2007188

GC/MS Volatiles:
The sample was analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C. The sample was also analyzed for Gasoline Range Organics (GRO).

All acceptance criteria were met.

Dissolved Gasses:
The sample was prepared and analyzed according to method RSK-175 procedures and the current revision of SOP 449.

All acceptance criteria were met.

DRO:
The sample was analyzed following the current revision of SOP 406 generally based on SW-846 Methods 8000C and 8015D. TEPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C10 to C28.

The method blank associated with this project was below the reporting limit, but above the MDL for diesel range organics. The DRO method blank concentration is less than half the reporting limit. This compound was detected in the associated sample, so the data were flagged.

All remaining acceptance criteria were met.

BART:
The Biological Activity Reaction Test was completed with the Iron-Related Bacteria, Sulfate-Reducing Bacteria, and Slime-Forming Bacteria kit manufactured by Hach Company. The analysis was performed following the manufacturer provided instructions. If the target analyte is not detected (absent), then the sample will be reported with “ND” in the result field. If the target analyte is detected (present), then the sample will be reported with the estimated colony forming units/mL (cfu/mL) as provided by the manufacturer based on the day reaction was observed.

Metals:
The sample was analyzed following Methods for the Determination of Metals in Environmental Samples – Supplement 1 procedures. Analysis by ICPMS followed method 200.8 and the current revision of SOP 827.

The sample was to be analyzed for dissolved metals. The sample was filtered through a 0.45 micron filter and preserved with nitric acid to a pH less than two prior to analysis.

All acceptance criteria were met.

Inorganics:

The sample was analyzed following EMSL and Standard Method procedures for the current revisions of the following SOPs and methods:

Analyte	Method	SOP #
Alkalinity	SM2320B	1106
Bicarbonate	SM2320B	1106
Carbonate	SM2320B	1106
pH	SM4500-H^+ B	1126
Total phosphorus	SM4500-P	1119
Specific conductance	SM2510B	1128
TDS	SM2540C	1101
Bromide	300.0 Revision 2.1	1113
Chloride	300.0 Revision 2.1	1113
Fluoride	300.0 Revision 2.1	1113
Nitrate as N	300.0 Revision 2.1	1113
Nitrite as N	300.0 Revision 2.1	1113
Total Nitrates	300.0 Revision 2.1	1113
Sulfate	300.0 Revision 2.1	1113

All acceptance criteria were met.

