



1902166

GC/MS Volatiles:

The samples were analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C. The samples were 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.

All 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 MCAWW, EMSL and Standard Method procedures for the current revisions of the following SOPs and methods:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	SM2320B	1106
Bicarbonate	SM2320B	1106
Carbonate	SM2320B	1106
pH	SM4500-H ⁺ B	1126
Total phosphorus	365.2	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.

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Western Water and Land, Inc.
 Project: TEP GV 84-1 BWQ
 Sample ID: Cottonwood Spg 1
 Legal Location:
 Collection Date: 2/12/2019 13:00

Date: 27-Feb-19
 Work Order: 1902166
 Lab ID: 1902166-1
 Matrix: SURFACEWAT
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
ALKALINITY AS CALCIUM CARBONATE			SM2320B				
BICARBONATE AS CaCO3	340		20	MG/L	1		2/18/2019
CARBONATE AS CaCO3	ND		20	MG/L	1		2/18/2019
TOTAL ALKALINITY AS CaCO3	340		20	MG/L	1		2/18/2019
BIOLOGICAL ACTIVITY REACTION TEST			BART				
IRON RELATED BACTERIA	35000		1	cfu/ml	1		2/27/2019
SLIME FORMING BACTERIA	66500		1	cfu/ml	1		2/27/2019
SULFATE REDUCING BACTERIA	100000		1	cfu/ml	1		2/27/2019
DIESEL RANGE ORGANICS			SW8015M				
Diesel Range Organics	ND		0.52	MG/L	1	0.26	2/18/2019 13:50
Surr: O-TERPHENYL	103		63-126	%REC	1		2/18/2019 13:50
DISSOLVED GASSES			RSK175				
METHANE	ND		1	UG/L	1	1	2/22/2019 11:43
ETHANE	ND		2	UG/L	1	2	2/22/2019 11:43
PROPANE	ND		1	UG/L	1	1	2/22/2019 11:43
GC/MS VOLATILES			SW8260_25				
BENZENE	ND		1	UG/L	1	0.3	2/14/2019 14:56
TOLUENE	ND		1	UG/L	1	0.3	2/14/2019 14:56
ETHYLBENZENE	ND		1	UG/L	1	0.3	2/14/2019 14:56
M+P-XYLENE	ND		1	UG/L	1	0.3	2/14/2019 14:56
O-XYLENE	ND		1	UG/L	1	0.3	2/14/2019 14:56
TOTAL XYLENES	ND		1	UG/L	1		2/14/2019 14:56
Surr: 4-BROMOFLUOROBENZENE	97		85-115	%REC	1		2/14/2019 14:56
Surr: DIBROMOFLUOROMETHANE	105		84-118	%REC	1		2/14/2019 14:56
Surr: TOLUENE-D8	98		85-115	%REC	1		2/14/2019 14:56
GASOLINE RANGE ORGANICS	ND		100	UG/L	1	30	2/14/2019 14:56
ION CHROMATOGRAPHY			EPA300.0				
BROMIDE	ND		2	MG/L	10	0.6	2/13/2019 15:11
CHLORIDE	9.2		2	MG/L	10	0.6	2/13/2019 15:11
FLUORIDE	0.32	J	1	MG/L	10	0.3	2/13/2019 15:11
NITRATE/NITRITE AS N	0.25		0.1	MG/L	1		2/13/2019 14:59
NITRATE AS N	0.25		0.2	MG/L	1	0.06	2/13/2019 14:59
NITRITE AS N	ND		0.1	MG/L	1	0.03	2/13/2019 14:59
SULFATE	22		10	MG/L	10	3	2/13/2019 15:11
METALS BY 200.8			EPA200.8				
BARIUM	0.14		0.001	MG/L	10	0.000086	2/19/2019 13:17
BORON	0.042	J	0.05	MG/L	10	0.0007	2/19/2019 13:17
CALCIUM	66		1	MG/L	10	0.087	2/19/2019 13:17
IRON	0.004	J	0.1	MG/L	10	0.00065	2/19/2019 13:17
MAGNESIUM	27		0.1	MG/L	10	0.014	2/19/2019 13:17
MANGANESE	0.0042		0.002	MG/L	10	0.000079	2/19/2019 13:17

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Western Water and Land, Inc.
Project: TEP GV 84-1 BWQ
Sample ID: Cottonwood Spg 1
Legal Location:
Collection Date: 2/12/2019 13:00

Date: 27-Feb-19
Work Order: 1902166
Lab ID: 1902166-1
Matrix: SURFACEWAT

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
POTASSIUM	2.6		1	MG/L	10	0.057	2/19/2019 13:17
SELENIUM	0.00045	J	0.001	MG/L	10	0.00012	2/19/2019 13:17
SODIUM	35		1	MG/L	10	0.022	2/19/2019 13:17
STRONTIUM	0.54		0.001	MG/L	10	0.00013	2/19/2019 13:17
PH			SM4500-H				Prep Date: 2/15/2019 PrepBy: AEJ
PH	8.23		0.1	pH	1		2/15/2019
SPECIFIC CONDUCTANCE IN WATER			SM2510B				Prep Date: 2/15/2019 PrepBy: AEJ
SPECIFIC CONDUCTIVITY	613		1	umhos/cm	1		2/15/2019
TOTAL DISSOLVED SOLIDS			SM2540C				Prep Date: 2/18/2019 PrepBy: AEJ
TOTAL DISSOLVED SOLIDS	390		20	MG/L	1		2/19/2019
TOTAL PHOSPHORUS AS P			EPA365.2				Prep Date: 2/22/2019 PrepBy: AEJ
TOTAL PHOSPHORUS	0.057		0.05	MG/L	1	0.015	2/22/2019

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Western Water and Land, Inc.
Project: TEP GV 84-1 BWQ
Sample ID: Trip Blank
Legal Location:
Collection Date: 2/12/2019

Date: 27-Feb-19
Work Order: 1902166
Lab ID: 1902166-2
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
GC/MS VOLATILES			SW8260_25				Prep Date: 2/14/2019 PrepBy: JXK
BENZENE	ND		1	UG/L	1	0.3	2/14/2019 14:13
TOLUENE	ND		1	UG/L	1	0.3	2/14/2019 14:13
ETHYLBENZENE	ND		1	UG/L	1	0.3	2/14/2019 14:13
M+P-XYLENE	ND		1	UG/L	1	0.3	2/14/2019 14:13
O-XYLENE	ND		1	UG/L	1	0.3	2/14/2019 14:13
TOTAL XYLENES	ND		1	UG/L	1		2/14/2019 14:13
Surr: 4-BROMOFLUOROBENZENE	99		85-115	%REC	1		2/14/2019 14:13
Surr: DIBROMOFLUOROMETHANE	104		84-118	%REC	1		2/14/2019 14:13
Surr: TOLUENE-D8	98		85-115	%REC	1		2/14/2019 14:13
GASOLINE RANGE ORGANICS	ND		100	UG/L	1	30	2/14/2019 14:13

Client: Western Water and Land, Inc.
Project: TEP GV 84-1 BWQ
Sample ID: Trip Blank
Legal Location:
Collection Date: 2/12/2019

Date: 27-Feb-19
Work Order: 1902166
Lab ID: 1902166-2
Matrix: WATER
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

ALS -- Fort Collins

Date: 2/27/2019 2:05:

Client: Western Water and Land, Inc.

QC BATCH REPORT

Work Order: 1902166

Project: TEP GV 84-1 BWQ

Batch ID: **HC190218-82-1** Instrument ID **FUELS-1** Method: **SW8015M**

LCS Sample ID: **HC190218-82** Units: **MG/L** Analysis Date: **2/18/2019 14:54**

Client ID: Run ID: **HC190218-8A** Prep Date: **2/18/2019** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	7.84	0.497	7.76		101	36-150				20	
Surr: O-TERPHENYL	1.6		1.55		103	63-126					

MB Sample ID: **HC190218-82** Units: **MG/L** Analysis Date: **2/18/2019 12:45**

Client ID: Run ID: **HC190218-8A** Prep Date: **2/18/2019** DF: **1**

Analyte	Result	ReportLimit	MDL							Qual
Diesel Range Organics	ND	0.51	0.25							
Surr: O-TERPHENYL	1.61				101	63-126				

The following samples were analyzed in this batch:

1902166-1

Client: Western Water and Land, Inc.
 Work Order: 1902166
 Project: TEP GV 84-1 BWQ

QC BATCH REPORT

Batch ID: **HC190222-91-2** Instrument ID **MEE-1** Method: **RSK175**

LCS		Sample ID: HC190222-91			Units: UG/L		Analysis Date: 2/22/2019 11:30				
Client ID:		Run ID: HC190222-9A			Prep Date: 2/22/2019		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	133	1	142		93	80-120				25	
ETHANE	233	2	267		88	80-120				25	
PROPANE	350	1	391		89	80-120				25	

LCSD		Sample ID: HC190222-91			Units: UG/L		Analysis Date: 2/22/2019 12:05				
Client ID:		Run ID: HC190222-9A			Prep Date: 2/22/2019		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	129	1	142		90	80-120		133	3	25	
ETHANE	236	2	267		88	80-120		233	1	25	
PROPANE	340	1	391		87	80-120		350	3	25	

MB		Sample ID: HC190222-91			Units: UG/L		Analysis Date: 2/22/2019 11:34				
Client ID:		Run ID: HC190222-9A			Prep Date: 2/22/2019		DF: 1				
Analyte	Result	ReportLimit	MDL								
METHANE	ND	1	1								
ETHANE	ND	2	2								
PROPANE	ND	1	1								

MS		Sample ID: 1902166-1			Units: UG/L		Analysis Date: 2/22/2019 11:46				
Client ID: Cottonwood Spg 1		Run ID: HC190222-9A			Prep Date: 2/22/2019		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	62.7	1	71.1	1	88	70-130				25	
ETHANE	116	2	133	2	87	70-130				25	
PROPANE	167	1	196	1	85	70-130				25	

The following samples were analyzed in this batch:

Client: Western Water and Land, Inc.
 Work Order: 1902166
 Project: TEP GV 84-1 BWQ

QC BATCH REPORT

Batch ID: **IP190215-2-12** Instrument ID **ICPMS2** Method: **EPA200.8**

LCS		Sample ID: IM190215-2			Units: MG/L		Analysis Date: 2/19/2019 12:35				
Client ID:		Run ID: IM190219-10A13			Prep Date: 2/15/2019		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	1.05	0.05	1		105	85-115				20	
CALCIUM	10.1	1	10		101	85-115				20	
IRON	4.98	0.1	5		100	85-115				20	
MAGNESIUM	9.95	0.1	10		99	85-115				20	
MANGANESE	0.103	0.002	0.1		103	85-115				20	
POTASSIUM	5.17	1	5		103	85-115				20	
SELENIUM	0.113	0.001	0.1		113	85-115				20	
SODIUM	10.2	1	10		102	85-115				20	
STRONTIUM	0.0979	0.001	0.1		98	85-115				20	

MB		Sample ID: FP190214-2			Units: MG/L		Analysis Date: 2/19/2019 16:28				
Client ID:		Run ID: IM190219-10A13			Prep Date: 2/15/2019		DF: 10				
Analyte	Result	ReportLimit	MDL								Qual
BARIUM	ND	0.001	0.000086								
BORON	ND	0.05	0.0007								
CALCIUM	ND	1	0.087								
IRON	-0.00071	0.1	0.00065								J
MAGNESIUM	ND	0.1	0.014								
MANGANESE	ND	0.002	0.000079								
POTASSIUM	ND	1	0.057								
SELENIUM	0.00032	0.001	0.00012								J
SODIUM	0.052	1	0.022								J
STRONTIUM	ND	0.001	0.00013								

The following samples were analyzed in this batch:

1902166-1

Client: Western Water and Land, Inc.
 Work Order: 1902166
 Project: TEP GV 84-1 BWQ

QC BATCH REPORT

Batch ID: VL190214-3-1 Instrument ID HPV1 Method: SW8260_25

LCS		Sample ID: VL190214-6			Units: UG/L		Analysis Date: 2/14/2019 12:26				
Client ID:		Run ID: VL190214-3A			Prep Date: 2/14/2019		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	894	100	1000		89	80-120				20	

LCSD		Sample ID: VL190214-6			Units: UG/L		Analysis Date: 2/14/2019 12:47				
Client ID:		Run ID: VL190214-3A			Prep Date: 2/14/2019		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	846	100	1000		85	80-120		894	6	20	

MB		Sample ID: VL190214-3			Units: UG/L		Analysis Date: 2/14/2019 13:30					
Client ID:		Run ID: VL190214-3A			Prep Date: 2/14/2019		DF: 1					
Analyte	Result	ReportLimit	MDL									Qual
GASOLINE RANGE ORGANICS	ND	100	30									

The following samples were analyzed in this batch:

1902166-1	1902166-2
-----------	-----------

Client: Western Water and Land, Inc.
 Work Order: 1902166
 Project: TEP GV 84-1 BWQ

QC BATCH REPORT

Batch ID: VL190214-3-2 Instrument ID: HPV1 Method: SW8260_25

LCS		Sample ID: VL190214-3			Units: %REC		Analysis Date: 2/14/2019 10:58				
Client ID:		Run ID: VL190214-3A			Prep Date: 2/14/2019		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		25		100	85-115					
Surr: DIBROMOFLUOROMETHANE	26.7		25		107	84-118					
Surr: TOLUENE-D8	25.2		25		101	85-115					
BENZENE	10.6	1	10		106	83-117				20	
TOLUENE	9.64	1	10		96	82-113				20	
ETHYLBENZENE	10.1	1	10		101	81-113				20	
M+P-XYLENE	18.7	1	20		94	82-115				20	
O-XYLENE	9.13	1	10		91	81-115				20	

LCSD		Sample ID: VL190214-3			Units: %REC		Analysis Date: 2/14/2019 11:19				
Client ID:		Run ID: VL190214-3A			Prep Date: 2/14/2019		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	24.6		25		98	85-115			2		
Surr: DIBROMOFLUOROMETHANE	27.1		25		108	84-118			2		
Surr: TOLUENE-D8	24.5		25		98	85-115			3		
BENZENE	10.9	1	10		109	83-117		10.6	3	20	
TOLUENE	9.95	1	10		100	82-113		9.64	3	20	
ETHYLBENZENE	10.1	1	10		101	81-113		10.1	1	20	
M+P-XYLENE	18.9	1	20		94	82-115		18.7	1	20	
O-XYLENE	9.7	1	10		97	81-115		9.13	6	20	

MB		Sample ID: VL190214-3			Units: %REC		Analysis Date: 2/14/2019 13:30				
Client ID:		Run ID: VL190214-3A			Prep Date: 2/14/2019		DF: 1				
Analyte	Result	ReportLimit	MDL								Qual
Surr: 4-BROMOFLUOROBENZENE	25.1				101	85-115					
Surr: DIBROMOFLUOROMETHANE	26.2				105	84-118					
Surr: TOLUENE-D8	24.5				98	85-115					
BENZENE	ND	1	0.3								
TOLUENE	ND	1	0.3								
ETHYLBENZENE	ND	1	0.3								
M+P-XYLENE	ND	1	0.3								
O-XYLENE	ND	1	0.3								
TOTAL XYLENES	ND	1									

The following samples were analyzed in this batch: 1902166-1 1902166-2

Client: Western Water and Land, Inc.
 Work Order: 1902166
 Project: TEP GV 84-1 BWQ

QC BATCH REPORT

Batch ID: **AK190218-1-2** Instrument ID **NONE** Method: **SM2320B**

LCS		Sample ID: AK190218-1			Units: MG/L		Analysis Date: 2/18/2019				
Client ID:		Run ID: AK190218-1A1			Prep Date: 2/18/2019		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	105	5	100		105	85-115				15	

MB		Sample ID: AK190218-1			Units: MG/L		Analysis Date: 2/18/2019				
Client ID:		Run ID: AK190218-1A1			Prep Date: 2/18/2019		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:

1902166-1

Client: Western Water and Land, Inc.
 Work Order: 1902166
 Project: TEP GV 84-1 BWQ

QC BATCH REPORT

Batch ID: IC190213-1-2 Instrument ID IC3 Method: EPA300.0

LCS		Sample ID: IC190213-1			Units: MG/L		Analysis Date: 2/13/2019 13:45				
Client ID:		Run ID: IC190213-1A3			Prep Date: 2/13/2019		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	9.51	0.2	10		95	90-110				15	
CHLORIDE	10.3	0.2	10		103	90-110				15	
FLUORIDE	5.27	0.1	5		105	90-110				15	
NITRATE AS N	10.3	0.2	10		103	90-110				15	
NITRITE AS N	5.16	0.1	5		103	90-110				15	
SULFATE	51.7	1	50		103	90-110				15	

LCSD		Sample ID: IC190213-1			Units: MG/L		Analysis Date: 2/13/2019 16:12				
Client ID:		Run ID: IC190213-1A3			Prep Date: 2/13/2019		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	9.42	0.2	10		94	90-110		9.51	1	15	
CHLORIDE	10.3	0.2	10		103	90-110		10.3	0	15	
FLUORIDE	5.23	0.1	5		105	90-110		5.27	1	15	
NITRATE AS N	10.3	0.2	10		103	90-110		10.3	0	15	
NITRITE AS N	5.17	0.1	5		103	90-110		5.16	0	15	
SULFATE	51.3	1	50		103	90-110		51.7	1	15	

MB		Sample ID: IC190213-1			Units: MG/L		Analysis Date: 2/13/2019 13:57					
Client ID:		Run ID: IC190213-1A3			Prep Date: 2/13/2019		DF: 1					
Analyte	Result	ReportLimit	MDL									Qual
BROMIDE	ND	0.2	0.06									
CHLORIDE	ND	0.2	0.06									
FLUORIDE	ND	0.1	0.03									
NITRATE/NITRITE AS N	ND	0.1										
NITRATE AS N	ND	0.2	0.06									
NITRITE AS N	ND	0.1	0.03									
SULFATE	ND	1	0.3									

The following samples were analyzed in this batch:

1902166-1

Client: Western Water and Land, Inc.
Work Order: 1902166
Project: TEP GV 84-1 BWQ

QC BATCH REPORT

Batch ID: **PH190215-1-1** Instrument ID **pH-1** Method: **SM4500-H**

CCV	Sample ID: CCV					Units: pH	Analysis Date: 2/15/2019				
Client ID:		Run ID: PH190215-1a1				Prep Date: 2/15/2019		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.09	0.1	7			6.9-7.1					

ICV	Sample ID: ICV					Units: pH	Analysis Date: 2/15/2019				
Client ID:		Run ID: PH190215-1a1				Prep Date: 2/15/2019		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.05	0.1	7			6.9-7.1					

The following samples were analyzed in this batch:

1902166-1

Client: Western Water and Land, Inc.
Work Order: 1902166
Project: TEP GV 84-1 BWQ

QC BATCH REPORT

Batch ID: **SC190215-1-1** Instrument ID **pH-1** Method: **SM2510B**

CCV	Sample ID: CCV					Units: umhos/cm	Analysis Date: 2/15/2019				
Client ID:		Run ID: SC190215-1a1				Prep Date: 2/15/2019		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	1410	1	1410		100						

ICV	Sample ID: ICV					Units: umhos/cm	Analysis Date: 2/15/2019				
Client ID:		Run ID: SC190215-1a1				Prep Date: 2/15/2019		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	705	1	718		98						

The following samples were analyzed in this batch:

1902166-1

Client: Western Water and Land, Inc.
Work Order: 1902166
Project: TEP GV 84-1 BWQ

QC BATCH REPORT

Batch ID: **TD190218-1-2** Instrument ID **Balance** Method: **SM2540C**

LCS Sample ID: **TD190218-1** Units: **MG/L** Analysis Date: **2/19/2019**
 Client ID: Run ID: **TD190219-1A1** Prep Date: **2/18/2019** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	410	20	400		103	85-115				5	

MB Sample ID: **TD190218-1** Units: **MG/L** Analysis Date: **2/19/2019**
 Client ID: Run ID: **TD190219-1A1** Prep Date: **2/18/2019** DF: **1**

Analyte	Result	ReportLimit	MDL	Qual
TOTAL DISSOLVED SOLIDS	ND	20		

The following samples were analyzed in this batch:

1902166-1

Client: Western Water and Land, Inc.
Work Order: 1902166
Project: TEP GV 84-1 BWQ

QC BATCH REPORT

Batch ID: **TP190222-1-1** Instrument ID: **Spec** Method: **EPA365.2**

LCS Sample ID: **TP190222-1** Units: **MG/L** Analysis Date: **2/22/2019**
 Client ID: Run ID: **TP190222-1A2** Prep Date: **2/22/2019** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.526	0.05	0.5		105	80-120				20	

MB Sample ID: **TP190222-1** Units: **MG/L** Analysis Date: **2/22/2019**
 Client ID: Run ID: **TP190222-1A2** Prep Date: **2/22/2019** DF: **1**

Analyte	Result	ReportLimit	MDL	Qual
TOTAL PHOSPHORUS	ND	0.05	0.015	

The following samples were analyzed in this batch: