A	2021/09/24	CAM SOP-00435	SM 23 4110 B m
Biochemical Oxygen Demand (BOD)	1	2021/09/23	2021/09/28	CAM SOP-00427	SM 23 5210B m
Conductivity	1	N/A	2021/09/23	CAM SOP-00414	SM 23 2510 m
Fluoride	1	2021/09/22	2021/09/23	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2021/09/23	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Calcium and Magnesium	1	2021/09/22	2021/09/23	CAM SOP-00408	EPA 6010D m
Total Metals Analysis by ICPMS	1	N/A	2021/09/27	CAM SOP-00447	EPA 6020B m
Resin and Fatty Acids (1)	1	2021/09/27	2021/09/29	STL SOP-00152	MA414-Aci-g-r-1.0R3m
Neutral Chlorinated in Water by GC/ECD	1	2021/09/22	2021/09/23	CAM SOP-00317	EPA 8121 m
Total Ammonia-N	1	N/A	2021/09/23	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (2)	1	N/A	2021/09/24	CAM SOP-00440	SM 23 4500-NO3I/NO2B
Polychlorinated Biphenyl in Water	1	2021/09/23	2021/09/24	CAM SOP-00309	EPA 8082A m
pH	1	2021/09/22	2021/09/23	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2021/09/23	CAM SOP-00444	OMOE E3179 m
Orthophosphate	1	N/A	2021/09/22	CAM SOP-00461	EPA 365.1 m
Total Kjeldahl Nitrogen in Water	1	2021/09/23	2021/09/23	CAM SOP-00938	OMOE E3516 m
Tot./Min./ Animal & Veg. Oil and Grease	1	2021/09/28	2021/09/29	CAM SOP-00326	EPA 821/R-98-002 m
Total Organic Carbon (TOC) (3)	1	N/A	2021/09/23	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric)	1	2021/09/23	2021/09/24	CAM SOP-00407	SM 23 4500 P B H m
Total Suspended Solids	1	2021/09/23	2021/09/24	CAM SOP-00428	SM 23 2540D m
Volatile Organic Compounds in Water	1	N/A	2021/09/24	CAM SOP-00226	EPA 8260C m
Non-Routine Volatile Organic Compounds	1	N/A	2021/09/24	CAM SOP-00226	EPA 8260 m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by Bureau Veritas Montreal, 889 Montée de Liesse, Ville St-Laurent, QC, H4T 1P5

(2) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

(3) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.



Your Project #: EQ LEACH  
Your C.O.C. #: 845501-06-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/10/05**  
Report #: R6840577  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1R2499**

**Received: 2021/09/21, 16:20**

Encryption Key



**AUTHORIZED REPORT  
RAPPORT AUTORISÉ**

Bureau Veritas

05 Oct 2021 12:40:35

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

=====

This report has been generated and distributed using a secure automated process.

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



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BV Labs Job #: C1R2499  
Report Date: 2021/10/05

Terrapure Environmental  
Client Project #: EQ LEACH  
Sampler Initials: CR

### MISA ATG 19 & 20 (ABNS)

BV Labs ID		QSF200		
Sampling Date		2021/09/20		
COC Number		845501-06-01		
	UNITS	EQ LEACH	RDL	QC Batch
<b>Semivolatile Organics</b>				
Acenaphthene	ug/L	<2.0	2.0	7598992
Acenaphthylene	ug/L	<2.0	2.0	7598992
Anthracene	ug/L	<2.0	2.0	7598992
Benzo(a)anthracene	ug/L	<2.0	2.0	7598992
Benzo(a)pyrene	ug/L	<2.0	2.0	7598992
Benzo(b/j)fluoranthene	ug/L	<2.0	2.0	7598992
Benzo(g,h,i)perylene	ug/L	<2.0	2.0	7598992
Benzo(k)fluoranthene	ug/L	<2.0	2.0	7598992
1-Chloronaphthalene	ug/L	<10	10	7598992
2-Chloronaphthalene	ug/L	<5.0	5.0	7598992
Chrysene	ug/L	<2.0	2.0	7598992
Dibenzo(a,h)anthracene	ug/L	<2.0	2.0	7598992
Fluoranthene	ug/L	<2.0	2.0	7598992
Fluorene	ug/L	<2.0	2.0	7598992
Indeno(1,2,3-cd)pyrene	ug/L	<2.0	2.0	7598992
1-Methylnaphthalene	ug/L	<2.0	2.0	7598992
2-Methylnaphthalene	ug/L	<2.0	2.0	7598992
Naphthalene	ug/L	<16 (1)	16	7598992
5-Nitroacenaphthene	ug/L	<10	10	7598992
Perylene	ug/L	<2.0	2.0	7598992
Phenanthrene	ug/L	<2.0	2.0	7598992
Pyrene	ug/L	<2.0	2.0	7598992
2-Chlorophenol	ug/L	<3.0	3.0	7598992
4-Chloro-3-Methylphenol	ug/L	<50 (1)	50	7598992
m/p-Cresol	ug/L	240	5.0	7598992
o-Cresol	ug/L	26	5.0	7598992
2,4-Dichlorophenol	ug/L	<3.0	3.0	7598992
2,6-Dichlorophenol	ug/L	<5.0	5.0	7598992
2,4-Dimethylphenol	ug/L	58	5.0	7598992
2,4-Dinitrophenol	ug/L	<20	20	7598992
4,6-Dinitro-2-methylphenol	ug/L	<20	20	7598992
4-Nitrophenol	ug/L	<14	14	7598992
Pentachlorophenol	ug/L	<10	10	7598992
Phenol	ug/L	240	5.0	7598992
2,3,4,5-Tetrachlorophenol	ug/L	<4.0	4.0	7598992
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Detection limit was raised due to matrix interference.				





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VERITAS

BV Labs Job #: C1R2499  
Report Date: 2021/10/05

Terrapure Environmental  
Client Project #: EQ LEACH  
Sampler Initials: CR

### MISA ATG 19 & 20 (ABNS)

BV Labs ID		QSF200		
Sampling Date		2021/09/20		
COC Number		845501-06-01		
	UNITS	EQ LEACH	RDL	QC Batch
2,3,4,6-Tetrachlorophenol	ug/L	<5.0	5.0	7598992
2,3,5,6-Tetrachlorophenol	ug/L	<5.0	5.0	7598992
2,3,4-Trichlorophenol	ug/L	<5.0	5.0	7598992
2,3,5-Trichlorophenol	ug/L	<5.0	5.0	7598992
2,4,5-Trichlorophenol	ug/L	<5.0	5.0	7598992
2,4,6-Trichlorophenol	ug/L	<5.0	5.0	7598992
Benzyl butyl phthalate	ug/L	<5.0	5.0	7598992
Biphenyl	ug/L	<5.0	5.0	7598992
Bis(2-chloroethyl)ether	ug/L	<5.0	5.0	7598992
Bis(2-chloroethoxy)methane	ug/L	<5.0	5.0	7598992
Bis(2-chloroisopropyl)ether	ug/L	<5.0	5.0	7598992
Bis(2-ethylhexyl)phthalate	ug/L	<20	20	7598992
4-Bromophenyl phenyl ether	ug/L	<3.0	3.0	7598992
Camphene	ug/L	<10	10	7598992
4-Chlorophenyl phenyl ether	ug/L	<5.0	5.0	7598992
Di-N-butyl phthalate	ug/L	<20	20	7598992
di-n-octyl phthalate	ug/L	<8.0	8.0	7598992
2,4-Dinitrotoluene	ug/L	<5.0	5.0	7598992
2,6-Dinitrotoluene	ug/L	<5.0	5.0	7598992
Diphenyl Ether	ug/L	<5.0 (1)	5.0	7598992
Indole	ug/L	<13 (1)	13	7598992
Nitrosodiphenylamine/Diphenylamine	ug/L	<10	10	7598992
N-Nitroso-di-n-propylamine	ug/L	<5.0	5.0	7598992
<b>Surrogate Recovery (%)</b>				
2,4,6-Tribromophenol	%	95		7598992
2-Fluorobiphenyl	%	57		7598992
2-Fluorophenol	%	43		7598992
D14-Terphenyl	%	100		7598992
D5-Nitrobenzene	%	67		7598992
D5-Phenol	%	31		7598992
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Detection limit was raised due to matrix interference.				



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VERITAS

BV Labs Job #: C1R2499  
Report Date: 2021/10/05

Terrapure Environmental  
Client Project #: EQ LEACH  
Sampler Initials: CR

### MISA ATG23 NEUTRAL CHLORINATED COMPOUNDS (WATER)

<b>BV Labs ID</b>		QSF200		
<b>Sampling Date</b>		2021/09/20		
<b>COC Number</b>		845501-06-01		
	<b>UNITS</b>	<b>EQ LEACH</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Pesticides &amp; Herbicides</b>				
1,2,3,4-Tetrachlorobenzene	ug/L	<0.010	0.010	7592276
1,2,3,5-Tetrachlorobenzene	ug/L	<0.010	0.010	7592276
1,2,3-Trichlorobenzene	ug/L	<0.010	0.010	7592276
1,2,4,5-Tetrachlorobenzene	ug/L	<0.010	0.010	7592276
1,2,4-Trichlorobenzene	ug/L	<0.010	0.010	7592276
2,4,5-Trichlorotoluene	ug/L	<0.010	0.010	7592276
Hexachlorobenzene	ug/L	<0.0050	0.0050	7592276
Hexachlorobutadiene	ug/L	<0.0090	0.0090	7592276
Hexachlorocyclopentadiene	ug/L	<0.025	0.025	7592276
Hexachloroethane	ug/L	<0.010	0.010	7592276
Octachlorostyrene	ug/L	<0.0050	0.0050	7592276
Pentachlorobenzene	ug/L	<0.0050	0.0050	7592276
<b>Surrogate Recovery (%)</b>				
1,3,5-Tribromobenzene	%	51		7592276
2,4,5,6-Tetrachloro-m-xylene	%	57		7592276
Decachlorobiphenyl	%	88		7592276
Hexabromobenzene	%	86		7592276
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



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BV Labs Job #: C1R2499  
Report Date: 2021/10/05

Terrapure Environmental  
Client Project #: EQ LEACH  
Sampler Initials: CR

### MISA ATG 16-18 VOLATILE ORGANICS (WATER)

BV Labs ID		QSF200		
Sampling Date		2021/09/20		
COC Number		845501-06-01		
	UNITS	EQ LEACH	RDL	QC Batch
<b>Volatile Organics</b>				
Acetone (2-Propanone)	ug/L	4800	500	7593788
Benzene	ug/L	12	5.0	7593788
Bromodichloromethane	ug/L	<5.0	5.0	7593788
Acrolein	ug/L	<500	500	7595480
Bromoform	ug/L	<10	10	7593788
Bromomethane	ug/L	<25	25	7593788
Carbon Tetrachloride	ug/L	<5.0	5.0	7593788
Chlorobenzene	ug/L	<5.0	5.0	7593788
Chloroform	ug/L	<5.0	5.0	7593788
Acrylonitrile	ug/L	<250	250	7595480
Chloromethane	ug/L	<25	25	7593788
Dibromochloromethane	ug/L	<10	10	7593788
1,2-Dichlorobenzene	ug/L	<10	10	7593788
1,3-Dichlorobenzene	ug/L	<10	10	7593788
1,4-Dichlorobenzene	ug/L	<10	10	7593788
1,1-Dichloroethane	ug/L	<5.0	5.0	7593788
1,2-Dichloroethane	ug/L	<10	10	7593788
1,1-Dichloroethylene	ug/L	<5.0	5.0	7593788
cis-1,2-Dichloroethylene	ug/L	<5.0	5.0	7593788
trans-1,2-Dichloroethylene	ug/L	<5.0	5.0	7593788
1,2-Dichloropropane	ug/L	<5.0	5.0	7593788
cis-1,3-Dichloropropene	ug/L	<10	10	7593788
trans-1,3-Dichloropropene	ug/L	<10	10	7593788
Ethylbenzene	ug/L	26	5.0	7593788
Ethylene Dibromide	ug/L	<10	10	7593788
Methylene Chloride(Dichloromethane)	ug/L	<25	25	7593788
Methyl Ethyl Ketone (2-Butanone)	ug/L	1700	250	7593788
Methyl Isobutyl Ketone	ug/L	370	250	7593788
Methyl t-butyl ether (MTBE)	ug/L	20	10	7593788
Styrene	ug/L	<10	10	7593788
1,1,1,2-Tetrachloroethane	ug/L	<10	10	7593788
1,1,2,2-Tetrachloroethane	ug/L	<10	10	7593788
Tetrachloroethylene	ug/L	<5.0	5.0	7593788
Toluene	ug/L	190	10	7593788
1,1,1-Trichloroethane	ug/L	<5.0	5.0	7593788
1,1,2-Trichloroethane	ug/L	<10	10	7593788
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				



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BV Labs Job #: C1R2499  
Report Date: 2021/10/05

Terrapure Environmental  
Client Project #: EQ LEACH  
Sampler Initials: CR

### MISA ATG 16-18 VOLATILE ORGANICS (WATER)

<b>BV Labs ID</b>		QSF200		
<b>Sampling Date</b>		2021/09/20		
<b>COC Number</b>		845501-06-01		
	<b>UNITS</b>	<b>EQ LEACH</b>	<b>RDL</b>	<b>QC Batch</b>
Trichloroethylene	ug/L	<5.0	5.0	7593788
Trichlorofluoromethane (FREON 11)	ug/L	<10	10	7593788
Vinyl Chloride	ug/L	<10	10	7593788
p+m-Xylene	ug/L	40	5.0	7593788
o-Xylene	ug/L	20	5.0	7593788
Total Xylenes	ug/L	61	5.0	7593788
<b>Surrogate Recovery (%)</b>				
4-Bromofluorobenzene	%	103		7593788
D4-1,2-Dichloroethane	%	106		7593788
D8-Toluene	%	99		7593788
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



**RESULTS OF ANALYSES OF WATER**

<b>BV Labs ID</b>		QSF200		
<b>Sampling Date</b>		2021/09/20		
<b>COC Number</b>		845501-06-01		
	<b>UNITS</b>	<b>EQ LEACH</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Calculated Parameters</b>				
Hardness (CaCO3)	mg/L	400	1.0	7591480
<b>Inorganics</b>				
Total Ammonia-N	mg/L	230	0.50	7595509
Total BOD	mg/L	400	2	7595362
Conductivity	umho/cm	15000	1.0	7593230
Fluoride (F-)	mg/L	3.7	0.10	7593225
Total Kjeldahl Nitrogen (TKN)	mg/L	350	20	7595505
Total Organic Carbon (TOC)	mg/L	490	4.0	7595483
Orthophosphate (P)	mg/L	1.5	0.20	7593563
pH	pH	8.26		7593242
Phenols-4AAP	mg/L	1.1	0.050	7593786
Total Phosphorus	mg/L	4.8	0.40	7595556
Total Suspended Solids	mg/L	14	10	7592882
Alkalinity (Total as CaCO3)	mg/L	3000	5.0	7593224
Nitrite (N)	mg/L	<0.050	0.050	7593085
Dissolved Chloride (Cl-)	mg/L	3100	20	7593249
Nitrate (N)	mg/L	<0.50	0.50	7593085
Dissolved Bromide (Br-)	mg/L	81	10	7593249
Dissolved Sulphate (SO4)	mg/L	120	10	7593249
<b>Petroleum Hydrocarbons</b>				
Animal/Vegetable Oil and Grease	mg/L	57	1	7606566
Mineral Oil and Grease	mg/L	13	1	7606566
Oil & Grease	mg/L	69	1	7606566
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>BV Labs ID</b>		QSF200		
<b>Sampling Date</b>		2021/09/20		
<b>COC Number</b>		845501-06-01		
	<b>UNITS</b>	<b>EQ LEACH</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Metals</b>				
Dissolved Calcium (Ca)	mg/L	47	0.50	7593954
Dissolved Magnesium (Mg)	mg/L	68	0.50	7593954
Total Aluminum (Al)	mg/L	0.044	0.025	7598186
Total Barium (Ba)	mg/L	0.23	0.010	7598186
Total Beryllium (Be)	mg/L	<0.0020	0.0020	7598186
Total Boron (B)	mg/L	3.5	0.050	7598186
Total Cadmium (Cd)	mg/L	<0.00045	0.00045	7598186
Total Calcium (Ca)	mg/L	43	1.0	7598186
Total Chromium (Cr)	mg/L	<0.025	0.025	7598186
Total Cobalt (Co)	mg/L	0.0047	0.0025	7598186
Total Copper (Cu)	mg/L	<0.0045	0.0045	7598186
Total Iron (Fe)	mg/L	0.58	0.50	7598186
Total Lead (Pb)	mg/L	0.0050	0.0025	7598186
Total Magnesium (Mg)	mg/L	65	0.25	7598186
Total Manganese (Mn)	mg/L	0.14	0.010	7598186
Total Molybdenum (Mo)	mg/L	0.31	0.0025	7598186
Total Nickel (Ni)	mg/L	0.17	0.0050	7598186
Total Potassium (K)	mg/L	1400	2.0	7598186
Total Silicon (Si)	mg/L	15	0.25	7598186
Total Sodium (Na)	mg/L	2100	0.50	7598186
Total Strontium (Sr)	mg/L	6.2	0.0050	7598186
Total Titanium (Ti)	mg/L	0.041	0.025	7598186
Total Vanadium (V)	mg/L	0.083	0.0025	7598186
Total Zinc (Zn)	mg/L	<0.025	0.025	7598186
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



**POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)**

<b>BV Labs ID</b>		QSF200		
<b>Sampling Date</b>		2021/09/20		
<b>COC Number</b>		845501-06-01		
	<b>UNITS</b>	<b>EQ LEACH</b>	<b>RDL</b>	<b>QC Batch</b>
<b>PCBs</b>				
Aroclor 1016	ug/L	<3	3	7595293
Aroclor 1221	ug/L	<3	3	7595293
Aroclor 1232	ug/L	<3	3	7595293
Aroclor 1242	ug/L	<3	3	7595293
Aroclor 1248	ug/L	<3	3	7595293
Aroclor 1254	ug/L	<3	3	7595293
Aroclor 1260	ug/L	<3	3	7595293
Aroclor 1262	ug/L	<3	3	7595293
Aroclor 1268	ug/L	<3	3	7595293
Total PCB	ug/L	<3	3	7595293
<b>Surrogate Recovery (%)</b>				
Decachlorobiphenyl	%	79		7595293
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				



**RESIN AND FATTY ACIDS BY GC-MS (WATER)**

BV Labs ID		QSF200		
Sampling Date		2021/09/20		
COC Number		845501-06-01		
	UNITS	EQ LEACH	RDL	QC Batch
<b>Fatty Acids</b>				
9,10-Dichlorostearic acid	ug/L	<9.1 (1)	9.1	7618759
Linoleic acid (C18:2)	ug/L	<3.0	3.0	7618759
Linolenic acid (C18:3)	ug/L	<3.0	3.0	7618759
Oleic acid (C18:1)	ug/L	<3.5 (1)	3.5	7618759
<b>Resin Acids</b>				
12,14-Dichlorodehydroabiatic acid	ug/L	<3.0	3.0	7618759
12-Chlorodehydroabiatic acid	ug/L	<3.0	3.0	7618759
14-Chlorodehydroabiatic acid	ug/L	<3.0	3.0	7618759
Abiatic acid	ug/L	<5.0	5.0	7618759
Dehydroabiatic acid	ug/L	93	5.0	7618759
Isopimaric acid	ug/L	<3.0	3.0	7618759
Neoabiatic acid	ug/L	<3.0	3.0	7618759
Palustric acid	ug/L	<3.0	3.0	7618759
Pimaric acid	ug/L	3.4	3.0	7618759
Sandaracopimaric acid	ug/L	<3.0	3.0	7618759
<b>Resin and Fatty Acids</b>				
Levopimaric acid	ug/L	<3.0	3.0	7618759
Palmitic acid	ug/L	45	30	7618759
Palmitoleic acid	ug/L	<3.0	3.0	7618759
Stearic acid	ug/L	<250 (1)	250	7618759
Total Resin and Fatty Acids (RRPPM)	ug/L	<250	250	7618759
<b>Surrogate Recovery (%)</b>				
o-Methylpodocarpic Acid (sur.)	%	65		7618759
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Detection limit raised due to matrix interference.				





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BV Labs Job #: C1R2499  
Report Date: 2021/10/05

Terrapure Environmental  
Client Project #: EQ LEACH  
Sampler Initials: CR

### TEST SUMMARY

**BV Labs ID:** QSF200  
**Sample ID:** EQ LEACH  
**Matrix:** Water

**Collected:** 2021/09/20  
**Shipped:**  
**Received:** 2021/09/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by GC/MS	GC/MS	7598992	2021/09/24	2021/09/26	Anh Lieu
Alkalinity	AT	7593224	N/A	2021/09/23	Surinder Rai
Anions	IC	7593249	N/A	2021/09/24	Fari Dehdezi
Biochemical Oxygen Demand (BOD)	DO	7595362	2021/09/23	2021/09/28	Surleen Kaur Romana
Conductivity	AT	7593230	N/A	2021/09/23	Surinder Rai
Fluoride	ISE	7593225	2021/09/22	2021/09/23	Surinder Rai
Hardness (calculated as CaCO3)		7591480	N/A	2021/09/23	Automated Statchk
Dissolved Calcium and Magnesium	ICP	7593954	2021/09/22	2021/09/23	Meghaben Patel
Total Metals Analysis by ICPMS	ICP/MS	7598186	N/A	2021/09/27	Daniel Teclu
Resin and Fatty Acids	GC/MS	7618759	2021/09/27	2021/09/29	Amelie Houle
Neutral Chlorinated in Water by GC/ECD	GC/ECD	7592276	2021/09/22	2021/09/23	Mahmudul Khan
Total Ammonia-N	LACH/NH4	7595509	N/A	2021/09/23	Viorica Rotaru
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7593085	N/A	2021/09/24	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	7595293	2021/09/23	2021/09/24	Farag Mansour
pH	AT	7593242	2021/09/22	2021/09/23	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7593786	N/A	2021/09/23	Deonarine Ramnarine
Orthophosphate	KONE	7593563	N/A	2021/09/22	Avneet Kour Sudan
Total Kjeldahl Nitrogen in Water	SKAL	7595505	2021/09/23	2021/09/23	Massarat Jan
Tot./Min./ Animal & Veg. Oil and Grease	/BAL	7606566	2021/09/28	2021/09/29	Saumya Modh
Total Organic Carbon (TOC)	TOCV/NDIR	7595483	N/A	2021/09/23	Julianna Castiglione
Total Phosphorus (Colourimetric)	LACH/P	7595556	2021/09/23	2021/09/24	Shivani Shivani
Total Suspended Solids	BAL	7592882	2021/09/23	2021/09/24	Shaneil Hall
Volatile Organic Compounds in Water	P&T/MS	7593788	N/A	2021/09/24	Rebecca McClean
Non-Routine Volatile Organic Compounds	P&T/MS	7595480	N/A	2021/09/24	Gladys Guerrero



### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	7.3°C
Package 2	2.3°C

Sample QSF200 [EQ LEACH] : Metals: Due to the sample matrix, the sample required dilution. Detection limits were adjusted accordingly.

VOC-TR-X analysis: Due to foaming, sample required dilution. The detection limits were adjusted accordingly.

Nitrite/Nitrate: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

PCB Analysis: Due to the nature of the sample matrix, a smaller portion of the sample was extracted. DLs were adjusted accordingly.

ABN analysis: Due to the nature of the sample matrix, a smaller than usual portion of the sample was used for extraction. Detection limits were adjusted accordingly.

**Results relate only to the items tested.**



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BV Labs Job #: C1R2499  
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### QUALITY ASSURANCE REPORT

Terrapure Environmental  
Client Project #: EQ LEACH  
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QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7592276	1,3,5-Tribromobenzene	2021/09/23			58	30 - 130	67	%				
7592276	2,4,5,6-Tetrachloro-m-xylene	2021/09/23			57	30 - 130	59	%				
7592276	Decachlorobiphenyl	2021/09/23			86	30 - 130	88	%				
7592276	Hexabromobenzene	2021/09/23			81	30 - 130	82	%				
7593788	4-Bromofluorobenzene	2021/09/24	103	70 - 130	103	70 - 130	101	%				
7593788	D4-1,2-Dichloroethane	2021/09/24	105	70 - 130	104	70 - 130	104	%				
7593788	D8-Toluene	2021/09/24	99	70 - 130	98	70 - 130	99	%				
7595293	Decachlorobiphenyl	2021/09/24	88	60 - 130	79	60 - 130	89	%				
7598992	2,4,6-Tribromophenol	2021/09/25	83	10 - 130	92	10 - 130	80	%				
7598992	2-Fluorobiphenyl	2021/09/25	57	30 - 130	72	30 - 130	74	%				
7598992	2-Fluorophenol	2021/09/25	33	10 - 130	41	10 - 130	41	%				
7598992	D14-Terphenyl	2021/09/25	93	30 - 130	103	30 - 130	100	%				
7598992	D5-Nitrobenzene	2021/09/25	65	30 - 130	79	30 - 130	82	%				
7598992	D5-Phenol	2021/09/25	24	10 - 130	26	10 - 130	31	%				
7618759	o-Methylpodocarpic Acid (sur.)	2021/09/28			97	60 - 130	100	%				
7592276	1,2,3,4-Tetrachlorobenzene	2021/09/23			62	50 - 130	<0.010	ug/L	12	40		
7592276	1,2,3,5-Tetrachlorobenzene	2021/09/23			55	30 - 130	<0.010	ug/L	18	40		
7592276	1,2,3-Trichlorobenzene	2021/09/23			63	50 - 130	<0.010	ug/L	16	40		
7592276	1,2,4,5-Tetrachlorobenzene	2021/09/23			66	30 - 130	<0.010	ug/L	4.6	40		
7592276	1,2,4-Trichlorobenzene	2021/09/23			58	50 - 130	<0.010	ug/L	13	40		
7592276	2,4,5-Trichlorotoluene	2021/09/23			59	30 - 130	<0.010	ug/L	18	40		
7592276	Hexachlorobenzene	2021/09/23			72	50 - 130	<0.0050	ug/L	10	40		
7592276	Hexachlorobutadiene	2021/09/23			39	30 - 130	<0.0090	ug/L	20	40		
7592276	Hexachlorocyclopentadiene	2021/09/23			46	30 - 130	<0.025	ug/L	15	40		
7592276	Hexachloroethane	2021/09/23			49	30 - 130	<0.010	ug/L	20	40		
7592276	Octachlorostyrene	2021/09/23			78	30 - 130	<0.0050	ug/L	0.051	40		
7592276	Pentachlorobenzene	2021/09/23			74	50 - 130	<0.0050	ug/L	11	40		
7592882	Total Suspended Solids	2021/09/24					<10	mg/L	8.0	25	100	85 - 115
7593085	Nitrate (N)	2021/09/24	99	80 - 120	97	80 - 120	<0.10	mg/L	NC	20		
7593085	Nitrite (N)	2021/09/24	101	80 - 120	100	80 - 120	<0.010	mg/L	20	20		
7593224	Alkalinity (Total as CaCO3)	2021/09/23			94	85 - 115	<1.0	mg/L	0.26	20		



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### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: EQ LEACH  
Sampler Initials: CR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7593225	Fluoride (F-)	2021/09/23	98	80 - 120	105	80 - 120	<0.10	mg/L	NC	20		
7593230	Conductivity	2021/09/23			100	85 - 115	<1.0	umho/cm	0	25		
7593242	pH	2021/09/23			102	98 - 103			0.46	N/A		
7593249	Dissolved Bromide (Br-)	2021/09/24	95	80 - 120	95	80 - 120	<1.0	mg/L	NC	20		
7593249	Dissolved Chloride (Cl-)	2021/09/24	98	80 - 120	94	70 - 130	<1.0	mg/L	1.5	20		
7593249	Dissolved Sulphate (SO4)	2021/09/24	100	80 - 120	95	80 - 120	<1.0	mg/L	1.1	20		
7593563	Orthophosphate (P)	2021/09/22	113	75 - 125	101	80 - 120	<0.010	mg/L	NC	25		
7593786	Phenols-4AAP	2021/09/23	96	80 - 120	98	80 - 120	<0.0010	mg/L	2.1	20		
7593788	1,1,1,2-Tetrachloroethane	2021/09/24	102	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
7593788	1,1,1-Trichloroethane	2021/09/24	110	70 - 130	101	70 - 130	<0.10	ug/L	NC	30		
7593788	1,1,2,2-Tetrachloroethane	2021/09/24	94	70 - 130	88	70 - 130	<0.20	ug/L	NC	30		
7593788	1,1,2-Trichloroethane	2021/09/24	101	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
7593788	1,1-Dichloroethane	2021/09/24	96	70 - 130	88	70 - 130	<0.10	ug/L	NC	30		
7593788	1,1-Dichloroethylene	2021/09/24	120	70 - 130	93	70 - 130	<0.10	ug/L	NC	30		
7593788	1,2-Dichlorobenzene	2021/09/24	96	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
7593788	1,2-Dichloroethane	2021/09/24	102	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
7593788	1,2-Dichloropropane	2021/09/24	91	70 - 130	86	70 - 130	<0.10	ug/L	NC	30		
7593788	1,3-Dichlorobenzene	2021/09/24	97	70 - 130	92	70 - 130	<0.20	ug/L	NC	30		
7593788	1,4-Dichlorobenzene	2021/09/24	109	70 - 130	107	70 - 130	<0.20	ug/L	NC	30		
7593788	Acetone (2-Propanone)	2021/09/24	135	60 - 140	94	60 - 140	<10	ug/L	NC	30		
7593788	Benzene	2021/09/24	93	70 - 130	87	70 - 130	<0.10	ug/L	NC	30		
7593788	Bromodichloromethane	2021/09/24	103	70 - 130	96	70 - 130	<0.10	ug/L	NC	30		
7593788	Bromoform	2021/09/24	97	70 - 130	92	70 - 130	<0.20	ug/L	NC	30		
7593788	Bromomethane	2021/09/24	84	60 - 140	115	60 - 140	<0.50	ug/L	NC	30		
7593788	Carbon Tetrachloride	2021/09/24	107	70 - 130	99	70 - 130	<0.10	ug/L	NC	30		
7593788	Chlorobenzene	2021/09/24	100	70 - 130	95	70 - 130	<0.10	ug/L	NC	30		
7593788	Chloroform	2021/09/24	103	70 - 130	95	70 - 130	<0.10	ug/L	NC	30		
7593788	Chloromethane	2021/09/24	61	60 - 140	72	60 - 140	<0.50	ug/L				
7593788	cis-1,2-Dichloroethylene	2021/09/24	105	70 - 130	96	70 - 130	<0.10	ug/L	NC	30		
7593788	cis-1,3-Dichloropropene	2021/09/24	94	70 - 130	88	70 - 130	<0.20	ug/L	NC	30		



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### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: EQ LEACH  
Sampler Initials: CR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7593788	Dibromochloromethane	2021/09/24	100	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
7593788	Ethylbenzene	2021/09/24	94	70 - 130	88	70 - 130	<0.10	ug/L	NC	30		
7593788	Ethylene Dibromide	2021/09/24	96	70 - 130	91	70 - 130	<0.20	ug/L	NC	30		
7593788	Methyl Ethyl Ketone (2-Butanone)	2021/09/24	96	60 - 140	86	60 - 140	<5.0	ug/L	NC	30		
7593788	Methyl Isobutyl Ketone	2021/09/24	98	70 - 130	85	70 - 130	<5.0	ug/L	NC	30		
7593788	Methyl t-butyl ether (MTBE)	2021/09/24	96	70 - 130	87	70 - 130	<0.20	ug/L	NC	30		
7593788	Methylene Chloride(Dichloromethane)	2021/09/24	100	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
7593788	o-Xylene	2021/09/24	94	70 - 130	88	70 - 130	<0.10	ug/L	NC	30		
7593788	p+m-Xylene	2021/09/24	98	70 - 130	92	70 - 130	<0.10	ug/L	NC	30		
7593788	Styrene	2021/09/24	103	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
7593788	Tetrachloroethylene	2021/09/24	100	70 - 130	93	70 - 130	<0.10	ug/L	NC	30		
7593788	Toluene	2021/09/24	96	70 - 130	90	70 - 130	<0.20	ug/L	NC	30		
7593788	Total Xylenes	2021/09/24					<0.10	ug/L	NC	30		
7593788	trans-1,2-Dichloroethylene	2021/09/24	105	70 - 130	96	70 - 130	<0.10	ug/L	NC	30		
7593788	trans-1,3-Dichloropropene	2021/09/24	95	70 - 130	90	70 - 130	<0.20	ug/L	NC	30		
7593788	Trichloroethylene	2021/09/24	113	70 - 130	105	70 - 130	<0.10	ug/L	NC	30		
7593788	Trichlorofluoromethane (FREON 11)	2021/09/24	108	70 - 130	107	70 - 130	<0.20	ug/L	NC	30		
7593788	Vinyl Chloride	2021/09/24	74	70 - 130	77	70 - 130	<0.20	ug/L	NC	30		
7593954	Dissolved Calcium (Ca)	2021/09/23	NC	80 - 120	99	80 - 120	0.055, RDL=0.050	mg/L				
7593954	Dissolved Magnesium (Mg)	2021/09/23	101	80 - 120	97	80 - 120	<0.050	mg/L				
7595293	Aroclor 1016	2021/09/24					<0.05	ug/L				
7595293	Aroclor 1221	2021/09/24					<0.05	ug/L				
7595293	Aroclor 1232	2021/09/24					<0.05	ug/L				
7595293	Aroclor 1242	2021/09/24					<0.05	ug/L				
7595293	Aroclor 1248	2021/09/24					<0.05	ug/L				
7595293	Aroclor 1254	2021/09/24					<0.05	ug/L				
7595293	Aroclor 1260	2021/09/24	91	60 - 130	88	60 - 130	<0.05	ug/L				
7595293	Aroclor 1262	2021/09/24					<0.05	ug/L				
7595293	Aroclor 1268	2021/09/24					<0.05	ug/L				
7595293	Total PCB	2021/09/24	91	60 - 130	88	60 - 130	<0.05	ug/L	NC	40		



