



1502150

This report consists of one water sample received by ALS on 02/10/15.

GC/MS Volatiles:

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

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.

GRO:

The sample was analyzed following the current revision of SOP 425 generally based on SW-846 Methods 8000C and 8015D. The procedures are based on these methods because SW-846 does not have a specific method for TVPH or gasoline range organics. The only true modification from these methods is that TVPH is a multicomponent mixture and is quantitated by summing the entire range, rather than individual peaks. The carbon range integrated in this test extends from C₆ to C₁₀.

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 with the following exception:

All surrogate recoveries were within acceptable limits with the following exception:

Surrogate	Sample	Direction
O-terphenyl	LCS	High



The surrogate recovery in EX150217-99LCS was above the upper control limit. Diesel Range Organics recovery was within control limits in EX150217-99LCS. The surrogate recovery in the sample was within control limits, and Diesel Range Organics was less than the method detection limit. No further action was taken.

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 2 prior to analysis.

All acceptance criteria were met with the following exception:

All initial and continuing calibration blanks were below the reporting limit for the requested analytes with the exception of CCB2 for boron. None of the samples associated with this order number were bracketed by this CCB.

Inorganics:

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

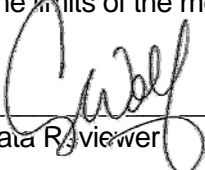
<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	SM2320B	1106
Bicarbonate	SM2320B	1106
Carbonate	SM2320B	1106
pH	SM4500-H ⁺ B	1126
Specific conductance	SM2510B	1128
Total phosphorus	365.2	1119
TDS	SM2540C	1101
Bromide	300.0 Revision 2.1	1113
Chloride	300.0 Revision 2.1	1113
Fluoride	300.0 Revision 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.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.



Final Data Reviewer

2/24/15
Date

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1502150

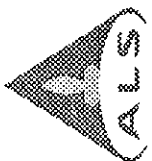
Client Name: Western Water and Land, Inc.

Client Project Name: GV 86-2 BWQ

Client Project Number:

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Rice-Well	1502150-1		WATER	09-Feb-15	14:15



ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
 TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 20218

PROJECT NAME GV 8u-2 BWO		SAMPLER Shelby Kipp		DATE 2-9-15		WORKORDER # 502150	
FACILITY NAME		PROJECT NO.		TURNAROUND		PAGE 1 of 1	
FACILITY ID (API)		EDD FORMAT		DISPOSAL		Return to Client	
COMPANY NAME Western Water & Land, Inc.		PURCHASE ORDER		Standard			
SEND REPORT TO Bruce Smith		BILL TO COMPANY WPX Energy		Invoiced Metals, lab filtered		Dissolved gases - HCl preserved	
ADDRESS 743 Horizon Court, Suite 330		INVOICE ATTN TO Mike Shoemaker		Anions, Alk, TDS, pH, SpC		Dissolved gases - unpreserved	
CITY / STATE / ZIP Grand Junction, CO 81506		ADDRESS 1058 CR 215		DRO			
PHONE (970) 242-0170		CITY / STATE / ZIP Parachute, CO 81635		BTEX/GRO			
FAX		PHONE (970) 250-5778		BART			
E-MAIL bsmith@westernwaterandland.com		FAX		NG1			
E-MAIL mike.shoemaker@wpxenergy.com		E-MAIL		Pres.			
Lab ID ①		Matrix GW		Sample Date 2-9-15		Sample Time 1415	
Field ID Pice - Well		# Bottles 15		QC		1 1 1 1 2	
Temp (°C)		DO (%)		SpC (µS/cm)		Turb (NTUs)	
pH (s.u.)		DO (mg/L)		ORP (mv)		Disch (gpm)	
Temp (°C)		DO (%)		SpC (µS/cm)		Turb (NTUs)	
pH (s.u.)		DO (mg/L)		ORP (mv)		Disch (gpm)	

