Attachment E
Calibration Logs

EQUIPCO
Rentals Sales Service

YSI ProDSS RENTAL
CALIBRATION CERTIFICATE

SERVICE TECHNICIAN: GIS DATE: 10/25/21

RENTAL CUSTOMER: _____

INSTRUMENT INFORMATION

RENTAL I.D. NUMBER: YSIPRODSS.49

SERIAL NUMBER: 20F000270

CALIBRATION INFORMATION

PARAMETER:	STANDARD:	PASS	LOT #
1. CONDUCTIVITY	1,000 µMhos	✓	057939
2. pH ZERO	pH 7	✓	05-6161
pH SLOPE	pH 4	✓	05-6160
pH SLOPE	pH 10	✓	05-6162
3. DISSOLVED OXYGEN	Air Calibration Barometric pressure = 760mmHg	✓	N/A
DISSOLVED OXYGEN ZERO TEST	(Sodium Sulfite)	N/A	N/A
4. TURBIDITY ZERO	0.0 NTU's	✓	10/25/21
TURBIDITY SPAN	100 NTU's	✓	10/25/21
5. REDOX (ORP)	231mV (YSI Zobell solution)	✓	092121

2100 Meridian Park Blvd, Concord, CA 94520 Phone (888) 234-5678 Fax (925) 305-1301

EQUIPCO
Rentals Sales Service

YSI ProDSS RENTAL
CALIBRATION CERTIFICATE

SERVICE TECHNICIAN: GB DATE: 10/25/21

RENTAL CUSTOMER: _____

INSTRUMENT INFORMATION

RENTAL I.D. NUMBER: YSIPRODSS. 41

SERIAL NUMBER: 19J10001

CALIBRATION INFORMATION

PARAMETER:	STANDARD:	PASS	LOT #
1. CONDUCTIVITY	1,000 µMhos	✓	057939
2. pH ZERO	pH 7	✓	056161
pH SLOPE	pH 4	✓	056160
pH SLOPE	pH 10	✓	056162
3. DISSOLVED OXYGEN	Air Calibration Barometric pressure = 760mmHg	✓	N/A
DISSOLVED OXYGEN ZERO TEST	(Sodium Sulfite)	N/A	N/A
4. TURBIDITY ZERO	0.0 NTU's	✓	10/25/21
TURBIDITY SPAN	100 NTU's	✓	10/25/21
5. REDOX (ORP)	231mV (YSI Zobell solution)	✓	09/21/21

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Rentals Sales Service

YSI ProDSS RENTAL
CALIBRATION CERTIFICATE

SERVICE TECHNICIAN: GB DATE: 10/25/21

RENTAL CUSTOMER: _____

INSTRUMENT INFORMATION

RENTAL I.D. NUMBER: YSIPRODSS/2

SERIAL NUMBER: 16F104659

CALIBRATION INFORMATION

PARAMETER:	STANDARD:	PASS	LOT #
1. CONDUCTIVITY	1,000 µMhos	✓	057937
2. pH ZERO	pH 7	✓	056161
pH SLOPE	pH 4	✓	056160
pH SLOPE	pH 10	✓	056162
3. DISSOLVED OXYGEN	Air Calibration Barometric pressure = 760mmHg	✓	N/A
DISSOLVED OXYGEN ZERO TEST	(Sodium Sulfite)	N/A	N/A
4. TURBIDITY ZERO	0.0 NTU's	✓	10/25/21
TURBIDITY SPAN	100 NTU's	✓	10/25/21
5. REDOX (ORP)	231mV (YSI Zobell solution)	✓	092121

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EQUIPCO
Rentals Sales Service

YSI ProDSS RENTAL
CALIBRATION CERTIFICATE

SERVICE TECHNICIAN: GB DATE: 10/25/21

RENTAL CUSTOMER: _____

INSTRUMENT INFORMATION

RENTAL I.D. NUMBER: YSIPRODSS 31

SERIAL NUMBER: 19K101416

CALIBRATION INFORMATION

PARAMETER:	STANDARD:	PASS	LOT #
1. CONDUCTIVITY	1,000 µMhos	✓	057934
2. pH ZERO	pH 7	✓	056161
pH SLOPE	pH 4	✓	056160
pH SLOPE	pH 10	✓	056162
3. DISSOLVED OXYGEN	Air Calibration Barometric pressure = 760mmHg	✓	N/A
DISSOLVED OXYGEN ZERO TEST	(Sodium Sulfite)	N/A	N/A
4. TURBIDITY ZERO	0.0 NTU's	✓	10/25/21
TURBIDITY SPAN	100 NTU's	✓	10/25/21
5. REDOX (ORP)	231mV (YSI Zobell solution)	✓	09/21/21

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EQUIPCO
Rentals Sales Service

YSI ProDSS RENTAL
CALIBRATION CERTIFICATE

SERVICE TECHNICIAN: GB DATE: 10/25/21

RENTAL CUSTOMER: _____

INSTRUMENT INFORMATION

RENTAL I.D. NUMBER: YSIPRODSS 39

SERIAL NUMBER: 19H600050

CALIBRATION INFORMATION

PARAMETER:	STANDARD:	PASS	LOT #
1. CONDUCTIVITY	1,000 µMhos	✓	053937
2. pH ZERO	pH 7	✓	056161
pH SLOPE	pH 4	✓	056160
pH SLOPE	pH 10	✓	056K2
3. DISSOLVED OXYGEN	Air Calibration Barometric pressure = 760mmHg	✓	N/A
DISSOLVED OXYGEN ZERO TEST	(Sodium Sulfite)	N/A	N/A
4. TURBIDITY ZERO	0.0 NTU's	✓	10/25/21
TURBIDITY SPAN	100 NTU's	✓	10/25/21
5. REDOX (ORP)	231mV (YSI Zobell solution)	✓	052121

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TETRA TECH

CALIBRATION LOG - WATER QUALITY METER

NERT, Henderson, NV

Task Name: GW Monitoring	Task No.: H02	Rental from: EQUIPCO	Task Manager: Jesse Bunkers
Field Personnel: J. Bunkers		Serial Number: 20F000290	Type: YSI ProDSS . 49

			Pre-Calibration							Post-Calibration						
Date	Time	Temp (°C)	pH (pH = 4.0)	pH (pH = 7.0)	pH (pH = 10.0)	ORP (mV)	Cond. (mS/cm)	DO (%)	Turbidity (NTU)	pH (pH = 4.0)	pH (pH = 7.0)	pH (pH = 10.0)	ORP (mV)	Cond. (mS/cm)	DO (%)	Turbidity (NTU)
11/1/21	1606	24.2	4.47	7.11	9.72	249.6	1.121	101.5	-8.05	4.00	7.01	10.02	225.9	1.000	100.0	0.00
11/2/21	1500	24.5	4.09	7.08	10.04	224.0	1.047	99.6	-0.15	4.00	7.00	10.02	225.3	1.000	100.0	0.00
11/3/21	1445	24.7	3.99	7.07	10.07	225.8	0.950	100.8	-0.33	4.00	7.01	10.03	226.8	1.000	100.0	0.00
11/4/21	1510	24.5	4.03	7.02	10.00	224.6	0.987	99.9	0.32	4.00	7.01	10.02	225.5	1.000	100.0	0.00

Notes:

TETRA TECH

CALIBRATION LOG - WATER QUALITY METER

NERT, Henderson, NV

Task Name: GW Monitoring	Task No.: H02	Rental from: EQUIPCO	Task Manager: Jesse Bunkers
Field Personnel: J. Roman		Serial Number: 19J101001	Type: YSI ProDSS

			Pre-Calibration							Post-Calibration						
Date	Time	Temp (°C)	pH (pH = 4.0)	pH (pH = 7.0)	pH (pH = 10.0)	ORP (mV)	Cond. (mS/cm)	DO (%)	Turbidity (NTU)	pH (pH = 4.0)	pH (pH = 7.0)	pH (pH = 10.0)	ORP (mV)	Cond. (mS/cm)	DO (%)	Turbidity (NTU)
11/01/2021	1600	22.5	3.88	6.99	9.97	233.9	9.580	102.6	-0.45	4.0	7.0	10.0	234.3	1.000	100	0
11/02/2021	1530	23.5	3.99	7.05	9.98	231.9	1.010	99.2	-1.35	4.0	7.0	10.0	232.9	1.000	100	0
11/03/2021	1545	23.8	4.03	7.04	9.98	231.7	1.030	99.8	-0.01	4.0	7.0	10.0	232.5	1.000	100	0
11/04/2021	1600	24.0	4.04	7.06	9.97	230.1	1.070	100.1	0.03	4.0	7.0	10.0	232.0	1.000	100	0

Notes:

TETRA TECH

CALIBRATION LOG - WATER QUALITY METER

NERT, Henderson, NV

Task Name: GW Monitoring	Task No.: H02	Rental from: EQUIPCO	Task Manager: Jesse Bunkers
Field Personnel: K. YEAGER		Serial Number: 16F104830	Type: YSI ProDSS

			Pre-Calibration							Post-Calibration						
Date	Time	Temp (°C)	pH (pH = 4.0)	pH (pH = 7.0)	pH (pH = 10.0)	ORP (mV)	Cond. (mS/cm)	DO (%)	Turbidity (NTU)	pH (pH = 4.0)	pH (pH = 7.0)	pH (pH = 10.0)	ORP (mV)	Cond. (mS/cm)	DO (%)	Turbidity (NTU)
11/2/21	1445	25.0	4.16	6.95	9.87	236.2	1.188 ~~1.035~~	106.4	-0.9	4.08	6.99	9.92	231.0	1.001	100.1	-0.8
11/3/21	1510	23.1	3.98	7.01	9.81	237.9	1.027	100.1	-0.1	3.99	7.01	10.03	231.0	1.002	100.1	-0.1
11/4/21	1510	29.3	4.04	7.16	9.88	229.7	0.980	99.8	-0.1	4.01	7.00	9.91	235.1	0.977	100.0	-0.2

Notes:

TETRA TECH

CALIBRATION LOG - WATER QUALITY METER

NERT, Henderson, NV

Task Name: GW Monitoring	Task No.: H02	Rental from: EQUIPCO	Task Manager: Jesse Bunkers
Field Personnel: J. Logan		Serial Number: 19K101416	Type: YSI ProDSS