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### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: EQ LEACH  
Sampler Initials: CR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7595362	Total BOD	2021/09/28					<2	mg/L	7.9	30	100	80 - 120
7595480	Acrolein	2021/09/24	111	60 - 140	100	60 - 140	<10	ug/L	NC	30		
7595480	Acrylonitrile	2021/09/24	110	60 - 140	106	60 - 140	<5.0	ug/L				
7595483	Total Organic Carbon (TOC)	2021/09/23	98	80 - 120	96	80 - 120	<0.40	mg/L	4.1	20		
7595505	Total Kjeldahl Nitrogen (TKN)	2021/09/23	96	80 - 120	99	80 - 120	<0.10	mg/L	NC	20	99	80 - 120
7595509	Total Ammonia-N	2021/09/23	99	75 - 125	102	80 - 120	<0.050	mg/L	5.0	20		
7595556	Total Phosphorus	2021/09/24	98	80 - 120	101	80 - 120	<0.020	mg/L	1.0	20	99	80 - 120
7598186	Total Aluminum (Al)	2021/09/24	95	80 - 120	100	80 - 120	<0.0049	mg/L	2.9	20		
7598186	Total Barium (Ba)	2021/09/24	100	80 - 120	101	80 - 120	<0.0020	mg/L	0.32	20		
7598186	Total Beryllium (Be)	2021/09/24	103	80 - 120	104	80 - 120	<0.00040	mg/L	NC	20		
7598186	Total Boron (B)	2021/09/24	98	80 - 120	100	80 - 120	<0.010	mg/L	0.37	20		
7598186	Total Cadmium (Cd)	2021/09/24	103	80 - 120	103	80 - 120	<0.000090	mg/L	NC	20		
7598186	Total Calcium (Ca)	2021/09/24	NC	80 - 120	103	80 - 120	<0.20	mg/L	0.28	20		
7598186	Total Chromium (Cr)	2021/09/24	95	80 - 120	96	80 - 120	<0.0050	mg/L	NC	20		
7598186	Total Cobalt (Co)	2021/09/24	96	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20		
7598186	Total Copper (Cu)	2021/09/24	104	80 - 120	102	80 - 120	<0.00090	mg/L	0.83	20		
7598186	Total Iron (Fe)	2021/09/24	94	80 - 120	97	80 - 120	<0.10	mg/L				
7598186	Total Lead (Pb)	2021/09/24	97	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20		
7598186	Total Magnesium (Mg)	2021/09/24	93	80 - 120	98	80 - 120	<0.050	mg/L	1.9	20		
7598186	Total Manganese (Mn)	2021/09/24	96	80 - 120	98	80 - 120	<0.0020	mg/L	0.54	20		
7598186	Total Molybdenum (Mo)	2021/09/24	105	80 - 120	105	80 - 120	<0.00050	mg/L	1.1	20		
7598186	Total Nickel (Ni)	2021/09/24	95	80 - 120	96	80 - 120	<0.0010	mg/L	0.43	20		
7598186	Total Potassium (K)	2021/09/24	96	80 - 120	96	80 - 120	<0.20	mg/L	0.34	20		
7598186	Total Silicon (Si)	2021/09/24	99	80 - 120	101	80 - 120	<0.050	mg/L	0.42	20		
7598186	Total Sodium (Na)	2021/09/24	NC	80 - 120	94	80 - 120	<0.10	mg/L	0.24	20		
7598186	Total Strontium (Sr)	2021/09/24	97	80 - 120	99	80 - 120	<0.0010	mg/L	0.029	20		
7598186	Total Titanium (Ti)	2021/09/24	96	80 - 120	101	80 - 120	<0.0050	mg/L	NC	20		
7598186	Total Vanadium (V)	2021/09/24	97	80 - 120	97	80 - 120	<0.00050	mg/L	2.2	20		
7598186	Total Zinc (Zn)	2021/09/24	99	80 - 120	101	80 - 120	<0.0050	mg/L	NC	20		
7598992	1-Chloronaphthalene	2021/09/26	58	30 - 130	70	30 - 130	<1.0	ug/L	NC	40		
7598992	1-Methylnaphthalene	2021/09/26	76	30 - 130	93	30 - 130	<0.20	ug/L	NC	40		



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### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: EQ LEACH  
Sampler Initials: CR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7598992	2,3,4,5-Tetrachlorophenol	2021/09/25	94	10 - 130	89	10 - 130	<0.40	ug/L				
7598992	2,3,4,6-Tetrachlorophenol	2021/09/25	81	10 - 130	91	10 - 130	<0.50	ug/L				
7598992	2,3,4-Trichlorophenol	2021/09/25	88	10 - 130	94	10 - 130	<0.50	ug/L				
7598992	2,3,5,6-Tetrachlorophenol	2021/09/25	98	10 - 130	106	10 - 130	<0.50	ug/L				
7598992	2,3,5-Trichlorophenol	2021/09/25	92	10 - 130	96	10 - 130	<0.50	ug/L				
7598992	2,4,5-Trichlorophenol	2021/09/25	87	10 - 130	94	10 - 130	<0.50	ug/L				
7598992	2,4,6-Trichlorophenol	2021/09/25	82	10 - 130	86	10 - 130	<0.50	ug/L				
7598992	2,4-Dichlorophenol	2021/09/25	68	10 - 130	78	10 - 130	<0.30	ug/L				
7598992	2,4-Dimethylphenol	2021/09/25	40	10 - 130	63	10 - 130	<0.50	ug/L				
7598992	2,4-Dinitrophenol	2021/09/25	97	10 - 130	95	10 - 130	<2.0	ug/L				
7598992	2,4-Dinitrotoluene	2021/09/26	85	30 - 130	97	30 - 130	<0.50	ug/L	NC	40		
7598992	2,6-Dichlorophenol	2021/09/25	70	10 - 130	81	10 - 130	<0.50	ug/L				
7598992	2,6-Dinitrotoluene	2021/09/26	83	30 - 130	92	30 - 130	<0.50	ug/L	NC	40		
7598992	2-Chloronaphthalene	2021/09/26	70	30 - 130	85	30 - 130	<0.50	ug/L	NC	40		
7598992	2-Chlorophenol	2021/09/25	67	10 - 130	79	10 - 130	<0.30	ug/L				
7598992	2-Methylnaphthalene	2021/09/26	67	30 - 130	81	30 - 130	<0.20	ug/L	NC	40		
7598992	4,6-Dinitro-2-methylphenol	2021/09/25	113	10 - 130	106	10 - 130	<2.0	ug/L				
7598992	4-Bromophenyl phenyl ether	2021/09/26	78	30 - 130	89	30 - 130	<0.30	ug/L	NC	40		
7598992	4-Chloro-3-Methylphenol	2021/09/25	76	10 - 130	92	10 - 130	<0.50	ug/L				
7598992	4-Chlorophenyl phenyl ether	2021/09/26	72	30 - 130	81	30 - 130	<0.50	ug/L	NC	40		
7598992	4-Nitrophenol	2021/09/25	36	10 - 130	36	10 - 130	<1.4	ug/L				
7598992	5-Nitroacenaphthene	2021/09/26	99	30 - 130	106	30 - 130	<1.0	ug/L	NC	40		
7598992	Acenaphthene	2021/09/26	79	30 - 130	94	30 - 130	<0.20	ug/L	NC	40		
7598992	Acenaphthylene	2021/09/26	80	30 - 130	96	30 - 130	<0.20	ug/L	NC	40		
7598992	Anthracene	2021/09/26	87	30 - 130	99	30 - 130	<0.20	ug/L	NC	40		
7598992	Benzo(a)anthracene	2021/09/26	108	30 - 130	122	30 - 130	<0.20	ug/L	NC	40		
7598992	Benzo(a)pyrene	2021/09/26	93	30 - 130	99	30 - 130	<0.20	ug/L	NC	40		
7598992	Benzo(b,j)fluoranthene	2021/09/26	107	30 - 130	112	30 - 130	<0.20	ug/L	NC	40		
7598992	Benzo(g,h,i)perylene	2021/09/26	105	30 - 130	107	30 - 130	<0.20	ug/L	NC	40		
7598992	Benzo(k)fluoranthene	2021/09/26	103	30 - 130	107	30 - 130	<0.20	ug/L	NC	40		
7598992	Benzyl butyl phthalate	2021/09/26	92	30 - 130	106	30 - 130	<0.50	ug/L	NC	40		



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### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: EQ LEACH  
Sampler Initials: CR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7598992	Biphenyl	2021/09/26	72	30 - 130	88	30 - 130	<0.50	ug/L	NC	40		
7598992	Bis(2-chloroethoxy)methane	2021/09/26	57	30 - 130	66	30 - 130	<0.50	ug/L	NC	40		
7598992	Bis(2-chloroethyl)ether	2021/09/26	64	30 - 130	74	30 - 130	<0.50	ug/L	NC	40		
7598992	Bis(2-chloroisopropyl)ether	2021/09/26	58	30 - 130	69	30 - 130	<0.50	ug/L	NC	40		
7598992	Bis(2-ethylhexyl)phthalate	2021/09/26	95	30 - 130	104	30 - 130	<2.0	ug/L	NC	40		
7598992	Camphene	2021/09/26	54	30 - 130	83	30 - 130	<1.0	ug/L	NC	40		
7598992	Chrysene	2021/09/26	110	30 - 130	118	30 - 130	<0.20	ug/L	NC	40		
7598992	Dibenzo(a,h)anthracene	2021/09/26	111	30 - 130	112	30 - 130	<0.20	ug/L	NC	40		
7598992	Di-N-butyl phthalate	2021/09/26	93	30 - 130	104	30 - 130	<2.0	ug/L	NC	40		
7598992	di-n-octyl phthalate	2021/09/26	105	30 - 130	107	30 - 130	<0.80	ug/L	NC	40		
7598992	Diphenyl Ether	2021/09/26	71	30 - 130	85	30 - 130	<0.30	ug/L	NC	40		
7598992	Fluoranthene	2021/09/26	102	30 - 130	107	30 - 130	<0.20	ug/L	NC	40		
7598992	Fluorene	2021/09/26	88	30 - 130	101	30 - 130	<0.20	ug/L	NC	40		
7598992	Indeno(1,2,3-cd)pyrene	2021/09/26	107	30 - 130	110	30 - 130	<0.20	ug/L	NC	40		
7598992	Indole	2021/09/26	51	30 - 130	72	30 - 130	<1.0	ug/L	NC	40		
7598992	m/p-Cresol	2021/09/25	47	10 - 130	59	10 - 130	<0.50	ug/L				
7598992	Naphthalene	2021/09/26	56	30 - 130	68	30 - 130	<0.20	ug/L	NC	40		
7598992	Nitrosodiphenylamine/Diphenylamine	2021/09/26	101	30 - 130	111	30 - 130	<1.0	ug/L	NC	40		
7598992	N-Nitroso-di-n-propylamine	2021/09/26	79	30 - 130	91	30 - 130	<0.50	ug/L	NC	40		
7598992	o-Cresol	2021/09/25	45	10 - 130	60	10 - 130	<0.50	ug/L				
7598992	Pentachlorophenol	2021/09/25	84	10 - 130	77	10 - 130	<1.0	ug/L				
7598992	Perylene	2021/09/26	101	30 - 130	109	30 - 130	<0.20	ug/L	NC	40		
7598992	Phenanthrene	2021/09/26	95	30 - 130	103	30 - 130	<0.20	ug/L	NC	40		
7598992	Phenol	2021/09/25	27	10 - 130	28	10 - 130	<0.50	ug/L				
7598992	Pyrene	2021/09/26	104	30 - 130	114	30 - 130	<0.20	ug/L	NC	40		
7606566	Animal/Vegetable Oil and Grease	2021/09/29			100	75 - 125	<1	mg/L	3.4	25		
7606566	Mineral Oil and Grease	2021/09/29			92	75 - 125	<1	mg/L	1.8	25		
7606566	Oil & Grease	2021/09/29			96	85 - 115	<1	mg/L	2.6	25		
7618759	12,14-Dichlorodehydroabiatic acid	2021/09/28			98	60 - 130	<3.0	ug/L				
7618759	12-Chlorodehydroabiatic acid	2021/09/28			108	60 - 130	<3.0	ug/L				
7618759	14-Chlorodehydroabiatic acid	2021/09/28			110	60 - 130	<3.0	ug/L				





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### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
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Sampler Initials: CR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7618759	9,10-Dichlorostearic acid	2021/09/28			101	60 - 130	<3.0	ug/L				
7618759	Abietic acid	2021/09/28			157 (1)	60 - 130	<5.0	ug/L				
7618759	Dehydroabietic acid	2021/09/28			112	60 - 130	<5.0	ug/L				
7618759	Isopimaric acid	2021/09/28			109	60 - 130	<3.0	ug/L				
7618759	Levopimaric acid	2021/09/28			60	60 - 130	<3.0	ug/L				
7618759	Linoleic acid (C18:2)	2021/09/28			85	60 - 130	<3.0	ug/L				
7618759	Linolenic acid (C18:3)	2021/09/28			93	60 - 130	<3.0	ug/L				
7618759	Neoabietic acid	2021/09/28			90	60 - 130	<3.0	ug/L				
7618759	Oleic acid (C18:1)	2021/09/28			94	60 - 130	<3.0	ug/L				
7618759	Palmitic acid	2021/09/28			144 (1)	60 - 130	<30	ug/L				
7618759	Palmitoleic acid	2021/09/28			99	60 - 130	<3.0	ug/L				
7618759	Palustric acid	2021/09/28			88	60 - 130	<3.0	ug/L				
7618759	Pimaric acid	2021/09/28			97	60 - 130	<3.0	ug/L				
7618759	Sandaracopimaric acid	2021/09/28			94	60 - 130	<3.0	ug/L				
7618759	Stearic acid	2021/09/28			141 (1)	60 - 130	<30	ug/L				
7618759	Total Resin and Fatty Acids (RRPPM)	2021/09/28					<30	ug/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



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BV Labs Job #: C1R2499  
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Terrapure Environmental  
Client Project #: EQ LEACH  
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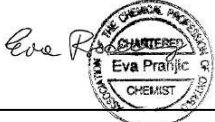
### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Anastassia Hamanov, Scientific Specialist



Caroline Bougie, B.Sc. Chemist



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.





Your Project #: SW  
 Your C.O.C. #: 848637-03-01, 848637-01-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
 65 Green Mountain Rd West  
 Stoney Creek, ON  
 CANADA L8J 1X5

**Report Date: 2021/10/14**  
 Report #: R6853036  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1T0256**

**Received: 2021/10/06, 15:10**

Sample Matrix: Water  
 # Samples Received: 13

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Dissolved Aluminum (0.2 u, clay free)	13	N/A	2021/10/12	CAM SOP-00447	EPA 6020B m
Alkalinity	13	N/A	2021/10/09	CAM SOP-00448	SM 23 2320 B m
Biochemical Oxygen Demand (BOD)	13	2021/10/08	2021/10/13	CAM SOP-00427	SM 23 5210B m
Chloride by Automated Colourimetry	13	N/A	2021/10/08	CAM SOP-00463	SM 23 4500-Cl E m
Dissolved Organic Carbon (DOC) (1)	11	N/A	2021/10/12	CAM SOP-00446	SM 23 5310 B m
Dissolved Organic Carbon (DOC) (1)	2	N/A	2021/10/13	CAM SOP-00446	SM 23 5310 B m
Hardness (calculated as CaCO3)	13	N/A	2021/10/14	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	13	2021/10/08	2021/10/08	CAM SOP-00453	EPA 7470A m
Total Metals Analysis by ICPMS	13	N/A	2021/10/14	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	13	N/A	2021/10/13	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (2)	13	N/A	2021/10/08	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	13	2021/10/07	2021/10/09	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	12	N/A	2021/10/07	CAM SOP-00444	OMOE E3179 m
Phenols (4AAP)	1	N/A	2021/10/08	CAM SOP-00444	OMOE E3179 m
Sulphate by Automated Colourimetry	13	N/A	2021/10/08	CAM SOP-00464	EPA 375.4 m
Total Kjeldahl Nitrogen in Water	1	2021/10/08	2021/10/13	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (3)	1	N/A	2021/10/13	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric)	13	2021/10/12	2021/10/13	CAM SOP-00407	SM 23 4500 P B H m
Total Suspended Solids	13	2021/10/08	2021/10/12	CAM SOP-00428	SM 23 2540D m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (2) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (3) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.