Field Parameters

Temp (°C)	10.77	DO (%)	71.9	SpC (µS/cm)	676	Turb (NTUs)	1.38
pH (s.u.)	7.86	DO (mg/L)	8.01	ORP (mv)	209.9	Disch (gpm)	
Temp (°C)		DO (%)		SpC (µS/cm)		Turb (NTUs)	
pH (s.u.)		DO (mg/L)		ORP (mv)		Disch (gpm)	

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:

QC PACKAGE (check below)	
LEVEL II (Standard QC)	
LEVEL III (Std QC + forms)	
LEVEL IV (Std QC + forms + raw data)	X

RELINQUISHED BY	SHELBY KIPP	SIGNATURE	PRINTED NAME	DATE	TIME
RECEIVED BY	M.M.			2-9-15	1505
RELINQUISHED BY	M.M.			2-9-15	1600
RECEIVED BY	C. J. Munkle			2-11-15	0955
RELINQUISHED BY					
RECEIVED BY					



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Western Water

Workorder No: 1502150

Project Manager: AW

Initials: CDJ Date: 2-10-15

1. Does this project require any special handling in addition to standard ALS procedures?		YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	NONE	<input checked="" type="radio"/> YES	NO
3. Are Custody seals on sample containers intact?	<input checked="" type="radio"/> NONE	YES.	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible?		<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<input checked="" type="radio"/> YES	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<input checked="" type="radio"/> YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	<input checked="" type="radio"/> YES	NO
9. Are all aqueous non-preserved samples pH 4-9?	N/A	<input checked="" type="radio"/> YES	NO
10. Is there sufficient sample for the requested analyses?		<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?		<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?		<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<input checked="" type="radio"/> YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ___ < green pea ___ > green pea	N/A	<input checked="" type="radio"/> YES	NO
15. Do any water samples contain sediment? Amount Amount of sediment: ___ dusting ___ moderate ___ heavy	N/A	YES	<input checked="" type="radio"/> NO
16. Were the samples shipped on ice?		<input checked="" type="radio"/> YES	NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: <input checked="" type="radio"/> #2 #4 RAD ONLY		<input checked="" type="radio"/> YES	NO
Cooler #: <u>1</u>			
Temperature (°C): <u>1.2</u>			
No. of custody seals on cooler: <u>1</u>			
External µR/hr reading: <u>13</u>			
Background µR/hr reading: <u>12</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <input checked="" type="radio"/> YES / NO / NA (If no, see Form 008.)			

DOT Survey
Acceptance
Information

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: *AW* 2/10/15

From: (616) 298-1033
Nick Martinez
ALS Environmental
127 E. 1st Street
PARACHUTE, CO 81635

Origin ID: RILA



Ship Date: 09FEB15
ActWgt: 50.0 LB
CAD: 2264840/NET3610
Dims: 24 X 15 X 15 IN



150 2 150

13
-1

SHIP TO: (970) 490-1511
Sample receiving
ALS Laboratory Group
225 Commerce Drive
FORT COLLINS, CO 80524

BILL RECIPIENT

Ref # 020915-1
Invoice #
PO # Parachute
Dept #

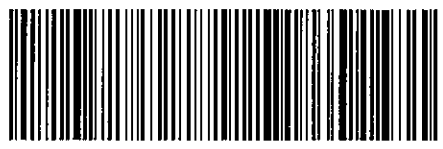
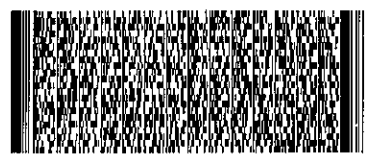
TUE - 10 FEB AA
STANDARD OVERNIGHT

TRK# 7728 7193 1989
0201

72 FTCA

80524
CO-US
DEN

1.2



537JN183EE46

After printing this label:

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2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