			Pre-Calibration							Post-Calibration						
Date	Time	Temp (°C)	pH (pH = 4.0)	pH (pH = 7.0)	pH (pH = 10.0)	ORP (mV)	Cond. (mS/cm)	DO (%)	Turbidity (NTU)	pH (pH = 4.0)	pH (pH = 7.0)	pH (pH = 10.0)	ORP (mV)	Cond. (mS/cm)	DO (%)	Turbidity (NTU)
11/2/21	1458	25.0	~~3.34~~	~~7.13~~	9.69	255.8	1022	8.26	-7.18	4.00	6.87	9.19	233.4	~~1047~~ 1048	~~0.0~~ 100%	0.0
11/3/21	1437	23.6	4.00	6.98	9.83	238.3	1046	8.35	-0.92	4.00	6.87	9.20	234.3	1092	8.36	0.0
11/4/21	1457	23.7	3.37	6.92	9.75	235.3	1073	8.23	~~32.05~~ 0.79 JJ	4.00	6.87	9.20	233.7	1110	8.20	0.0

Notes:

~~1.022~~

TETRA TECH

CALIBRATION LOG - WATER QUALITY METER

NERT, Henderson, NV

Task Name: GW Monitoring	Task No.: H02	Rental from: EQUIPCO	Task Manager: Jesse Bunkers
Field Personnel: Ron Phillips		Serial Number: 19J100050	Type: YSI ProDSS

			Pre-Calibration							Post-Calibration						
Date	Time	Temp (°C)	pH (pH = 4.0)	pH (pH = 7.0)	pH (pH = 10.0)	ORP (mV)	Cond. (mS/cm)	DO (%)	Turbidity (NTU)	pH (pH = 4.0)	pH (pH = 7.0)	pH (pH = 10.0)	ORP (mV)	Cond. (mS/cm)	DO (%)	Turbidity (NTU)
11-1-21	16:15	23.2	4.44	7.01	9.89	231.3	713	93.7	-3.3	4.02	7.00	9.93	238	1.001	93.9	0.0
11-2-21	14:45	29.2	4.02	7.33	10.15	237.5	~~1.405~~ 1.262	94.6	-.24	4.00	7.00	10.00	232.8	0.999	94.2	0.01
11-3-21	14:37	22.8	4.11	7.20	10.09	230.8	.833	95.0	0.01	4.00	7.07	10.02	233.5	1.001	94.2	0.0
11-4-21	14:34	26.1	4.10	7.15	10.04	231.2	1.005	93.4	0.60	4.00	7.02	9.99	232.9	1.000	93.9	0.00

Notes:

November 2021 Sampling Event

DTW readings taken on all Interceptor Wells, SWF, AWF and AP5 Wells

Issues/Concerns

IWF, SWF, AWF, AP5 Wells	DTW taken manually with Geotech Water Level Meter Serial #7053 on all wells.
PC99R2/R3	When taking DTW readings, PC-99R2 was feeding into PC-99R3 so quickly that splash was preventing us from obtaining an accurate DTW reading. Unable to remove transducer from well or pass with TWD probe. Recorded DTW readings from Control Panel
AP5 Wells	Sampled by ETI 2021 11 03. Will be done on a Monthly basis by ETI.
*PC-117, PC-133, ART-1, *ART-2A, ART-3A, ART-4A, *ART-7B, ART-8, AT-8A, PC-150 *I-AB, I-AD, I-F, I-G, I-J, I-L, I-N, *I-S, I-T	*All have more than 1-foot difference in DTW from 10/2021 to 11/2021. Data recorded on field sheet.
ART-2 and ART-2A	Both wells running at time of DTW and Sampling. Sample bottles labeled as ART-2/2A 2021 11 15
I-AB, I-AC	DTW taken prior to turning well on to sample, purged prior to collecting sample.
I-Q	DTW probe hitting top of pump. Unable to bypass pump/motor with DTW probe.
	Emily McGuire and Michael Bolton sampled November 2021

FD/EB

SWF	PC-118 2021 11 15 - FD	PC-119 2021 11 15 - EB
AWF	ART-8 2021 11 15 - FD	ART-9 2021 11 15 - EB
IWF	I-B 2021 11 04 – FD	I-C 2021 11 04 - EB
AP5 Wells	E1-2 2021 11 03 - FD	E1-3 2021 11 03 - EB

**Per email from Emily Gilson dated 4/12/2017 – removed historical_reference_elev and water_level_elev data from 2017 Groundwater Sampling EDD

Field Forms changes	TWD will be marked with a “NM” not measured, unless a manual reading obtained. Manually record TWD in May
Monthly Table changes	Effective 9/13/2018- Well casing and LT Elevations email from David Bohmann dated 9/13/18
	Effective 8/1/2017 - TWD recorded annually in May - forms are to be marked at NM (Not Measured) per email from Katie Linscott 7/19/2017
Sampling Changes	Effective 3/16/2020 – NDEP approved NERT Remedial Performance Monitoring SAP, Revision 1 - ART-6 will only be sampled by Tetra Tech in November and May.

WATER SAMPLING FIELD LOG

	Well: I-AA
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/4/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/4/21	Time: 10:12
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 46.54 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/4/21 Start Time: 11:00

Sample Time	pH	EC/MC	Temp	Well Observations
11:01	6.41 pH	4.55 mS/Cm	25.4 °C	
Sample Appearance: Clear w/Floaties				
Finish Time: 11:04				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-AB
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/4/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 11/4/21	Time: 10:14
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 34.30	☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):		

☐ **Well Purge Required**

Turned pump on at 11:04, flowing at 6.35 gpm. Purged for 4 minutes, 2 minutes required per well purge spreadsheet. Turned well off at 11:10.

Field Measurements- Date: 11/4/21 Start Time: 11:04

Sample Time	pH	EC/MC	Temp	Well Observations
11:08	6.43 pH	4.81 mS/Cm	27.5 °C	

Sample Appearance: Clear

Finish Time: 11:10

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-AC
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/17/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/17/21 Time: 10:55
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)
Depth to Water(ft): 27.82 ☑ Manually Taken at Well ☐ Taken at Control Panel
Height of Water Column(ft):

☐ **Well Purge Required**

Turned pump on at 10:56, flowing at 3.45 gpm. Purged for 5 minutes, 4 minutes required per well purge spreadsheet. Turned well off at 11:05.

Field Measurements- Date: 11/17/21 Start Time: 10:55

Sample Time	pH	EC/MC	Temp	Well Observations
11:01	6.44 pH	6.43 mS/Cm	24.1 °C	

Sample Appearance: Clear

Finish Time: 11:05

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-AD
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/17/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/17/21	Time: 11:05
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 33.01 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/17/21 Start Time: 11:05

Sample Time	pH	EC/MC	Temp	Well Observations
11:06	6.54 pH	6.39 mS/Cm	24.7 °C	
Sample Appearance: Pale Yellow				
Finish Time: 11:09				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-AR
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/4/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 11/4/21	Time: 10:30
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 34.72	☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):		

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/4/21 Start Time: 11:34

Sample Time	pH	EC/MC	Temp	Well Observations
11:35	7.41 pH	6.06 mS/Cm	29.4 °C	

Sample Appearance: Clear

Finish Time: 11:38

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
6.05 mS/Cm	6.95 pH
29.8 °C	

WATER SAMPLING FIELD LOG

	Well: I-B
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/4/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/4/21 Time: 10:16
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)
Depth to Water(ft): 42.77 ☑ Manually Taken at Well ☐ Taken at Control Panel
Height of Water Column(ft):

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/4/21 Start Time: 11:10

Sample Time	pH	EC/MC	Temp	Well Observations
11:11	6.82 pH	5.24 mS/Cm	26.6 °C	
Sample Appearance: Clear				
Finish Time: 11:15				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

I-B 2021 11 04 - FD
Collected at same time for same analysis before moving to next well.

PH: 6.81
EC: 5.24
C: 26.4

WATER SAMPLING FIELD LOG

	Well: I-C
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/4/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/4/21	Time: 11:40
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 43.30 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/4/21 Start Time: 11:40

Sample Time	pH	EC/MC	Temp	Well Observations
11:42	7.12 pH	7.43 mS/Cm	28.8 °C	

Sample Appearance: Pale Yellow

Finish Time: 11:48

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

I-C 2021 11 04 - EB
Collected for same analysis before moving on to next well.

Time: 11:44

PH: 9.09
EC: 0.03
C: 25.0

WATER SAMPLING FIELD LOG

	Well: I-D
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/4/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/4/21	Time: 12:15
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 31.09 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/4/21 Start Time: 12:15

Sample Time	pH	EC/MC	Temp	Well Observations
12:17	7.45 pH	7.88 mS/Cm	28.2 °C	
Sample Appearance: Yellow				
Finish Time: 12:19				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-E
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/4/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/4/21	Time: 12:05
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 34.83 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/4/21 Start Time: 12:05

Sample Time	pH	EC/MC	Temp	Well Observations
12:07	7.45 pH	7.84 mS/Cm	28.1 °C	
Sample Appearance: Yellow				
Finish Time: 12:10				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-F
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/4/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny/Windy	

☐ **DTW ONLY**

Well Depth Information- Date: 11/4/21	Time: 11:50
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 30.13 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/4/21 Start Time: 11:50

Sample Time	pH	EC/MC	Temp	Well Observations
11:52	7.40 pH	9.08 mS/Cm	30.7 °C	
Sample Appearance: Yellow				
Finish Time: 11:55				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-G
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/10/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/10/21	Time: 11:34
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 30.98 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/10/21 Start Time: 11:34

Sample Time	pH	EC/MC	Temp	Well Observations
11:35	7.32 pH	10.56 mS/Cm	28.3 °C	
Sample Appearance: Yellow				
Finish Time: 11:38				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-H
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/10/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/10/21	Time: 11:19
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 30.18 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/10/21 Start Time: 11:19

Sample Time	pH	EC/MC	Temp	Well Observations
11:20	7.16 pH	9.90 mS/Cm	27.7 °C	
Sample Appearance: Yellow w/Floaties				
Finish Time: 11:23				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-I
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/17/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/17/21 Time: 11:22
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)
Depth to Water(ft): 22.58 ☑ Manually Taken at Well ☐ Taken at Control Panel
Height of Water Column(ft):

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/17/21 Start Time: 11:22

Sample Time	pH	EC/MC	Temp	Well Observations
11:23	7.28 pH	6.26 mS/Cm	24.1 °C	
Sample Appearance: Yellow				
Finish Time: 11:26				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-J
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/17/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 11/17/21	Time: 11:14
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 32.16	☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):		