Client:	Western Water and Land, Inc.	**Date:**	*29-Jul-20*
Project:	GV 86-2 BWQ	**Work Order:**	2007188
Sample ID:	Mitchell 149891	**Lab ID:**	2007188-1
Legal Location:		**Matrix:**	WATER
Collection Date:	7/13/2020 10:20	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
ALKALINITY AS CALCIUM CARBONATE			**SM2320B**		Prep Date: **7/20/2020**		PrepBy: **KJS**
BICARBONATE AS CaCO3	**260**		**20**	**MG/L**	1		7/20/2020
CARBONATE AS CaCO3	ND		20	MG/L	1		7/20/2020
TOTAL ALKALINITY AS CaCO3	**260**		**20**	**MG/L**	1		7/20/2020
BIOLOGICAL ACTIVITY REACTION TEST			**BART**		Prep Date: **7/15/2020**		PrepBy: **JML**
IRON RELATED BACTERIA	**35000**		**1**	**cfu/ml**	1		7/23/2020
SLIME FORMING BACTERIA	**67000**		**1**	**cfu/ml**	1		7/23/2020
SULFATE REDUCING BACTERIA	**115000**		**1**	**cfu/ml**	1		7/23/2020
DIESEL RANGE ORGANICS			**SW8015M**		Prep Date: **7/20/2020**		PrepBy: **JRS**
Diesel Range Organics	**0.43**	JB	**1**	**MG/L**	1	0.36	7/25/2020 15:15
Surr: O-TERPHENYL	*96*		*69-120*	*%REC*	1		7/25/2020 15:15
DISSOLVED GASSES			**RSK175**		Prep Date: **7/27/2020**		PrepBy: **DMS**
METHANE	ND		1	UG/L	1	1	7/27/2020 17:58
ETHANE	ND		2	UG/L	1	2	7/27/2020 17:58
PROPANE	ND		1	UG/L	1	1	7/27/2020 17:58
GC/MS VOLATILES			**SW8260_25**		Prep Date: **7/24/2020**		PrepBy: **C1A**
BENZENE	ND		1	UG/L	1	0.3	7/24/2020 18:34
TOLUENE	ND		1	UG/L	1	0.34	7/24/2020 18:34
ETHYLBENZENE	ND		1	UG/L	1	0.33	7/24/2020 18:34
M+P-XYLENE	ND		1	UG/L	1	0.55	7/24/2020 18:34
O-XYLENE	ND		1	UG/L	1	0.34	7/24/2020 18:34
TOTAL XYLENES	ND		1	UG/L	1		7/24/2020 18:34
Surr: 4-BROMOFLUOROBENZENE	*102*		*80-120*	*%REC*	1		7/24/2020 18:34
Surr: DIBROMOFLUOROMETHANE	*98*		*80-120*	*%REC*	1		7/24/2020 18:34
Surr: TOLUENE-D8	*102*		*80-120*	*%REC*	1		7/24/2020 18:34
GASOLINE RANGE ORGANICS	ND		100	UG/L	1	51	7/24/2020 18:34
ION CHROMATOGRAPHY			**EPA300.0**		Prep Date: **7/14/2020**		PrepBy: **KJS**
BROMIDE	ND		0.2	MG/L	1	0.064	7/14/2020 17:44
CHLORIDE	**2.4**		**0.2**	**MG/L**	1	0.076	7/14/2020 17:44
FLUORIDE	**0.38**		**0.1**	**MG/L**	1	0.039	7/14/2020 17:44
NITRATE/NITRITE AS N	**0.69**		**0.15**	**MG/L**	1		7/14/2020 17:44
NITRATE AS N	**0.69**		**0.2**	**MG/L**	1	0.092	7/14/2020 17:44
NITRITE AS N	ND		0.15	MG/L	1	0.069	7/14/2020 17:44
SULFATE	**30**		**1**	**MG/L**	1	0.53	7/14/2020 17:44
METALS BY 200.8			**EPA200.8**		Prep Date: **7/16/2020**		PrepBy: **JML**
BARIUM	**0.048**		**0.001**	**MG/L**	10	0.00049	7/20/2020 18:59
BORON	**0.078**		**0.05**	**MG/L**	10	0.026	7/20/2020 18:59
CALCIUM	**20**		**1**	**MG/L**	10	0.18	7/20/2020 18:59
IRON	**0.13**	J	**0.15**	**MG/L**	10	0.071	7/20/2020 18:59
MAGNESIUM	**28**		**0.1**	**MG/L**	10	0.023	7/20/2020 18:59
MANGANESE	ND		0.004	MG/L	10	0.0021	7/20/2020 18:59

Client:	Western Water and Land, Inc.	**Date:**	*29-Jul-20*
Project:	GV 86-2 BWQ	**Work Order:**	2007188
Sample ID:	Mitchell 149891	**Lab ID:**	2007188-1
Legal Location:		**Matrix:**	WATER
Collection Date:	7/13/2020 10:20	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
POTASSIUM	**1.5**		**1**	**MG/L**	10	0.2	7/20/2020 18:59
SELENIUM	**0.00092**	J	**0.0015**	**MG/L**	10	0.00067	7/20/2020 18:59
SODIUM	**64**		**1**	**MG/L**	10	0.13	7/20/2020 18:59
STRONTIUM	**0.52**		**0.001**	**MG/L**	10	0.00024	7/20/2020 18:59
PH			**SM4500-H**		Prep Date: **7/21/2020**		PrepBy: **KJS**
PH	**7.42**		**0.1**	**pH**	1		7/21/2020
SPECIFIC CONDUCTANCE IN WATER			**SM2510B**		Prep Date: **7/21/2020**		PrepBy: **KJS**
SPECIFIC CONDUCTIVITY	**541**		**1**	**umhos/cm**	1		7/21/2020
TOTAL DISSOLVED SOLIDS			**SM2540C**		Prep Date: **7/17/2020**		PrepBy: **LMC**
TOTAL DISSOLVED SOLIDS	**330**		**20**	**MG/L**	1		7/20/2020
TOTAL PHOSPHORUS AS P			**SM4500-P**		Prep Date: **7/23/2020**		PrepBy: **LMC**
TOTAL PHOSPHORUS	**0.023**	J	**0.05**	**MG/L**	1	0.016	7/24/2020