FT

Anion / Cation Summary Report

Lab ID: 1502150-1	QC Type: SMP
Field ID Rice-Well	

Analyte	Final Result	Report Units	mEq
BICARBONATE AS CaCO3	338.9335	MG/L	6.77
CARBONATE AS CaCO3	20	MG/L	0.00
CHLORIDE	1.404943	MG/L	0.04
FLUORIDE	0.3909015	MG/L	0.02
NITRATE AS N	0.7518677	MG/L	0.05
NITRATE/NITRITE AS N	0.1	MG/L	0.00
NITRITE AS N	0.1	MG/L	0.00
SULFATE	28.6164	MG/L	0.60
Anion Result Sum	390.30		

Analyte	Final Result	Report Units	mEq
CALCIUM	16.00419	MG/L	0.80
IRON	0.123	MG/L	0.00
MAGNESIUM	25.2483	MG/L	2.08
MANGANESE	0.00525	MG/L	0.00
POTASSIUM	1.94237	MG/L	0.05
SODIUM	100.3596	MG/L	4.37
Cation Result Sum	143.68		

Total Result: 533.98	MG/L
TDS Result: 392.0000	MG/L
RPD: 30.67%	

Anion mEq Sum: 7.48	
Cation mEq Sum: 7.29	
RPD: 2.60%	

Below is a list of Lab IDs for this Order Number that were logged in for metals analyses. Note: if this area is empty then either no metals analyses were requested or the cations of interest were not requested.

1502150-1

Client: Western Water and Land, Inc.
 Project: GV 86-2 BWQ
 Work Order: 1502150

Field Parameter Report

Client Sample ID Matrix

Rice-Well

WATER

Field Parameter:	Value:	Units:
Turbidity	1.38	NTU
Temperature	10.77	C
Specific Conductance	676	uS/cm
pH	7.86	
Oxidation Reduction Potential	209.9	mv
Dissolved Oxygen	8.01	mg/l
Dissolved Oxygen Saturation	71.9	%

Client: Western Water and Land, Inc.
 Project: GV 86-2 BWQ
 Sample ID: Rice-Well
 Legal Location:
 Collection Date: 2/9/2015 14:15

Date: 21-Feb-15
 Work Order: 1502150
 Lab ID: 1502150-1
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
ALKALINITY AS CALCIUM CARBONATE			SM2320B				Prep Date: 2/10/2015 PrepBy: JAC
BICARBONATE AS CaCO3	340		20	MG/L	1		2/10/2015
CARBONATE AS CaCO3	ND		20	MG/L	1		2/10/2015
TOTAL ALKALINITY AS CaCO3	340		20	MG/L	1		2/10/2015
BIOLOGICAL ACTIVITY REACTION TEST			BART				Prep Date: 2/10/2015 PrepBy: CDR
IRON RELATED BACTERIA	2300		1	cfu/ml	1		2/18/2015
SLIME FORMING BACTERIA	100		1	cfu/ml	1		2/18/2015
SULFATE REDUCING BACTERIA	1200		1	cfu/ml	1		2/18/2015
DIESEL RANGE ORGANICS			SW8015M				Prep Date: 2/17/2015 PrepBy: JFN
Diesel Range Organics	ND		0.49	MG/L	1	0.15	2/17/2015 16:51
Surr: O-TERPHENYL	109		54-123	%REC	1		2/17/2015 16:51
DISSOLVED GASSES			RSK175				Prep Date: 2/11/2015 PrepBy: JFN
METHANE	ND		1	UG/L	1	1	2/11/2015 12:51
ETHANE	ND		2	UG/L	1	2	2/11/2015 12:51
PROPANE	ND		1	UG/L	1	1	2/11/2015 12:51
GASOLINE RANGE ORGANICS			SW8015				Prep Date: 2/12/2015 PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.1	MG/L	1	0.01	2/12/2015 19:11
Surr: 2,3,4-TRIFLUOROTOLUENE	83		74-129	%REC	1		2/12/2015 19:11
GC/MS VOLATILES			SW8260_25				Prep Date: 2/13/2015 PrepBy: TWK
BENZENE	ND		1	UG/L	1	0.3	2/13/2015 21:48
TOLUENE	ND		1	UG/L	1	0.3	2/13/2015 21:48
ETHYLBENZENE	ND		1	UG/L	1	0.3	2/13/2015 21:48
M+P-XYLENE	ND		1	UG/L	1	0.3	2/13/2015 21:48
O-XYLENE	ND		1	UG/L	1	0.3	2/13/2015 21:48
TOTAL XYLENES	ND		1	UG/L	1		2/13/2015 21:48
Surr: 4-BROMOFLUOROBENZENE	108		85-115	%REC	1		2/13/2015 21:48
Surr: DIBROMOFLUOROMETHANE	95		84-118	%REC	1		2/13/2015 21:48
Surr: TOLUENE-D8	98		85-115	%REC	1		2/13/2015 21:48
ION CHROMATOGRAPHY			EPA300.0				Prep Date: 2/10/2015 PrepBy: AJD
BROMIDE	ND		0.2	MG/L	1	0.06	2/10/2015 18:58
CHLORIDE	1.4		0.2	MG/L	1	0.062	2/10/2015 18:58
FLUORIDE	0.39		0.1	MG/L	1	0.03	2/10/2015 18:58
NITRATE/NITRITE AS N	0.75		0.1	MG/L	1		2/10/2015 18:58
NITRATE AS N	0.75		0.2	MG/L	1	0.06	2/10/2015 18:58
NITRITE AS N	ND		0.1	MG/L	1	0.03	2/10/2015 18:58
SULFATE	29		1	MG/L	1	0.3	2/10/2015 18:58
METALS BY 200.8			EPA200.8				Prep Date: 2/12/2015 PrepBy: CDR
BARIUM	0.098		0.001	MG/L	10	0.00035	2/13/2015 20:09
BORON	0.14		0.05	MG/L	10	0.008	2/13/2015 20:09
CALCIUM	16		1	MG/L	10	0.076	2/13/2015 20:09
IRON	ND		0.1	MG/L	10	0.012	2/13/2015 20:09