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/17/21 Start Time: 11:14

Sample Time	pH	EC/MC	Temp	Well Observations
11:15	6.93 pH	5.98 mS/Cm	23.5 °C	

Sample Appearance: Yellow

Finish Time: 11:17

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
5.99 mS/Cm	7.02 pH
23.6 °C	

WATER SAMPLING FIELD LOG

	Well: I-K
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/17/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/17/21 Time: 11:10
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)
Depth to Water(ft): 23.60 ☑ Manually Taken at Well ☐ Taken at Control Panel
Height of Water Column(ft):

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/17/21 Start Time: 11:10

Sample Time	pH	EC/MC	Temp	Well Observations
11:11	6.77 pH	6.70 mS/Cm	24.8 °C	
Sample Appearance: Pale Yellow				
Finish Time: 11:13				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-L
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/4/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/4/21	Time: 10:24
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 31.52 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/4/21 Start Time: 11:23

Sample Time	pH	EC/MC	Temp	Well Observations
11:24	7.21 pH	6.18 mS/Cm	27.6 °C	
Sample Appearance: Clear				
Finish Time: 11:27				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-M
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/4/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny/Windy	

☐ **DTW ONLY**

Well Depth Information- Date: 11/4/21 Time: 12:10
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)
Depth to Water(ft): 32.06 ☑ Manually Taken at Well ☐ Taken at Control Panel
Height of Water Column(ft):

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/4/21 Start Time: 12:10

Sample Time	pH	EC/MC	Temp	Well Observations
12:12	7.51 pH	7.79 mS/Cm	26.7 °C	
Sample Appearance: Yellow				
Finish Time: 12:15				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-N
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/4/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/4/21	Time: 12:01
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 32.08 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/4/21 Start Time: 12:01

Sample Time	pH	EC/MC	Temp	Well Observations
12:03	7.34 pH	7.86 mS/Cm	28.4 °C	
Sample Appearance: Yellow				
Finish Time: 12:05				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
7.66 mS/Cm	7.04 pH
25.2 °C	

WATER SAMPLING FIELD LOG

	Well: I-O
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/10/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/10/21	Time: 11:02
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 29.47 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/10/21 Start Time: 11:02

Sample Time	pH	EC/MC	Temp	Well Observations
11:04	6.71 pH	7.95 mS/Cm	27.2 °C	
Sample Appearance: Yellow				
Finish Time: 11:07				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-P
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/10/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/10/21	Time: 11:14
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 28.96 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/10/21 Start Time: 11:14

Sample Time	pH	EC/MC	Temp	Well Observations
11:16	7.05 pH	9.19 mS/Cm	27.4 °C	
Sample Appearance: Yellow				
Finish Time: 11:18				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-Q
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/10/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/10/21	Time: 11:39
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 33.46 ☑ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/10/21 Start Time: 11:39

Sample Time	pH	EC/MC	Temp	Well Observations
11:40	7.31 pH	10.03 mS/Cm	27.4 °C	
Sample Appearance: Yellow				
Finish Time: 11:43				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-R
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/4/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/4/21	Time: 10:20
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 31.90 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/4/21 Start Time: 11:15

Sample Time	pH	EC/MC	Temp	Well Observations
11:16	6.93 pH	6.34 mS/Cm	26.9 °C	
Sample Appearance: Clear				
Finish Time: 11:19				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-S
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/4/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/4/21	Time: 10:27
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 30.44 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/4/21 Start Time: 11:28

Sample Time	pH	EC/MC	Temp	Well Observations
11:29	7.26 pH	6.45 mS/Cm	27.1 °C	
Sample Appearance: Pale Yellow w/Floaties				
Finish Time: 11:32				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

Project/Site: NERT Project - Henderson Nevada	Well: I-T
	Date(s): 11/10/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/10/21 Time: 11:29

Total Well Depth(ft): NM
('NM') - No measurement taken, manually measured annually)

Depth to Water(ft): 30.18
☑ Manually Taken at Well ☐ Taken at Control Panel

Height of Water Column(ft):

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/10/21 Start Time: 11:29

Sample Time	pH	EC/MC	Temp	Well Observations
11:31	7.24 pH	10.58 mS/Cm	29.4 °C	

Sample Appearance: Yellow

Finish Time: 11:33

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
10.58 mS/Cm	7.03 pH
29.5 °C	

WATER SAMPLING FIELD LOG

Project/Site: NERT Project - Henderson Nevada	Well: I-U
	Date(s): 11/10/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/10/21 Time: 11:24

Total Well Depth(ft): NM
('NM') - No measurement taken, manually measured annually)

Depth to Water(ft): 34.00
☑ Manually Taken at Well ☐ Taken at Control Panel

Height of Water Column(ft):

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/10/21 Start Time: 11:24

Sample Time	pH	EC/MC	Temp	Well Observations
11:25	7.21 pH	10.55 mS/Cm	27.9 °C	

Sample Appearance: Yellow w/Floaties

Finish Time: 11:28

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
10.49 mS/Cm	7.03 pH
27.1 °C	

WATER SAMPLING FIELD LOG

Project/Site: NERT Project - Henderson Nevada	Well: I-V
	Date(s): 11/17/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/17/21 Time: 11:28

Total Well Depth(ft): NM
('NM') - No measurement taken, manually measured annually)

Depth to Water(ft): 30.49
☑ Manually Taken at Well ☐ Taken at Control Panel

Height of Water Column(ft):

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/17/21 Start Time: 11:28

Sample Time	pH	EC/MC	Temp	Well Observations
11:29	7.30 pH	6.54 mS/Cm	24.6 °C	

Sample Appearance: Clear

Finish Time: 11:31

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

Project/Site: NERT Project - Henderson Nevada	Well: I-W
	Date(s): 11/10/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/10/21 Time: 11:08

Total Well Depth(ft): NM
('NM') - No measurement taken, manually measured annually)

Depth to Water(ft): 28.93
☑ Manually Taken at Well ☐ Taken at Control Panel

Height of Water Column(ft):

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/10/21 Start Time: 11:08

Sample Time	pH	EC/MC	Temp	Well Observations
11:10	6.70 pH	8.05 mS/Cm	27.6 °C	

Sample Appearance: Yellow w/Floaties

Finish Time: 11:13

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-X
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/4/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/4/21	Time: 11:55
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 32.50 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/4/21 Start Time: 11:55

Sample Time	pH	EC/MC	Temp	Well Observations
11:57	7.32 pH	8.79 mS/Cm	30.0 °C	
Sample Appearance: Yellow				
Finish Time: 12:00				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
8.79 mS/Cm	6.98 pH
29.8 °C	

WATER SAMPLING FIELD LOG

	Well: I-Y
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/4/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/4/21	Time: 10:22
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 51.34 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/4/21 Start Time: 11:19

Sample Time	pH	EC/MC	Temp	Well Observations
11:20	7.15 pH	6.36 mS/Cm	27.3 °C	
Sample Appearance: Clear				
Finish Time: 11:23				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-Z
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/17/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/17/21 Time: 11:18

Total Well Depth(ft): NM
('NM') - No measurement taken, manually measured annually)

Depth to Water(ft): 29.06
☑ Manually Taken at Well ☐ Taken at Control Panel

Height of Water Column(ft):

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/17/21 Start Time: 11:18

Sample Time	pH	EC/MC	Temp	Well Observations
11:19	7.34 pH	5.94 mS/Cm	23.6 °C	

Sample Appearance: Yellow

Finish Time: 11:21

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-1
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/ 15 /21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 11/ 15 /21	Time: 1017
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 28.63	☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):		

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/ /21 Start Time:

Sample Time	pH	EC/MC	Temp	Well Observations
	pH	mS/Cm	°C	
Sample Appearance:				
Finish Time:				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-1A
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/15/21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/15/21	Time: 1018
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 29.86 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/15/21 Start Time: 1159

Sample Time	pH	EC/MC	Temp	Well Observations
1200	7.28 pH	6.61 mS/Cm	27.3 °C	
Sample Appearance: clear				
Finish Time: 1203				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-2*
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/15/21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

*ART-2 and ART-2A run concurrently, bottles labeled ART-2/2A 1021 11 15

☐ **DTW ONLY**

Well Depth Information- Date: 11/15/21 Time: 1021	
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 32.42	☑ Manually Taken at Well ☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/15/21 Start Time: 1203

Sample Time	pH	EC/MC	Temp	Well Observations
1204	7.08 pH	14.19 mS/Cm	26.7 °C	
Sample Appearance: Clear				
Finish Time: 1207				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-2A*
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/15/21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

*ART-2 and ART-2A run concurrently, bottles labeled ART-2/2A 2021 11 15

☐ **DTW ONLY**

Well Depth Information- Date: 11/15/21 Time: 1022
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)
Depth to Water(ft): 32.37 ☑ Manually Taken at Well ☐ Taken at Control Panel
Height of Water Column(ft):

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/15/21 Start Time:

Sample Time	pH	EC/MC	Temp	Well Observations
See ART-2 field log	pH	mS/Cm	°C	
Sample Appearance:				
Finish Time:				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-3
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/ 15 /21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☑ **DTW ONLY**

Well Depth Information- Date: 11/ 15 /21	Time: 1028
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 34.84 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/ 15 /21 Start Time:

Sample Time	pH	EC/MC	Temp	Well Observations
	pH	mS/Cm	°C	
Sample Appearance:				
Finish Time:				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-3A
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/ 15 /21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/ 15 /21	Time: 1029
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 41.74 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/ 15 /21 Start Time: 1207

Sample Time	pH	EC/MC	Temp	Well Observations
1208	7.13 pH	10.20 mS/Cm	25.8 °C	
Sample Appearance: Clear				
Finish Time: 1211				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-4
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/15/21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/15/21	Time: 1031
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 38.46 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/15/21 Start Time: 1211

Sample Time	pH	EC/MC	Temp	Well Observations
1212	7.24 pH	7.29 mS/Cm	25.7 °C	
Sample Appearance:	Clear			
Finish Time:	1215			

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-4A
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/15/21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/16/21	Time: 1032
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 33.72 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

~~Field Measurements-~~ Date: 11/ | /21			Start Time:	
Sample Time	pH	EC/MC	Temp	Well Observations
	pH	mS/Cm	°C	
Sample Appearance:				
Finish Time:				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-7A
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/ 15 /21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☑ **DTW ONLY**

Well Depth Information- Date: 11/ 15 /21	Time: 1008
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 30.42 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

~~Field Measurements-~~ Date: 11/ /21 Start Time:

Sample Time	pH	EC/MC	Temp	Well Observations
	pH	mS/Cm	°C	
Sample Appearance:				
Finish Time:				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-7B
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/ 15 /21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/ 15 /21	Time: 1009
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 39.48 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/ 15 /21 Start Time: 1219

