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31 August 2023

Bruce Smith  
Western Water & Land, Inc.  
743 Horizon Ct, Suite 330  
Grand Junction, CO 81506  
RE: Tompkins PAD

Enclosed are the results of analyses for samples received by the laboratory on 08/17/23 11:15. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Jeremy D. Allen'.

Jeremy D Allen  
Laboratory Director

All accredited analytes contained in this report are denoted by an asterisk (\*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: T104704514-23-17

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: T104704398-23-16



Western Water & Land, Inc.  
743 Horizon Ct, Suite 330  
Grand Junction CO, 81506

Project: Rule 615  
Project Name / Number: Tompkins PAD  
Project Manager: Bruce Smith

Reported:  
08/31/23 14:33

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
North Star Well	2308302-01	Water	08/16/23 14:45	08/17/23 11:15	
Tompkins South	2308302-02	Water	08/16/23 15:30	08/17/23 11:15	
Trip Blank	2308302-03	Water	08/16/23 00:00	08/17/23 11:15	

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Jeremy D Allen, Laboratory Director

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Western Water & Land, Inc.  
743 Horizon Ct, Suite 330  
Grand Junction CO, 81506

Project: Rule 615  
Project Name / Number: Tompkins PAD  
Project Manager: Bruce Smith

Reported:  
08/31/23 14:33

**North Star Well**

**2308302-01 (Ground Water)**

**Sampled Date: 08/16/23 14:45**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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**General Chemistry**

Alkalinity, Total as CaCO3*	257	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Hydroxide as CaCO3*	<6.06	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B	U	JDA
Alkalinity, Carbonate as CaCO3*	14.0	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Bicarbonate as CaCO3*	243	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Bromide	<0.0274	0.100	0.0274	mg/L	1	08/28/23 15:50	EPA300.0	U	AWG
Cation/Anion Balance	-3.98	-100	-100	%	1	08/31/23 10:04	Calculation		JDA
Chloride*	3.96	1.00	0.0555	mg/L	1	08/28/23 15:50	EPA300.0		AWG
Conductivity*	528	1.00		umho/cm@25 C	1	08/18/23 09:20	2510 B		CAI
Fluoride*	0.198	0.100	0.00971	mg/L	1	08/28/23 15:50	EPA300.0		AWG
Nitrate as N*	1.18	0.020	0.008	mg/L	1	08/17/23 19:07	EPA300.0		AWG
Nitrate+Nitrite as N by IC	1.18	0.0400	0.0119	mg/L	1	08/17/23 19:07	EPA300.0		AWG
Nitrite as N*	<0.004	0.020	0.004	mg/L	1	08/17/23 19:07	EPA300.0	U	AWG
pH*	8.03			pH Units	1	08/18/23 08:58	EPA150.1		CAI
pH Temperature, degrees C	20.6			pH Units	1	08/18/23 08:58	EPA150.1		CAI
Phosphorus, Total	0.0384	0.0500	0.0215	mg P/L	1	08/24/23 16:23	EPA365.1	J	AWG
Sulfate*	25.1	1.00	0.124	mg/L	1	08/28/23 15:50	EPA300.0		AWG
Total Dissolved Solids*	470	10.0		mg/L	1	08/22/23 17:24	EPA160.1		CAI

**Dissolved Metals by ICP**

Boron	<0.061	0.300	0.061	mg/L	1	08/22/23 18:08	EPA200.7	U	AES
Calcium*	28.6	0.100	0.062	mg/L	1	08/22/23 18:07	EPA200.7		AES
Iron*	<0.015	0.050	0.015	mg/L	1	08/22/23 18:08	EPA200.7	U	AES
Magnesium*	25.6	0.100	0.035	mg/L	1	08/22/23 18:08	EPA200.7		AES
Potassium*	2.25	1.00	0.104	mg/L	1	08/22/23 18:07	EPA200.7		AES
Sodium*	39.5	1.00	0.409	mg/L	1	08/22/23 18:07	EPA200.7		AES
Strontium*	0.591	0.100	0.017	mg/L	1	08/22/23 18:07	EPA200.7		AES

**Dissolved Metals by ICPMS**

Barium*	0.172	0.0005	0.0002	mg/L	1	08/22/23 15:48	EPA200.8		AES
Manganese*	0.0003	0.0005	0.0002	mg/L	1	08/22/23 15:48	EPA200.8	J	AES
Selenium*	0.0034	0.0010	0.0004	mg/L	1	08/22/23 15:48	EPA200.8		AES

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Jeremy D Allen, Laboratory Director

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Western Water & Land, Inc. 743 Horizon Ct, Suite 330 Grand Junction CO, 81506	Project: Rule 615 Project Name / Number: Tompkins PAD Project Manager: Bruce Smith	Reported: 08/31/23 14:33
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**North Star Well**

**2308302-01 (Ground Water)**  
**Sampled Date: 08/16/23 14:45**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
<b>Other</b>									
<b>Iron-Related Bacteria</b>	Medium Aggressivity - 150			CFU/mL	1	08/17/23 16:30	Lab Procedure		EPR
<b>Slime-Forming Bacteria</b>	Low Aggressivity - n/a			CFU/mL	1	08/17/23 16:30	Lab Procedure		EPR
<b>Sulfate-Reducing Bacteria</b>	Low Aggressivity - <5			CFU/mL	1	08/17/23 16:30	Lab Procedure		EPR

**Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240**

**Petroleum Hydrocarbons by GC FID**

<b>GRO C6-C10*</b>	<295	1000	295	ug/L	0.1	08/23/23 01:20	8015B	U	MS
<b>DRO &gt;C10-C28*</b>	<670	1000	670	ug/L	0.1	08/23/23 01:20	8015B	U	MS
<b>EXT DRO &gt;C28-C36</b>	<670	1000	670	ug/L	0.1	08/23/23 01:20	8015B	U	MS
<i>Surrogate: 1-Chlorooctane</i>			103 %	48.8-131		08/23/23 01:20	8015B		MS
<i>Surrogate: 1-Chlorooctadecane</i>			119 %	60.1-141		08/23/23 01:20	8015B		MS

**Volatile Organic Compounds by EPA Method 8260B**

<b>Benzene*</b>	<0.04	0.5	0.04	ug/L	1	08/22/23 22:04	8260B	U	MS
<b>Toluene*</b>	<0.02	0.5	0.02	ug/L	1	08/22/23 22:04	8260B	U	MS
<b>Ethylbenzene*</b>	<0.03	0.5	0.03	ug/L	1	08/22/23 22:04	8260B	U	MS
<b>Total Xylenes*</b>	<b>0.6</b>	1	0.2	ug/L	1	08/22/23 22:04	8260B	J	MS
<b>Total BTEX</b>	<b>0.6</b>	3	0.3	ug/L	1	08/22/23 22:04	8260B	J	MS
<i>Surrogate: Dibromofluoromethane</i>			110 %	82.4-141		08/22/23 22:04	8260B		MS
<i>Surrogate: Toluene-d8</i>			103 %	87.1-110		08/22/23 22:04	8260B		MS
<i>Surrogate: 4-Bromofluorobenzene</i>			90.1 %	76.4-114		08/22/23 22:04	8260B		MS

**Subcontracted -- SunStar Laboratories, Inc. 25712 Commercentre Drive Lake Forest, CA 92630**

**RSK-175**

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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Western Water & Land, Inc. 743 Horizon Ct, Suite 330 Grand Junction CO, 81506	Project: Rule 615 Project Name / Number: Tompkins PAD Project Manager: Bruce Smith	Reported: 08/31/23 14:33
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**North Star Well**

**2308302-01 (Ground Water)**

**Sampled Date: 08/16/23 14:45**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- SunStar Laboratories, Inc. 25712 Commercentre Drive Lake Forest, CA 92630

**RSK-175**

<b>Methane</b>	<0.00124	0.00328	0.00124	mg/l	1	08/21/23 13:33	RSK-175		AC
<b>Ethane</b>	<0.000325	0.00615	0.000325	mg/l	1	08/21/23 13:33	RSK-175		AC
<b>Propane</b>	<0.000470	0.00902	0.000470	mg/l	1	08/21/23 13:33	RSK-175		AC

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Western Water & Land, Inc.  
743 Horizon Ct, Suite 330  
Grand Junction CO, 81506

Project: Rule 615  
Project Name / Number: Tompkins PAD  
Project Manager: Bruce Smith

Reported:  
08/31/23 14:33

**Tompkins South**

**2308302-02 (Ground Water)**

**Sampled Date: 08/16/23 15:30**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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**General Chemistry**

Alkalinity, Total as CaCO3*	259	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Hydroxide as CaCO3*	<6.06	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B	U	JDA
Alkalinity, Carbonate as CaCO3*	26.0	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Alkalinity, Bicarbonate as CaCO3*	233	10.0	6.06	mg/L	1	08/29/23 16:00	2320 B		JDA
Bromide	<0.0274	0.100	0.0274	mg/L	1	08/28/23 16:10	EPA300.0	U	AWG
Cation/Anion Balance	-3.12	-100	-100	%	1	08/31/23 10:04	Calculation		JDA
Chloride*	3.92	1.00	0.0555	mg/L	1	08/28/23 16:10	EPA300.0		AWG
Conductivity*	512	1.00		umho/cm@25 C	1	08/18/23 09:20	2510 B		CAI
Fluoride*	0.199	0.100	0.00971	mg/L	1	08/28/23 16:10	EPA300.0		AWG
Nitrate as N*	1.18	0.020	0.008	mg/L	1	08/17/23 19:25	EPA300.0		AWG
Nitrate+Nitrite as N by IC	1.18	0.0400	0.0119	mg/L	1	08/17/23 19:25	EPA300.0		AWG
Nitrite as N*	<0.004	0.020	0.004	mg/L	1	08/17/23 19:25	EPA300.0	U	AWG
pH*	8.27			pH Units	1	08/18/23 08:58	EPA150.1		CAI
pH Temperature, degrees C	21.1			pH Units	1	08/18/23 08:58	EPA150.1		CAI
Phosphorus, Total	0.0278	0.0500	0.0215	mg P/L	1	08/24/23 16:24	EPA365.1	J	AWG
Sulfate*	25.1	1.00	0.124	mg/L	1	08/28/23 16:10	EPA300.0		AWG
Total Dissolved Solids*	325	10.0		mg/L	1	08/22/23 17:26	EPA160.1		CAI

**Dissolved Metals by ICP**

Boron	<0.061	0.300	0.061	mg/L	1	08/22/23 18:10	EPA200.7	U	AES
Calcium*	29.9	0.100	0.062	mg/L	1	08/22/23 18:10	EPA200.7		AES
Iron*	<0.015	0.050	0.015	mg/L	1	08/22/23 18:10	EPA200.7	U	AES
Magnesium*	25.8	0.100	0.035	mg/L	1	08/22/23 18:10	EPA200.7		AES
Potassium*	2.36	1.00	0.104	mg/L	1	08/22/23 18:10	EPA200.7		AES
Sodium*	40.5	1.00	0.409	mg/L	1	08/22/23 18:10	EPA200.7		AES
Strontium*	0.608	0.100	0.017	mg/L	1	08/22/23 18:10	EPA200.7		AES

**Dissolved Metals by ICPMS**

Barium*	0.173	0.0005	0.0002	mg/L	1	08/22/23 15:52	EPA200.8		AES
Manganese*	0.0003	0.0005	0.0002	mg/L	1	08/22/23 15:52	EPA200.8	J	AES
Selenium*	0.0036	0.0010	0.0004	mg/L	1	08/22/23 15:52	EPA200.8		AES

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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Western Water & Land, Inc. 743 Horizon Ct, Suite 330 Grand Junction CO, 81506	Project: Rule 615 Project Name / Number: Tompkins PAD Project Manager: Bruce Smith	Reported: 08/31/23 14:33
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**Tompkins South**