Your Project #: SW  
Your C.O.C. #: 848637-03-01, 848637-01-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/10/14**  
Report #: R6853036  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1T0256**

**Received: 2021/10/06, 15:10**

Encryption Key



**AUTHORIZED REPORT  
RAPPORT AUTORISÉ**

Bureau Veritas  
14 Oct 2021 15:58:19

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

=====  
This report has been generated and distributed using a secure automated process.  
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



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BV Labs Job #: C1T0256  
Report Date: 2021/10/14

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QWB602			QWB602			QWB603		
Sampling Date		2021/10/05			2021/10/05			2021/10/05		
COC Number		848637-03-01			848637-03-01			848637-03-01		
	UNITS	TS-1	RDL	QC Batch	TS-1 Lab-Dup	RDL	QC Batch	T-13	RDL	QC Batch
<b>Calculated Parameters</b>										
Hardness (CaCO3)	mg/L	340	1.0	7621148				290	1.0	7621148
<b>Inorganics</b>										
Total Ammonia-N	mg/L	0.18	0.050	7631347				<0.050	0.050	7631405
Total BOD	mg/L	4	2	7626201				<2	2	7626201
Total Kjeldahl Nitrogen (TKN)	mg/L	0.91	0.10	7628313						
Dissolved Organic Carbon	mg/L	8.6	0.40	7628532				4.4	0.40	7628532
Total Organic Carbon (TOC)	mg/L	9.8	0.40	7628312						
pH	pH	7.73		7625724	7.82		7625724	8.28		7625724
Phenols-4AAP	mg/L	<0.0010	0.0010	7624698				<0.0010	0.0010	7624698
Total Phosphorus	mg/L	0.58	0.02	7630740				0.074	0.004	7630740
Total Suspended Solids	mg/L	10	10	7625561				11	10	7625561
Dissolved Sulphate (SO4)	mg/L	280	2.0	7625940				130	1.0	7625940
Alkalinity (Total as CaCO3)	mg/L	120	1.0	7625705	120	1.0	7625705	170	1.0	7625705
Dissolved Chloride (Cl-)	mg/L	44	1.0	7625935				110	1.0	7625935
Nitrite (N)	mg/L	0.060	0.010	7625780				0.018	0.010	7625780
Nitrate (N)	mg/L	0.36	0.10	7625780				1.33	0.10	7625780
Nitrate + Nitrite (N)	mg/L	0.42	0.10	7625780				1.35	0.10	7625780
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate										



RESULTS OF ANALYSES OF WATER

BV Labs ID		QWB604			QWB605		QWB606		
Sampling Date		2021/10/05			2021/10/05		2021/10/05		
COC Number		848637-03-01			848637-03-01		848637-03-01		
	UNITS	T-29	RDL	QC Batch	T-3R	RDL	T-31	RDL	QC Batch
<b>Calculated Parameters</b>									
Hardness (CaCO3)	mg/L	320	1.0	7621148	380	1.0	320	1.0	7621148
<b>Inorganics</b>									
Total Ammonia-N	mg/L	<0.050	0.050	7631405	<0.050	0.050	0.11	0.050	7631347
Total BOD	mg/L	<2	2	7626201	<2	2	<2	2	7626201
Dissolved Organic Carbon	mg/L	4.9	0.40	7628532	6.5	0.40	5.0	0.40	7628532
pH	pH	8.18		7625724	7.92		8.26		7625724
Phenols-4AAP	mg/L	<0.0010	0.0010	7624698	<0.0010	0.0010	<0.0010	0.0010	7624698
Total Phosphorus	mg/L	0.082	0.004	7630740	0.25	0.02	0.091	0.004	7630740
Total Suspended Solids	mg/L	30	10	7625561	10	10	16	10	7625561
Dissolved Sulphate (SO4)	mg/L	140	1.0	7625940	320	2.0	140	1.0	7625940
Alkalinity (Total as CaCO3)	mg/L	190	1.0	7625705	120	1.0	180	1.0	7625705
Dissolved Chloride (Cl-)	mg/L	110	1.0	7625935	49	1.0	140	1.0	7625935
Nitrite (N)	mg/L	0.029	0.010	7625780	0.014	0.010	0.040	0.010	7625780
Nitrate (N)	mg/L	1.27	0.10	7625780	0.63	0.10	1.28	0.10	7625780
Nitrate + Nitrite (N)	mg/L	1.30	0.10	7625780	0.64	0.10	1.32	0.10	7625780
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									



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BV Labs Job #: C1T0256  
Report Date: 2021/10/14

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QWB607		QWB608		QWB609			QWB609		
Sampling Date		2021/10/05		2021/10/05		2021/10/05			2021/10/05		
COC Number		848637-03-01		848637-03-01		848637-03-01			848637-03-01		
	UNITS	T-1R	RDL	T-32	RDL	T-35	RDL	QC Batch	T-35 Lab-Dup	RDL	QC Batch

Calculated Parameters											
Hardness (CaCO3)	mg/L	710	1.0	320	1.0	690	1.0	7621148			
Inorganics											
Total Ammonia-N	mg/L	25	0.050	0.060	0.050	29	0.050	7631347	29	0.050	7631347
Total BOD	mg/L	6	2	<2	2	8	2	7626201			
Dissolved Organic Carbon	mg/L	10	0.40	5.1	0.40	11	0.40	7628532			
pH	pH	7.98		8.28		7.91		7625724			
Phenols-4AAP	mg/L	0.048	0.0010	<0.0010	0.0010	0.048	0.0010	7624698			
Total Phosphorus	mg/L	0.024	0.004	0.10	0.02	0.024	0.004	7630740			
Total Suspended Solids	mg/L	<10	10	17	10	<10	10	7625561			
Dissolved Sulphate (SO4)	mg/L	550	5.0	150	1.0	520	5.0	7625940			
Alkalinity (Total as CaCO3)	mg/L	240	1.0	190	1.0	240	1.0	7625705			
Dissolved Chloride (Cl-)	mg/L	830	10	130	1.0	760	10	7625935			
Nitrite (N)	mg/L	0.117	0.010	0.030	0.010	0.159	0.010	7625780			
Nitrate (N)	mg/L	0.60	0.10	1.33	0.10	0.92	0.10	7625780			
Nitrate + Nitrite (N)	mg/L	0.72	0.10	1.36	0.10	1.08	0.10	7625780			

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate





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BV Labs Job #: C1T0256  
Report Date: 2021/10/14

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QWB610			QWB611			QWB615		
Sampling Date		2021/10/05			2021/10/05			2021/10/04		
COC Number		848637-03-01			848637-03-01			848637-01-01		
	UNITS	T-15R	RDL	QC Batch	T-12	RDL	QC Batch	T-16	RDL	QC Batch

Calculated Parameters										
Hardness (CaCO <sub>3</sub> )	mg/L	320	1.0	7621148	320	1.0	7621148	350	1.0	7621148
Inorganics										
Total Ammonia-N	mg/L	0.052	0.050	7631347	<0.050	0.050	7631347	<0.050	0.050	7631347
Total BOD	mg/L	<2	2	7626201	<2	2	7626201	<2	2	7626201
Dissolved Organic Carbon	mg/L	4.8	0.40	7628532	1.8	0.40	7628508	4.4	0.40	7628532
pH	pH	8.01		7625724	8.29		7625724	8.34		7625724
Phenols-4AAP	mg/L	<0.0010	0.0010	7624698	<0.0010	0.0010	7624698	<0.0010	0.0010	7624698
Total Phosphorus	mg/L	0.10	0.02	7630740	0.081	0.004	7630740	0.098	0.004	7630740
Total Suspended Solids	mg/L	16	10	7625561	11	10	7625561	<10	10	7625561
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	210	1.0	7625940	140	1.0	7625940	150	1.0	7625940
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	140	1.0	7625705	190	1.0	7625705	210	1.0	7625705
Dissolved Chloride (Cl <sup>-</sup> )	mg/L	61	1.0	7625935	110	1.0	7625935	150	2.0	7625935
Nitrite (N)	mg/L	0.014	0.010	7625780	0.020	0.010	7625780	0.014	0.010	7625780
Nitrate (N)	mg/L	0.39	0.10	7625780	1.22	0.10	7625780	2.57	0.10	7625780
Nitrate + Nitrite (N)	mg/L	0.41	0.10	7625780	1.24	0.10	7625780	2.59	0.10	7625780

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch



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BV Labs Job #: C1T0256  
Report Date: 2021/10/14

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QWB616				QWB617				QWB617	
Sampling Date		2021/10/04				2021/10/04				2021/10/04	
COC Number		848637-01-01				848637-01-01				848637-01-01	
	UNITS	T-30	RDL	QC Batch	T-3A	RDL	QC Batch	T-3A Lab-Dup	RDL	QC Batch	
<b>Calculated Parameters</b>											
Hardness (CaCO3)	mg/L	320	1.0	7621148	920	1.0	7621148				
<b>Inorganics</b>											
Total Ammonia-N	mg/L	0.066	0.050	7631347	2.1	0.050	7631347				
Total BOD	mg/L	<2	2	7626201	4	2	7626202	3	2	7626202	
Dissolved Organic Carbon	mg/L	4.9	0.40	7628537	4.0	0.40	7628508				
pH	pH	8.16		7625724	8.11		7625724				
Phenols-4AAP	mg/L	<0.0010	0.0010	7624698	<0.0010	0.0010	7624698				
Total Phosphorus	mg/L	0.084	0.004	7630740	0.023	0.004	7630740				
Total Suspended Solids	mg/L	<10	10	7625561	<10	10	7625561	<10	10	7625561	
Dissolved Sulphate (SO4)	mg/L	140	1.0	7625940	670	5.0	7625940				
Alkalinity (Total as CaCO3)	mg/L	190	1.0	7625705	200	1.0	7625705				
Dissolved Chloride (Cl-)	mg/L	120	1.0	7625935	340	5.0	7625935				
Nitrite (N)	mg/L	0.025	0.010	7625780	0.209	0.010	7625780				
Nitrate (N)	mg/L	1.34	0.10	7625780	0.62	0.10	7625780				
Nitrate + Nitrite (N)	mg/L	1.36	0.10	7625780	0.82	0.10	7625780				
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate											



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BV Labs Job #: C1T0256  
Report Date: 2021/10/14

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QWB602			QWB603	QWB604	QWB605		
Sampling Date		2021/10/05			2021/10/05	2021/10/05	2021/10/05		
COC Number		848637-03-01			848637-03-01	848637-03-01	848637-03-01		
	UNITS	TS-1	RDL	QC Batch	T-13	T-29	T-3R	RDL	QC Batch

Metals									
Dissolved (0.2u) Aluminum (Al)	ug/L	<5	5	7629470	9	10	<5	5	7629470
Mercury (Hg)	mg/L	<0.00010	0.00010	7626913	<0.00010	<0.00010	<0.00010	0.00010	7626913
Total Aluminum (Al)	mg/L	0.14	0.0049	7626992	0.31	0.62	0.097	0.0049	7626992
Total Arsenic (As)	mg/L	0.0025	0.0010	7626992	<0.0010	<0.0010	0.0015	0.0010	7626992
Total Beryllium (Be)	mg/L	<0.00040	0.00040	7626992	<0.00040	<0.00040	<0.00040	0.00040	7626992
Total Boron (B)	mg/L	0.19	0.010	7626992	0.070	0.065	0.21	0.010	7626992
Total Cadmium (Cd)	mg/L	<0.000090	0.000090	7626992	0.000090	0.00017	<0.000090	0.000090	7626992
Total Calcium (Ca)	mg/L	98	0.20	7626992	77	85	110	0.20	7626992
Total Chromium (Cr)	mg/L	<0.0050	0.0050	7626992	<0.0050	<0.0050	<0.0050	0.0050	7626992
Total Cobalt (Co)	mg/L	<0.00050	0.00050	7626992	<0.00050	<0.00050	<0.00050	0.00050	7626992
Total Copper (Cu)	mg/L	0.0043	0.00090	7626992	0.0051	0.0045	0.0043	0.00090	7626992
Total Iron (Fe)	mg/L	0.23	0.10	7626992	0.41	0.82	0.19	0.10	7626992
Total Lead (Pb)	mg/L	0.0016	0.00050	7626992	0.00096	0.0015	0.0024	0.00050	7626992
Total Magnesium (Mg)	mg/L	19	0.050	7626992	22	24	23	0.050	7626992
Total Manganese (Mn)	mg/L	0.18	0.0020	7626992	0.012	0.038	0.061	0.0020	7626992
Total Molybdenum (Mo)	mg/L	0.047	0.00050	7626992	0.0027	0.0031	0.038	0.00050	7626992
Total Nickel (Ni)	mg/L	0.0035	0.0010	7626992	0.0023	0.0029	0.0044	0.0010	7626992
Total Potassium (K)	mg/L	6.8	0.20	7626992					
Total Selenium (Se)	mg/L	<0.0020	0.0020	7626992	<0.0020	<0.0020	<0.0020	0.0020	7626992
Total Silver (Ag)	mg/L	<0.000090	0.000090	7626992	<0.000090	<0.000090	<0.000090	0.000090	7626992
Total Sodium (Na)	mg/L	81	0.10	7626992	74	74	89	0.10	7626992
Total Strontium (Sr)	mg/L	0.53	0.0010	7626992	1.6	1.9	0.61	0.0010	7626992
Total Vanadium (V)	mg/L	0.0016	0.00050	7626992	0.0013	0.0017	0.0013	0.00050	7626992
Total Zinc (Zn)	mg/L	<0.0050	0.0050	7626992	0.060	0.11	0.014	0.0050	7626992

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch



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BV Labs Job #: C1T0256  
Report Date: 2021/10/14

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

BV Labs ID		QWB605			QWB606	QWB607	QWB608		
Sampling Date		2021/10/05			2021/10/05	2021/10/05	2021/10/05		
COC Number		848637-03-01			848637-03-01	848637-03-01	848637-03-01		
	UNITS	T-3R Lab-Dup	RDL	QC Batch	T-31	T-1R	T-32	RDL	QC Batch

<b>Metals</b>									
Dissolved (0.2u) Aluminum (Al)	ug/L				11	<5	11	5	7629470
Mercury (Hg)	mg/L	<0.00010	0.00010	7626913	<0.00010	<0.00010	<0.00010	0.00010	7626913
Total Aluminum (Al)	mg/L				0.44	0.0066	0.58	0.0049	7626992
Total Arsenic (As)	mg/L				<0.0010	0.0026	<0.0010	0.0010	7626992
Total Beryllium (Be)	mg/L				<0.00040	<0.00040	<0.00040	0.00040	7626992
Total Boron (B)	mg/L				0.073	0.39	0.085	0.010	7626992
Total Cadmium (Cd)	mg/L				0.00016	<0.000090	0.00017	0.000090	7626992
Total Calcium (Ca)	mg/L				89	220	91	0.20	7626992
Total Chromium (Cr)	mg/L				<0.0050	<0.0050	<0.0050	0.0050	7626992
Total Cobalt (Co)	mg/L				<0.00050	0.00092	<0.00050	0.00050	7626992
Total Copper (Cu)	mg/L				0.0049	<0.00090	0.0066	0.00090	7626992
Total Iron (Fe)	mg/L				0.57	1.6	0.81	0.10	7626992
Total Lead (Pb)	mg/L				0.0018	0.0011	0.0026	0.00050	7626992
Total Magnesium (Mg)	mg/L				23	35	23	0.050	7626992
Total Manganese (Mn)	mg/L				0.041	0.24	0.060	0.0020	7626992
Total Molybdenum (Mo)	mg/L				0.0033	0.025	0.0033	0.00050	7626992
Total Nickel (Ni)	mg/L				0.0030	0.0073	0.0034	0.0010	7626992
Total Selenium (Se)	mg/L				<0.0020	<0.0020	<0.0020	0.0020	7626992
Total Silver (Ag)	mg/L				<0.000090	<0.000090	<0.000090	0.000090	7626992
Total Sodium (Na)	mg/L				89	560	92	0.10	7626992
Total Strontium (Sr)	mg/L				1.7	3.2	1.7	0.0010	7626992
Total Vanadium (V)	mg/L				0.0017	0.00066	0.0019	0.00050	7626992
Total Zinc (Zn)	mg/L				0.10	0.043	0.11	0.0050	7626992

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate



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BV Labs Job #: C1T0256  
Report Date: 2021/10/14