Client: Western Water and Land, Inc.
Project: GV 86-2 BWQ
Sample ID: Rice-Well
Legal Location:
Collection Date: 2/9/2015 14:15

Date: 21-Feb-15
Work Order: 1502150
Lab ID: 1502150-1
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
MAGNESIUM	25		0.1	MG/L	10	0.035	2/13/2015 20:09
MANGANESE	ND		0.002	MG/L	10	0.00052	2/13/2015 20:09
POTASSIUM	1.9		1	MG/L	10	0.15	2/13/2015 20:09
SELENIUM	0.0012		0.001	MG/L	10	0.00068	2/13/2015 20:09
SODIUM	100		1	MG/L	10	0.13	2/13/2015 20:09
STRONTIUM	0.57		0.001	MG/L	10	0.00036	2/13/2015 20:09
PH			SM4500-H				Prep Date: 2/11/2015 PrepBy: JAC
PH	8.11		0.1	pH	1		2/11/2015
SPECIFIC CONDUCTANCE IN WATER			SM2510B				Prep Date: 2/11/2015 PrepBy: JAC
SPECIFIC CONDUCTIVITY	653		1	umhos/cm	1		2/11/2015
TOTAL DISSOLVED SOLIDS			SM2540C				Prep Date: 2/12/2015 PrepBy: JAC
TOTAL DISSOLVED SOLIDS	390		20	MG/L	1		2/14/2015
TOTAL PHOSPHORUS AS P			EPA365.2				Prep Date: 2/16/2015 PrepBy: AJD
TOTAL PHOSPHORUS	0.021	J	0.05	MG/L	1	0.015	2/16/2015

Client: Western Water and Land, Inc.
Project: GV 86-2 BWQ
Sample ID: Rice-Well
Legal Location:
Collection Date: 2/9/2015 14:15

Date: 21-Feb-15
Work Order: 1502150
Lab ID: 1502150-1
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	MDL	Date Analyzed
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Explanation of Qualifiers

Radiochemistry:

- 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.
- LT - Result is less than requested MDC but greater than achieved MDC.
- 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 Environmental -- FC