Sample Time	pH	EC/MC	Temp	Well Observations
1220	7.25 pH	8.39 mS/Cm	25.3 °C	
Sample Appearance: Clear				
Finish Time: 1224				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-8
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/15/21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/15/21	Time: 1024
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 35.80 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/15/21 Start Time: 1215

Sample Time	pH	EC/MC	Temp	Well Observations
1216	7.10 pH	14.11 mS/Cm	24.9 °C	-ART-8A casing broken and offline & running in its place
Sample Appearance: clear				
Finish Time: 1219				

Analyses / Bottles:

CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

ART-8 2021 11 15 - FD
Collected at same time for same analysis before moving to next well.
pH: 7.11 EC: 14.10 °C: 24.9

WATER SAMPLING FIELD LOG

	Well: ART-8A
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/ 15 /21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/ 15 /21	Time: 1025
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 32.52 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/ /21 Start Time:

Sample Time	pH	EC/MC	Temp	Well Observations
	pH	mS/Cm	°C	ART-8 Running in 8A's place.
Sample Appearance:				
Finish Time:				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-9
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/ 15 /21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/ 15 /21	Time: 1011
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 36.09 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/ 15 /21 Start Time: 1224

Sample Time	pH	EC/MC	Temp	Well Observations
1225	7.36 pH	7.47 mS/Cm	25.0 °C	
Sample Appearance: Clear				
Finish Time: 1229				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
7.47 mS/Cm	6.96 pH
25.1 °C	

ART-9 2021 11 15 - EB
Collected for same analysis before moving to next well.
Time: 1227
pH: 9.11 Ec: 0.02 °C: 23.2

WATER SAMPLING FIELD LOG

	Well: PC-150
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/15/21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/15/21	Time: 1035
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 37.97 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/15/21 Start Time: 1229

Sample Time	pH	EC/MC	Temp	Well Observations
1230	7.33 pH	6.45 mS/Cm	25.3 °C	-Bucket test 1.5gpm
Sample Appearance: Clear				
Finish Time: 1234				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: PC-99 R2/R3
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/15/21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/15/21	Time: 0808
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 12.65 ☐ Manually Taken at Well ☑ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/15/21 Start Time: 1112

Sample Time	pH	EC/MC	Temp	Well Observations
1113	6.30 pH	3.80 mS/Cm	25.8 °C	
Sample Appearance: clear				
Finish Time: 1115				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: PC-115R
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/ 15 /21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/ 15 /21	Time: 1040
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 12.43 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/ 15 /21 Start Time: 1115

Sample Time	pH	EC/MC	Temp	Well Observations
1116	6.61 pH	2.82 mS/Cm	24.3 °C	
Sample Appearance: Clear				
Finish Time: 1119				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: PC-116R
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/15/21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/15/21	Time: 1044
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 15.58 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/15/21 Start Time: 1119

Sample Time	pH	EC/MC	Temp	Well Observations
1120	6.79 pH	4.26 mS/Cm	23.2 °C	
Sample Appearance: Clear				
Finish Time: 1122				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: PC-117
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/15/21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/15/21	Time: 1034
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 18.33 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/15/21 Start Time: 1122

Sample Time	pH	EC/MC	Temp	Well Observations
1123	6.86 pH	3.85 mS/Cm	23.0 °C	
Sample Appearance: Clear				
Finish Time: 1125				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: PC-118
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/15/21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/15/21	Time: 1037
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 6.60 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/15/21 Start Time: 1125

Sample Time	pH	EC/MC	Temp	Well Observations
1126	7.18 pH	2.74 mS/Cm	22.2 °C	
Sample Appearance: Clear				
Finish Time: 1130				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

PC-118 2021 11 15 - FD
Collected at same time for same analysis before moving on to next well.
pH: 7.19 EC: 2.73 °C: 22.2

WATER SAMPLING FIELD LOG

	Well: PC-119
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/ 15 /21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/ 15 /21 Time: 1048
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)
Depth to Water(ft): 4.09 ☑ Manually Taken at Well ☐ Taken at Control Panel
Height of Water Column(ft):

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/ 15 /21 Start Time: 1130

Sample Time	pH	EC/MC	Temp	Well Observations
1131	7.23 pH	2.44 mS/Cm	21.9 °C	
Sample Appearance: clear				
Finish Time: 1135				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

PC-119 2021 ~~0450~~ sm 11 15 -EB
Collected for same analysis before moving to next well.

pH: 8.91 EC: 0.02 °C: 23.6 Time: 1133

WATER SAMPLING FIELD LOG

	Well: PC-120
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/15/21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/15/21	Time: 1051
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 4.18 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/15/21 Start Time: 1136

Sample Time	pH	EC/MC	Temp	Well Observations
1137	7.11 pH	2.41 mS/Cm	21.1 °C	
Sample Appearance: Clear				
Finish Time: 1140				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
2.43 mS/Cm	6.98 pH
21.2 °C	

WATER SAMPLING FIELD LOG

	Well: PC-121
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/ 15 /21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/ 15 /21	Time: 1055
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 4.43 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/ 15 /21 Start Time: 1140

Sample Time	pH	EC/MC	Temp	Well Observations
1141	7.22 pH	2.41 mS/Cm	21.2 °C	
Sample Appearance: Clear				
Finish Time: 1143				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: PC-133
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/15/21
Sampling Team: Emily McGuire MB	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/16/21 *	Time: 1152
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 28.59 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/15/21 Start Time: 1143

Sample Time	pH	EC/MC	Temp	Well Observations
1144	7.21 pH	2.81 mS/Cm	21.9 °C	*Unable to collect DTW, casing shifted. Informed maintenance. Fixed and collected 11/16/21
Sample Appearance: clear				
Finish Time: 1147				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: E1-1
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/3/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 11/3/21	Time: 11:19
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 43.91	☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):		

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/3/21 Start Time: 11:30

Sample Time	pH	EC/MC	Temp	Well Observations
11:31	7.26 pH	5.08 mS/Cm	26.7 °C	
Sample Appearance: Clear				
Finish Time: 11:37				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: E1-2
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/3/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/3/21	Time: 11:21
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 42.77 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/3/21 Start Time: 11:44

Sample Time	pH	EC/MC	Temp	Well Observations
11:45	7.12 pH	6.77 mS/Cm	27.3 °C	
Sample Appearance: Clear				
Finish Time: 11:51				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

E1-2 2021 11 03 - FD
Collected at same time for same analysis before moving on to next well.

PH: 7.11
EC: 6.77
C: 27.4

WATER SAMPLING FIELD LOG

	Well: E1-3
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/3/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/3/21	Time: 11:24
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 43.90 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/3/21 Start Time: 11:55

Sample Time	pH	EC/MC	Temp	Well Observations
11:56	7.02 pH	6.02 mS/Cm	27.9 °C	
Sample Appearance: Clear				
Finish Time:				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

E1-3 2021 11 03 - EB
Collected for same analysis before moving on to next well.

Time: 11:58
PH: 8.57
EC: 0.10
C: 23.5

WATER SAMPLING FIELD LOG

	Well: E2-1
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/3/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/3/21	Time: 12:34
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 43.08 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/3/21 Start Time: 12:35

Sample Time	pH	EC/MC	Temp	Well Observations
12:36	7.25 pH	3.78 mS/Cm	25.3 °C	
Sample Appearance: Clear w/Floaties				
Finish Time: 12:38				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
3.91 mS/Cm	6.97 pH
26.4 °C	

WATER SAMPLING FIELD LOG

	Well: E2-2
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/3/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/3/21	Time: 12:27
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 38.65 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/3/21 Start Time: 12:29

Sample Time	pH	EC/MC	Temp	Well Observations
12:30	7.39 pH	4.24 mS/Cm	24.9 °C	
Sample Appearance: Clear				
Finish Time: 12:32				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: E2-3
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/3/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/3/21	Time: 12:19
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 39.30 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/3/21 Start Time: 12:21

Sample Time	pH	EC/MC	Temp	Well Observations
12:22	7.31 pH	5.35 mS/Cm	25.2 °C	
Sample Appearance: Clear				
Finish Time: 12:26				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: E2-4
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/3/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/3/21	Time: 12:12
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 43.09 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/3/21 Start Time: 12:14

Sample Time	pH	EC/MC	Temp	Well Observations
12:15	7.26 pH	5.79 mS/Cm	25.7 °C	
Sample Appearance: Clear				
Finish Time: 12:18				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
5.82 mS/Cm	6.98 pH
25.6 °C	

WATER SAMPLING FIELD LOG

	Well: E2-5
Project/Site: NERT Project - Henderson Nevada	Date(s): 11/3/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 11/3/21	Time: 12:03
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 41.96 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 11/3/21 Start Time: 12:05

Sample Time	pH	EC/MC	Temp	Well Observations
12:06	7.07 pH	6.43 mS/Cm	27.9 °C	
Sample Appearance: Clear				
Finish Time: 12:11				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

ENVIROGEN

ETI Daily Sampling Log Sheet

Date: 11/3/21	Well Field(s): APS	Start Time: 1058	Finish Time: 1211

Time In	Time Out	Name	Signature	Company/Purpose
1058	1211	E. McGuire	E. McGuire	ETI / Sampling

Time	Observation
1058	Pre sampling Prep
1109	Calibrated Meter
1119	Started DTW's / sampling
1211	Completed DTW's / sampling

Completed By: E. McGuire

DAILY SAMPLING RIG INSPECTION SHEET

Date: 11/3/21 Completed By: Emily McGuire

Pre Sampling Safety Meeting-	Time: 1058
Wells to be sampled today: APS	
Dangers and hazards with wells to be sampled: Hex	
Name: E. McGuire	Signature: E. McG.
Name:	Signature:

Sampling Equipment Inspection-	Time: 1101
Items To Be Checked	Issues Found N/A ☑
☐ Coolers	
☐ Forms	
☐ pH probe (calibrated)	
☐ DTW meter	
☐ Vault Keys	
☐ Water	
☐ PPE	

Vehicle Inspection-	Time: 1105
Items To Be Checked	Issues Found N/A ☑
☐ Tires and Lug Nuts	
☐ Steering Wheel	
☐ Lights	
☐ Horn	
☐ Radiator Fluid	
☐ Engine Oil	
☐ Parking Brake	
☐ Brakes and Brake Fluid	
Check Gauges	
☐ Oil Light	
☐ Battery Light	