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QWB609	QWB610	QWB611			QWB611		
Sampling Date		2021/10/05	2021/10/05	2021/10/05			2021/10/05		
COC Number		848637-03-01	848637-03-01	848637-03-01			848637-03-01		
	UNITS	T-35	T-15R	T-12	RDL	QC Batch	T-12 Lab-Dup	RDL	QC Batch

Metals									
Dissolved (0.2u) Aluminum (Al)	ug/L	<5	5	9	5	7629470	9	5	7629470
Mercury (Hg)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	7626913			
Total Aluminum (Al)	mg/L	0.0055	0.47	0.50	0.0049	7626992			
Total Arsenic (As)	mg/L	0.0020	0.0011	<0.0010	0.0010	7626992			
Total Beryllium (Be)	mg/L	<0.00040	<0.00040	<0.00040	0.00040	7626992			
Total Boron (B)	mg/L	0.38	0.11	0.065	0.010	7626992			
Total Cadmium (Cd)	mg/L	<0.000090	<0.000090	0.00012	0.000090	7626992			
Total Calcium (Ca)	mg/L	220	95	86	0.20	7626992			
Total Chromium (Cr)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	7626992			
Total Cobalt (Co)	mg/L	0.0013	0.00052	<0.00050	0.00050	7626992			
Total Copper (Cu)	mg/L	0.0014	0.0044	0.0043	0.00090	7626992			
Total Iron (Fe)	mg/L	0.93	0.73	0.60	0.10	7626992			
Total Lead (Pb)	mg/L	0.0017	0.0021	0.0011	0.00050	7626992			
Total Magnesium (Mg)	mg/L	33	22	24	0.050	7626992			
Total Manganese (Mn)	mg/L	0.29	0.10	0.027	0.0020	7626992			
Total Molybdenum (Mo)	mg/L	0.024	0.010	0.0030	0.00050	7626992			
Total Nickel (Ni)	mg/L	0.0088	0.0034	0.0031	0.0010	7626992			
Total Selenium (Se)	mg/L	<0.0020	<0.0020	<0.0020	0.0020	7626992			
Total Silver (Ag)	mg/L	<0.000090	<0.000090	<0.000090	0.000090	7626992			
Total Sodium (Na)	mg/L	530	57	75	0.10	7626992			
Total Strontium (Sr)	mg/L	3.1	1.6	1.9	0.0010	7626992			
Total Vanadium (V)	mg/L	0.00062	0.0018	0.0015	0.00050	7626992			
Total Zinc (Zn)	mg/L	0.10	0.036	0.11	0.0050	7626992			

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate



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BV Labs Job #: C1T0256  
Report Date: 2021/10/14

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		QWB615	QWB616	QWB617		
Sampling Date		2021/10/04	2021/10/04	2021/10/04		
COC Number		848637-01-01	848637-01-01	848637-01-01		
	UNITS	T-16	T-30	T-3A	RDL	QC Batch
<b>Metals</b>						
Dissolved (0.2u) Aluminum (Al)	ug/L	10	10	<5	5	7629470
Mercury (Hg)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	7626913
Total Aluminum (Al)	mg/L	0.22	0.50	0.14	0.0049	7626992
Total Arsenic (As)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	7626992
Total Beryllium (Be)	mg/L	<0.00040	<0.00040	<0.00040	0.00040	7626992
Total Boron (B)	mg/L	0.14	0.069	0.57	0.010	7626992
Total Cadmium (Cd)	mg/L	0.00013	0.00014	<0.000090	0.000090	7626992
Total Calcium (Ca)	mg/L	85	90	270	0.20	7626992
Total Chromium (Cr)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	7626992
Total Cobalt (Co)	mg/L	<0.00050	<0.00050	<0.00050	0.00050	7626992
Total Copper (Cu)	mg/L	0.0042	0.0045	0.0024	0.00090	7626992
Total Iron (Fe)	mg/L	0.31	0.61	0.33	0.10	7626992
Total Lead (Pb)	mg/L	0.00090	0.0013	0.0076	0.00050	7626992
Total Magnesium (Mg)	mg/L	26	24	60	0.050	7626992
Total Manganese (Mn)	mg/L	0.018	0.031	0.26	0.0020	7626992
Total Molybdenum (Mo)	mg/L	0.0026	0.0029	0.012	0.00050	7626992
Total Nickel (Ni)	mg/L	0.0019	0.0030	0.0063	0.0010	7626992
Total Selenium (Se)	mg/L	<0.0020	<0.0020	<0.0020	0.0020	7626992
Total Silver (Ag)	mg/L	<0.000090	<0.000090	<0.000090	0.000090	7626992
Total Sodium (Na)	mg/L	110	78	230	0.10	7626992
Total Strontium (Sr)	mg/L	1.2	1.9	3.1	0.0010	7626992
Total Vanadium (V)	mg/L	0.0015	0.0015	0.0011	0.00050	7626992
Total Zinc (Zn)	mg/L	0.047	0.10	0.063	0.0050	7626992
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



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BV Labs Job #: C1T0256  
Report Date: 2021/10/14

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QWB602  
**Sample ID:** TS-1  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Kjeldahl Nitrogen in Water	SKAL	7628313	2021/10/08	2021/10/13	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7628312	N/A	2021/10/13	Julianna Castiglione
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**BV Labs ID:** QWB602 Dup  
**Sample ID:** TS-1  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai

**BV Labs ID:** QWB603  
**Sample ID:** T-13  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631405	N/A	2021/10/13	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani



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BV Labs Job #: C1T0256  
Report Date: 2021/10/14

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QWB603  
**Sample ID:** T-13  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**BV Labs ID:** QWB604  
**Sample ID:** T-29  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631405	N/A	2021/10/13	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**BV Labs ID:** QWB605  
**Sample ID:** T-3R  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall





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BV Labs Job #: C1T0256  
Report Date: 2021/10/14

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QWB605 Dup  
**Sample ID:** T-3R  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai

**BV Labs ID:** QWB606  
**Sample ID:** T-31  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**BV Labs ID:** QWB607  
**Sample ID:** T-1R  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall



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BV Labs Job #: C1T0256  
Report Date: 2021/10/14

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QWB608  
**Sample ID:** T-32  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/08	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**BV Labs ID:** QWB609  
**Sample ID:** T-35  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**BV Labs ID:** QWB609 Dup  
**Sample ID:** T-35  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal



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BV Labs Job #: C1T0256  
Report Date: 2021/10/14

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QWB610  
**Sample ID:** T-15R  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**BV Labs ID:** QWB611  
**Sample ID:** T-12  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628508	N/A	2021/10/13	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**BV Labs ID:** QWB611 Dup  
**Sample ID:** T-12  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha



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BV Labs Job #: C1T0256  
Report Date: 2021/10/14

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QWB615  
**Sample ID:** T-16  
**Matrix:** Water

**Collected:** 2021/10/04  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**BV Labs ID:** QWB616  
**Sample ID:** T-30  
**Matrix:** Water

**Collected:** 2021/10/04  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628537	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**BV Labs ID:** QWB617  
**Sample ID:** T-3A  
**Matrix:** Water

**Collected:** 2021/10/04  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626202	2021/10/08	2021/10/13	Nusrat Naz



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BV Labs Job #: C1T0256  
Report Date: 2021/10/14

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### TEST SUMMARY

**BV Labs ID:** QWB617  
**Sample ID:** T-3A  
**Matrix:** Water

**Collected:** 2021/10/04  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628508	N/A	2021/10/13	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**BV Labs ID:** QWB617 Dup  
**Sample ID:** T-3A  
**Matrix:** Water

**Collected:** 2021/10/04  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Biochemical Oxygen Demand (BOD)	DO	7626202	2021/10/08	2021/10/13	Nusrat Naz
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall



### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.7°C
Package 2	2.3°C
Package 3	2.7°C

**Results relate only to the items tested.**



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BV Labs Job #: C1T0256  
Report Date: 2021/10/14

### QUALITY ASSURANCE REPORT

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7624698	Phenols-4AAP	2021/10/07	89	80 - 120	93	80 - 120	<0.0010	mg/L	NC	20		
7625561	Total Suspended Solids	2021/10/12					<10	mg/L	NC	25	95	85 - 115
7625705	Alkalinity (Total as CaCO3)	2021/10/09			97	85 - 115	<1.0	mg/L	1.1	20		
7625724	pH	2021/10/09			101	98 - 103			1.1	N/A		
7625780	Nitrate (N)	2021/10/08	98	80 - 120	100	80 - 120	<0.10	mg/L	0.61	20		
7625780	Nitrite (N)	2021/10/08	103	80 - 120	103	80 - 120	<0.010	mg/L	NC	20		
7625935	Dissolved Chloride (Cl-)	2021/10/08	NC	80 - 120	103	80 - 120	<1.0	mg/L	0.099	20		
7625940	Dissolved Sulphate (SO4)	2021/10/08	NC	75 - 125	102	80 - 120	<1.0	mg/L	5.2	20		
7626201	Total BOD	2021/10/13					<2	mg/L	NC	30	87	80 - 120
7626202	Total BOD	2021/10/13					<2	mg/L	29	30	90	80 - 120
7626913	Mercury (Hg)	2021/10/08	94	75 - 125	95	80 - 120	<0.00010	mg/L	NC	20		
7626992	Total Aluminum (Al)	2021/10/14	110	80 - 120	100	80 - 120	<0.0049	mg/L	12	20		
7626992	Total Arsenic (As)	2021/10/14	101	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
7626992	Total Beryllium (Be)	2021/10/14	105	80 - 120	100	80 - 120	<0.00040	mg/L	NC	20		
7626992	Total Boron (B)	2021/10/14	103	80 - 120	98	80 - 120	<0.010	mg/L	6.2	20		
7626992	Total Cadmium (Cd)	2021/10/14	103	80 - 120	100	80 - 120	<0.000090	mg/L	NC	20		
7626992	Total Calcium (Ca)	2021/10/14	NC	80 - 120	100	80 - 120	<0.20	mg/L	9.1	20		
7626992	Total Chromium (Cr)	2021/10/14	95	80 - 120	93	80 - 120	<0.0050	mg/L	NC	20		
7626992	Total Cobalt (Co)	2021/10/14	101	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20		
7626992	Total Copper (Cu)	2021/10/14	102	80 - 120	98	80 - 120	<0.00090	mg/L	14	20		
7626992	Total Iron (Fe)	2021/10/14	96	80 - 120	92	80 - 120	<0.10	mg/L	NC	20		
7626992	Total Lead (Pb)	2021/10/14	99	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20		
7626992	Total Magnesium (Mg)	2021/10/14	100	80 - 120	93	80 - 120	<0.050	mg/L	11	20		
7626992	Total Manganese (Mn)	2021/10/14	102	80 - 120	98	80 - 120	<0.0020	mg/L	9.9	20		
7626992	Total Molybdenum (Mo)	2021/10/14	114	80 - 120	94	80 - 120	<0.00050	mg/L	13	20		
7626992	Total Nickel (Ni)	2021/10/14	98	80 - 120	97	80 - 120	<0.0010	mg/L	5.3	20		
7626992	Total Potassium (K)	2021/10/14	105	80 - 120	98	80 - 120	<0.20	mg/L	8.0	20		
7626992	Total Selenium (Se)	2021/10/14	106	80 - 120	103	80 - 120	<0.0020	mg/L	15	20		
7626992	Total Silver (Ag)	2021/10/14	98	80 - 120	96	80 - 120	<0.000090	mg/L	NC	20		
7626992	Total Sodium (Na)	2021/10/14	NC	80 - 120	101	80 - 120	<0.10	mg/L	12	20		
7626992	Total Strontium (Sr)	2021/10/14	NC	80 - 120	97	80 - 120	<0.0010	mg/L	8.6	20		



BUREAU  
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BV Labs Job #: C1T0256  
Report Date: 2021/10/14

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7626992	Total Vanadium (V)	2021/10/14	99	80 - 120	96	80 - 120	<0.00050	mg/L	8.6	20		
7626992	Total Zinc (Zn)	2021/10/14	101	80 - 120	100	80 - 120	<0.0050	mg/L	8.1	20		
7628312	Total Organic Carbon (TOC)	2021/10/13	95	80 - 120	95	80 - 120	<0.40	mg/L	1.6	20		
7628313	Total Kjeldahl Nitrogen (TKN)	2021/10/12	97	80 - 120	106	80 - 120	<0.10	mg/L	NC	20	98	80 - 120
7628508	Dissolved Organic Carbon	2021/10/13	95	80 - 120	97	80 - 120	<0.40	mg/L	0.93	20		
7628532	Dissolved Organic Carbon	2021/10/12	94	80 - 120	94	80 - 120	<0.40	mg/L	2.3	20		
7628537	Dissolved Organic Carbon	2021/10/12	93	80 - 120	94	80 - 120	<0.40	mg/L	4.8	20		
7629470	Dissolved (0.2u) Aluminum (Al)	2021/10/12	102	80 - 120	101	80 - 120	<5	ug/L	2.1	20		
7630740	Total Phosphorus	2021/10/13	89	80 - 120	87	80 - 120	<0.004	mg/L	3.6	20	85	80 - 120
7631347	Total Ammonia-N	2021/10/13	NC	75 - 125	101	80 - 120	<0.050	mg/L	0.24	20		
7631405	Total Ammonia-N	2021/10/13	96	75 - 125	101	80 - 120	<0.050	mg/L	7.1	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).





BUREAU  
VERITAS

BV Labs Job #: C1T0256  
Report Date: 2021/10/14

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

A handwritten signature in black ink, appearing to read 'A. Hamanov', written over a horizontal line.

Anastassia Hamanov, Scientific Specialist

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Bureau Veritas Laboratories  
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L9 Tel: (905) 817-5700 Toll-free 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

06-Oct-21 15:10  
Jolanta Goralczyk  
C1T0256

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name: #16786 Terrapure Environmental	Company Name:	Attention: Brad Mullin	Quotation #: B60569	Bottle Order #:	
Attention: Accounting	Address: 65 Green Mountain Rd West	Address: Stoney Creek ON L8J 1X5	P.O. #:	848637	
Tel: (905) 561-0305 Fax: (905) 561-1674	Tel: (905) 548-5882 Fax: (905) 578-7533	Email: bmulin@terrapureenv.com; dtaylor2@terrapureenv.com	Project Name: SW SW	Project Manager: Jolanta Goralczyk	
Email: kbailey@terrapureenv.com	Email: bmulin@terrapureenv.com; dtaylor2@terrapureenv.com		Site #:	COC #: ENM 1117	
			Sampled By:	C9848637-03-01	

**MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY**

Regulation 153 (2011)		Other Regulations		Special Instructions
<input type="checkbox"/> Table 1 <input type="checkbox"/> Res/Park <input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME <input type="checkbox"/> Sanitary Sewer Bylaw			
<input type="checkbox"/> Table 2 <input type="checkbox"/> Ind/Comm <input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558 <input type="checkbox"/> Storm Sewer Bylaw			
<input type="checkbox"/> Table 3 <input type="checkbox"/> Agri/Other <input type="checkbox"/> For RSC	<input type="checkbox"/> MISA <input type="checkbox"/> Municipality			
<input type="checkbox"/> Table	<input type="checkbox"/> PWQO <input type="checkbox"/> Reg 406 Table			
	<input type="checkbox"/> Other			

Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals (ig for VI)	ANALYSIS REQUESTED (PLEASE BE SPECIFIC)	Turnaround Time (TAT) Required: Please provide advance notice for rush projects
1	TS-1	Oct 5 2021	NA	SW	Y	X X	Regular (Standard) TAT: <input checked="" type="checkbox"/> (will be applied if Rush TAT is not specified) Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details. Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)
2	T-13				Y	X	# of Bottles: 9
3	T-29				Y	X	9
4	T-3R				Y	X	9
6	T-31				Y	X	9
6	T-1R				Y	X	9
7	T-32				Y	X	9
8	T-35				Y	X	9
9	T-15R				Y	X	9
10	T-12				Y	X	9

RELINQUISHED BY: (Signature/Print) Dan Taylor	Date: (YY/MM/DD) 21/10/06	Time 9:15	RECEIVED BY: (Signature/Print) KAUITHASELWAN	Date: (YY/MM/DD) 2021/10/06	Time 15:10	# jars used and not submitted	Laboratory Use Only Time Sensitive	Temperature (°C) on Receipt 4/13/2023	Custody Seal Present Intact	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	------------------------------	--------------	---	--------------------------------	---------------	-------------------------------	---------------------------------------	--	--------------------------------	---

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.  
\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.  
\*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY FORMS.