Date: 2/21/2015 11:50

Client: Western Water and Land, Inc.
 Work Order: 1502150
 Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **HC150211-9-1** Instrument ID **MEE-1** Method: **RSK175**

LCS		Sample ID: HC150211-9			Units: UG/L			Analysis Date: 2/11/2015 12:19			
Client ID:		Run ID: HC150211-9A			Prep Date: 2/11/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
METHANE	126	1	142		88	80-120			25		
ETHANE	250	2	267		94	80-120			25		
PROPANE	357	1	391		91	80-120			25		

LCSD		Sample ID: HC150211-9			Units: UG/L			Analysis Date: 2/11/2015 13:05			
Client ID:		Run ID: HC150211-9A			Prep Date: 2/11/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
METHANE	117	1	142		82	80-120	126	7	25		
ETHANE	233	2	267		87	80-120	250	7	25		
PROPANE	333	1	391		85	80-120	357	7	25		

MB		Sample ID: HC150211-9			Units: UG/L			Analysis Date: 2/11/2015 12:26			
Client ID:		Run ID: HC150211-9A			Prep Date: 2/11/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
METHANE	ND	1									
ETHANE	ND	2									
PROPANE	ND	1									

The following samples were analyzed in this batch:

Client: Western Water and Land, Inc.
Work Order: 1502150
Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **HC150212-6-1** Instrument ID **FUELS-1** Method: **SW8015**

LCS		Sample ID: HC150212-6			Units: MG/L			Analysis Date: 2/12/2015 10:15			
Client ID:		Run ID: HC150212-6A			Prep Date: 2/12/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
GASOLINE RANGE ORGANICS	0.48	0.1	0.5		96	79-118			20		
Surr: 2,3,4-TRIFLUOROTOLUENE	0.0992		0.1		99	74-129					

LCSD		Sample ID: HC150212-6			Units: MG/L			Analysis Date: 2/12/2015 17:24			
Client ID:		Run ID: HC150212-6A			Prep Date: 2/12/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
GASOLINE RANGE ORGANICS	0.506	0.1	0.5		101	79-118	0.48	5	20		
Surr: 2,3,4-TRIFLUOROTOLUENE	0.0978		0.1		98	74-129		1			

MB		Sample ID: HC150212-6			Units: MG/L			Analysis Date: 2/12/2015 10:36			
Client ID:		Run ID: HC150212-6A			Prep Date: 2/12/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
GASOLINE RANGE ORGANICS	ND	0.1									
Surr: 2,3,4-TRIFLUOROTOLUENE	0.0953		0.1		95	74-129					

The following samples were analyzed in this batch: 1502150-1

Client: Western Water and Land, Inc.
Work Order: 1502150
Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **EX150217-99-1** Instrument ID **FUELS-1** Method: **SW8015M**

LCS		Sample ID: EX150217-99			Units: MG/L			Analysis Date: 2/17/2015 19:15		
Client ID:		Run ID: HC150217-8A			Prep Date: 2/17/2015			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
Diesel Range Organics	7	0.485	6.74		104	36-150			20	
Surr: O-TERPHENYL	0.869		0.674		129	54-123				*

MB		Sample ID: EX150217-99			Units: MG/L			Analysis Date: 2/17/2015 14:29		
Client ID:		Run ID: HC150217-8A			Prep Date: 2/17/2015			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
Diesel Range Organics	ND	0.5								
Surr: O-TERPHENYL	0.817		0.693		118	54-123				

The following samples were analyzed in this batch:

Client: Western Water and Land, Inc.
 Work Order: 1502150
 Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **IP150212-1-5** Instrument ID **ICPMS2** Method: **EPA200.8**