Client:	Western Water and Land, Inc.	**Date:**	*29-Jul-20*
Project:	GV 86-2 BWQ	**Work Order:**	2007188
Sample ID:	Mitchell 149891	**Lab ID:**	2007188-1
Legal Location:		**Matrix:**	WATER
Collection Date:	7/13/2020 10:20	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed

Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC

U or ND - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.

Y2 - Chemical Yield outside default limits.

W - DER is greater than Warning Limit of 1.42

* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
# - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
G - Sample density differs by more than 15% of LCS density.
D - DER is greater than Control Limit

M - Requested MDC not met.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

L - LCS Recovery below lower control limit.

H - LCS Recovery above upper control limit.

P - LCS, Matrix Spike Recovery within control limits.

N - Matrix Spike Recovery outside control limits

NC - Not Calculated for duplicate results less than 5 times MDC

B - Analyte concentration greater than MDC.

B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

* - Duplicate analysis (relative percent difference) not within control limits.

S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
- gasoline
- JP-8
- diesel
- mineral spirits
- motor oil
- Stoddard solvent
- bunker C

Batch ID: **HC200720-81-1** Instrument ID **FUELS-1** Method: **SW8015M**

LCS Sample ID: **HC200720-81** Units: **MG/L** Analysis Date: **7/25/2020 14:11**

Client ID: Run ID: **HC200720-81A** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	8.77	1.07	8.33		105	53-120				20	
Surr: O-TERPHENYL	1.82		1.67		109	69-120					

LCSD Sample ID: **HC200720-81** Units: **MG/L** Analysis Date: **7/25/2020 14:33**

Client ID: Run ID: **HC200720-81A** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	8.72	1.07	8.33		105	53-120		8.77	1	20	
Surr: O-TERPHENYL	1.83		1.67		110	69-120			1		

MB Sample ID: **HC200720-81** Units: **MG/L** Analysis Date: **7/25/2020 13:50**

Client ID: Run ID: **HC200720-81A** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	ReportLimit	MDL								Qual
Diesel Range Organics	0.44	1.1	0.37								J
Surr: O-TERPHENYL	1.89				113	69-120					

The following samples were analyzed in this batch: 2007188-1

QC BATCH REPORT

Batch ID: **HC200727-91-2** Instrument ID **MEE-1** Method: **RSK175**

LCS Sample ID: **HC200727-91** Units: **UG/L** Analysis Date: **7/27/2020 16:25**

Client ID: Run ID: **HC200727-91A** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	155	1	142		109	76-125				25	
ETHANE	300	2	267		113	70-120				25	
PROPANE	438	1	391		112	72-120				25	

LCSD Sample ID: **HC200727-91** Units: **UG/L** Analysis Date: **7/27/2020 17:41**

Client ID: Run ID: **HC200727-91A** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	122	1	142		85	76-125		155	24	25	
ETHANE	235	2	267		88	70-120		300	25	25	
PROPANE	340	1	391		87	72-120		438	25	25	

MB Sample ID: **HC200727-92** Units: **UG/L** Analysis Date: **7/27/2020 17:51**

Client ID: Run ID: **HC200727-91A** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	ReportLimit	MDL	Qual
METHANE	ND	1	1	
ETHANE	ND	2	2	
PROPANE	ND	1	1	