Bureau Veritas Canada (2019) Inc. RV driver 2/4/2





Your Project #: SW  
 Your C.O.C. #: 848637-03-01, 848637-01-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
 65 Green Mountain Rd West  
 Stoney Creek, ON  
 CANADA L8J 1X5

**Report Date: 2021/10/22**  
 Report #: R6864685  
 Version: 2 - Revision

**CERTIFICATE OF ANALYSIS – REVISED REPORT**

**BV LABS JOB #: C1T0256**

**Received: 2021/10/06, 15:10**

Sample Matrix: Water  
 # Samples Received: 13

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Dissolved Aluminum (0.2 u, clay free)	13	N/A	2021/10/12	CAM SOP-00447	EPA 6020B m
Alkalinity	13	N/A	2021/10/09	CAM SOP-00448	SM 23 2320 B m
Biochemical Oxygen Demand (BOD)	13	2021/10/08	2021/10/13	CAM SOP-00427	SM 23 5210B m
Chloride by Automated Colourimetry	13	N/A	2021/10/08	CAM SOP-00463	SM 23 4500-Cl E m
Dissolved Organic Carbon (DOC) (1)	11	N/A	2021/10/12	CAM SOP-00446	SM 23 5310 B m
Dissolved Organic Carbon (DOC) (1)	2	N/A	2021/10/13	CAM SOP-00446	SM 23 5310 B m
Hardness (calculated as CaCO3)	13	N/A	2021/10/14	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	13	2021/10/08	2021/10/08	CAM SOP-00453	EPA 7470A m
Total Metals Analysis by ICPMS	13	N/A	2021/10/14	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	13	N/A	2021/10/13	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (2)	13	N/A	2021/10/08	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	13	2021/10/07	2021/10/09	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	12	N/A	2021/10/07	CAM SOP-00444	OMOE E3179 m
Phenols (4AAP)	1	N/A	2021/10/08	CAM SOP-00444	OMOE E3179 m
Sulphate by Automated Colourimetry	13	N/A	2021/10/08	CAM SOP-00464	EPA 375.4 m
Total Kjeldahl Nitrogen in Water	1	2021/10/08	2021/10/13	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (3)	1	N/A	2021/10/13	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric)	13	2021/10/12	2021/10/13	CAM SOP-00407	SM 23 4500 P B H m
Total Suspended Solids	13	2021/10/08	2021/10/12	CAM SOP-00428	SM 23 2540D m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (2) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (3) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.



Your Project #: SW  
Your C.O.C. #: 848637-03-01, 848637-01-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/10/22**  
Report #: R6864685  
Version: 2 - Revision

**CERTIFICATE OF ANALYSIS – REVISED REPORT**

**BV LABS JOB #: C1T0256**  
**Received: 2021/10/06, 15:10**

Encryption Key

Hongmei Zhao (Grace)  
Project Manager  
22 Oct 2021 16:01:42

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

=====  
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VERITAS

Bureau Veritas Job #: C1T0256  
Report Date: 2021/10/22

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		QWB602			QWB602			QWB603		
Sampling Date		2021/10/05			2021/10/05			2021/10/05		
COC Number		848637-03-01			848637-03-01			848637-03-01		
	UNITS	TS-1	RDL	QC Batch	TS-1 Lab-Dup	RDL	QC Batch	T-13	RDL	QC Batch
<b>Calculated Parameters</b>										
Hardness (CaCO <sub>3</sub> )	mg/L	340	1.0	7621148				290	1.0	7621148
<b>Inorganics</b>										
Total Ammonia-N	mg/L	0.18	0.050	7631347				<0.050	0.050	7631405
Total BOD	mg/L	4	2	7626201				<2	2	7626201
Total Kjeldahl Nitrogen (TKN)	mg/L	0.91	0.10	7628313						
Dissolved Organic Carbon	mg/L	8.6	0.40	7628532				4.4	0.40	7628532
Total Organic Carbon (TOC)	mg/L	9.8	0.40	7628312						
pH	pH	7.73		7625724	7.82		7625724	8.28		7625724
Phenols-4AAP	mg/L	<0.0010	0.0010	7624698				<0.0010	0.0010	7624698
Total Phosphorus	mg/L	0.58	0.02	7630740				0.074	0.004	7630740
Total Suspended Solids	mg/L	10	10	7625561				11	10	7625561
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	280	2.0	7625940				130	1.0	7625940
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	120	1.0	7625705	120	1.0	7625705	170	1.0	7625705
Dissolved Chloride (Cl <sup>-</sup> )	mg/L	44	1.0	7625935				110	1.0	7625935
Nitrite (N)	mg/L	0.060	0.010	7625780				0.018	0.010	7625780
Nitrate (N)	mg/L	0.36	0.10	7625780				1.33	0.10	7625780
Nitrate + Nitrite (N)	mg/L	0.42	0.10	7625780				1.35	0.10	7625780
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate										



RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		QWB604			QWB605		QWB606		
Sampling Date		2021/10/05			2021/10/05		2021/10/05		
COC Number		848637-03-01			848637-03-01		848637-03-01		
	UNITS	T-29	RDL	QC Batch	T-3R	RDL	T-31	RDL	QC Batch
<b>Calculated Parameters</b>									
Hardness (CaCO3)	mg/L	320	1.0	7621148	380	1.0	320	1.0	7621148
<b>Inorganics</b>									
Total Ammonia-N	mg/L	<0.050	0.050	7631405	<0.050	0.050	0.11	0.050	7631347
Total BOD	mg/L	<2	2	7626201	<2	2	<2	2	7626201
Dissolved Organic Carbon	mg/L	4.9	0.40	7628532	6.5	0.40	5.0	0.40	7628532
pH	pH	8.18		7625724	7.92		8.26		7625724
Phenols-4AAP	mg/L	<0.0010	0.0010	7624698	<0.0010	0.0010	<0.0010	0.0010	7624698
Total Phosphorus	mg/L	0.082	0.004	7630740	0.25	0.02	0.091	0.004	7630740
Total Suspended Solids	mg/L	30	10	7625561	10	10	16	10	7625561
Dissolved Sulphate (SO4)	mg/L	140	1.0	7625940	320	2.0	140	1.0	7625940
Alkalinity (Total as CaCO3)	mg/L	190	1.0	7625705	120	1.0	180	1.0	7625705
Dissolved Chloride (Cl-)	mg/L	110	1.0	7625935	49	1.0	140	1.0	7625935
Nitrite (N)	mg/L	0.029	0.010	7625780	0.014	0.010	0.040	0.010	7625780
Nitrate (N)	mg/L	1.27	0.10	7625780	0.63	0.10	1.28	0.10	7625780
Nitrate + Nitrite (N)	mg/L	1.30	0.10	7625780	0.64	0.10	1.32	0.10	7625780
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									



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### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		QWB607		QWB608		QWB609			QWB609		
Sampling Date		2021/10/05		2021/10/05		2021/10/05			2021/10/05		
COC Number		848637-03-01		848637-03-01		848637-03-01			848637-03-01		
	UNITS	T-1R	RDL	T-32	RDL	T-35	RDL	QC Batch	T-35 Lab-Dup	RDL	QC Batch

Calculated Parameters											
Hardness (CaCO3)	mg/L	710	1.0	320	1.0	690	1.0	7621148			
Inorganics											
Total Ammonia-N	mg/L	25	0.050	0.060	0.050	29	0.050	7631347	29	0.050	7631347
Total BOD	mg/L	6	2	<2	2	8	2	7626201			
Dissolved Organic Carbon	mg/L	10	0.40	5.1	0.40	11	0.40	7628532			
pH	pH	7.98		8.28		7.91		7625724			
Phenols-4AAP	mg/L	0.048	0.0010	<0.0010	0.0010	0.048	0.0010	7624698			
Total Phosphorus	mg/L	0.024	0.004	0.10	0.02	0.024	0.004	7630740			
Total Suspended Solids	mg/L	<10	10	17	10	<10	10	7625561			
Dissolved Sulphate (SO4)	mg/L	550	5.0	150	1.0	520	5.0	7625940			
Alkalinity (Total as CaCO3)	mg/L	240	1.0	190	1.0	240	1.0	7625705			
Dissolved Chloride (Cl-)	mg/L	830	10	130	1.0	760	10	7625935			
Nitrite (N)	mg/L	0.117	0.010	0.030	0.010	0.159	0.010	7625780			
Nitrate (N)	mg/L	0.60	0.10	1.33	0.10	0.92	0.10	7625780			
Nitrate + Nitrite (N)	mg/L	0.72	0.10	1.36	0.10	1.08	0.10	7625780			

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate





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Report Date: 2021/10/22

Terrapure Environmental  
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### RESULTS OF ANALYSES OF WATER

<b>Bureau Veritas ID</b>		QWB610			QWB611			QWB615		
<b>Sampling Date</b>		2021/10/05			2021/10/05			2021/10/05		
<b>COC Number</b>		848637-03-01			848637-03-01			848637-01-01		
	<b>UNITS</b>	<b>T-15R</b>	<b>RDL</b>	<b>QC Batch</b>	<b>T-12</b>	<b>RDL</b>	<b>QC Batch</b>	<b>T-16</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Calculated Parameters</b>										
Hardness (CaCO <sub>3</sub> )	mg/L	320	1.0	7621148	320	1.0	7621148	350	1.0	7621148
<b>Inorganics</b>										
Total Ammonia-N	mg/L	0.052	0.050	7631347	<0.050	0.050	7631347	<0.050	0.050	7631347
Total BOD	mg/L	<2	2	7626201	<2	2	7626201	<2	2	7626201
Dissolved Organic Carbon	mg/L	4.8	0.40	7628532	1.8	0.40	7628508	4.4	0.40	7628532
pH	pH	8.01		7625724	8.29		7625724	8.34		7625724
Phenols-4AAP	mg/L	<0.0010	0.0010	7624698	<0.0010	0.0010	7624698	<0.0010	0.0010	7624698
Total Phosphorus	mg/L	0.10	0.02	7630740	0.081	0.004	7630740	0.098	0.004	7630740
Total Suspended Solids	mg/L	16	10	7625561	11	10	7625561	<10	10	7625561
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	210	1.0	7625940	140	1.0	7625940	150	1.0	7625940
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	140	1.0	7625705	190	1.0	7625705	210	1.0	7625705
Dissolved Chloride (Cl <sup>-</sup> )	mg/L	61	1.0	7625935	110	1.0	7625935	150	2.0	7625935
Nitrite (N)	mg/L	0.014	0.010	7625780	0.020	0.010	7625780	0.014	0.010	7625780
Nitrate (N)	mg/L	0.39	0.10	7625780	1.22	0.10	7625780	2.57	0.10	7625780
Nitrate + Nitrite (N)	mg/L	0.41	0.10	7625780	1.24	0.10	7625780	2.59	0.10	7625780

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch



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Report Date: 2021/10/22

Terrapure Environmental  
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### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		QWB616				QWB617				QWB617	
Sampling Date		2021/10/05				2021/10/05				2021/10/05	
COC Number		848637-01-01				848637-01-01				848637-01-01	
	UNITS	T-30	RDL	QC Batch	T-3A	RDL	QC Batch	T-3A Lab-Dup	RDL	QC Batch	
<b>Calculated Parameters</b>											
Hardness (CaCO <sub>3</sub> )	mg/L	320	1.0	7621148	920	1.0	7621148				
<b>Inorganics</b>											
Total Ammonia-N	mg/L	0.066	0.050	7631347	2.1	0.050	7631347				
Total BOD	mg/L	<2	2	7626201	4	2	7626202	3	2	7626202	
Dissolved Organic Carbon	mg/L	4.9	0.40	7628537	4.0	0.40	7628508				
pH	pH	8.16		7625724	8.11		7625724				
Phenols-4AAP	mg/L	<0.0010	0.0010	7624698	<0.0010	0.0010	7624698				
Total Phosphorus	mg/L	0.084	0.004	7630740	0.023	0.004	7630740				
Total Suspended Solids	mg/L	<10	10	7625561	<10	10	7625561	<10	10	7625561	
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	140	1.0	7625940	670	5.0	7625940				
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	190	1.0	7625705	200	1.0	7625705				
Dissolved Chloride (Cl <sup>-</sup> )	mg/L	120	1.0	7625935	340	5.0	7625935				
Nitrite (N)	mg/L	0.025	0.010	7625780	0.209	0.010	7625780				
Nitrate (N)	mg/L	1.34	0.10	7625780	0.62	0.10	7625780				
Nitrate + Nitrite (N)	mg/L	1.36	0.10	7625780	0.82	0.10	7625780				
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate											



**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>Bureau Veritas ID</b>		QWB602			QWB603	QWB604	QWB605		
<b>Sampling Date</b>		2021/10/05			2021/10/05	2021/10/05	2021/10/05		
<b>COC Number</b>		848637-03-01			848637-03-01	848637-03-01	848637-03-01		
	<b>UNITS</b>	<b>TS-1</b>	<b>RDL</b>	<b>QC Batch</b>	<b>T-13</b>	<b>T-29</b>	<b>T-3R</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>									
Dissolved (0.2u) Aluminum (Al)	ug/L	<5	5	7629470	9	10	<5	5	7629470
Mercury (Hg)	mg/L	<0.00010	0.00010	7626913	<0.00010	<0.00010	<0.00010	0.00010	7626913
Total Aluminum (Al)	mg/L	0.14	0.0049	7626992	0.31	0.62	0.097	0.0049	7626992
Total Arsenic (As)	mg/L	0.0025	0.0010	7626992	<0.0010	<0.0010	0.0015	0.0010	7626992
Total Beryllium (Be)	mg/L	<0.00040	0.00040	7626992	<0.00040	<0.00040	<0.00040	0.00040	7626992
Total Boron (B)	mg/L	0.19	0.010	7626992	0.070	0.065	0.21	0.010	7626992
Total Cadmium (Cd)	mg/L	<0.000090	0.000090	7626992	0.000090	0.00017	<0.000090	0.000090	7626992
Total Calcium (Ca)	mg/L	98	0.20	7626992	77	85	110	0.20	7626992
Total Chromium (Cr)	mg/L	<0.0050	0.0050	7626992	<0.0050	<0.0050	<0.0050	0.0050	7626992
Total Cobalt (Co)	mg/L	<0.00050	0.00050	7626992	<0.00050	<0.00050	<0.00050	0.00050	7626992
Total Copper (Cu)	mg/L	0.0043	0.00090	7626992	0.0051	0.0045	0.0043	0.00090	7626992
Total Iron (Fe)	mg/L	0.23	0.10	7626992	0.41	0.82	0.19	0.10	7626992
Total Lead (Pb)	mg/L	0.0016	0.00050	7626992	0.00096	0.0015	0.0024	0.00050	7626992
Total Magnesium (Mg)	mg/L	19	0.050	7626992	22	24	23	0.050	7626992
Total Manganese (Mn)	mg/L	0.18	0.0020	7626992	0.012	0.038	0.061	0.0020	7626992
Total Molybdenum (Mo)	mg/L	0.047	0.00050	7626992	0.0027	0.0031	0.038	0.00050	7626992
Total Nickel (Ni)	mg/L	0.0035	0.0010	7626992	0.0023	0.0029	0.0044	0.0010	7626992
Total Potassium (K)	mg/L	6.8	0.20	7626992					
Total Selenium (Se)	mg/L	<0.0020	0.0020	7626992	<0.0020	<0.0020	<0.0020	0.0020	7626992
Total Silver (Ag)	mg/L	<0.000090	0.000090	7626992	<0.000090	<0.000090	<0.000090	0.000090	7626992
Total Sodium (Na)	mg/L	81	0.10	7626992	74	74	89	0.10	7626992
Total Strontium (Sr)	mg/L	0.53	0.0010	7626992	1.6	1.9	0.61	0.0010	7626992
Total Vanadium (V)	mg/L	0.0016	0.00050	7626992	0.0013	0.0017	0.0013	0.00050	7626992
Total Zinc (Zn)	mg/L	<0.0050	0.0050	7626992	0.060	0.11	0.014	0.0050	7626992