LCS		Sample ID: FM150212-1			Units: MG/L			Analysis Date: 2/13/2015 18:34			
Client ID:		Run ID: IM150213-12A4			Prep Date: 2/12/2015			DF: 10			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BARIUM	0.108	0.001	0.1		108	85-115			20		
BORON	1.03	0.05	1		103	85-115			20		
CALCIUM	9.51	1	10		95	85-115			20		
IRON	5.22	0.1	5		104	85-115			20		
MAGNESIUM	10.3	0.1	10		103	85-115			20		
MANGANESE	0.103	0.002	0.1		103	85-115			20		
POTASSIUM	4.58	1	5		92	85-115			20		
SELENIUM	0.11	0.001	0.1		110	85-115			20		
SODIUM	9.73	1	10		97	85-115			20		
STRONTIUM	0.104	0.001	0.1		104	85-115			20		

MB		Sample ID: FP150212-1			Units: MG/L			Analysis Date: 2/13/2015 20:20			
Client ID:		Run ID: IM150213-12A4			Prep Date: 2/12/2015			DF: 10			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BARIUM	ND	0.001									
BORON	0.011	0.05								J	
CALCIUM	ND	1									
IRON	ND	0.1									
MAGNESIUM	ND	0.1									
MANGANESE	ND	0.002									
POTASSIUM	ND	1									
SELENIUM	ND	0.001									
SODIUM	ND	1									
STRONTIUM	ND	0.001									

The following samples were analyzed in this batch:

1502150-1

Client: Western Water and Land, Inc.

QC BATCH REPORT

Work Order: 1502150

Project: GV 86-2 BWQ

Batch ID: VL150213-3-2

Instrument ID HPV1

Method: SW8260_25

LCS		Sample ID: VL150213-3			Units: %REC			Analysis Date: 2/13/2015 12:01			
Client ID:		Run ID: VL150213-3A			Prep Date: 2/13/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
Surr: 4-BROMOFLUOROBENZENE	25.8		25		103	85-115					
Surr: DIBROMOFLUOROMETHANE	24.4		25		97	84-118					
Surr: TOLUENE-D8	24.5		25		98	85-115					
BENZENE	9.94	1	10		99	83-117			20		
TOLUENE	9.84	1	10		98	82-113			20		
ETHYLBENZENE	10	1	10		100	81-113			20		
M+P-XYLENE	19.1	1	20		96	82-115			20		
O-XYLENE	9.69	1	10		97	81-115			20		

LCSD		Sample ID: VL150213-3			Units: %REC			Analysis Date: 2/13/2015 12:22			
Client ID:		Run ID: VL150213-3A			Prep Date: 2/13/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
Surr: 4-BROMOFLUOROBENZENE	25.9		25		104	85-115		0			
Surr: DIBROMOFLUOROMETHANE	24.5		25		98	84-118		1			
Surr: TOLUENE-D8	24.7		25		99	85-115		1			
BENZENE	9.9	1	10		99	83-117	9.94	0	20		
TOLUENE	9.93	1	10		99	82-113	9.84	1	20		
ETHYLBENZENE	10.2	1	10		102	81-113	10	2	20		
M+P-XYLENE	19.6	1	20		98	82-115	19.1	2	20		
O-XYLENE	9.87	1	10		99	81-115	9.69	2	20		

MB		Sample ID: VL150213-3			Units: %REC			Analysis Date: 2/13/2015 13:08			
Client ID:		Run ID: VL150213-3A			Prep Date: 2/13/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
Surr: 4-BROMOFLUOROBENZENE	26.8		25		107	85-115					
Surr: DIBROMOFLUOROMETHANE	24.6		25		98	84-118					
Surr: TOLUENE-D8	24.6		25		98	85-115					
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: 1502150
Project: GV 86-2 BWQ

QC BATCH REPORT

The following samples were analyzed in this batch:

1502150-1

Client: Western Water and Land, Inc.
Work Order: 1502150
Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **AK150210-2-2** Instrument ID **Balance** Method: **SM2320B**

LCS Sample ID: **AK150210-2** Units: **MG/L** Analysis Date: **2/10/2015**
 Client ID: Run ID: **AK150210-1A1** Prep Date: **2/10/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS CaCO3	98.5	5	100		98	85-115			15	

MB Sample ID: **AK150210-2** Units: **MG/L** Analysis Date: **2/10/2015**
 Client ID: Run ID: **AK150210-1A1** Prep Date: **2/10/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	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: 1502150-1