**2308302-02 (Ground Water)**  
**Sampled Date: 08/16/23 15:30**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
<b>Other</b>									
<b>Iron-Related Bacteria</b>	Medium Aggressivity - 150			CFU/mL	1	08/17/23 16:30	Lab Procedure		EPR
<b>Slime-Forming Bacteria</b>	Low Aggressivity - n/a			CFU/mL	1	08/17/23 16:30	Lab Procedure		EPR
<b>Sulfate-Reducing Bacteria</b>	Low Aggressivity - <5			CFU/mL	1	08/17/23 16:30	Lab Procedure		EPR

**Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240**

**Petroleum Hydrocarbons by GC FID**

<b>GRO C6-C10*</b>	<295	1000	295	ug/L	0.1	08/23/23 01:43	8015B	U	MS
<b>DRO &gt;C10-C28*</b>	<670	1000	670	ug/L	0.1	08/23/23 01:43	8015B	U	MS
<b>EXT DRO &gt;C28-C36</b>	<670	1000	670	ug/L	0.1	08/23/23 01:43	8015B	U	MS
<i>Surrogate: 1-Chlorooctane</i>			85.4 %	48.8-131		08/23/23 01:43	8015B		MS
<i>Surrogate: 1-Chlorooctadecane</i>			98.6 %	60.1-141		08/23/23 01:43	8015B		MS

**Volatile Organic Compounds by EPA Method 8260B**

<b>Benzene*</b>	<0.04	0.5	0.04	ug/L	1	08/22/23 22:28	8260B	U	MS
<b>Toluene*</b>	<0.02	0.5	0.02	ug/L	1	08/22/23 22:28	8260B	U	MS
<b>Ethylbenzene*</b>	<0.03	0.5	0.03	ug/L	1	08/22/23 22:28	8260B	U	MS
<b>Total Xylenes*</b>	<b>0.6</b>	1	0.2	ug/L	1	08/22/23 22:28	8260B	J	MS
<b>Total BTEX</b>	<b>0.6</b>	3	0.3	ug/L	1	08/22/23 22:28	8260B	J	MS
<i>Surrogate: Dibromofluoromethane</i>			86.4 %	82.4-141		08/22/23 22:28	8260B		MS
<i>Surrogate: Toluene-d8</i>			100 %	87.1-110		08/22/23 22:28	8260B		MS
<i>Surrogate: 4-Bromofluorobenzene</i>			90.3 %	76.4-114		08/22/23 22:28	8260B		MS

**Subcontracted -- SunStar Laboratories, Inc. 25712 Commercentre Drive Lake Forest, CA 92630**

**RSK-175**

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Jeremy D Allen, Laboratory Director

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Western Water & Land, Inc. 743 Horizon Ct, Suite 330 Grand Junction CO, 81506	Project: Rule 615 Project Name / Number: Tompkins PAD Project Manager: Bruce Smith	Reported: 08/31/23 14:33
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**Tompkins South**

**2308302-02 (Ground Water)**

**Sampled Date: 08/16/23 15:30**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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**Subcontracted -- SunStar Laboratories, Inc. 25712 Commercentre Drive Lake Forest, CA 92630**

**RSK-175**

<b>Methane</b>	<0.00124	0.00328	0.00124	mg/l	1	08/21/23 13:41	RSK-175		AC
<b>Ethane</b>	<0.000325	0.00615	0.000325	mg/l	1	08/21/23 13:41	RSK-175		AC
<b>Propane</b>	<0.000470	0.00902	0.000470	mg/l	1	08/21/23 13:41	RSK-175		AC

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**Trip Blank**

**2308302-03 (Water)**

**Sampled Date: 08/16/23 00:00**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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**Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240**

**Volatile Organic Compounds by EPA Method 8260B**

<b>Benzene*</b>	<0.04	0.5	0.04	ug/L	1	08/22/23 22:52	8260B	U	MS
<b>Toluene*</b>	<b>1</b>	0.5	0.02	ug/L	1	08/22/23 22:52	8260B		MS
<b>Ethylbenzene*</b>	<0.03	0.5	0.03	ug/L	1	08/22/23 22:52	8260B	U	MS
<b>Total Xylenes*</b>	<b>0.6</b>	1	0.2	ug/L	1	08/22/23 22:52	8260B	J	MS
<b>Total BTEX</b>	<b>2</b>	3	0.3	ug/L	1	08/22/23 22:52	8260B	J	MS
<i>Surrogate: Dibromofluoromethane</i>			83.7 %	82.4-141		08/22/23 22:52	8260B		MS
<i>Surrogate: Toluene-d8</i>			102 %	87.1-110		08/22/23 22:52	8260B		MS
<i>Surrogate: 4-Bromofluorobenzene</i>			90.1 %	76.4-114		08/22/23 22:52	8260B		MS

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Jeremy D Allen, Laboratory Director

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**General Chemistry - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B232446 - IC- Ion Chromatograph**

<b>Blank (B232446-BLK1)</b>										
Prepared & Analyzed: 08/17/23										
Nitrate as N	ND	0.020	mg/L							U
Nitrite as N	ND	0.020	mg/L							U

<b>LCS (B232446-BS1)</b>										
Prepared & Analyzed: 08/17/23										
Nitrate as N	1.02	0.020	mg/L	1.00		102	90-110			
Nitrite as N	0.970	0.020	mg/L	1.00		97.0	90-110			

<b>LCS Dup (B232446-BSD1)</b>										
Prepared & Analyzed: 08/17/23										
Nitrate as N	1.04	0.020	mg/L	1.00		104	90-110	2.28	20	
Nitrite as N	0.977	0.020	mg/L	1.00		97.7	90-110	0.740	20	

<b>Matrix Spike (B232446-MS1)</b>										
Source: 2308301-01 Prepared & Analyzed: 08/17/23										
Nitrate as N	1.04	0.020	mg/L	1.00	0.012	103	85-115			
Nitrite as N	0.894	0.020	mg/L	1.00	ND	89.4	85-115			

<b>Matrix Spike Dup (B232446-MSD1)</b>										
Source: 2308301-01 Prepared & Analyzed: 08/17/23										
Nitrate as N	1.07	0.020	mg/L	1.00	0.012	106	85-115	2.83	20	
Nitrite as N	0.915	0.020	mg/L	1.00	ND	91.5	85-115	2.37	20	

**Batch B232464 - General Prep - Wet Chem**

<b>Duplicate (B232464-DUP1)</b>										
Source: 2308303-01 Prepared & Analyzed: 08/18/23										
Conductivity	597	1.00	umho/cm@2 5C		591			1.01	20	

<b>Reference (B232464-SRM1)</b>										
Prepared & Analyzed: 08/18/23										
Conductivity	982	1.00	umho/cm@2 5C	1000		98.2	90-110			

**Batch B232466 - General Prep - Wet Chem**

<b>Duplicate (B232466-DUP1)</b>										
Source: 2308303-01 Prepared & Analyzed: 08/18/23										
pH	7.86		pH Units		7.77			1.15	20	
pH Temperature, degrees C	20.7		pH Units		20.6			0.484	200	

<b>Reference (B232466-SRM1)</b>										
Prepared & Analyzed: 08/18/23										
pH	7.03		pH Units	7.00		100	98.57-101.42			

**Batch B232494 - General Prep - Wet Chem**

<b>Blank (B232494-BLK1)</b>										
Prepared & Analyzed: 08/22/23										

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**General Chemistry - Quality Control  
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B232494 - General Prep - Wet Chem (Continued)**

**Blank (B232494-BLK1) (Continued)**

Prepared & Analyzed: 08/22/23

Total Dissolved Solids	ND	10.0	mg/L							U
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**Duplicate (B232494-DUP1)**

Source: 2308276-01 Prepared & Analyzed: 08/22/23

Total Dissolved Solids	735	10.0	mg/L		750			2.02	20	
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**Reference (B232494-SRM1)**

Prepared & Analyzed: 08/22/23

Total Dissolved Solids	410	10.0	mg/L	400		102	85-115			
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**Batch B232514 - Lachat**

**Blank (B232514-BLK1)**

Prepared & Analyzed: 08/24/23

Phosphorus, Total	ND	0.0500	mg P/L							U
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**LCS (B232514-BS1)**

Prepared & Analyzed: 08/24/23

Phosphorus, Total	2.53	0.0500	mg P/L	2.50		101	90-110			
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**LCS Dup (B232514-BSD1)**

Prepared & Analyzed: 08/24/23

Phosphorus, Total	2.49	0.0500	mg P/L	2.50		99.7	90-110	1.51	20	
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**Matrix Spike (B232514-MS1)**

Source: 2308277-01 Prepared & Analyzed: 08/24/23

Phosphorus, Total	1.72	0.0500	mg P/L	1.00	0.733	98.9	90-110			
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**Matrix Spike (B232514-MS2)**

Source: 2308340-01 Prepared & Analyzed: 08/24/23

Phosphorus, Total	1.08	0.0500	mg P/L	1.00	ND	108	90-110			
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**Matrix Spike Dup (B232514-MSD1)**

Source: 2308277-01 Prepared & Analyzed: 08/24/23

Phosphorus, Total	1.73	0.0500	mg P/L	1.00	0.733	99.3	90-110	0.232	20	
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**Matrix Spike Dup (B232514-MSD2)**

Source: 2308340-01 Prepared & Analyzed: 08/24/23

Phosphorus, Total	1.08	0.0500	mg P/L	1.00	ND	108	90-110	0.00	20	
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**Batch B232551 - IC- Ion Chromatograph**

**Blank (B232551-BLK1)**

Prepared & Analyzed: 08/28/23

Bromide	ND	0.100	mg/L							U
Chloride	ND	1.00	mg/L							U
Fluoride	ND	0.100	mg/L							U
Sulfate	0.404	1.00	mg/L							J

**LCS (B232551-BS1)**

Prepared & Analyzed: 08/28/23

Bromide	2.41	0.100	mg/L	2.50		96.5	90-110			
Chloride	24.7	1.00	mg/L	25.0		98.9	90-110			
Fluoride	2.54	0.100	mg/L	2.50		101	90-110			

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**General Chemistry - Quality Control  
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B232551 - IC- Ion Chromatograph (Continued)**

**LCS (B232551-BS1) (Continued)**

Prepared & Analyzed: 08/28/23

Sulfate	25.2	1.00	mg/L	25.0		101	90-110			
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**LCS Dup (B232551-BS1)**

Prepared & Analyzed: 08/28/23

Bromide	2.41	0.100	mg/L	2.50		96.2	90-110	0.249	20	
Chloride	24.6	1.00	mg/L	25.0		98.5	90-110	0.377	20	
Fluoride	2.53	0.100	mg/L	2.50		101	90-110	0.237	20	
Sulfate	25.0	1.00	mg/L	25.0		100	90-110	0.586	20	

**Matrix Spike (B232551-MS1)**

Source: 2308290-01 Prepared & Analyzed: 08/28/23

Bromide	2.41	0.100	mg/L	2.50	0.177	89.2	85-115			
Chloride	47.9	1.00	mg/L	25.0	24.9	91.9	85-115			
Fluoride	2.53	0.100	mg/L	2.50	0.302	89.1	85-115			
Sulfate	142	1.00	mg/L	25.0	120	87.5	85-115			

**Matrix Spike (B232551-MS2)**

Source: 2308308-01 Prepared & Analyzed: 08/28/23

Bromide	0.577	0.100	mg/L	2.50	0.144	17.3	85-115			M2
Chloride	47.2	1.00	mg/L	25.0	22.4	99.4	85-115			
Fluoride	2.44	0.100	mg/L	2.50	0.149	91.8	85-115			
Sulfate	38.0	1.00	mg/L	25.0	14.0	96.1	85-115			

**Matrix Spike Dup (B232551-MSD1)**

Source: 2308290-01 Prepared & Analyzed: 08/28/23

Bromide	2.50	0.100	mg/L	2.50	0.177	93.1	85-115	3.95	20	
Chloride	48.8	1.00	mg/L	25.0	24.9	95.6	85-115	1.90	20	
Fluoride	2.63	0.100	mg/L	2.50	0.302	93.2	85-115	4.03	20	
Sulfate	143	1.00	mg/L	25.0	120	90.8	85-115	0.586	20	

**Matrix Spike Dup (B232551-MSD2)**

Source: 2308308-01 Prepared & Analyzed: 08/28/23

Bromide	0.582	0.100	mg/L	2.50	0.144	17.5	85-115	0.863	20	M2
Chloride	48.1	1.00	mg/L	25.0	22.4	103	85-115	1.78	20	
Fluoride	2.52	0.100	mg/L	2.50	0.149	94.8	85-115	3.02	20	
Sulfate	38.8	1.00	mg/L	25.0	14.0	99.3	85-115	2.04	20	

**Batch B232559 - General Prep - Wet Chem**

**Blank (B232559-BLK1)**

Prepared: 08/28/23 Analyzed: 08/29/23

Alkalinity, Bicarbonate as CaCO3	ND	10.0	mg/L							U
Alkalinity, Carbonate as CaCO3	ND	10.0	mg/L							U
Alkalinity, Hydroxide as CaCO3	ND	10.0	mg/L							U
Alkalinity, Total as CaCO3	ND	10.0	mg/L							U

**LCS (B232559-BS1)**

Prepared: 08/28/23 Analyzed: 08/29/23

Alkalinity, Total as CaCO3	104	10.0	mg/L	100		104	85-115			
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**General Chemistry - Quality Control  
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B232559 - General Prep - Wet Chem (Continued)</b>										
<b>LCS Dup (B232559-BSD1)</b>				Prepared: 08/28/23 Analyzed: 08/29/23						
Alkalinity, Total as CaCO3	102	10.0	mg/L	100		102	85-115	1.94	20	
<b>Matrix Spike (B232559-MS1)</b>				Source: 2308047-09 Prepared: 08/28/23 Analyzed: 08/29/23						
Alkalinity, Total as CaCO3	223	10.0	mg/L	100	124	99.0	80-120			
<b>Matrix Spike (B232559-MS2)</b>				Source: 2308323-01 Prepared: 08/28/23 Analyzed: 08/29/23						
Alkalinity, Total as CaCO3	403	10.0	mg/L	100	303	100	80-120			
<b>Matrix Spike Dup (B232559-MSD1)</b>				Source: 2308047-09 Prepared: 08/28/23 Analyzed: 08/29/23						
Alkalinity, Total as CaCO3	224	10.0	mg/L	100	124	100	80-120	0.447	20	
<b>Matrix Spike Dup (B232559-MSD2)</b>				Source: 2308323-01 Prepared: 08/28/23 Analyzed: 08/29/23						
Alkalinity, Total as CaCO3	391	10.0	mg/L	100	303	88.0	80-120	3.02	20	
<b>Reference (B232559-SRM1)</b>				Prepared: 08/28/23 Analyzed: 08/29/23						
Alkalinity, Total as CaCO3	76.0	10.0	mg/L	72.7		105	85-115			

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**Dissolved Metals by ICP - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B232486 - Dissolved ICP**

**Blank (B232486-BLK1)**

Prepared & Analyzed: 08/22/23

Boron	ND	0.300	mg/L							U
Calcium	ND	0.100	mg/L							U
Iron	ND	0.050	mg/L							U
Magnesium	ND	0.100	mg/L							U
Potassium	ND	1.00	mg/L							U
Sodium	ND	1.00	mg/L							U
Strontium	ND	0.100	mg/L							U

**LCS (B232486-BS1)**

Prepared & Analyzed: 08/22/23

Boron	4.01	0.300	mg/L	4.00		100	85-115			
Calcium	3.95	0.100	mg/L	4.00		98.7	85-115			
Iron	3.97	0.050	mg/L	4.00		99.1	85-115			
Magnesium	20.3	0.100	mg/L	20.0		102	85-115			
Potassium	8.13	1.00	mg/L	8.00		102	85-115			
Sodium	3.48	1.00	mg/L	3.24		107	85-115			
Strontium	4.06	0.100	mg/L	4.00		101	85-115			

**LCS Dup (B232486-BS1)**

Prepared & Analyzed: 08/22/23

Boron	4.05	0.300	mg/L	4.00		101	85-115	1.08	20	
Calcium	3.97	0.100	mg/L	4.00		99.2	85-115	0.499	20	
Iron	3.97	0.050	mg/L	4.00		99.3	85-115	0.105	20	
Magnesium	20.5	0.100	mg/L	20.0		102	85-115	0.675	20	
Potassium	8.08	1.00	mg/L	8.00		101	85-115	0.650	20	
Sodium	3.41	1.00	mg/L	3.24		105	85-115	1.76	20	
Strontium	4.02	0.100	mg/L	4.00		100	85-115	0.991	20	

**Matrix Spike (B232486-MS1)**

Source: 2308234-02

Prepared & Analyzed: 08/22/23

Boron	3.96	0.300	mg/L	4.00	ND	98.9	70-130			
Calcium	15.6	0.100	mg/L	4.00	12.7	72.7	70-130			
Iron	4.20	0.050	mg/L	4.00	0.386	95.4	70-130			
Magnesium	22.1	0.100	mg/L	20.0	2.51	98.1	70-130			
Potassium	9.04	1.00	mg/L	8.00	1.38	95.7	70-130			
Sodium	3.98	1.00	mg/L	3.24	0.797	98.3	70-130			
Strontium	3.92	0.100	mg/L	4.00	0.065	96.3	70-130			

**Matrix Spike (B232486-MS2)**

Source: 2308234-03

Prepared & Analyzed: 08/22/23

Boron	3.85	0.300	mg/L	4.00	ND	96.3	70-130			
Calcium	13.9	0.100	mg/L	4.00	11.4	63.6	70-130			M2
Iron	3.97	0.050	mg/L	4.00	0.295	92.0	70-130			
Magnesium	21.0	0.100	mg/L	20.0	1.98	94.9	70-130			
Potassium	8.60	1.00	mg/L	8.00	0.944	95.7	70-130			

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**Dissolved Metals by ICP - Quality Control  
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B232486 - Dissolved ICP (Continued)**

**Matrix Spike (B232486-MS2) (Continued)**

Source: 2308234-03 Prepared & Analyzed: 08/22/23

Sodium	3.86	1.00	mg/L	3.24	0.703	97.4	70-130			
Strontium	3.85	0.100	mg/L	4.00	0.062	94.7	70-130			

**Matrix Spike Dup (B232486-MSD1)**

Source: 2308234-02 Prepared & Analyzed: 08/22/23

Boron	4.08	1.50	mg/L	4.00	ND	102	70-130	2.94	20	
Calcium	15.8	0.500	mg/L	4.00	12.7	77.1	70-130	1.11	20	
Iron	4.13	0.250	mg/L	4.00	0.386	93.6	70-130	1.74	20	
Magnesium	21.8	0.500	mg/L	20.0	2.51	96.4	70-130	1.54	20	
Potassium	9.21	5.00	mg/L	8.00	1.38	97.8	70-130	1.86	20	
Sodium	4.20	5.00	mg/L	3.24	ND	130	70-130	5.35	20	J
Strontium	3.92	0.500	mg/L	4.00	ND	98.0	70-130	0.00357	20	

**Matrix Spike Dup (B232486-MSD2)**

Source: 2308234-03 Prepared & Analyzed: 08/22/23

Boron	3.77	1.50	mg/L	4.00	ND	94.3	70-130	2.08	20	
Calcium	13.3	0.500	mg/L	4.00	11.4	49.2	70-130	4.24	20	M2
Iron	3.74	0.250	mg/L	4.00	0.295	86.2	70-130	5.95	20	
Magnesium	19.8	0.500	mg/L	20.0	1.98	89.0	70-130	5.80	20	
Potassium	8.11	5.00	mg/L	8.00	0.944	89.6	70-130	5.88	20	
Sodium	3.86	5.00	mg/L	3.24	ND	119	70-130	0.0822	20	J
Strontium	3.57	0.500	mg/L	4.00	ND	89.3	70-130	7.51	20	

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Western Water & Land, Inc.  
743 Horizon Ct, Suite 330  
Grand Junction CO, 81506

Project: Rule 615  
Project Name / Number: Tompkins PAD  
Project Manager: Bruce Smith

Reported:  
08/31/23 14:33

**Dissolved Metals by ICPMS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B232488 - Dissolved ICPMS**

**Blank (B232488-BLK1)**

Prepared & Analyzed: 08/22/23

Barium	ND	0.0005	mg/L							U
Manganese	ND	0.0005	mg/L							U
Selenium	ND	0.0010	mg/L							U

**LCS (B232488-BS1)**

Prepared & Analyzed: 08/22/23

Barium	0.0503	0.0005	mg/L	0.0500		101	85-115			
Manganese	0.0562	0.0005	mg/L	0.0500		112	85-115			
Selenium	0.241	0.0010	mg/L	0.250		96.6	85-115			

**LCS Dup (B232488-BSD1)**

Prepared & Analyzed: 08/22/23

Barium	0.0496	0.0005	mg/L	0.0500		99.2	85-115	1.50	20	
Manganese	0.0510	0.0005	mg/L	0.0500		102	85-115	9.59	20	
Selenium	0.246	0.0010	mg/L	0.250		98.6	85-115	2.09	20	

**Matrix Spike (B232488-MS1)**

Source: 2308279-01

Prepared & Analyzed: 08/22/23

Barium	0.0628	0.0005	mg/L	0.0500	0.0118	102	70-130			
Manganese	0.0540	0.0005	mg/L	0.0500	0.0057	96.5	70-130			
Selenium	0.283	0.0010	mg/L	0.250	ND	113	70-130			

**Matrix Spike (B232488-MS2)**

Source: 2308279-02

Prepared & Analyzed: 08/22/23

Barium	0.0577	0.0005	mg/L	0.0500	0.0082	99.1	70-130			
Manganese	0.0451	0.0005	mg/L	0.0500	0.0004	89.5	70-130			
Selenium	0.272	0.0010	mg/L	0.250	ND	109	70-130			

**Matrix Spike Dup (B232488-MSD1)**

Source: 2308279-01

Prepared & Analyzed: 08/22/23

Barium	0.0626	0.0005	mg/L	0.0500	0.0118	101	70-130	0.368	20	
Manganese	0.0537	0.0005	mg/L	0.0500	0.0057	96.0	70-130	0.495	20	
Selenium	0.284	0.0010	mg/L	0.250	ND	114	70-130	0.512	20	

**Matrix Spike Dup (B232488-MSD2)**

Source: 2308279-02

Prepared & Analyzed: 08/22/23

Barium	0.0580	0.0005	mg/L	0.0500	0.0082	99.8	70-130	0.614	20	
Manganese	0.0457	0.0005	mg/L	0.0500	0.0004	90.6	70-130	1.23	20	
Selenium	0.275	0.0010	mg/L	0.250	ND	110	70-130	0.985	20	

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**RSK-175 - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 23H0257 - EPA 3810m Headspace**

**Blank (23H0257-BLK1)**

Prepared: 08/18/23 Analyzed: 08/21/23

Ethane	ND	0.00615	mg/l							
Methane	ND	0.00328	mg/l							
Propane	ND	0.00902	mg/l							

**LCS (23H0257-BS1)**

Prepared: 08/18/23 Analyzed: 08/21/23

Ethane	1.09	0.00615	mg/l	1.23		88.9	75-125			
Ethene	1.05	0.00574	mg/l	1.15		91.3	75-125			
Methane	0.614	0.00328	mg/l	0.656		93.7	75-125			

**Duplicate (23H0257-DUP1)**

Source: 2308302-01 Prepared: 08/18/23 Analyzed: 08/21/23

Ethane	ND	0.00615	mg/l		ND				20	
Methane	ND	0.00328	mg/l		ND				20	
Propane	ND	0.00902	mg/l		ND				20	

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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Western Water & Land, Inc. 743 Horizon Ct, Suite 330 Grand Junction CO, 81506	Project: Rule 615 Project Name / Number: Tompkins PAD Project Manager: Bruce Smith	Reported: 08/31/23 14:33
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**Petroleum Hydrocarbons by GC FID - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3081720 - General Prep - Organics**

**Blank (3081720-BLK1)**

Prepared: 08/17/23 Analyzed: 08/22/23

Surrogate: 1-Chlorooctadecane	5050		ug/L	5000		101	60.1-141			
Surrogate: 1-Chlorooctane	4220		ug/L	5000		84.4	48.8-131			
DRO >C10-C28	ND	1000	ug/L							U
EXT DRO >C28-C36	ND	1000	ug/L							U
GRO C6-C10	ND	1000	ug/L							U

**LCS (3081720-BS1)**

Prepared: 08/17/23 Analyzed: 08/22/23

Surrogate: 1-Chlorooctadecane	5350		ug/L	5000		107	60.1-141			
Surrogate: 1-Chlorooctane	5000		ug/L	5000		99.9	48.8-131			
DRO >C10-C28	54800	1000	ug/L	50000		110	68.8-126			
GRO C6-C10	49400	1000	ug/L	50000		98.7	69.6-126			

**LCS Dup (3081720-BSD1)**

Prepared: 08/17/23 Analyzed: 08/22/23

Surrogate: 1-Chlorooctadecane	5420		ug/L	5000		108	60.1-141			
Surrogate: 1-Chlorooctane	5070		ug/L	5000		101	48.8-131			
DRO >C10-C28	56000	1000	ug/L	50000		112	68.8-126	2.09	20.4	
GRO C6-C10	50000	1000	ug/L	50000		100	69.6-126	1.36	16.8	

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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Western Water & Land, Inc.  
743 Horizon Ct, Suite 330  
Grand Junction CO, 81506

Project: Rule 615  
Project Name / Number: Tompkins PAD  
Project Manager: Bruce Smith

Reported:  
08/31/23 14:33

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3081831 - Volatiles**

**Blank (3081831-BLK1)**

Prepared: 08/18/23 Analyzed: 08/22/23

<i>Surrogate: 4-Bromofluorobenzene</i>	22.8		ug/L	25.0		91.2	76.4-114			
Benzene	ND	0.5	ug/L							U
<i>Surrogate: Dibromofluoromethane</i>	27.1		ug/L	25.0		109	82.4-141			
Ethylbenzene	ND	0.5	ug/L							U
Toluene	ND	0.5	ug/L							U
<i>Surrogate: Toluene-d8</i>	25.0		ug/L	25.0		99.8	87.1-110			
Total BTEX	0.6	3	ug/L							J
Total Xylenes	0.6	1	ug/L							J

**LCS (3081831-BS1)**

Prepared: 08/18/23 Analyzed: 08/22/23

<i>Surrogate: 4-Bromofluorobenzene</i>	24.9		ug/L	25.0		99.8	76.4-114			
Benzene	21	0.5	ug/L	20.0		107	85.9-114			
<i>Surrogate: Dibromofluoromethane</i>	26.4		ug/L	25.0		106	82.4-141			
Ethylbenzene	22	0.5	ug/L	20.0		109	81.8-127			
m+p - Xylene	38	1	ug/L	40.0		94.0	72.4-134			
o-Xylene	17	0.5	ug/L	20.0		84.3	76.2-135			
Toluene	20	0.5	ug/L	20.0		100	78.8-121			
<i>Surrogate: Toluene-d8</i>	24.3		ug/L	25.0		97.2	87.1-110			
Total Xylenes	54	1	ug/L	60.0		90.8	74.3-134			

**LCS Dup (3081831-BSD1)**

Prepared: 08/18/23 Analyzed: 08/22/23

<i>Surrogate: 4-Bromofluorobenzene</i>	25.0		ug/L	25.0		100	76.4-114			
Benzene	22	0.5	ug/L	20.0		108	85.9-114	1.03	4.14	
<i>Surrogate: Dibromofluoromethane</i>	26.0		ug/L	25.0		104	82.4-141			
Ethylbenzene	23	0.5	ug/L	20.0		113	81.8-127	3.70	4.95	
m+p - Xylene	39	1	ug/L	40.0		98.6	72.4-134	4.67	5.81	
o-Xylene	18	0.5	ug/L	20.0		89.1	76.2-135	5.54	6.32	
Toluene	20	0.5	ug/L	20.0		102	78.8-121	1.78	5.73	
<i>Surrogate: Toluene-d8</i>	24.5		ug/L	25.0		97.8	87.1-110			
Total Xylenes	57	1	ug/L	60.0		95.4	74.3-134	4.94	5.84	

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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Western Water & Land, Inc.  
743 Horizon Ct, Suite 330  
Grand Junction CO, 81506

Project: Rule 615  
Project Name / Number: Tompkins PAD  
Project Manager: Bruce Smith

Reported:  
08/31/23 14:33

Notes and Definitions

- U Analyte included in the analysis, but not detected
- M2 Matrix spike recovery was below laboratory acceptance criteria. Recovery possibly affected by a matrix interference in the sample. The method blank spike recovery was acceptable.
- J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis  
\*Results reported on as received basis unless designated as dry.
- RPD Relative Percent Difference
- LCS Laboratory Control Sample (Blank Spike)
- RL Report Limit
- MDL Method Detection Limit

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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# Project Information

Printed: 08/17/2023 12:15 pm

## Western Water & Land, Inc.

743 Horizon Ct, Suite 330  
Grand Junction, CO 81506  
Laboratory PM: Jeremy D Allen

er & Land, Inc

Phone: (970) 242-0170  
Fax:

**Project Name:** Rule 615  
**Project Number:** Rule 615  
**Client PM:** Bruce Smith  
**Comments:**

Analysis	Comment
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Alkalinity, Total  
Barium Dissolved by ICPMS  
BART - Iron Related Bacteria  
BART - Slime Forming Bacteria  
BART - Sulfate Reducing Bacteria  
Boron Dissolved by ICP  
Bromide [IC]  
CAB  
Calcium Dissolved by ICP  
Chloride [IC]  
Conductivity  
Fluoride [IC]  
Iron Dissolved by ICP  
Magnesium Dissolved by ICP  
Manganese Dissolved by ICPMS  
Nitrate/Nitrite by IC Package  
pH  
Phosphate as P, Total [LACHAT]  
Potassium Dissolved by ICP  
Selenium Dissolved by ICPMS  
Sodium Dissolved by ICP  
Strontium Dissolved by ICP  
Sub - BTEX 8260  
Sub - RSK-175 (Sunstar)  
Sub - TPH 8015M- GRO, DRO, ORO  
Sulfate [IC]  
Total Dissolved Solids [TDS]

**Nitrate/Nitrite by IC Package subanalyses:**  
Nitrate [IC]  
Nitrite [IC]

Request Methane, Ethane, and Propane on Sunstar COC



### SAMPLE CONDITION RECEIPT FORM

Client Name: WESTERN WATER & LAND INC.