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch



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Bureau Veritas Job #: C1T0256  
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Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		QWB605			QWB606	QWB607	QWB608		
Sampling Date		2021/10/05			2021/10/05	2021/10/05	2021/10/05		
COC Number		848637-03-01			848637-03-01	848637-03-01	848637-03-01		
	UNITS	T-3R Lab-Dup	RDL	QC Batch	T-31	T-1R	T-32	RDL	QC Batch
<b>Metals</b>									
Dissolved (0.2u) Aluminum (Al)	ug/L				11	<5	11	5	7629470
Mercury (Hg)	mg/L	<0.00010	0.00010	7626913	<0.00010	<0.00010	<0.00010	0.00010	7626913
Total Aluminum (Al)	mg/L				0.44	0.0066	0.58	0.0049	7626992
Total Arsenic (As)	mg/L				<0.0010	0.0026	<0.0010	0.0010	7626992
Total Beryllium (Be)	mg/L				<0.00040	<0.00040	<0.00040	0.00040	7626992
Total Boron (B)	mg/L				0.073	0.39	0.085	0.010	7626992
Total Cadmium (Cd)	mg/L				0.00016	<0.000090	0.00017	0.000090	7626992
Total Calcium (Ca)	mg/L				89	220	91	0.20	7626992
Total Chromium (Cr)	mg/L				<0.0050	<0.0050	<0.0050	0.0050	7626992
Total Cobalt (Co)	mg/L				<0.00050	0.00092	<0.00050	0.00050	7626992
Total Copper (Cu)	mg/L				0.0049	<0.00090	0.0066	0.00090	7626992
Total Iron (Fe)	mg/L				0.57	1.6	0.81	0.10	7626992
Total Lead (Pb)	mg/L				0.0018	0.0011	0.0026	0.00050	7626992
Total Magnesium (Mg)	mg/L				23	35	23	0.050	7626992
Total Manganese (Mn)	mg/L				0.041	0.24	0.060	0.0020	7626992
Total Molybdenum (Mo)	mg/L				0.0033	0.025	0.0033	0.00050	7626992
Total Nickel (Ni)	mg/L				0.0030	0.0073	0.0034	0.0010	7626992
Total Selenium (Se)	mg/L				<0.0020	<0.0020	<0.0020	0.0020	7626992
Total Silver (Ag)	mg/L				<0.000090	<0.000090	<0.000090	0.000090	7626992
Total Sodium (Na)	mg/L				89	560	92	0.10	7626992
Total Strontium (Sr)	mg/L				1.7	3.2	1.7	0.0010	7626992
Total Vanadium (V)	mg/L				0.0017	0.00066	0.0019	0.00050	7626992
Total Zinc (Zn)	mg/L				0.10	0.043	0.11	0.0050	7626992
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate									



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Bureau Veritas Job #: C1T0256  
Report Date: 2021/10/22

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>Bureau Veritas ID</b>		QWB609	QWB610	QWB611			QWB611		
<b>Sampling Date</b>		2021/10/05	2021/10/05	2021/10/05			2021/10/05		
<b>COC Number</b>		848637-03-01	848637-03-01	848637-03-01			848637-03-01		
	<b>UNITS</b>	<b>T-35</b>	<b>T-15R</b>	<b>T-12</b>	<b>RDL</b>	<b>QC Batch</b>	<b>T-12 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>									
Dissolved (0.2u) Aluminum (Al)	ug/L	<5	5	9	5	7629470	9	5	7629470
Mercury (Hg)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	7626913			
Total Aluminum (Al)	mg/L	0.0055	0.47	0.50	0.0049	7626992			
Total Arsenic (As)	mg/L	0.0020	0.0011	<0.0010	0.0010	7626992			
Total Beryllium (Be)	mg/L	<0.00040	<0.00040	<0.00040	0.00040	7626992			
Total Boron (B)	mg/L	0.38	0.11	0.065	0.010	7626992			
Total Cadmium (Cd)	mg/L	<0.000090	<0.000090	0.00012	0.000090	7626992			
Total Calcium (Ca)	mg/L	220	95	86	0.20	7626992			
Total Chromium (Cr)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	7626992			
Total Cobalt (Co)	mg/L	0.0013	0.00052	<0.00050	0.00050	7626992			
Total Copper (Cu)	mg/L	0.0014	0.0044	0.0043	0.00090	7626992			
Total Iron (Fe)	mg/L	0.93	0.73	0.60	0.10	7626992			
Total Lead (Pb)	mg/L	0.0017	0.0021	0.0011	0.00050	7626992			
Total Magnesium (Mg)	mg/L	33	22	24	0.050	7626992			
Total Manganese (Mn)	mg/L	0.29	0.10	0.027	0.0020	7626992			
Total Molybdenum (Mo)	mg/L	0.024	0.010	0.0030	0.00050	7626992			
Total Nickel (Ni)	mg/L	0.0088	0.0034	0.0031	0.0010	7626992			
Total Selenium (Se)	mg/L	<0.0020	<0.0020	<0.0020	0.0020	7626992			
Total Silver (Ag)	mg/L	<0.000090	<0.000090	<0.000090	0.000090	7626992			
Total Sodium (Na)	mg/L	530	57	75	0.10	7626992			
Total Strontium (Sr)	mg/L	3.1	1.6	1.9	0.0010	7626992			
Total Vanadium (V)	mg/L	0.00062	0.0018	0.0015	0.00050	7626992			
Total Zinc (Zn)	mg/L	0.10	0.036	0.11	0.0050	7626992			

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate



**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

Bureau Veritas ID		QWB615	QWB616	QWB617		
Sampling Date		2021/10/05	2021/10/05	2021/10/05		
COC Number		848637-01-01	848637-01-01	848637-01-01		
	UNITS	T-16	T-30	T-3A	RDL	QC Batch
<b>Metals</b>						
Dissolved (0.2u) Aluminum (Al)	ug/L	10	10	<5	5	7629470
Mercury (Hg)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	7626913
Total Aluminum (Al)	mg/L	0.22	0.50	0.14	0.0049	7626992
Total Arsenic (As)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	7626992
Total Beryllium (Be)	mg/L	<0.00040	<0.00040	<0.00040	0.00040	7626992
Total Boron (B)	mg/L	0.14	0.069	0.57	0.010	7626992
Total Cadmium (Cd)	mg/L	0.00013	0.00014	<0.000090	0.000090	7626992
Total Calcium (Ca)	mg/L	85	90	270	0.20	7626992
Total Chromium (Cr)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	7626992
Total Cobalt (Co)	mg/L	<0.00050	<0.00050	<0.00050	0.00050	7626992
Total Copper (Cu)	mg/L	0.0042	0.0045	0.0024	0.00090	7626992
Total Iron (Fe)	mg/L	0.31	0.61	0.33	0.10	7626992
Total Lead (Pb)	mg/L	0.00090	0.0013	0.0076	0.00050	7626992
Total Magnesium (Mg)	mg/L	26	24	60	0.050	7626992
Total Manganese (Mn)	mg/L	0.018	0.031	0.26	0.0020	7626992
Total Molybdenum (Mo)	mg/L	0.0026	0.0029	0.012	0.00050	7626992
Total Nickel (Ni)	mg/L	0.0019	0.0030	0.0063	0.0010	7626992
Total Selenium (Se)	mg/L	<0.0020	<0.0020	<0.0020	0.0020	7626992
Total Silver (Ag)	mg/L	<0.000090	<0.000090	<0.000090	0.000090	7626992
Total Sodium (Na)	mg/L	110	78	230	0.10	7626992
Total Strontium (Sr)	mg/L	1.2	1.9	3.1	0.0010	7626992
Total Vanadium (V)	mg/L	0.0015	0.0015	0.0011	0.00050	7626992
Total Zinc (Zn)	mg/L	0.047	0.10	0.063	0.0050	7626992
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



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Bureau Veritas Job #: C1T0256  
Report Date: 2021/10/22

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### TEST SUMMARY

**Bureau Veritas ID:** QWB602  
**Sample ID:** TS-1  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate & Nitrite as Nitrogen in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Kjeldahl Nitrogen in Water	SKAL	7628313	2021/10/08	2021/10/13	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7628312	N/A	2021/10/13	Julianna Castiglione
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**Bureau Veritas ID:** QWB602 Dup  
**Sample ID:** TS-1  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai

**Bureau Veritas ID:** QWB603  
**Sample ID:** T-13  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631405	N/A	2021/10/13	Amanpreet Sappal
Nitrate & Nitrite as Nitrogen in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani



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Bureau Veritas Job #: C1T0256  
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Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### TEST SUMMARY

**Bureau Veritas ID:** QWB603  
**Sample ID:** T-13  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**Bureau Veritas ID:** QWB604  
**Sample ID:** T-29  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631405	N/A	2021/10/13	Amanpreet Sappal
Nitrate & Nitrite as Nitrogen in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**Bureau Veritas ID:** QWB605  
**Sample ID:** T-3R  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate & Nitrite as Nitrogen in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall





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Terrapure Environmental  
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Sampler Initials: DT

### TEST SUMMARY

**Bureau Veritas ID:** QWB605 Dup  
**Sample ID:** T-3R  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai

**Bureau Veritas ID:** QWB606  
**Sample ID:** T-31  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate & Nitrite as Nitrogen in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**Bureau Veritas ID:** QWB607  
**Sample ID:** T-1R  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate & Nitrite as Nitrogen in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall



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Terrapure Environmental  
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### TEST SUMMARY

**Bureau Veritas ID:** QWB608  
**Sample ID:** T-32  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate & Nitrite as Nitrogen in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/08	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**Bureau Veritas ID:** QWB609  
**Sample ID:** T-35  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate & Nitrite as Nitrogen in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**Bureau Veritas ID:** QWB609 Dup  
**Sample ID:** T-35  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal



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### TEST SUMMARY

**Bureau Veritas ID:** QWB610  
**Sample ID:** T-15R  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate & Nitrite as Nitrogen in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**Bureau Veritas ID:** QWB611  
**Sample ID:** T-12  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628508	N/A	2021/10/13	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate & Nitrite as Nitrogen in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**Bureau Veritas ID:** QWB611 Dup  
**Sample ID:** T-12  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha



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Sampler Initials: DT

### TEST SUMMARY

**Bureau Veritas ID:** QWB615  
**Sample ID:** T-16  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628532	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate & Nitrite as Nitrogen in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**Bureau Veritas ID:** QWB616  
**Sample ID:** T-30  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626201	2021/10/08	2021/10/13	Nusrat Naz
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628537	N/A	2021/10/12	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate & Nitrite as Nitrogen in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**Bureau Veritas ID:** QWB617  
**Sample ID:** T-3A  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Aluminum (0.2 u, clay free)	ICP/MS	7629470	N/A	2021/10/12	Nan Raykha
Alkalinity	AT	7625705	N/A	2021/10/09	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7626202	2021/10/08	2021/10/13	Nusrat Naz



BUREAU  
VERITAS

Bureau Veritas Job #: C1T0256  
Report Date: 2021/10/22

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### TEST SUMMARY

**Bureau Veritas ID:** QWB617  
**Sample ID:** T-3A  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	7625935	N/A	2021/10/08	Alina Dobreanu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7628508	N/A	2021/10/13	Julianna Castiglione
Hardness (calculated as CaCO3)		7621148	N/A	2021/10/14	Automated Statchk
Mercury in Water by CVAA	CV/AA	7626913	2021/10/08	2021/10/08	Gagandeep Rai
Total Metals Analysis by ICPMS	ICP/MS	7626992	N/A	2021/10/14	Arefa Dabhad
Total Ammonia-N	LACH/NH4	7631347	N/A	2021/10/13	Amanpreet Sappal
Nitrate & Nitrite as Nitrogen in Water	LACH	7625780	N/A	2021/10/08	Chandra Nandlal
pH	AT	7625724	2021/10/07	2021/10/09	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7624698	N/A	2021/10/07	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7625940	N/A	2021/10/08	Alina Dobreanu
Total Phosphorus (Colourimetric)	LACH/P	7630740	2021/10/12	2021/10/13	Shivani Shivani
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall

**Bureau Veritas ID:** QWB617 Dup  
**Sample ID:** T-3A  
**Matrix:** Water

**Collected:** 2021/10/05  
**Shipped:**  
**Received:** 2021/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Biochemical Oxygen Demand (BOD)	DO	7626202	2021/10/08	2021/10/13	Nusrat Naz
Total Suspended Solids	BAL	7625561	2021/10/08	2021/10/12	Shaneil Hall



### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.7°C
Package 2	2.3°C
Package 3	2.7°C

Revised Report (2021/10/22): Sampling date has been amended for the last three samples as per client's request.

**Results relate only to the items tested.**



BUREAU  
VERITAS

Bureau Veritas Job #: C1T0256

Report Date: 2021/10/22

### QUALITY ASSURANCE REPORT

Terrapure Environmental

Client Project #: SW

Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7624698	Phenols-4AAP	2021/10/07	89	80 - 120	93	80 - 120	<0.0010	mg/L	NC	20		
7625561	Total Suspended Solids	2021/10/12					<10	mg/L	NC	25	95	85 - 115
7625705	Alkalinity (Total as CaCO3)	2021/10/09			97	85 - 115	<1.0	mg/L	1.1	20		
7625724	pH	2021/10/09			101	98 - 103			1.1	N/A		
7625780	Nitrate (N)	2021/10/08	98	80 - 120	100	80 - 120	<0.10	mg/L	0.61	20		
7625780	Nitrite (N)	2021/10/08	103	80 - 120	103	80 - 120	<0.010	mg/L	NC	20		
7625935	Dissolved Chloride (Cl-)	2021/10/08	NC	80 - 120	103	80 - 120	<1.0	mg/L	0.099	20		
7625940	Dissolved Sulphate (SO4)	2021/10/08	NC	75 - 125	102	80 - 120	<1.0	mg/L	5.2	20		
7626201	Total BOD	2021/10/13					<2	mg/L	NC	30	87	80 - 120
7626202	Total BOD	2021/10/13					<2	mg/L	29	30	90	80 - 120
7626913	Mercury (Hg)	2021/10/08	94	75 - 125	95	80 - 120	<0.00010	mg/L	NC	20		
7626992	Total Aluminum (Al)	2021/10/14	110	80 - 120	100	80 - 120	<0.0049	mg/L	12	20		
7626992	Total Arsenic (As)	2021/10/14	101	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
7626992	Total Beryllium (Be)	2021/10/14	105	80 - 120	100	80 - 120	<0.00040	mg/L	NC	20		
7626992	Total Boron (B)	2021/10/14	103	80 - 120	98	80 - 120	<0.010	mg/L	6.2	20		
7626992	Total Cadmium (Cd)	2021/10/14	103	80 - 120	100	80 - 120	<0.000090	mg/L	NC	20		
7626992	Total Calcium (Ca)	2021/10/14	NC	80 - 120	100	80 - 120	<0.20	mg/L	9.1	20		
7626992	Total Chromium (Cr)	2021/10/14	95	80 - 120	93	80 - 120	<0.0050	mg/L	NC	20		
7626992	Total Cobalt (Co)	2021/10/14	101	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20		
7626992	Total Copper (Cu)	2021/10/14	102	80 - 120	98	80 - 120	<0.00090	mg/L	14	20		
7626992	Total Iron (Fe)	2021/10/14	96	80 - 120	92	80 - 120	<0.10	mg/L	NC	20		
7626992	Total Lead (Pb)	2021/10/14	99	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20		
7626992	Total Magnesium (Mg)	2021/10/14	100	80 - 120	93	80 - 120	<0.050	mg/L	11	20		
7626992	Total Manganese (Mn)	2021/10/14	102	80 - 120	98	80 - 120	<0.0020	mg/L	9.9	20		
7626992	Total Molybdenum (Mo)	2021/10/14	114	80 - 120	94	80 - 120	<0.00050	mg/L	13	20		
7626992	Total Nickel (Ni)	2021/10/14	98	80 - 120	97	80 - 120	<0.0010	mg/L	5.3	20		
7626992	Total Potassium (K)	2021/10/14	105	80 - 120	98	80 - 120	<0.20	mg/L	8.0	20		
7626992	Total Selenium (Se)	2021/10/14	106	80 - 120	103	80 - 120	<0.0020	mg/L	15	20		
7626992	Total Silver (Ag)	2021/10/14	98	80 - 120	96	80 - 120	<0.000090	mg/L	NC	20		
7626992	Total Sodium (Na)	2021/10/14	NC	80 - 120	101	80 - 120	<0.10	mg/L	12	20		
7626992	Total Strontium (Sr)	2021/10/14	NC	80 - 120	97	80 - 120	<0.0010	mg/L	8.6	20		



BUREAU  
VERITAS

Bureau Veritas Job #: C1T0256

Report Date: 2021/10/22

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental

Client Project #: SW

Sampler Initials: DT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7626992	Total Vanadium (V)	2021/10/14	99	80 - 120	96	80 - 120	<0.00050	mg/L	8.6	20		
7626992	Total Zinc (Zn)	2021/10/14	101	80 - 120	100	80 - 120	<0.0050	mg/L	8.1	20		
7628312	Total Organic Carbon (TOC)	2021/10/13	95	80 - 120	95	80 - 120	<0.40	mg/L	1.6	20		
7628313	Total Kjeldahl Nitrogen (TKN)	2021/10/12	97	80 - 120	106	80 - 120	<0.10	mg/L	NC	20	98	80 - 120
7628508	Dissolved Organic Carbon	2021/10/13	95	80 - 120	97	80 - 120	<0.40	mg/L	0.93	20		
7628532	Dissolved Organic Carbon	2021/10/12	94	80 - 120	94	80 - 120	<0.40	mg/L	2.3	20		
7628537	Dissolved Organic Carbon	2021/10/12	93	80 - 120	94	80 - 120	<0.40	mg/L	4.8	20		
7629470	Dissolved (0.2u) Aluminum (Al)	2021/10/12	102	80 - 120	101	80 - 120	<5	ug/L	2.1	20		
7630740	Total Phosphorus	2021/10/13	89	80 - 120	87	80 - 120	<0.004	mg/L	3.6	20	85	80 - 120
7631347	Total Ammonia-N	2021/10/13	NC	75 - 125	101	80 - 120	<0.050	mg/L	0.24	20		
7631405	Total Ammonia-N	2021/10/13	96	75 - 125	101	80 - 120	<0.050	mg/L	7.1	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).





BUREAU  
VERITAS

Bureau Veritas Job #: C1T0256  
Report Date: 2021/10/22

Terrapure Environmental  
Client Project #: SW  
Sampler Initials: DT

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

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Anastassia Hamanov, Scientific Specialist

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Bureau Veritas Laboratories  
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L9 Tel: (905) 817-5700 Toll-free 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

06-Oct-21 15:10  
Jolanta Goralczyk  
C1T0256

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name: #16786 Terrapure Environmental	Company Name:	Attention: Brad Mullin	Quotation #: B60569	Bottle Order #:	
Attention: Accounting	Address: 65 Green Mountain Rd West	Address: Stoney Creek ON L8J 1X5	P.O. #:	848637	
Tel: (905) 561-0305 Fax: (905) 561-1674	Tel: (905) 548-5882 Fax: (905) 578-7533	Email: bmulin@terrapureenv.com; dtaylor2@terrapureenv.com	Project Name: SW SW	Project Manager: Jolanta Goralczyk	
Email: kbailey@terrapureenv.com	Email: bmulin@terrapureenv.com; dtaylor2@terrapureenv.com		Site #:	COC #: ENM 1117	
			Sampled By:	C9848637-03-01	

**MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY**

Regulation 153 (2011)		Other Regulations		Special Instructions
<input type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality _____
<input type="checkbox"/> Table _____			<input type="checkbox"/> PWQO	<input type="checkbox"/> Reg 406 Table
				<input type="checkbox"/> Other _____

Include Criteria on Certificate of Analysis (Y/N)?

Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals (ig for VI)	ANALYSIS REQUESTED (PLEASE BE SPECIFIC)	T turnaround Time (TAT) Required: Please provide advance notice for rush projects
1	TS-1	Oct 5 2021	NA	SW	Y	x x	Regular (Standard) TAT: <input checked="" type="checkbox"/> (will be applied if Rush TAT is not specified). Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.
2	T-13				Y	x	Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)
3	T-29				Y	x	# of Bottles: _____ Comments: _____
4	T-3R				Y	x	
6	T-31				Y	x	
6	T-1R				Y	x	
7	T-32				Y	x	
8	T-35				Y	x	
9	T-15R				Y	x	
10	T-12				Y	x	

RELINQUISHED BY: (Signature/Print) Dan Taylor	Date: (YY/MM/DD) 21/10/06	Time 9:15	RECEIVED BY: (Signature/Print) KAUITHASELWAN	Date: (YY/MM/DD) 2021/10/06	Time 15:10	# jars used and not submitted	Laboratory Use Only Time Sensitive	Temperature (°C) on Receipt 4/13/2023	Custody Seal Present Intact	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
--	------------------------------	--------------	---	--------------------------------	---------------	-------------------------------	---------------------------------------	--	--------------------------------	---	-----------------------------

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.  
\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.  
\*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY FORMS.

Bureau Veritas Canada (2019) Inc. RV driver 2/4/2





Your Project #: HCL  
 Your C.O.C. #: 848944-04-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
 65 Green Mountain Rd West  
 Stoney Creek, ON  
 CANADA L8J 1X5

**Report Date: 2021/11/02**  
 Report #: R6883901  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1U9913**  
**Received: 2021/10/22, 16:53**

Sample Matrix: Water  
 # Samples Received: 1

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Alkalinity	1	N/A	2021/10/28	CAM SOP-00448	SM 23 2320 B m
Anions	1	N/A	2021/10/29	CAM SOP-00435	SM 23 4110 B m
Conductivity	1	N/A	2021/10/28	CAM SOP-00414	SM 23 2510 m
Fluoride	1	2021/10/27	2021/10/28	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2021/10/28	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Calcium and Magnesium	1	2021/10/27	2021/10/28	CAM SOP-00408	EPA 6010D m
Total Metals Analysis by ICPMS	1	N/A	2021/11/01	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	1	N/A	2021/10/27	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (1)	1	N/A	2021/10/28	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	1	2021/10/27	2021/10/28	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2021/10/25	CAM SOP-00444	OMOE E3179 m
Orthophosphate	1	N/A	2021/10/27	CAM SOP-00461	EPA 365.1 m
Total Kjeldahl Nitrogen in Water	1	2021/10/26	2021/10/28	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (2)	1	N/A	2021/10/26	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric)	1	2021/10/27	2021/10/27	CAM SOP-00407	SM 23 4500 P B H m
Total Suspended Solids	1	2021/10/26	2021/10/27	CAM SOP-00428	SM 23 2540D m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (2) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.



Your Project #: HCL  
Your C.O.C. #: 848944-04-01

**Attention: Brad Mullin - GHD Reporting**

Terrapure Environmental  
65 Green Mountain Rd West  
Stoney Creek, ON  
CANADA L8J 1X5

**Report Date: 2021/11/02**  
Report #: R6883901  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1U9913**

**Received: 2021/10/22, 16:53**

Encryption Key



**AUTHORIZED REPORT  
RAPPORT AUTORISÉ**

Bureau Veritas  
02 Nov 2021 18:24:49

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Jolanta Goralczyk, Project Manager  
Email: Jolanta.Goralczyk@bureauveritas.com  
Phone# (905)817-5751

=====  
This report has been generated and distributed using a secure automated process.  
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



**RESULTS OF ANALYSES OF WATER**

<b>Bureau Veritas ID</b>		RAF354		
<b>Sampling Date</b>		2021/10/21 10:30		
<b>COC Number</b>		848944-04-01		
	<b>UNITS</b>	<b>HCL 10:30</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Calculated Parameters</b>				
Hardness (CaCO3)	mg/L	1700	1.0	7656057
<b>Inorganics</b>				
Total Ammonia-N	mg/L	0.24	0.050	7663206
Conductivity	umho/cm	2700	1.0	7663577
Fluoride (F-)	mg/L	0.68	0.10	7663549
Total Kjeldahl Nitrogen (TKN)	mg/L	0.74	0.20	7660939
Total Organic Carbon (TOC)	mg/L	3.7	0.40	7661280
Orthophosphate (P)	mg/L	<0.010	0.010	7662594
pH	pH	7.80		7663582
Phenols-4AAP	mg/L	<0.0010	0.0010	7658073
Total Phosphorus	mg/L	0.097	0.020	7663204
Total Suspended Solids	mg/L	60	10	7658541
Alkalinity (Total as CaCO3)	mg/L	330	1.0	7663575
Nitrite (N)	mg/L	<0.010	0.010	7663504
Dissolved Chloride (Cl-)	mg/L	92	5.0	7664265
Nitrate (N)	mg/L	<0.10	0.10	7663504
Dissolved Bromide (Br-)	mg/L	<5.0	5.0	7664265
Dissolved Sulphate (SO4)	mg/L	1400	5.0	7664265
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				



**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>Bureau Veritas ID</b>		RAF354		
<b>Sampling Date</b>		2021/10/21 10:30		
<b>COC Number</b>		848944-04-01		
	<b>UNITS</b>	<b>HCL 10:30</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Metals</b>				
Dissolved Calcium (Ca)	mg/L	380	0.050	7663666
Dissolved Magnesium (Mg)	mg/L	190	0.050	7663666
Total Aluminum (Al)	mg/L	0.98	0.0049	7667053
Total Barium (Ba)	mg/L	0.086	0.0020	7667053
Total Beryllium (Be)	mg/L	<0.00040	0.00040	7667053
Total Boron (B)	mg/L	0.31	0.010	7667053
Total Cadmium (Cd)	mg/L	<0.000090	0.000090	7667053
Total Calcium (Ca)	mg/L	400	0.20	7667053
Total Chromium (Cr)	mg/L	<0.0050	0.0050	7667053
Total Cobalt (Co)	mg/L	0.0066	0.00050	7667053
Total Copper (Cu)	mg/L	0.0035	0.00090	7667053
Total Iron (Fe)	mg/L	2.1	0.10	7667053
Total Lead (Pb)	mg/L	0.0050	0.00050	7667053
Total Magnesium (Mg)	mg/L	200	0.050	7667053
Total Manganese (Mn)	mg/L	2.8	0.0020	7667053
Total Molybdenum (Mo)	mg/L	0.0080	0.00050	7667053
Total Nickel (Ni)	mg/L	0.022	0.0010	7667053
Total Potassium (K)	mg/L	3.9	0.20	7667053
Total Silicon (Si)	mg/L	9.5	0.050	7667053
Total Sodium (Na)	mg/L	54	0.10	7667053
Total Strontium (Sr)	mg/L	2.9	0.0010	7667053
Total Titanium (Ti)	mg/L	0.029	0.0050	7667053
Total Vanadium (V)	mg/L	0.0034	0.00050	7667053
Total Zinc (Zn)	mg/L	0.035	0.0050	7667053
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU  
VERITAS

Bureau Veritas Job #: C1U9913  
Report Date: 2021/11/02

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: CR

### TEST SUMMARY

**Bureau Veritas ID:** RAF354  
**Sample ID:** HCL 10:30  
**Matrix:** Water

**Collected:** 2021/10/21  
**Shipped:**  
**Received:** 2021/10/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7663575	N/A	2021/10/28	Surinder Rai
Anions	IC	7664265	N/A	2021/10/29	Fari Dehdezi
Conductivity	AT	7663577	N/A	2021/10/28	Surinder Rai
Fluoride	ISE	7663549	2021/10/27	2021/10/28	Surinder Rai
Hardness (calculated as CaCO <sub>3</sub> )		7656057	N/A	2021/10/28	Automated Statchk
Dissolved Calcium and Magnesium	ICP	7663666	2021/10/27	2021/10/28	Suban Kanapathipplai
Total Metals Analysis by ICPMS	ICP/MS	7667053	N/A	2021/11/01	Prempal Bhatti
Total Ammonia-N	LACH/NH <sub>4</sub>	7663206	N/A	2021/10/27	Amanpreet Sappal
Nitrate & Nitrite as Nitrogen in Water	LACH	7663504	N/A	2021/10/28	Chandra Nandlal
pH	AT	7663582	2021/10/27	2021/10/28	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7658073	N/A	2021/10/25	Deonarine Ramnarine
Orthophosphate	KONE	7662594	N/A	2021/10/27	Avneet Kour Sudan
Total Kjeldahl Nitrogen in Water	SKAL	7660939	2021/10/26	2021/10/28	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	7661280	N/A	2021/10/26	Julianna Castiglione
Total Phosphorus (Colourimetric)	LACH/P	7663204	2021/10/27	2021/10/27	Shivani Shivani
Total Suspended Solids	BAL	7658541	2021/10/26	2021/10/27	Sandeep Kaur





### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.0°C
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Sample RAF354 [HCL 10:30] : Anions Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

**Results relate only to the items tested.**



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Bureau Veritas Job #: C1U9913

Report Date: 2021/11/02

### QUALITY ASSURANCE REPORT

Terrapure Environmental

Client Project #: HCL

Sampler Initials: CR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7658073	Phenols-4AAP	2021/10/25	99	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20		
7658541	Total Suspended Solids	2021/10/27					<10	mg/L	NC	25	100	85 - 115
7660939	Total Kjeldahl Nitrogen (TKN)	2021/10/27	108	80 - 120	99	80 - 120	<0.10	mg/L	10	20	100	80 - 120
7661280	Total Organic Carbon (TOC)	2021/10/26	96	80 - 120	97	80 - 120	<0.40	mg/L	0.022	20		
7662594	Orthophosphate (P)	2021/10/27	118	75 - 125	101	80 - 120	<0.010	mg/L	NC	25		
7663204	Total Phosphorus	2021/10/27	92	80 - 120	94	80 - 120	<0.020	mg/L	3.2	20	87	80 - 120
7663206	Total Ammonia-N	2021/10/27	96	75 - 125	96	80 - 120	<0.050	mg/L	1.5	20		
7663504	Nitrate (N)	2021/10/28	94	80 - 120	102	80 - 120	<0.10	mg/L	NC	20		
7663504	Nitrite (N)	2021/10/28	102	80 - 120	106	80 - 120	<0.010	mg/L	NC	20		
7663549	Fluoride (F-)	2021/10/28	97	80 - 120	98	80 - 120	<0.10	mg/L	3.3	20		
7663575	Alkalinity (Total as CaCO3)	2021/10/28			98	85 - 115	<1.0	mg/L	0.44	20		
7663577	Conductivity	2021/10/28			102	85 - 115	<1.0	umho/cm	0.31	25		
7663582	pH	2021/10/28			102	98 - 103			0.36	N/A		
7663666	Dissolved Calcium (Ca)	2021/10/28	NC	80 - 120	99	80 - 120	<0.050	mg/L				
7663666	Dissolved Magnesium (Mg)	2021/10/28	NC	80 - 120	97	80 - 120	<0.050	mg/L				
7664265	Dissolved Bromide (Br-)	2021/10/29	107	80 - 120	104	80 - 120	<1.0	mg/L	4.0	20		
7664265	Dissolved Chloride (Cl-)	2021/10/29	NC	80 - 120	99	70 - 130	<1.0	mg/L				
7664265	Dissolved Sulphate (SO4)	2021/10/29	NC	80 - 120	102	80 - 120	<1.0	mg/L				
7667053	Total Aluminum (Al)	2021/11/02	100	80 - 120	96	80 - 120	<0.0049	mg/L	9.8	20		
7667053	Total Barium (Ba)	2021/11/02	101	80 - 120	101	80 - 120	<0.0020	mg/L				
7667053	Total Beryllium (Be)	2021/11/02	96	80 - 120	98	80 - 120	<0.00040	mg/L				
7667053	Total Boron (B)	2021/11/02	99	80 - 120	98	80 - 120	<0.010	mg/L				
7667053	Total Cadmium (Cd)	2021/11/02	105	80 - 120	105	80 - 120	<0.000090	mg/L	NC	20		
7667053	Total Calcium (Ca)	2021/11/02	NC	80 - 120	99	80 - 120	<0.20	mg/L				
7667053	Total Chromium (Cr)	2021/11/02	98	80 - 120	98	80 - 120	<0.0050	mg/L	NC	20		
7667053	Total Cobalt (Co)	2021/11/02	105	80 - 120	105	80 - 120	<0.00050	mg/L				
7667053	Total Copper (Cu)	2021/11/02	100	80 - 120	100	80 - 120	<0.00090	mg/L	1.4	20		
7667053	Total Iron (Fe)	2021/11/02	103	80 - 120	101	80 - 120	<0.10	mg/L	4.6	20		
7667053	Total Lead (Pb)	2021/11/02	99	80 - 120	100	80 - 120	<0.00050	mg/L	2.6	20		
7667053	Total Magnesium (Mg)	2021/11/02	96	80 - 120	100	80 - 120	<0.050	mg/L				



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Bureau Veritas Job #: C1U9913

Report Date: 2021/11/02

### QUALITY ASSURANCE REPORT(CONT'D)

Terrapure Environmental

Client Project #: HCL

Sampler Initials: CR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7667053	Total Manganese (Mn)	2021/11/02	106	80 - 120	105	80 - 120	<0.0020	mg/L				
7667053	Total Molybdenum (Mo)	2021/11/02	100	80 - 120	99	80 - 120	<0.00050	mg/L				
7667053	Total Nickel (Ni)	2021/11/02	102	80 - 120	102	80 - 120	<0.0010	mg/L	9.8	20		
7667053	Total Potassium (K)	2021/11/02	98	80 - 120	104	80 - 120	<0.20	mg/L				
7667053	Total Silicon (Si)	2021/11/02	97	80 - 120	99	80 - 120	<0.050	mg/L				
7667053	Total Sodium (Na)	2021/11/02	NC	80 - 120	96	80 - 120	<0.10	mg/L				
7667053	Total Strontium (Sr)	2021/11/02	105	80 - 120	103	80 - 120	<0.0010	mg/L				
7667053	Total Titanium (Ti)	2021/11/02	96	80 - 120	99	80 - 120	<0.0050	mg/L				
7667053	Total Vanadium (V)	2021/11/02	101	80 - 120	99	80 - 120	<0.00050	mg/L				
7667053	Total Zinc (Zn)	2021/11/02	106	80 - 120	107	80 - 120	<0.0050	mg/L	1.5	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).




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Bureau Veritas Job #: C1U9913  
Report Date: 2021/11/02

Terrapure Environmental  
Client Project #: HCL  
Sampler Initials: CR

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

*Eva Pranjic*  


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Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