Client: Western Water and Land, Inc.
Work Order: 1502150
Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **IC150210-1-3** Instrument ID **IC** Method: **EPA300.0**

LCS		Sample ID: IC150210-1			Units: MG/L		Analysis Date: 2/10/2015 15:55			
Client ID:		Run ID: IC150210-1A3			Prep Date: 2/10/2015		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BROMIDE	5.11	0.2	5		102	90-110			15	
CHLORIDE	5.18	0.2	5		104	90-110			15	
FLUORIDE	1.81	0.1	2		90	90-110			15	
NITRATE AS N	5.07	0.2	5		102	90-110			15	
NITRITE AS N	2.04	0.1	2		102	90-110			15	
SULFATE	19.8	1	20		99	90-110			15	

MB		Sample ID: IC150210-1			Units: MG/L		Analysis Date: 2/10/2015 23:25			
Client ID:		Run ID: IC150210-1A3			Prep Date: 2/10/2015		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BROMIDE	ND	0.2								
CHLORIDE	ND	0.2								
FLUORIDE	ND	0.1								
NITRATE AS N	ND	0.2								
NITRITE AS N	ND	0.1								
SULFATE	ND	1								

The following samples were analyzed in this batch:

Client: Western Water and Land, Inc.
Work Order: 1502150
Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **PH150211-1-1** Instrument ID **pH-1** Method: **SM4500-H**

CCV	Sample ID: CCV1					Units: pH	Analysis Date: 2/11/2015				
Client ID:		Run ID: PH150211-1A1					Prep Date: 2/11/2015			DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
PH	7.02	0.1	7			6.9-7.1					

ICV	Sample ID: ICV					Units: pH	Analysis Date: 2/11/2015				
Client ID:		Run ID: PH150211-1A1					Prep Date: 2/11/2015			DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
PH	7.01	0.1	7			6.95-7.05					

The following samples were analyzed in this batch: 1502150-1

Client: Western Water and Land, Inc.
Work Order: 1502150
Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **SC150211-1-1** Instrument ID **pH-2** Method: **SM2510B**

CCV		Sample ID: CCV1			Units: umhos/cm			Analysis Date: 2/11/2015		
Client ID:		Run ID: SC150211-1A1			Prep Date: 2/11/2015			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	1410	1	1410		100	271.7-1554.				

ICV		Sample ID: ICV			Units: umhos/cm			Analysis Date: 2/11/2015		
Client ID:		Run ID: SC150211-1A1			Prep Date: 2/11/2015			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	713	1	718		99	646.2-789.7				

The following samples were analyzed in this batch:

1502150-1

Client: Western Water and Land, Inc.
Work Order: 1502150
Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **TD150212-1-1** Instrument ID **Balance** Method: **SM2540C**

LCS		Sample ID: TD150212-1			Units: MG/L			Analysis Date: 2/14/2015		
Client ID:		Run ID: TD150213-1A1			Prep Date: 2/12/2015			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	405	20	400		101	85-115			5	

MB		Sample ID: TD150212-1			Units: MG/L			Analysis Date: 2/14/2015		
Client ID:		Run ID: TD150213-1A1			Prep Date: 2/12/2015			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	ND	20								

The following samples were analyzed in this batch:

Client: Western Water and Land, Inc.
Work Order: 1502150
Project: GV 86-2 BWQ

QC BATCH REPORT

Batch ID: **TP150216-1-1** Instrument ID **Spec** Method: **EPA365.2**

LCS		Sample ID: TP150216-1			Units: MG/L			Analysis Date: 2/16/2015		
Client ID:		Run ID: TP150216-1A2			Prep Date: 2/16/2015			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.499	0.05	0.5		100	80-120			20	

MB		Sample ID: TP150216-1			Units: MG/L			Analysis Date: 2/16/2015		
Client ID:		Run ID: TP150216-1A2			Prep Date: 2/16/2015			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	ND	0.05								

The following samples were analyzed in this batch: