



2104006

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.

DRO:

The samples were 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.

Dissolved Gasses:

The samples were prepared and analyzed according to method RSK-175 procedures and the current revision of SOP 449.

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 samples were 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 samples were to be analyzed for dissolved metals. The samples were 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:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	SM2320B	1106
Bicarbonate	SM2320B	1106
Carbonate	SM2320B	1106
pH	SM4500-H ⁺ B	1126
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 remaining acceptance criteria were met.

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Western Water and Land, Inc.

Date: 26-Apr-21

Project: Nolte 14-44

Work Order: 2104006

Sample ID: Palmer 276703

Lab ID: 2104006-1

Legal Location:

Matrix: WATER

Collection Date: 3/31/2021 13:15

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
			SM2320B		Prep Date: 4/14/2021	PrepBy: LMC
BICARBONATE AS CaCO3	710		20	MG/L	1	4/14/2021
CARBONATE AS CaCO3	ND		20	MG/L	1	4/14/2021
TOTAL ALKALINITY AS CaCO3	710		20	MG/L	1	4/14/2021
Biological Activity Reaction Test						
			BART		Prep Date: 4/11/2021	PrepBy: TXS
IRON RELATED BACTERIA	35000		1	cfu/ml	1	4/19/2021
SLIME FORMING BACTERIA	440000		1	cfu/ml	1	4/19/2021
SULFATE REDUCING BACTERIA	500000		1	cfu/ml	1	4/19/2021
Diesel Range Organics						
			SW8015M		Prep Date: 4/7/2021	PrepBy: ASZ
Diesel Range Organics	ND		1	MG/L	1	4/14/2021 08:12
Surr: O-TERPHENYL	94		69-120	%REC	1	4/14/2021 08:12
Dissolved Gasses						
			RSK175		Prep Date: 4/8/2021	PrepBy: ASZ
METHANE	4.5		1	UG/L	1	4/8/2021 12:16
ETHANE	ND		2	UG/L	1	4/8/2021 12:16
PROPANE	ND		1	UG/L	1	4/8/2021 12:16
GC/MS Volatiles						
			SW8260_25		Prep Date: 4/14/2021	PrepBy: TWK
BENZENE	ND		1	UG/L	1	4/14/2021 17:48
TOLUENE	ND		1	UG/L	1	4/14/2021 17:48
ETHYLBENZENE	ND		1	UG/L	1	4/14/2021 17:48
M+P-XYLENE	ND		1	UG/L	1	4/14/2021 17:48
O-XYLENE	ND		1	UG/L	1	4/14/2021 17:48
TOTAL XYLENES	ND		1	UG/L	1	4/14/2021 17:48
Surr: 4-BROMOFLUOROBENZENE	106		80-120	%REC	1	4/14/2021 17:48
Surr: DIBROMOFLUOROMETHANE	103		80-120	%REC	1	4/14/2021 17:48
Surr: TOLUENE-D8	99		80-120	%REC	1	4/14/2021 17:48
GASOLINE RANGE ORGANICS	ND		100	UG/L	1	4/14/2021 17:48
Ion Chromatography						
			EPA300.0		Prep Date: 4/1/2021	PrepBy: LMC
BROMIDE	0.4	J	1	MG/L	5	4/1/2021 15:08
CHLORIDE	280		10	MG/L	50	4/1/2021 15:21
FLUORIDE	0.42	J	0.5	MG/L	5	4/1/2021 15:08
NITRATE/NITRITE AS N	ND		0.15	MG/L	1	4/1/2021 15:08
NITRATE AS N	ND		1	MG/L	5	4/1/2021 15:08
NITRITE AS N	ND		0.75	MG/L	5	4/1/2021 15:08
SULFATE	2200		50	MG/L	50	4/1/2021 15:21
Dissolved Metals by 200.8						
			EPA200.8		Prep Date: 4/11/2021	PrepBy: TXS
BARIUM	0.052		0.001	MG/L	10	4/16/2021 12:25
BORON	0.32		0.05	MG/L	10	4/16/2021 12:25
CALCIUM	320		1	MG/L	10	4/16/2021 12:25
IRON	ND		0.15	MG/L	10	4/16/2021 12:25
MAGNESIUM	220		0.1	MG/L	10	4/16/2021 12:25
MANGANESE	0.41		0.004	MG/L	10	4/16/2021 12:25
POTASSIUM	4.9		1	MG/L	10	4/16/2021 12:25
SELENIUM	ND		0.0015	MG/L	10	4/16/2021 12:25
SODIUM	760		1	MG/L	10	4/16/2021 12:25

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Western Water and Land, Inc.

Date: 26-Apr-21

Project: Nolte 14-44

Work Order: 2104006

Sample ID: Palmer 276703

Lab ID: 2104006-1

Legal Location:

Matrix: WATER

Collection Date: 3/31/2021 13:15

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
STRONTIUM	2.9		0.001	MG/L	10	4/16/2021 12:25
pH		SM4500-H			Prep Date: 4/22/2021	PrepBy: LRB
PH	7.81		0.1	pH	1	4/22/2021
Specific Conductance in Water		SM2510B			Prep Date: 4/16/2021	PrepBy: LRB
SPECIFIC CONDUCTIVITY	5070		1	umhos/cm	1	4/16/2021
Total Dissolved Solids		SM2540C			Prep Date: 4/7/2021	PrepBy: LMC
TOTAL DISSOLVED SOLIDS	3800		80	MG/L	1	4/12/2021
Total Phosphorus as P		SM4500-P			Prep Date: 4/21/2021	PrepBy: LMC
TOTAL PHOSPHORUS	0.02	J	0.05	MG/L	1	4/21/2021

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Western Water and Land, Inc.

Date: 26-Apr-21

Project: Nolte 14-44

Work Order: 2104006

Sample ID: 276703

Lab ID: 2104006-2

Legal Location:

Matrix: WATER

Collection Date: 3/31/2021 15:30

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 4/14/2021	PrepBy: LMC
BICARBONATE AS CaCO3	730		20	MG/L	1	4/14/2021
CARBONATE AS CaCO3	ND		20	MG/L	1	4/14/2021
TOTAL ALKALINITY AS CaCO3	730		20	MG/L	1	4/14/2021
Biological Activity Reaction Test		BART			Prep Date: 4/7/2021	PrepBy: TXS
IRON RELATED BACTERIA	140000		1	cfu/ml	1	4/15/2021
SLIME FORMING BACTERIA	440000		1	cfu/ml	1	4/15/2021
SULFATE REDUCING BACTERIA	500000		1	cfu/ml	1	4/15/2021
Diesel Range Organics		SW8015M			Prep Date: 4/7/2021	PrepBy: ASZ
Diesel Range Organics	ND		1	MG/L	1	4/9/2021 11:44
Surr: O-TERPHENYL	93		69-120	%REC	1	4/9/2021 11:44
Dissolved Gasses		RSK175			Prep Date: 4/8/2021	PrepBy: ASZ
METHANE	4.7		1	UG/L	1	4/8/2021 12:22
ETHANE	ND		2	UG/L	1	4/8/2021 12:22
PROPANE	ND		1	UG/L	1	4/8/2021 12:22
GC/MS Volatiles		SW8260_25			Prep Date: 4/14/2021	PrepBy: TWK
BENZENE	ND		1	UG/L	1	4/14/2021 18:12
TOLUENE	ND		1	UG/L	1	4/14/2021 18:12
ETHYLBENZENE	ND		1	UG/L	1	4/14/2021 18:12
M+P-XYLENE	ND		1	UG/L	1	4/14/2021 18:12
O-XYLENE	ND		1	UG/L	1	4/14/2021 18:12
TOTAL XYLENES	ND		1	UG/L	1	4/14/2021 18:12
Surr: 4-BROMOFLUOROBENZENE	107		80-120	%REC	1	4/14/2021 18:12
Surr: DIBROMOFLUOROMETHANE	103		80-120	%REC	1	4/14/2021 18:12
Surr: TOLUENE-D8	98		80-120	%REC	1	4/14/2021 18:12
GASOLINE RANGE ORGANICS	ND		100	UG/L	1	4/14/2021 18:12
Ion Chromatography		EPA300.0			Prep Date: 4/1/2021	PrepBy: LMC
BROMIDE	0.37	J	1	MG/L	5	4/1/2021 15:34
CHLORIDE	290		10	MG/L	50	4/1/2021 15:47
FLUORIDE	0.34	J	0.5	MG/L	5	4/1/2021 15:34
NITRATE/NITRITE AS N	ND		0.15	MG/L	1	4/1/2021 15:34
NITRATE AS N	ND		1	MG/L	5	4/1/2021 15:34
NITRITE AS N	ND		0.75	MG/L	5	4/1/2021 15:34
SULFATE	2200		50	MG/L	50	4/1/2021 15:47
Dissolved Metals by 200.8		EPA200.8			Prep Date: 4/11/2021	PrepBy: TXS
BARIUM	0.051		0.001	MG/L	10	4/16/2021 12:28
BORON	0.33		0.05	MG/L	10	4/16/2021 12:28
CALCIUM	320		1	MG/L	10	4/16/2021 12:28
IRON	ND		0.15	MG/L	10	4/16/2021 12:28
MAGNESIUM	220		0.1	MG/L	10	4/16/2021 12:28
MANGANESE	0.41		0.004	MG/L	10	4/16/2021 12:28
POTASSIUM	4.9		1	MG/L	10	4/16/2021 12:28
SELENIUM	ND		0.0015	MG/L	10	4/16/2021 12:28
SODIUM	750		1	MG/L	10	4/16/2021 12:28

Client: Western Water and Land, Inc.

Date: 26-Apr-21

Project: Nolte 14-44

Work Order: 2104006

Sample ID: 276703

Lab ID: 2104006-2

Legal Location:

Matrix: WATER

Collection Date: 3/31/2021 15:30

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
STRONTIUM	2.8		0.001	MG/L	10	4/16/2021 12:28
pH		SM4500-H			Prep Date: 4/22/2021	PrepBy: LRB
PH	7.75		0.1	pH	1	4/22/2021
Specific Conductance in Water		SM2510B			Prep Date: 4/16/2021	PrepBy: LRB
SPECIFIC CONDUCTIVITY	5050		1	umhos/cm	1	4/16/2021
Total Dissolved Solids		SM2540C			Prep Date: 4/7/2021	PrepBy: LMC
TOTAL DISSOLVED SOLIDS	3900		80	MG/L	1	4/12/2021
Total Phosphorus as P		SM4500-P			Prep Date: 4/21/2021	PrepBy: LMC
TOTAL PHOSPHORUS	0.031	J	0.05	MG/L	1	4/21/2021

Client: Western Water and Land, Inc.

Date: 26-Apr-21

Project: Nolte 14-44

Work Order: 2104006

Sample ID: 276703

Lab ID: 2104006-2

Legal Location:

Matrix: WATER

Collection Date: 3/31/2021 15:30

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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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

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Date: 4/26/2021 11:19:

Client: Western Water and Land, Inc.

Work Order: 2104006

Project: Nolte 14-44

QC BATCH REPORT

Batch ID: **HC210407-81-1** Instrument ID **FUELS-1** Method: **SW8015M****LCS** Sample ID: **HC210407-81** Units: **MG/L** Analysis Date: **4/9/2021 09:57**Client ID: Run ID: **HC210407-81A** Prep Date: **4/7/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	6.49	1.07	8.33		78	53-120				20	
Surr: O-TERPHENYL	1.6		1.67		96	69-120					

LCSD Sample ID: **HC210407-81** Units: **MG/L** Analysis Date: **4/9/2021 10:18**Client ID: Run ID: **HC210407-81A** Prep Date: **4/7/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	6.91	1.07	8.33		83	53-120		6.49	6	20	
Surr: O-TERPHENYL	1.62		1.67		97	69-120			1		

MB Sample ID: **HC210407-81** Units: **MG/L** Analysis Date: **4/9/2021 09:35**Client ID: Run ID: **HC210407-81A** Prep Date: **4/7/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	ND	1.1									
Surr: O-TERPHENYL	1.53				92	69-120					

The following samples were analyzed in this batch:

2104006-1 2104006-2

Client: Western Water and Land, Inc.
 Work Order: 2104006
 Project: Nolte 14-44

QC BATCH REPORT

Batch ID: **HC210408-91-1** Instrument ID **MEE-1** Method: **RSK175**

DUP Sample ID: **2104006-1** Units: **UG/L** Analysis Date: **4/8/2021 12:19**
 Client ID: **Palmer 276703** Run ID: **HC210408-91A** Prep Date: **4/8/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	4.73	1						4.5		25	
ETHANE	ND	2						2		25	
PROPANE	ND	1						1		25	

LCS Sample ID: **HC210408-91** Units: **UG/L** Analysis Date: **4/8/2021 11:51**
 Client ID: Run ID: **HC210408-91A** Prep Date: **4/8/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	127	1	142		89	76-125				25	
ETHANE	230	2	267		86	70-120				25	
PROPANE	340	1	391		87	72-120				25	

LCSD Sample ID: **HC210408-91** Units: **UG/L** Analysis Date: **4/8/2021 13:08**
 Client ID: Run ID: **HC210408-91A** Prep Date: **4/8/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	134	1	142		94	76-125		127	5	25	
ETHANE	240	2	267		90	70-120		230	4	25	
PROPANE	376	1	391		96	72-120		340	10	25	

MB Sample ID: **HC210408-91** Units: **UG/L** Analysis Date: **4/8/2021 11:47**
 Client ID: Run ID: **HC210408-91A** Prep Date: **4/8/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	ND	1									
ETHANE	ND	2									
PROPANE	ND	1									

MS Sample ID: **2104006-2** Units: **UG/L** Analysis Date: **4/8/2021 12:26**
 Client ID: **276703** Run ID: **HC210408-91A** Prep Date: **4/8/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	53.7	1	71.1	4.7	69	76-125				25	*
ETHANE	92.4	2	133	2	69	70-120				25	*
PROPANE	137	1	196	1	70	72-120				25	*

The following samples were analyzed in this batch:

2104006-1 2104006-2

Client: Western Water and Land, Inc.
 Work Order: 2104006
 Project: Nolte 14-44

QC BATCH REPORT

Batch ID: **IP210411-1-5** Instrument ID **ICPMS2** Method: **EPA200.8**

LCS		Sample ID: IM210411-1			Units: MG/L		Analysis Date: 4/16/2021 12:13				
Client ID:		Run ID: IM210416-10A5				Prep Date: 4/11/2021			DF: 10		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BARIUM	0.0875	0.001	0.1		87	85-115				20	
BORON	0.906	0.05	1		91	85-115				20	
CALCIUM	9.76	1	10		98	85-115				20	
IRON	4.69	0.15	5		94	85-115				20	
MAGNESIUM	9.56	0.1	10		96	85-115				20	
MANGANESE	0.0876	0.004	0.1		88	85-115				20	
POTASSIUM	5.02	1	5		100	85-115				20	
SELENIUM	0.0976	0.0015	0.1		98	85-115				20	
SODIUM	10.9	1	10		109	85-115				20	
STRONTIUM	0.0988	0.001	0.1		99	85-115				20	

LCSD		Sample ID: IM210411-1			Units: MG/L		Analysis Date: 4/16/2021 12:19				
Client ID:		Run ID: IM210416-10A5			Prep Date: 4/11/2021			DF: 10			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BARIUM	0.0908	0.001	0.1		91	85-115		0.0875	4	20	
BORON	0.934	0.05	1		93	85-115		0.906	3	20	
CALCIUM	9.85	1	10		98	85-115		9.76	1	20	
IRON	4.74	0.15	5		95	85-115		4.69	1	20	
MAGNESIUM	9.46	0.1	10		95	85-115		9.56	1	20	
MANGANESE	0.0878	0.004	0.1		88	85-115		0.0876	0	20	
POTASSIUM	4.93	1	5		99	85-115		5.02	2	20	
SELENIUM	0.0991	0.0015	0.1		99	85-115		0.0976	2	20	
SODIUM	10.8	1	10		108	85-115		10.9	1	20	
STRONTIUM	0.0967	0.001	0.1		97	85-115		0.0988	2	20	

Client: Western Water and Land, Inc.
Work Order: 2104006
Project: Nolte 14-44

QC BATCH REPORT

Batch ID: **IP210411-1-5** Instrument ID **ICPMS2** Method: **EPA200.8**

MB Sample ID: **FP210409-1** Units: **MG/L** Analysis Date: **4/16/2021 12:07**
Client ID: Run ID: **IM210416-10A5** Prep Date: **4/11/2021** DF: **10**

Analyte	Result	ReportLimit	Qual
BARIUM	ND	0.001	
BORON	ND	0.05	
CALCIUM	ND	1	
IRON	ND	0.15	
MAGNESIUM	ND	0.1	
MANGANESE	ND	0.004	
POTASSIUM	ND	1	
SELENIUM	ND	0.0015	
SODIUM	ND	1	
STRONTIUM	ND	0.001	

The following samples were analyzed in this batch:

2104006-1 2104006-2

Client: Western Water and Land, Inc.
Work Order: 2104006
Project: Nolte 14-44

QC BATCH REPORT

Batch ID: **VL210414-3-2** Instrument ID **HPV3** Method: **SW8260_25**

LCS		Sample ID: VL210414-33			Units: UG/L			Analysis Date: 4/14/2021 14:16				
Client ID:		Run ID: VL210414-3A			Prep Date: 4/14/2021			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
GASOLINE RANGE ORGANICS	1060	100	1000		106	75-121				20		

LCSD		Sample ID: VL210414-33			Units: UG/L			Analysis Date: 4/14/2021 14:39				
Client ID:		Run ID: VL210414-3A			Prep Date: 4/14/2021			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
GASOLINE RANGE ORGANICS	1090	100	1000		109	75-121		1060	3	20		

MB		Sample ID: VL210414-3				Units: UG/L		Analysis Date: 4/14/2021 17:25			
Client ID:		Run ID: VL210414-3A				Prep Date: 4/14/2021		DF: 1			
Analyte		Result	ReportLimit		Qual						
GASOLINE RANGE ORGANICS		ND	100								

The following samples were analyzed in this batch:

2104006-1	2104006-2
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Client: Western Water and Land, Inc.
 Work Order: 2104006
 Project: Nolte 14-44

QC BATCH REPORT

Batch ID: **VL210414-3-3** Instrument ID **HPV3** Method: **SW8260_25**

LCS		Sample ID: VL210414-3			Units: %REC		Analysis Date: 4/14/2021 15:26				
Client ID:		Run ID: VL210414-3A			Prep Date: 4/14/2021			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	26.1		25		104	80-120					
Surr: DIBROMOFLUOROMETHANE	25.5		25		102	80-120					
Surr: TOLUENE-D8	24.8		25		99	80-120					
BENZENE	9.84	1	10		98	80-120				20	
TOLUENE	10.3	1	10		103	80-120				20	
ETHYLBENZENE	10.8	1	10		108	80-120				20	
M+P-XYLENE	19.7	1	20		98	80-120				20	
O-XYLENE	10.4	1	10		104	80-120				20	

LCSD		Sample ID: VL210414-3			Units: %REC		Analysis Date: 4/14/2021 16:38				
Client ID:		Run ID: VL210414-3A			Prep Date: 4/14/2021			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	26		25		104	80-120			0		
Surr: DIBROMOFLUOROMETHANE	25.5		25		102	80-120			0		
Surr: TOLUENE-D8	24.9		25		100	80-120			0		
BENZENE	9.56	1	10		96	80-120		9.84	3	20	
TOLUENE	10.1	1	10		101	80-120		10.3	2	20	
ETHYLBENZENE	10.5	1	10		105	80-120		10.8	3	20	
M+P-XYLENE	19.2	1	20		96	80-120		19.7	2	20	
O-XYLENE	10.3	1	10		103	80-120		10.4	1	20	

MB		Sample ID: VL210414-3				Units: %REC		Analysis Date: 4/14/2021 17:25			
Client ID:		Run ID: VL210414-3A				Prep Date: 4/14/2021				DF: 1	
Analyte		Result	ReportLimit						Qual		
Surr: 4-BROMOFLUOROBENZENE		26.3			105	80-120					
Surr: DIBROMOFLUOROMETHANE		25.5			102	80-120					
Surr: TOLUENE-D8		24.4			98	80-120					
BENZENE		ND	1								
TOLUENE		ND	1								
ETHYLBENZENE		ND	1								
M+P-XYLENE		ND	1								
O-XYLENE		ND	1								
TOTAL XYLENES		ND	1								

Client: Western Water and Land, Inc.
Work Order: 2104006
Project: Nolte 14-44

QC BATCH REPORT

Batch ID: **VL210414-3-3** Instrument ID **HPV3** Method: **SW8260_25**

The following samples were analyzed in this batch:

2104006-1	2104006-2
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Client: Western Water and Land, Inc.
Work Order: 2104006
Project: Nolte 14-44

QC BATCH REPORT

Batch ID: **AK210414-1-1** Instrument ID **NONE** Method: **SM2320B**

LCS	Sample ID: AK210414-1				Units: MG/L		Analysis Date: 4/14/2021				
Client ID:		Run ID: ak210414-1a1				Prep Date: 4/14/2021			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	96	5	100		96	85-115				15	

MB		Sample ID: AK210414-1		Units: MG/L		Analysis Date: 4/14/2021	
Client ID:		Run ID: ak210414-1a1		Prep Date: 4/14/2021		DF: 1	
Analyte		Result	ReportLimit	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:

2104006-1	2104006-2
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Client: Western Water and Land, Inc.
 Work Order: 2104006
 Project: Nolte 14-44

QC BATCH REPORT

Batch ID: **IC210401-1-2** Instrument ID **IC3** Method: **EPA300.0**

LCS	Sample ID: IC210401-1				Units: MG/L		Analysis Date: 4/1/2021 11:09				
Client ID:	Run ID: IC210401-1A4				Prep Date: 4/1/2021			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	9.24	0.2	10		92	90-110				15	
CHLORIDE	10.2	0.2	10		102	90-110				15	
FLUORIDE	4.98	0.1	5		100	90-110				15	
NITRATE AS N	10.1	0.2	10		101	90-110				15	
NITRITE AS N	5	0.15	4.98		100	90-110				15	
SULFATE	51	1	50		102	90-110				15	

LCSD	Sample ID: IC210401-1				Units: MG/L		Analysis Date: 4/1/2021 12:28				
Client ID:	Run ID: IC210401-1A4				Prep Date: 4/1/2021			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	9.17	0.2	10		92	90-110		9.24	1	15	
CHLORIDE	10.6	0.2	10		106	90-110		10.2	4	15	
FLUORIDE	4.91	0.1	5		98	90-110		4.98	1	15	
NITRATE AS N	9.96	0.2	10		100	90-110		10.1	2	15	
NITRITE AS N	4.94	0.15	4.98		99	90-110		5	1	15	
SULFATE	50.1	1	50		100	90-110		51	2	15	

MB	Sample ID: IC210401-1			Units: MG/L		Analysis Date: 4/1/2021 11:22	
Client ID:	Run ID: IC210401-1A4			Prep Date: 4/1/2021		DF: 1	
Analyte	Result	ReportLimit	Qual				
BROMIDE	ND	0.2					
CHLORIDE	ND	0.2					
FLUORIDE	ND	0.1					
NITRATE AS N	ND	0.2					
NITRITE AS N	ND	0.15					
SULFATE	ND	1					

The following samples were analyzed in this batch:

2104006-1	2104006-2
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Client: Western Water and Land, Inc.
Work Order: 2104006
Project: Nolte 14-44

QC BATCH REPORT

Batch ID: **PH210422-1-1** Instrument ID **pH-2** Method: **SM4500-H**

CCV		Sample ID: CCV1			Units: pH			Analysis Date: 4/22/2021				
Client ID:		Run ID: PH210422-1A1			Prep Date: 4/22/2021			DF: 1				
Analyte		Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH		7.06	0.1	7			6.9-7.1					

CCV		Sample ID: CCV2			Units: pH			Analysis Date: 4/22/2021				
Client ID:		Run ID: PH210422-1A1			Prep Date: 4/22/2021			DF: 1				
Analyte		Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH		7.07	0.1	7			6.9-7.1					

CCV		Sample ID: CCV3			Units: pH			Analysis Date: 4/22/2021				
Client ID:		Run ID: PH210422-1A1			Prep Date: 4/22/2021			DF: 1				
Analyte		Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH		7.06	0.1	7			6.9-7.1					

DUP		Sample ID: 2104006-2			Units: pH			Analysis Date: 4/22/2021				
Client ID: 276703		Run ID: PH210422-1A1			Prep Date: 4/22/2021			DF: 1				
Analyte		Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH		7.76	0.1							7.75		

ICV		Sample ID: ICV			Units: pH			Analysis Date: 4/22/2021				
Client ID:		Run ID: PH210422-1A1			Prep Date: 4/22/2021			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					

The following samples were analyzed in this batch:

2104006-1	2104006-2
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Client: Western Water and Land, Inc.
Work Order: 2104006
Project: Nolte 14-44

QC BATCH REPORT

Batch ID: **SC210416-1-1** Instrument ID **pH-2** Method: **SM2510B**

CCV		Sample ID: CCV1			Units: umhos/cm			Analysis Date: 4/16/2021				
Client ID:		Run ID: SC210416-1A1			Prep Date: 4/16/2021			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		93	90-110						

CCV		Sample ID: CCV2			Units: umhos/cm			Analysis Date: 4/16/2021				
Client ID:		Run ID: SC210416-1A1			Prep Date: 4/16/2021			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
SPECIFIC CONDUCTIVITY	1490	1	1410		106	90-110						

CCV		Sample ID: CCV3			Units: umhos/cm			Analysis Date: 4/16/2021				
Client ID:		Run ID: SC210416-1A1			Prep Date: 4/16/2021			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
SPECIFIC CONDUCTIVITY	1480	1	1410		105	90-110						

DUP		Sample ID: 2104006-2			Units: umhos/cm			Analysis Date: 4/16/2021				
Client ID: 276703		Run ID: SC210416-1A1			Prep Date: 4/16/2021			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
SPECIFIC CONDUCTIVITY	5060	1						5050	0	15		

ICV		Sample ID: ICV			Units: umhos/cm			Analysis Date: 4/16/2021				
Client ID:		Run ID: SC210416-1A1			Prep Date: 4/16/2021			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
SPECIFIC CONDUCTIVITY	707	1	718		98	90-110						

The following samples were analyzed in this batch:

2104006-1	2104006-2
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Client: Western Water and Land, Inc.
Work Order: 2104006
Project: Nolte 14-44

QC BATCH REPORT

Batch ID: **TD210407-1-1** Instrument ID **Balance** Method: **SM2540C**

LCS		Sample ID: TD210407-1			Units: MG/L		Analysis Date: 4/12/2021				
Client ID:		Run ID: TD210412-1A1					Prep Date: 4/7/2021			DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	364	20	400		91	85-115				14	

MB		Sample ID: TD210407-1		Units: MG/L		Analysis Date: 4/12/2021	
Client ID:		Run ID: TD210412-1A1		Prep Date: 4/7/2021		DF: 1	
Analyte		Result	ReportLimit				
TOTAL DISSOLVED SOLIDS		ND	20				

The following samples were analyzed in this batch:

2104006-1	2104006-2
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Client: Western Water and Land, Inc.
Work Order: 2104006
Project: Nolte 14-44

QC BATCH REPORT

Batch ID: **TP210421-1-1** Instrument ID **Spec** Method: **SM4500-P**

LCS		Sample ID: TP210421-1			Units: MG/L			Analysis Date: 4/21/2021				
Client ID:		Run ID: TP210421-1A2			Prep Date: 4/21/2021			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
TOTAL PHOSPHORUS	0.488	0.05	0.5		98	80-120				20		

LCSD		Sample ID: TP210421-1			Units: MG/L			Analysis Date: 4/21/2021				
Client ID:		Run ID: TP210421-1A2			Prep Date: 4/21/2021			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
TOTAL PHOSPHORUS	0.494	0.05	0.5		99	80-120		0.488	1	20		

MB		Sample ID: TP210421-1			Units: MG/L		Analysis Date: 4/21/2021			
Client ID:		Run ID: TP210421-1A2			Prep Date: 4/21/2021			DF: 1		
Analyte		Result	ReportLimit							Qual
TOTAL PHOSPHORUS		ND	0.05							

The following samples were analyzed in this batch:

2104006-1	2104006-2
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