The following samples were analyzed in this batch: 2007188-1

QC BATCH REPORT

Batch ID: **IP200716-4-2** Instrument ID **ICPMS2** Method: **EPA200.8**

LCS Sample ID: **IM200716-4** Units: **MG/L** Analysis Date: **7/20/2020 18:44**

Client ID: Run ID: **IM200720-11A2** Prep Date: **7/16/2020** DF: **10**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BARIUM	0.104	0.001	0.1		104	85-115				20	
BORON	0.967	0.05	1		97	85-115				20	
CALCIUM	10.8	1	10		108	85-115				20	
IRON	5.34	0.15	5		107	85-115				20	
MAGNESIUM	9.78	0.1	10		98	85-115				20	
MANGANESE	0.106	0.004	0.1		106	85-115				20	
POTASSIUM	4.91	1	5		98	85-115				20	
SELENIUM	0.105	0.0015	0.1		105	85-115				20	
SODIUM	9.67	1	10		97	85-115				20	
STRONTIUM	0.107	0.001	0.1		107	85-115				20	

LCSD Sample ID: **IM200716-4** Units: **MG/L** Analysis Date: **7/20/2020 18:50**

Client ID: Run ID: **IM200720-11A2** Prep Date: **7/16/2020** DF: **10**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BARIUM	0.101	0.001	0.1		101	85-115		0.104	2	20	
BORON	0.993	0.05	1		99	85-115		0.967	3	20	
CALCIUM	10.5	1	10		105	85-115		10.8	3	20	
IRON	5.2	0.15	5		104	85-115		5.34	3	20	
MAGNESIUM	9.71	0.1	10		97	85-115		9.78	1	20	
MANGANESE	0.106	0.004	0.1		106	85-115		0.106	1	20	
POTASSIUM	4.87	1	5		97	85-115		4.91	1	20	
SELENIUM	0.102	0.0015	0.1		102	85-115		0.105	4	20	
SODIUM	9.6	1	10		96	85-115		9.67	1	20	
STRONTIUM	0.103	0.001	0.1		103	85-115		0.107	3	20	

QC BATCH REPORT

Batch ID: **IP200716-4-2** Instrument ID **ICPMS2** Method: **EPA200.8**

MB Sample ID: **FP200715-4** Units: **MG/L** Analysis Date: **7/20/2020 18:38**

Client ID: Run ID: **IM200720-11A2** Prep Date: **7/16/2020** DF: **10**

Analyte	Result	ReportLimit	MDL	Qual
BARIUM	ND	0.001	0.00049	
BORON	ND	0.05	0.026	
CALCIUM	ND	1	0.18	
IRON	ND	0.15	0.071	
MAGNESIUM	ND	0.1	0.023	
MANGANESE	ND	0.004	0.0021	
POTASSIUM	ND	1	0.2	
SELENIUM	ND	0.0015	0.00067	
SODIUM	ND	1	0.13	
STRONTIUM	-0.0011	0.001	0.00024	

The following samples were analyzed in this batch: 2007188-1

Batch ID: **VL200724-33-1** Instrument ID **HPV3** Method: **SW8260_25**

LCS Sample ID: **VL200724-33** Units: **%REC** Analysis Date: **7/24/2020 16:12**

Client ID: Run ID: **VL200724-33A** Prep Date: **7/24/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	25.2		25		101	80-120					
Surr: DIBROMOFLUOROMETHANE	25		25		100	80-120					
Surr: TOLUENE-D8	25		25		100	80-120					
BENZENE	10.3	1	10		103	80-120				20	
TOLUENE	10.1	1	10		101	80-120				20	
ETHYLBENZENE	10.2	1	10		102	80-120				20	
M+P-XYLENE	20.6	1	20		103	80-120				20	
O-XYLENE	10.4	1	10		104	80-120				20	

LCSD Sample ID: **VL200724-33** Units: **%REC** Analysis Date: **7/24/2020 16:32**

Client ID: Run ID: **VL200724-33A** Prep Date: **7/24/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	25.2		25		101	80-120			0		
Surr: DIBROMOFLUOROMETHANE	24.9		25		100	80-120			0		
Surr: TOLUENE-D8	24.8		25		99	80-120			1		
BENZENE	10.3	1	10		103	80-120		10.3	0	20	
TOLUENE	10.1	1	10		101	80-120		10.1	0	20	
ETHYLBENZENE	10.4	1	10		104	80-120		10.2	1	20	
M+P-XYLENE	21.3	1	20		106	80-120		20.6	3	20	
O-XYLENE	10.5	1	10		105	80-120		10.4	1	20	

MB Sample ID: **VL200724-33** Units: **%REC** Analysis Date: **7/24/2020 17:52**

Client ID: Run ID: **VL200724-33A** Prep Date: **7/24/2020** DF: **1**

Analyte	Result	ReportLimit	MDL				Qual
Surr: 4-BROMOFLUOROBENZENE	24.7				99	80-120	
Surr: DIBROMOFLUOROMETHANE	24.5				98	80-120	
Surr: TOLUENE-D8	24.8				99	80-120	
BENZENE	ND	1	0.3				
TOLUENE	ND	1	0.34				
ETHYLBENZENE	ND	1	0.33				
M+P-XYLENE	ND	1	0.55				
O-XYLENE	ND	1	0.34				
TOTAL XYLENES	ND	1					

The following samples were analyzed in this batch: 2007188-1

Client: Western Water and Land, Inc.
Work Order: 2007188
Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **VL200724-33-6** Instrument ID **HPV3** Method: **SW8260_25**

LCS Sample ID: **VL200724-333** Units: **UG/L** Analysis Date: **7/24/2020 16:52**
Client ID: Run ID: **VL200724-33A** Prep Date: **7/24/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	867	100	1000		86.7	75-121				20	

LCSD Sample ID: **VL200724-333** Units: **UG/L** Analysis Date: **7/24/2020 17:12**
Client ID: Run ID: **VL200724-33A** Prep Date: **7/24/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	927	100	1000		92.7	75-121		867	7	20	

MB Sample ID: **VL200724-33** Units: **UG/L** Analysis Date: **7/24/2020 17:52**
Client ID: Run ID: **VL200724-33A** Prep Date: **7/24/2020** DF: **1**

Analyte	Result	ReportLimit	MDL	Qual
GASOLINE RANGE ORGANICS	ND	100	51	

The following samples were analyzed in this batch: 2007188-1

QC BATCH REPORT

Batch ID: **AK200720-1-2** Instrument ID **NONE** Method: **SM2320B**

LCS Sample ID: **AK200720-1** Units: **MG/L** Analysis Date: **7/20/2020**
Client ID: Run ID: **AK200720-1a1** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS CaCO3	99.3	5	100		99	85-115				15	

LCSD Sample ID: **AK200720-1** Units: **MG/L** Analysis Date: **7/20/2020**
Client ID: Run ID: **AK200720-1a1** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS CaCO3	100	5	100		100	85-115		99.3	1	15	

MB Sample ID: **AK200720-1** Units: **MG/L** Analysis Date: **7/20/2020**
Client ID: Run ID: **AK200720-1a1** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	ReportLimit	MDL	Qual
BICARBONATE AS CaCO3	ND	5		
CARBONATE AS CaCO3	ND	5		
TOTAL ALKALINITY AS CaCO3	ND	5		

The following samples were analyzed in this batch: 2007188-1

QC BATCH REPORT

Batch ID: **IC200714-1-2** Instrument ID **IC3** Method: **EPA300.0**

LCS Sample ID: **IC200714-1** Units: **MG/L** Analysis Date: **7/14/2020 08:13**
Client ID: Run ID: **IC200714-1a3** Prep Date: **7/14/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	10.4	0.2	10		104	90-110				15	
CHLORIDE	10.2	0.2	10		102	90-110				15	
FLUORIDE	5.04	0.1	5		101	90-110				15	
NITRATE AS N	10.3	0.2	10		103	90-110				15	
NITRITE AS N	5.12	0.15	5		102	90-110				15	
SULFATE	50.8	1	50		102	90-110				15	