Work Order # 2308-302

Courier:  Fed Ex  UPS  USPS  Client  Kangaroo

Custody Seals on Box/Cooler Present:  Yes  No

Seals Intact:  Yes  No

Thermometer Used: #2 Samples on ice, cooling process has begun:  Yes  No

Type of Ice:  Wet  Blue  None

Cooler Temp: Observed Temp: 3.3 °C Correction Factor: 0 °C Final Temp: 3.3 °C

\* Temp should be above freezing to 6°C

Date/Initials of person examining contents:	<u>8/12/23</u> <u>SL</u>
Labeled by initials: (if different than above)	_____

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name and Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
Samples arrived within hold time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. <u>PIT / TBAET. / NOX</u>
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Dissolved Testing Needed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. <u>DISS.</u>
Field Filtered: <input type="checkbox"/> Yes <input type="checkbox"/> No		
Sample Labels match COC: -Includes Date/Time/ID	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
Matrix:	<input checked="" type="checkbox"/> WT <input type="checkbox"/> SL <input type="checkbox"/> OT	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

**Client Notification/Resolution:**

Person Contacted: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Laboratory Sample ID: 2308-302-01

Start Date: 08/17/2023

Sample Name: North Star Well

BART Type :

DATE:

08/18/2023	08/19/2023	08/20/2023	08/21/2023	08/22/2023	08/23/2023	08/24/2023	08/25/2023	08/26/2023	08/27/2023
------------	------------	------------	------------	------------	------------	------------	------------	------------	------------

<b>APB</b> Purple (Acid Producing Bacteria)										
Time Lag (days)	1	2	3	4	5	6	7	8	9	10
Approx. Population	475,000	82,000	14,000	4,500	450	75	10	< 2	n/a	n/a
Reaction Code										

<b>IRB</b> Red (Iron Related Bacteria)										
Time Lag (days)	1	2	3	4	5	6	7	8	9	10
Approx. Population	570,000	140,000	35,000	9,000	2,200	500	150	25	8	< 1
Reaction Code	A	A	A	A	A	A	FO	FO	BR	BR

<b>SLYM</b> Green (Slime Forming Bacteria)										
Time Lag (days)	1	2	3	4	5	6	7	8	9	10
Approx. Population	1,750,000	440,000	67,000	13,000	2,500	500	100	< 20	n/a	n/a
Reaction Code	A	A	A	A	A	A	A	A	A	A

<b>SRB</b> Black (Sulfate Reducing Bacteria)										
Time Lag (days)	1	2	3	4	5	6	7	8	9	10
Approx. Population	2,200,000	500,000	115,000	27,000	6,000	1,400	325	75	20	< 5
Reaction Code	A	A	A	A	A	A	A	A	A	A

Aggressivity:	High	Medium	Low
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Reaction Code Summary: **APB**  
Purple

ABSENT = A

**IRB**

- FO - Foam
- BR - Brown Ring
- BG - Brown Gel
- BC - Brown Clouds
- GC - Green Cloudy
- RC - Red Cloudy
- CL - Cloudy
- BL - Black

**SLYM**

- DS - Dense Slime
- SR - Slime Ring
- CL - Cloudy
- CP - Cloudy Layered Plates
- PB - Pale Blue Glowing
- BL - Blackened Liquid
- TH - Thread Like Strands

**SRB**

- BB - Black Base
- BT - Black Ball/Top
- BT/BB - Black Top & Base
- Cloudy
- \*n/a - Not Aggressive

+

Laboratory Sample ID: 2308-302-02

Start Date: 08/17/2023

Sample Name: Tompkins South

BART Type :

DATE:

08/18/2023	08/19/2023	08/20/2023	08/21/2023	08/22/2023	08/23/2023	08/24/2023	08/25/2023	08/26/2023	08/27/2023
------------	------------	------------	------------	------------	------------	------------	------------	------------	------------

<b>APB</b> Purple (Acid Producing Bacteria )										
Time Lag (days)	1	2	3	4	5	6	7	8	9	10
Approx. Population	475,000	82,000	14000	4500	450	75	10	< 2	n/a	n/a
Reaction Code										

<b>IRB</b> Red (Iron Related Bacteria)										
Time Lag (days)	1	2	3	4	5	6	7	8	9	10
Approx. Population	570,000	140,000	35,000	9000	2200	500	150	25	8	< 1
Reaction Code	A	A	A	A	A	A	FO	FO	FO	FO

<b>SLYM</b> Green (Slime Forming Bacteria)										
Time Lag (days)	1	2	3	4	5	6	7	8	9	10
Approx. Population	1,750,000	440,000	67,000	13,000	2500	500	100	< 20	n/a	n/a
Reaction Code	A	A	A	A	A	A	A	A	A	A

<b>SRB</b> Black (Sulfate Reducing Bacteria)										
Time Lag (days)	1	2	3	4	5	6	7	8	9	10
Approx. Population	2,200,000	500,000	115,000	27,000	6,000	1400	325	75	20	< 5
Reaction Code	A	A	A	A	A	A	A	A	A	A

Aggressivity:	High	Medium	Low
---------------	------	--------	-----

Reaction Code Summary: **APB**  
Purple

ABSENT = A

**IRB**

- FO - Foam
- BR - Brown Ring
- BG - Brown Gel
- BC - Brown Clouds
- GC - Green Cloudy
- RC - Red Cloudy
- CL - Cloudy
- BL - Black

**SLYM**

- DS - Dense Slime
- SR - Slime Ring
- CL - Cloudy
- CP - Cloudy Layered Plates
- PB - Pale Blue Glowing
- BL - Blackened Liquid
- TH - Thread Like Strands

**SRB**

- BB - Black Base
- BT - Black Ball/Top
- BT/BB - Black Top & Base
- Cloudy
- \*n/a - Not Aggressive

+