LCSD Sample ID: **IC200714-1** Units: **MG/L** Analysis Date: **7/14/2020 10:51**
Client ID: Run ID: **IC200714-1a3** Prep Date: **7/14/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	10.4	0.2	10		104	90-110		10.4	0	15	
CHLORIDE	10.2	0.2	10		102	90-110		10.2	0	15	
FLUORIDE	5.1	0.1	5		102	90-110		5.04	1	15	
NITRATE AS N	10.2	0.2	10		102	90-110		10.3	0	15	
NITRITE AS N	5.13	0.15	5		103	90-110		5.12	0	15	
SULFATE	51.2	1	50		102	90-110		50.8	1	15	

MB Sample ID: **IC200714-1** Units: **MG/L** Analysis Date: **7/14/2020 08:26**
Client ID: Run ID: **IC200714-1a3** Prep Date: **7/14/2020** DF: **1**

Analyte	Result	ReportLimit	MDL	Qual
BROMIDE	ND	0.2	0.064	
CHLORIDE	ND	0.2	0.076	
FLUORIDE	ND	0.1	0.039	
NITRATE AS N	ND	0.2	0.092	
NITRITE AS N	ND	0.15	0.069	
SULFATE	ND	1	0.53	

The following samples were analyzed in this batch: 2007188-1

QC BATCH REPORT

Batch ID: **pH200721-1-1** Instrument ID **pH-2** Method: **SM4500-H**

CCV Sample ID: **CCV** Units: **pH** Analysis Date: **7/21/2020**

Client ID: Run ID: **pH200721-1a1** Prep Date: **7/21/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.02	0.1	7			6.9-7.1					

ICV Sample ID: **ICV** Units: **pH** Analysis Date: **7/21/2020**

Client ID: Run ID: **pH200721-1a1** Prep Date: **7/21/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.04	0.1	7			6.9-7.1					

The following samples were analyzed in this batch: 2007188-1

Batch ID: **SC200721-1-3** Instrument ID **pH-2** Method: **SM2510B**

CCV Sample ID: **CCV** Units: **umhos/cm** Analysis Date: **7/21/2020**

Client ID: Run ID: **SC200721-1a1** Prep Date: **7/21/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	1310	1	1410		92	90-110					

ICV Sample ID: **ICV** Units: **umhos/cm** Analysis Date: **7/21/2020**

Client ID: Run ID: **SC200721-1a1** Prep Date: **7/21/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	667	1	718		93	90-110					

The following samples were analyzed in this batch: 2007188-1

QC BATCH REPORT

Batch ID: **TD200717-1-1** Instrument ID **Balance** Method: **SM2540C**

LCS Sample ID: **TD200717-1** Units: **MG/L** Analysis Date: **7/20/2020**
Client ID: Run ID: **TD200720-1A1** Prep Date: **7/17/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	391	20	400		98	85-115				14	

MB Sample ID: **TD200717-1** Units: **MG/L** Analysis Date: **7/20/2020**
Client ID: Run ID: **TD200720-1A1** Prep Date: **7/17/2020** DF: **1**

Analyte	Result	ReportLimit	MDL	Qual
TOTAL DISSOLVED SOLIDS	ND	20		

The following samples were analyzed in this batch: 2007188-1

Client: Western Water and Land, Inc.
Work Order: 2007188
Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **TP200723-1-1** Instrument ID **Spec** Method: **SM4500-P**

LCS Sample ID: **TP200723-1** Units: **MG/L** Analysis Date: **7/24/2020**
Client ID: Run ID: **TP200724-1A2** Prep Date: **7/23/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.587	0.05	0.5		117	80-120				20	

LCSD Sample ID: **TP200723-1** Units: **MG/L** Analysis Date: **7/24/2020**
Client ID: Run ID: **TP200724-1A2** Prep Date: **7/23/2020** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.595	0.05	0.5		119	80-120		0.587	1	20	

MB Sample ID: **TP200723-1** Units: **MG/L** Analysis Date: **7/24/2020**
Client ID: Run ID: **TP200724-1A2** Prep Date: **7/23/2020** DF: **1**

Analyte	Result	ReportLimit	MDL	Qual
TOTAL PHOSPHORUS	ND	0.05	0.016	

The following samples were analyzed in this batch: 2007188-1