ENVIROGEN

DAILY MAINTENANCE AND CALIBRATION LOG

Date: 11/3/21

HANNA FIELD EC METER		Time/Analyst
Known Value	1288	1113/EM
Temp Comp Value	25	
Calibration Value	25.5	
Standard Temp	1295	
Changed Buffers	Yes ☑	

HANNA FIELD pH METER			Time/Analyst
Known Value	7.0	8.0	1109/EM
Calibration Value	7.01	7.97	
Buffer Temp	25.0	25.3	
Changed Buffers	Yes ☑		

Duplicate EC Reading(s)				
Well	1st EC	1st Temp	2nd EC	2nd Temp
E2-4	5.79	25.7	5.82	25.6

QC's
6.98
Closing QC
6.97

G9TWD Meter Heron Imstruments Dipper-T Well Depth Indicator Probe, Serial No: WD790

DTW Meter Geotech Water Level Meter, Serial No:7053

Verified By: E. Mc

ENVIROGEN

ETI Daily Sampling Log Sheet

Date: 11/4/21	Well Field(s): IWF W+M	Start Time: 0945	Finish Time: 1219

Time In	Time Out	Name	Signature	Company/Purpose
0945	1219	E. McGuire	E. McGuire	ETI/Sampling

Time	Observation
0945	Pre sampling Prep
1000	Calibrated Meter
1012	West DTW's
1101	Sampled West IWF
1140	Sampled Middle IWF while collecting DTW's
1219	Finished Sampling

Completed By: E. McGuire

DAILY SAMPLING RIG INSPECTION SHEET

Date: 11/4/21 Completed By: E. McGuire

Pre Sampling Safety Meeting-	Time: 0945
Wells to be sampled today:	IWF West / Middle
Dangers and hazards with wells to be sampled:	Hex
Name: E. McGuire	Signature: E. McGuire
Name:	Signature:

Sampling Equipment Inspection-	Time: 0950	
Items To Be Checked	Issues Found	N/A ☑
☐ Coolers		
☐ Forms		
☐ pH probe (calibrated)		
☐ DTW meter		
☐ Vault Keys		
☐ Water		
☐ PPE		

Vehicle Inspection-	Time: 0955	
Items To Be Checked	Issues Found	N/A ☑
☐ Tires and Lug Nuts		
☐ Steering Wheel		
☐ Lights		
☐ Horn		
☐ Radiator Fluid		
☐ Engine Oil		
☐ Parking Brake		
☐ Brakes and Brake Fluid		
Check Gauges		
☐ Oil Light		
☐ Battery Light		

ENVIROGEN

DAILY MAINTENANCE AND CALIBRATION LOG

Date: 11/4/21

HANNA FIELD EC METER		Time/Analyst
Known Value	1288	1003 EM
Temp Comp Value	25	
Calibration Value	1303	
Standard Temp	24.8	
Changed Buffers	Yes ☑	

HANNA FIELD pH METER			Time/Analyst
Known Value	7.0	8.0	1000 EM
Calibration Value	7.01	6.97	
Buffer Temp	25.5	25.4	
Changed Buffers	Yes ☑		

Duplicate EC Reading(s)				
Well	1st EC	1st Temp	2nd EC	2nd Temp
I-AR	6.06	29.4	6.05	29.8
I-N	7.86	28.4	7.66	25.2

QC's
6.95
7.04
Closing QC
6.99

G9TWD Meter Heron Imstruments Dipper-T Well Depth Indicator Probe, Serial No: WD790

DTW Meter Geotech Water Level Meter, Serial No:7053

Verified By: E. Mc

ENVIROGEN

ETI Daily Sampling Log Sheet

Date: 11/10/21	Well Field(s): IWF East	Start Time: 1035	Finish Time: 1143

Time In	Time Out	Name	Signature	Company/Purpose
1035	1143	E. McGuire	E. McGuire	ETI / Sampling

Time	Observation
1035	Pre sampling prep
1046	Calibrate meter
1102	Sampled East IWF w/ DTW's
1143	Completed sampling

Completed By: E. McGuire

DAILY SAMPLING RIG INSPECTION SHEET

Date: 11/10/21 Completed By: Emily McGuire

Pre Sampling Safety Meeting-	Time: 1035
Wells to be sampled today:	IWF East
Dangers and hazards with wells to be sampled:	Hex
Name: E. McGuire	Signature: E. McG
Name:	Signature:

Sampling Equipment Inspection-	Time: 1037
Items To Be Checked	Issues Found N/A ☑
☐ Coolers	
☐ Forms	
☐ pH probe (calibrated)	
☐ DTW meter	
☐ Vault Keys	
☐ Water	
☐ PPE	

Vehicle Inspection-	Time: 1040
Items To Be Checked	Issues Found N/A ☑
☐ Tires and Lug Nuts	
☐ Steering Wheel	
☐ Lights	
☐ Horn	
☐ Radiator Fluid	
☐ Engine Oil	
☐ Parking Brake	
☐ Brakes and Brake Fluid	
Check Gauges	
☐ Oil Light	
☐ Battery Light	

ENVIROGEN

DAILY MAINTENANCE AND CALIBRATION LOG

Date: 11/10/21

HANNA FIELD EC METER		Time/Analyst
Known Value	1288	1049 EM
Temp Comp Value	25	
Calibration Value	1297	
Standard Temp	25.1	
Changed Buffers	Yes ☑	

HANNA FIELD pH METER			Time/Analyst
Known Value	7.0	8.0	1046 EM
Calibration Value	7.01	7.97	
Buffer Temp	25.3	25.1	
Changed Buffers	Yes ☑		

Duplicate EC Reading(s)				
Well	1st EC	1st Temp	2nd EC	2nd Temp
I-T	10.58	29.4	10.58	29.5

QC's
7.03
Closing QC
6.95

G9TWD Meter Heron Imstruments Dipper-T Well Depth Indicator Probe, Serial No: WD790

DTW Meter Geotech Water Level Meter, Serial No:7053

Verified By: E. McL

ETI Daily Sampling Log Sheet

Date: 11/15/21	Well Field(s): ART & PC	Start Time: 0935	Finish Time: 1234

Time In	Time Out	Name	Signature	Company/Purpose
0935	1234	E. McGuire	E. McG.	ETI | Sampling
0935	1234	M. Bolton	M.T.B	ETI | Sampling

Time	Observation
0935	Pre sampling prep
0945	Calibrated meter
1008	Athens DTW's taken
1034	Seep DTW's taken
1113	Sampled Seep
1159	Sampled Athens
1234	Completed sampling

Completed By: E. McG.

DAILY SAMPLING RIG INSPECTION SHEET

Date: 11/15/21 Completed By:

Pre Sampling Safety Meeting-	Time: 0935
Wells to be sampled today: Athens / Seep	
Dangers and hazards with wells to be sampled: Vaults / Steps	
Name: E. McGuire	Signature: E. McG
Name: M. Bolton	Signature: MHB

Sampling Equipment Inspection-	Time: 0937
Items To Be Checked	Issues Found N/A ☐
☐ Coolers	
☐ Forms	
☐ pH probe (calibrated)	
☐ DTW meter	
☐ Vault Keys	
☐ Water	
☐ PPE	

Vehicle Inspection-	Time: 0939
Items To Be Checked	Issues Found N/A ☑
☐ Tires and Lug Nuts	
☐ Steering Wheel	
☐ Lights	
☐ Horn	
☐ Radiator Fluid	
☐ Engine Oil	
☐ Parking Brake	
☐ Brakes and Brake Fluid	
Check Gauges	
☐ Oil Light	
☐ Battery Light	

ENVIROGEN

DAILY MAINTENANCE AND CALIBRATION LOG

Date: 11/15/21

HANNA FIELD EC METER		Time/Analyst
Known Value	1288	0942 EM
Temp Comp Value	25	
Calibration Value	1297	
Standard Temp	25.2	
Changed Buffers	Yes ☑	

HANNA FIELD pH METER			Time/Analyst
Known Value	7.0	8.0	0945 EM
Calibration Value	7.01	8.01	
Buffer Temp	25.2	25.1	
Changed Buffers	Yes ☑		

Duplicate EC Reading(s)				
Well	1st EC	1st Temp	2nd EC	2nd Temp
PC-120	2.41	21.1	2.43	21.2
~~ART-9~~	7.47	25.0	7.47	25.1

QC's
6.98
6.96
Closing QC
6.96

G9TWD Meter Heron Imstruments Dipper-T Well Depth Indicator Probe, Serial No: WD790

DTW Meter Geotech Water Level Meter, Serial No:7053

Verified By: E. McG

ENVIROGEN

ETI Daily Sampling Log Sheet

Date: 11/17/21	Well Field(s): IWF-Borman	Start Time: 0935	Finish Time: 1131

Time In	Time Out	Name	Signature	Company/Purpose
0935	1131	E. McGuire	E. McG	ETI / Sampling

Time	Observation
0935	Presampling prep
0952	Calibrated meter
1034	Left for Borman
1055	Started sampling
1131	Completed Sampling

Completed By: E. McG

DAILY SAMPLING RIG INSPECTION SHEET

Date: 11/17/21 Completed By: Emily McGuire

Pre Sampling Safety Meeting-	Time: 0935
Wells to be sampled today:	Borman IWF
Dangers and hazards with wells to be sampled:	Borman Safety
Name: E. McGuire	Signature: E. McGuire
Name:	Signature:

Sampling Equipment Inspection-	Time: 0940	
Items To Be Checked	Issues Found	N/A ☑
☐ Coolers		
☐ Forms		
☐ pH probe (calibrated)		
☐ DTW meter		
☐ Vault Keys		
☐ Water		
☐ PPE		

Vehicle Inspection-	Time: 0945	
Items To Be Checked	Issues Found	N/A ☑
☐ Tires and Lug Nuts		
☐ Steering Wheel		
☐ Lights		
☐ Horn		
☐ Radiator Fluid		
☐ Engine Oil		
☐ Parking Brake		
☐ Brakes and Brake Fluid		
Check Gauges		
☐ Oil Light		
☐ Battery Light		

ENVIROGEN

DAILY MAINTENANCE AND CALIBRATION LOG

Date: 11/17/21

HANNA FIELD EC METER		Time/Analyst
Known Value	1288	0956/
Temp Comp Value	25	
Calibration Value	1298	
Standard Temp	25.2	
Changed Buffers	Yes ☑	

HANNA FIELD pH METER			Time/Analyst
Known Value	7.0	8.0	0952/
Calibration Value	7.01	8.02	
Buffer Temp	25.3	25.4	
Changed Buffers	Yes ☑		

Duplicate EC Reading(s)				
Well	1st EC	1st Temp	2nd EC	2nd Temp
I-J	5.98	23.5	5.99	23.6

QC's
7.07
Closing QC
7.03

G9TWD Meter Heron Imstruments Dipper-T Well Depth Indicator Probe, Serial No: WD790

DTW Meter Geotech Water Level Meter, Serial No:7053

Verified By: E. McGinn

TETRA TECH

TECHNICAL MEMORANDUM

To:	**Chris Ritchie and Chris Stubbs, Ramboll**
Cc:	Steve Clough, Nevada Environmental Response Trust Mia Sosa, John Crowther, Craig Knox, Emeryville Lab Data; Ramboll David Bohmann, Tetra Tech
From:	Jesse Bunkers and James Roman
Date:	November 30, 2021
Subject:	**November 2021 Monthly Las Vegas Wash Surface Water Sampling** **Nevada Environmental Response Trust Site** **Henderson, Nevada**

MONTHLY SURFACE WATER SAMPLING ACTIVITIES

At the direction of the Nevada Environmental Response Trust (NERT or Trust), Tetra Tech, Inc. (Tetra Tech) has prepared this summary for the November 2021 Las Vegas Wash Surface Water Sampling event for the NERT Site.

The ten surface water sample locations described in the *Remedial Performance Groundwater Sampling and Analysis Plan (SAP), Revision 1,* dated March 2020, are shown on Figure 1. Tetra Tech collected 30 independent samples from ten sample locations within the Las Vegas Wash (the Wash) and a channel flowing into the Wash (C-1 Channel) on November 15 and 16, 2021. Sample collection within the Wash was performed by wading into the Wash or by float tube. At each sample location, Tetra Tech measured the total depth of the Wash, recorded the water quality field parameters, and collected a sample. All samples were collected at the approximate mid-water depth using the discrete hand-grab sample technique described in the SAP. During sampling of the C-1 Channel, the channel width, depth of water, and flow rate were measured and documented for each sample location in the surface water sampling logs.

Samples were stored in coolers at 4°C and transferred under chain-of-custody documentation to Eurofins TestAmerica (ETA) in Phoenix, Arizona following completion of sampling. All samples were analyzed for perchlorate, chlorate, and total dissolved solids using EPA Methods 314.0, 300.1B, and SM 2540C, respectively. The ETA Laboratory reports are available via Eurofins' Total Access website.

Deviations from the SAP encountered during the November 2021 sampling event are as follows:

- Field personnel were not able to sample the designated location for LVW6.6-3 due to the presence of a sandbar. The sandbar extended above the water surface such that no surface water was present at the designated sample location. Due to the presence of the sandbar, and in order to uniformly space the

LVW6.6 sample locations across the LVW6.6 transect, alternative sample locations were selected for sample locations LVW6.6-1, LVW6.6-2, and LVW6.6-3. The samples were collected as close as possible to the original sample locations. The adjusted sample locations were recorded with a handheld GPS as listed below:

  - LVW6.6-1: 36.08902° N, -114.99316° E
  - LVW6.6-2: 36.08916° N, -114.99318° E
  - LVW6.6-3: 36.08927° N, -114.99319° E

- There was no flow at sample location C-12 Channel #2; therefore, no sample was collected.

Surface water sampling logs are provided as Attachment A. Field investigation daily log and calibration certification forms are included as Attachments B and Attachment C, respectively. The electronic data deliverable (EDD) with the recorded sample depths and field parameters will be transmitted in a separate Excel file.

CERTIFICATION

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been prepared in a manner consistent with the current standards of the profession, and to the best of my knowledge, comply with all applicable federal, state, and local statutes, regulations, and ordinances. I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.

Description of Services Provided: Prepared the November 2021 Monthly Las Vegas Wash Surface Water Sampling Summary

11/30/2021

David S. Wilson, CEM
Principal Engineer
Tetra Tech, Inc.

Date

Nevada CEM Certificate Number: 2385
Nevada CEM Expiration Date: September 19, 2022

Figure

Imagery Source: Esri World Map, June 2015

Legend

- Monthly Sample Locations

TETRA TECH
www.tetratech.com
150 S. 4th Street, Unit A
Henderson, Nevada 89015
PHONE: (702) 854-2293

NEVADA ENVIRONMENTAL RESPONSE TRUST

LAS VEGAS WASH MONTHLY SAMPLING
HENDERSON, NEVADA

LAS VEGAS WASH SAMPLE POINT LOCATIONS

Project No.:	117-7502018
Date:	OCTOBER 08, 2018
Designed By:	ES

Figure No.
1

\\TTS134FS1\SUP-GIS\ARCPRJ2\INERT\MXD\SAMPLE_LOCATION_M15_MONTHLY_032018.MXD

Attachment A
Surface Water Sampling Logs

TETRA TECH

SURFACE WATER SAMPLING LOG

NERT, Henderson, NV

Task Name: LVW Surface Water Sampling	Task Manager: Jesse Bunkers	Task No: M15	Date: 11/15/2021
Field Samplers: J. Bunkers / JP Masters	Sampling Method: Dipper Bottle	Equipment Decon. Method: DI Rinse	

Time	Location ID	Depth of Water (ft)	Depth of Sample (ft)	Temp. (°C)	pH (pH Units)	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Color	Odor
8:45	LVW 0.55	1.8	0.9	19.6	8.11	1.915	8.87	123.3	3.0	Clear	None
9:30	LVW 3.5-1	2.4	1.2	19.7	7.86	1.956	7.93	137.3	3.2	Clear	None
9:30	LVW 3.5-2	2.0	1.0	20.9	7.84	1.920	8.06	137.1	1.8	Clear	None
9:30	LVW 3.5-3	3.0	1.5	20.6	7.86	1.912	8.11	140.3	1.3	Clear	None
9:30	LVW 3.5-4	3.0	1.5	20.8	7.86	1.916	8.13	138.0	0.7	Clear	None
9:30	LVW 3.5-5	3.6	1.8	21.4	7.86	1.911	8.07	135.6	0.6	Clear	None
9:30	LVW 3.5-6	3.4	1.7	21.0	7.86	1.909	8.09	137.8	0.2	Clear	None
11:00	LVW 4.2-1	4.8	2.4	21.4	7.93	1.947	8.17	127.1	1.6	Clear	None
11:00	LVW 4.2-2	6.4	3.2	21.6	7.94	1.933	8.24	127.1	1.6	Clear	None
11:00	LVW 4.2-3	7.0	3.5	21.5	7.96	1.918	8.33	126.4	1.1	Clear	None
11:00	LVW 4.2-4	3.6	1.8	21.3	7.96	1.898	8.24	126.4	2.3	Clear	None
12:00	LVW 4.75-1	3.2	1.6	22.2	8.12	2.007	8.30	122.1	0.8	Clear	None
12:00	LVW 4.75-2	2.8	1.4	22.2	8.11	2.003	8.30	122.8	0.6	Clear	None
12:00	LVW 4.75-3	2.2	1.1	22.5	8.14	1.954	8.40	122.9	0.6	Clear	None
12:00	LVW 4.75-4	1.8	0.9	22.7	8.15	1.953	8.47	122.5	0.9	Clear	None
12:00	LVW 4.75-5	2.4	1.2	23.3	8.15	1.934	8.59	122.4	0.2	Clear	None
13:15	LVW 5.3-1	5.2	2.6	23.5	8.25	2.000	8.24	108.2	0.9	Clear	None
13:15	LVW 5.3-2	2.0	1.0	23.3	8.22	1.975	8.26	114.7	0.2	Clear	None
13:15	LVW 5.3-3	2.2	1.1	23.6	8.22	1.970	8.32	113.6	0.3	Clear	None
13:15	LVW 5.3-4	1.2	0.6	23.5	8.23	1.964	8.31	113.5	0.8	Clear	None
13:15	LVW 5.3-5	1.4	0.7	23.7	8.20	1.966	8.16	114.7	0.2	Clear	None
13:15	LVW 5.3-6	1.0	0.5	22.7	8.19	1.972	8.14	115.6	0.3	Clear	None

QA/QC Samples/ID: LVW0.55-0.9-20211115-FD	QA/QC Samples/ID: LVW0.55-20211115-FB	QA/QC Samples/ID:
QA/QC Sample Time: 8:45	QA/QC Sample Time: 8:45	QA/QC Sample Time:

C1-E	Flow (L/s):	**C1-W**	Flow (L/s):	**C-12**	Flow (L/s): No Flow
	Width (ft): Depth (ft):		Width (ft): Depth (ft):		Width (ft): Depth (ft):

Observations/Comments:

TETRA TECH

SURFACE WATER SAMPLING LOG

NERT, Henderson, NV

Task Name: LVW Surface Water Sampling	Task Manager: Jesse Bunkers	Task No: M15	Date: 11/16/2021
Field Samplers: J. Bunkers / JP Masters	Sampling Method: Dipper Bottle	Equipment Decon. Method: DI Rinse	

Time	Location ID	Depth of Water (ft)	Depth of Sample (ft)	Temp. (°C)	pH (pH Units)	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Color	Odor
8:30	C1-E	0.0	0.0	20.8	7.57	4.323	7.92	199.6	0.7	Clear	None
8:30	C1-W	0.0	0.0	21.3	7.56	4.384	8.12	203.5	0.8	Clear	None
9:45	LVW 6.05	1.6	0.8	19.7	8.05	1.857	8.78	150.8	1.6	Clear	None
10:15	LVW 6.6-1	2.0	1.0	20.5	7.91	1.848	8.13	148.0	0.9	Clear	None
10:15	LVW 6.6-2	5.6	2.8	21.6	7.89	1.760	8.33	141.0	2.0	Clear	None
10:15	LVW 6.6-3	5.4	2.7	21.5	7.96	1.678	8.05	141.2	1.9	Clear	None
10:45	LVW 7.2	2.0	1.0	22.5	8.16	1.595	9.04	136.0	0.2	Clear	None
11:45	LVW 8.85	2.2	1.1	24.7	7.76	1.514	7.95	136.6	0.2	Clear	None

QA/QC Samples/ID: LVW6.05-0.8-20211116-FD	QA/QC Samples/ID: LVW6.05-20211116-FB	QA/QC Samples/ID: LVW7.2-1.0-20211116-FD
QA/QC Sample Time: 9:45	QA/QC Sample Time: 9:45	QA/QC Sample Time: 10:45

C1-E	Flow (L/s): 1.0	**C1-W**	Flow (L/s): 4.4	**C-12**	Flow (L/s): No Flow
	Width (ft): 0.66 Depth (ft): 0.05		Width (ft): 0.95 Depth (ft): 0.09		Width (ft): Depth (ft):

Observations/Comments:

Attachment B
Field Investigation Daily Logs

TETRA TECH

FIELD INVESTIGATION DAILY LOG

NERT, Henderson, NV

Task Name: LVW Surface Water Sampling	Task Manager: Jesse Bunkers	Date: 11/15/21
Field Personnel: JB, JPM		Task No: M15
Location: Las Vegas Wash		Reported by: J. Bunkers

Weather Conditions: 78°F, Sunny, Calm

Total Vehicle Mileage: 25

Task Visitors / Subcontractors: None

Matters of Safety:

Slips/Trips/Falls

Problems / Concerns and Corrective Actions Taken:

None

Time	Activities
0700	Meet sampling team at Tt office, ~~Sample~~ safety meeting, gather supplies, make to field
0815	Arrive at LVW0.55 at Lake Mead Park
0845	Collect LVW0.55 + FD + FB, make to LVW3.5
0930	Collect LVW3.5-1 thru -6, make to LVW4.2
1100	Collect LVW4.2-1 thru -4, make to LVW4.75
1200	Collect LVW4.75-1 thru -5, make to LVW5.3
1315	Collect LVW5.3-1 thru -6, make to office
1500	Arrive at office, store samples, prep for tomorrow
1600	Done for day

☐ **LVW8.85:** 36.107231, -115.019994	☑ **LVW5.3-6:** 36.090660, -114.973903	☑ **LVW4.2-2:** 36.094817, -114.954612
☐ **LVW7.2:** 36.090604, -115.000302	☐ **C1-E:** 36.086147, -114.972022	☑ **LVW4.2-3:** 36.094978, -114.954716
☐ **LVW6.6-1:** 36.089145, -114.993282	☐ **C1-W:** 36.086147, -114.972022	☑ **LVW4.2-4:** 36.095108, -114.954806
☐ **LVW6.6-2:** 36.089351, -114.993309	☐ **C12:** 36.086125, -114.970255	☑ **LVW3.5-1:** 36.100422, -114.943298
☐ **LVW6.6-3:** 36.089485, -114.993333	☑ **LVW4.75-1:** 36.092979, -114.961810	☑ **LVW3.5-2:** 36.100459, -114.943329
☐ **LVW6.05:** 36.087849, -114.985682	☑ **LVW4.75-2:** 36.093130, -114.961928	☑ **LVW3.5-3:** 36.100548, -114.943390
☑ **LVW5.3-1:** 36.089867, -114.973112	☑ **LVW4.75-3:** 36.093277, -114.962051	☑ **LVW3.5-4:** 36.100585, -114.943405
☑ **LVW5.3-2:** 36.090072, -114.973322	☑ **LVW4.75-4:** 36.093431, -114.962174	☑ **LVW3.5-5:** 36.100606, -114.943451
☑ **LVW5.3-3:** 36.090218, -114.973467	☑ **LVW4.75-5:** 36.093580, -114.962301	☑ **LVW3.5-6:** 36.100645, -114.943493
☑ **LVW5.3-4:** 36.090367, -114.973612	☑ **LVW4.2-1:** 36.094695, -114.954570	☑ **LVW0.55:** 36.122158, -114.904631
☑ **LVW5.3-5:** 36.090513, -114.973758		

Prepared by: Jesse Bunkers Signature: [signature] Date: 11/15/21

TETRA TECH

FIELD INVESTIGATION DAILY LOG

NERT, Henderson, NV

Task Name: LVW Surface Water Sampling	Task Manager: Jesse Bunkers	Date: 11/16/21
Field Personnel: JB, JPM		Task No: M15
Location: Las Vegas Wash		Reported by: J. Bunkers

Weather Conditions: High 79°F, Sunny, Calm

Total Vehicle Mileage: 27

Task Visitors / Subcontractors: None

Matters of Safety:

Slips/Trips/Falls

Problems / Concerns and Corrective Actions Taken:

None

Time	Activities
0700	Meet sampling team at Tt office, Safety briefing, gather supplies, make to field, calibrate YSI
0815	Arrive at C-1 Channel, take flow measurements:

	Depth(mm)	Width(mm)	t(s)	V(L)	Q(L/s)
C-1-E	15	200	5.0	5.0	1.0
C-1-W	27	290	1.8	8.0	4.4

0830	Collect samples C1-E-0.0-20211116 & C1-W-0.0-20211116, make back to Tt office to pickup field tablet, make to LVW6.05
0945	Collect Samples LVW6.05 + FD + FB, make to LVW6.6
1015	Collect samples LVW6.6-1 through 6.6-3, make to LVW7.2
1045	Collect samples LVW7.2 + FD, make to LVW8.85
1145	Collect sample LVW8.85, make to office
1230	Arrive at office, store equipment, pack sample coolers
1430	Hand off samples to ETA courier
1530	Done for day

☑ **LVW8.85:** 36.107231, -115.019994	☐ **LVW5.3-6:** 36.090660, -114.973903	☐ **LVW4.2-2:** 36.094817, -114.954612
☑ **LVW7.2:** 36.090604, -115.000302	☑ **C1-E:** 36.086147, -114.972022	☐ **LVW4.2-3:** 36.094978, -114.954716
☑ **LVW6.6-1:** 36.08902, -114.99316	☑ **C1-W:** 36.086147, -114.972022	☐ **LVW4.2-4:** 36.095108, -114.954806
☑ **LVW6.6-2:** 36.08916, -114.99318	☑ **C12:** 36.086125, -114.970255 No Flow	☐ **LVW3.5-1:** 36.100422, -114.943298
☑ **LVW6.6-3:** 36.08927, -114.99319	☐ **LVW4.75-1:** 36.092979, -114.961810	☐ **LVW3.5-2:** 36.100459, -114.943329
☑ **LVW6.05:** 36.087849, -114.985682	☐ **LVW4.75-2:** 36.093130, -114.961928	☐ **LVW3.5-3:** 36.100548, -114.943390
☐ **LVW5.3-1:** 36.089867, -114.973112	☐ **LVW4.75-3:** 36.093277, -114.962051	☐ **LVW3.5-4:** 36.100585, -114.943405
☐ **LVW5.3-2:** 36.090072, -114.973322	☐ **LVW4.75-4:** 36.093431, -114.962174	☐ **LVW3.5-5:** 36.100606, -114.943451
☐ **LVW5.3-3:** 36.090218, -114.973467	☐ **LVW4.75-5:** 36.093580, -114.962301	☐ **LVW3.5-6:** 36.100645, -114.943493
☐ **LVW5.3-4:** 36.090367, -114.973612	☐ **LVW4.2-1:** 36.094695, -114.954570	☐ **LVW0.55:** 36.122158, -114.904631
☐ **LVW5.3-5:** 36.090513, -114.973758		

Prepared by: Jesse Bunkers Signature: [signature] Date: 11/16/21

Attachment C
Calibration Certification

EQUIPCO
Rentals Sales Service

YSI ProDSS RENTAL
CALIBRATION CERTIFICATE

SERVICE TECHNICIAN: GB DATE: 11/10/21

RENTAL CUSTOMER: _____

INSTRUMENT INFORMATION

RENTAL I.D. NUMBER: YSIPRODSS. 47

SERIAL NUMBER: 20D10344

CALIBRATION INFORMATION

PARAMETER:	STANDARD:	PASS	LOT #
1. CONDUCTIVITY	1,000 µMhos	✓	057939
2. pH ZERO	pH 7	✓	056L4
pH SLOPE	pH 4	✓	056160
pH SLOPE	pH 10	✓	056162
3. DISSOLVED OXYGEN	Air Calibration Barometric pressure = 760mmHg	✓	N/A
DISSOLVED OXYGEN ZERO TEST	(Sodium Sulfite)	N/A	N/A
4. TURBIDITY ZERO	0.0 NTU's	✓	11/10/21
TURBIDITY SPAN	100 NTU's	✓	11/10/21
5. REDOX (ORP)	231mV (YSI Zobell solution)	✓	092121

2100 Meridian Park Blvd, Concord, CA 94520 Phone (888) 234-5678 Fax (925) 305-1301

TETRA TECH

CALIBRATION LOG - WATER QUALITY METER

NERT, Henderson, NV

Task Name: LVW Surface Water Sampling | Task No.: M15 | Rental from: EQUIPCO | Task Manager: Jesse Bunkers

Field Personnel: J. Bunkers / JP Masters | Serial Number: 20D103044 | Type: YSI ProDSS

			Pre-Calibration							Post-Calibration						
Date	Time	Temp (°C)	pH (pH = 4.0)	pH (pH = 7.0)	pH (pH = 10.0)	ORP (mV)	Cond. (mS/cm)	DO (%)	Turbidity (NTU)	pH (pH = 4.0)	pH (pH = 7.0)	pH (pH = 10.0)	ORP (mV)	Cond. (mS/cm)	DO (%)	Turbidity (NTU)
11/16/21	0700	14.8	4.08	6.95	9.61	231 ~~224~~	1141	99.0	-1.96	4.00	7.00	10.00	228.4 ~~232~~	1.012	100.0	0.0

Notes:

TETRA TECH

TECHNICAL MEMORANDUM

To:	**Chris Ritchie, Ramboll**
Cc:	Steve Clough, Nevada Environmental Response Trust Mia Sosa, Jesse King, and Emeryville Lab Data; Ramboll David Bohmann, Tetra Tech Dana Grady, Tetra Tech
From:	Jesse Bunkers and James Roman
Date:	January 20, 2022
Subject:	**December 2021 Monthly Groundwater Monitoring Summary** **Nevada Environmental Response Trust Site** **Henderson, Nevada**

MONTHLY DEPTH TO WATER MEASUREMENTS

At the direction of the Nevada Environmental Response Trust (NERT or Trust), Tetra Tech, Inc. (Tetra Tech) has prepared this summary for the December 2021 monthly depth-to-water measurements. This activity was performed in accordance with the *Remedial Performance Groundwater Sampling and Analysis Plan*, *Revision 1* dated March 4, 2020 (SAP) and approved by Nevada Division of Environmental Protection (NDEP) on March 16, 2020, and *Field Guidance Document No. 008 – Groundwater and Free Product Level Measurements*, dated March 24, 2017.

Figure 1 identifies the 24 wells requiring depth-to-water measurements as part of the monthly groundwater monitoring event, as identified on Table 3 (Monthly Monitoring Program Summary) of the SAP. Depth-to-water measurements were collected on December 10, 2021. All wells included in this monitoring event were observed to be in good condition.

The field water level measurement log is included as Attachment A and the field investigation daily log is included as Attachment B. The electronic data deliverable (EDD), with the recorded depth to water data, will be transmitted separately as an Excel file.

Tetra Tech, Inc.
150 S. 4th Street, Unit A, Henderson, NV 89015
Tel 702-854-2295 tetratech.com

CERTIFICATION

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been prepared in a manner consistent with the current standards of the profession, and to the best of my knowledge, comply with all applicable federal, state, and local statutes, regulations, and ordinances. I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.

Description of Services Provided: Prepared the December 2021 Monthly Groundwater Monitoring Summary

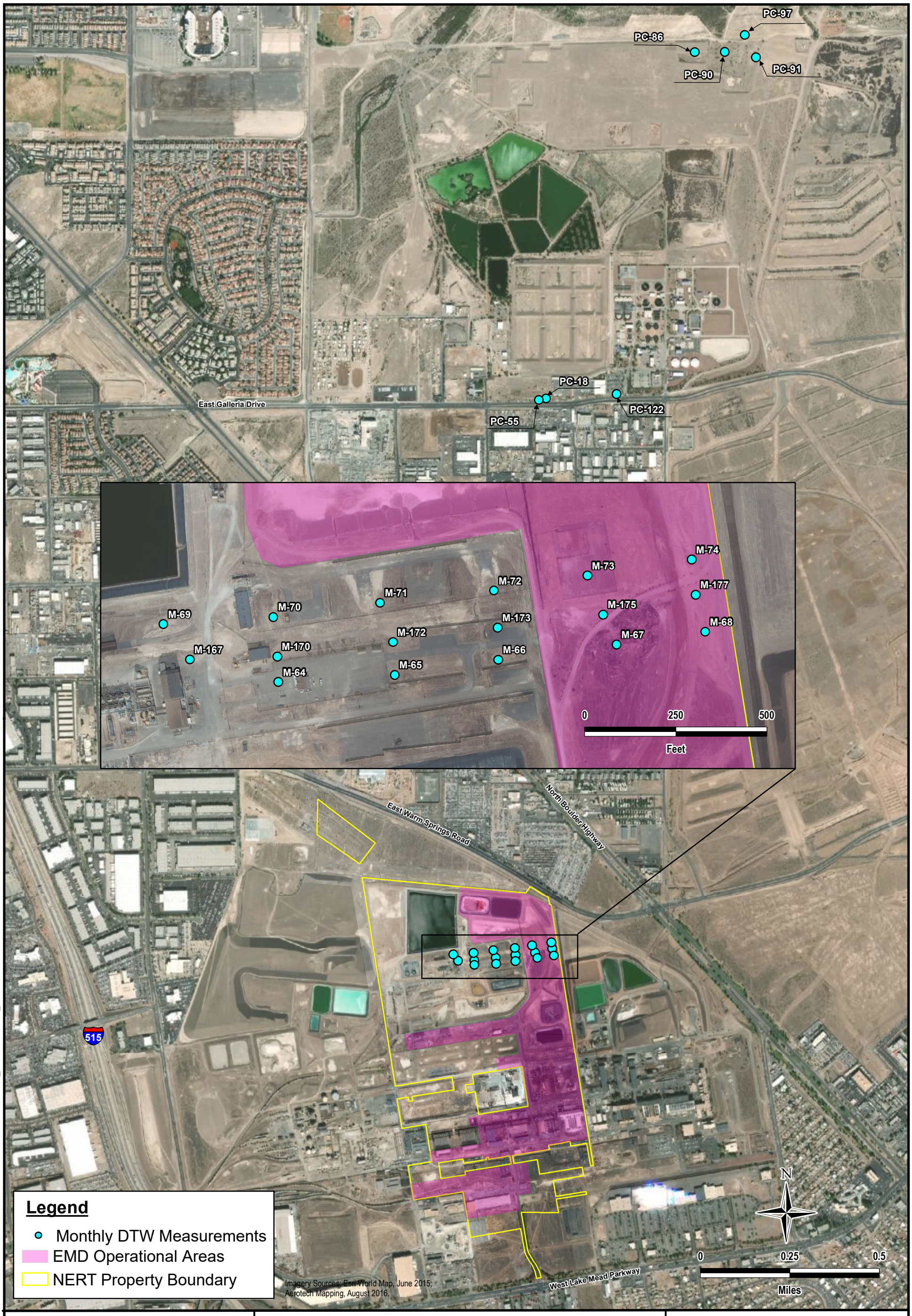
1/20/2022

David S. Wilson, CEM
Principal Engineer
Tetra Tech, Inc.

Date

Nevada CEM Certificate Number: 2385
Nevada CEM Expiration Date: September 19, 2022

Figure



P:\BLD01\520225_NERT\GW MONITORING\FIELD MAPS\MONTHLY DTW MAPS\FIG01_MONTHLYWLM_ES.MXD

TETRA TECH
www.tetratech.com

150 S. 4th Street, Unit A
Henderson, Nevada 89015
Phone: (702) 854-2293

NEVADA ENVIRONMENTAL RESPONSE TRUST

GROUNDWATER MONITORING PROGRAM
HENDERSON, NEVADA

MONTHLY WATER LEVEL MEASUREMENT WELLS

Project No.:	117-7502017
Date:	JULY 10, 2020
Designed By:	ES

Figure No.
1

Attachment A
Field Water Level Measurement Log

TETRA TECH

WELL WATER LEVEL MEASUREMENT LOG

Task Name: GW Monitoring	Task No: H02	Date: December 10, 2021
Task Manager: Jesse Bunkers	Location: Site Wide	
Equipment Model/Type: Solinst Water Level Meter	*Serial Number:* *337327*	*Recorded by:* *G. Schuler*

Time	Well ID	Measuring Point	Depth to Static Water Level (ft BMP)	Condition of Well and Well Seal	Dedicated Tubing (Y/N)
13:58	M-64	TOC	29.13	Good	Y
14:02	M-65	TOC	31.94	Good	Y
14:08	M-66	TOC	29.74	Good	DP
13:15	M-67	TOC	21.23	Good	Y
13:32	M-68	TOC	25.81	Good	Y
14:27	M-69	TOC	33.11	Good	Y
14:32	M-70	TOC	32.29	Good	DP
14:38	M-71	TOC	35.16	Good	OS
14:48	M-72	TOC	31.47	Good	DP
13:25	M-73	TOC	30.71	Good	Y
13:38	M-74	TOC	28.58	Good	Y
14:23	M-167	TOC	28.61	Good	N
14:19	M-170	TOC	28.61	Good	N
14:15	M-172	TOC	30.91	Good	Y
14:11	M-173	TOC	26.24	Good	N
13:17	M-175	TOC	20.41	Good	N
13:35	M-177	TOC	19.99	Good	N
15:47	PC-122	TOC	32.77	Good	Y
15:52	PC-18	TOC	33.92	Good	Y
15:55	PC-55	TOC	32.59	Good	Y
15:33	PC-86	TOC	12.08	Good	Y
15:30	PC-90	TOC	5.56	Good	Y
15:17	PC-91	TOC	11.12	Good	Y
15:27	PC-97	TOC	4.38	Good	Y

BMP = Below Measuring Point DP = Dedicated Pump OS = Offsite Storage TOC = Top of Casing (Well Riser)

Attachment B

Field Investigation Daily Log

TETRA TECH

FIELD INVESTIGATION DAILY LOG

NERT, Henderson, NV

Task Name: GW Monitoring	Task Manager: Jesse Bunkers	Date: 12/10/21
Field Personnel: GS		Task No: H02
Location: Site Wide		Reported by: G. Schuler Tablet: 6

Weather Conditions: Sunny, cool High: 55°

Total Vehicle Mileage: 20

Task Visitors / Subcontractors: NONE

Matters of Safety: Slips, trips, falls, dehydration, Sunburn

Problems / Concerns and Corrective Actions Taken: NONE

Time	Activities
1200	Arrive at TT office, gather equipment/supplies
1215	Mobe to Boreman property
1230	Arrive at Boreman property
1315	Begin Synoptic DTW measurments
1500	Mobe to LVW
1515	Arrive at LVW, continue Synoptic DTW measurements
1555	Finish Synoptic DTW measurements, Mobe to TT office
1615	Arrive at TT office, upload field form
1620	Done for day

Solinst WLM: 337327

December 2021 Sampling Event

DTW readings taken on all Interceptor Wells, SWF, AWF and AP5 Wells

Issues/Concerns

IWF, SWF, AWF, AP5 Wells	DTW taken manually with Geotech Water Level Meter Serial #7053 on AP5 and AWF buddy wells. All others taken from control panel and verified manually as necessary.
PC99R2/R3	When taking DTW readings, PC-99R2 was feeding into PC-99R3 so quickly that splash was preventing us from obtaining an accurate DTW reading. Unable to remove transducer from well or pass with TWD probe. Recorded DTW readings from Control Panel
AP5 Wells	Sampled by ETI 2021 12 16. Will be done on a Monthly basis by ETI.
*PC-117, PC-120, PC-121,	*All have more than 1-foot difference in DTW from 11/2021 to 12/2021. Data recorded on field sheet.
*ART-7B, ART-8, ART-8A, PC-150	
*I-C, I-E, I-G, I-J, I-L, I-T, I-U	
ART-2 and ART-2A	Both wells running at time of DTW and Sampling. Sample bottles labeled as ART-2/2A 2021 12 15
I-AB, I-AC	DTW taken prior to turning well on to sample, purged prior to collecting sample.
I-Q	DTW probe hitting top of pump. Unable to bypass pump/motor with DTW probe.
	Emily McGuire sampled November 2021

FD/EB

SWF	PC-120 2021 12 15 - FD	PC-121 2021 12 15 - EB
AWF	PC-150 2021 12 15 - FD	ART-1A 2021 12 15 - EB
IWF	I-D 2021 12 08 – FD	I-E 2021 12 08 - EB
AP5 Wells	E2-1 2021 12 16 - FD	E2-2 2021 12 16 - EB

**Per email from Emily Gilson dated 4/12/2017 – removed historical_reference_elev and water_level_elev data from 2017 Groundwater Sampling EDD

Field Forms changes	TWD will be marked with a “NM” not measured, unless a manual reading obtained. Manually record TWD in May
Monthly Table changes	Effective 9/13/2018- Well casing and LT Elevations email from David Bohmann dated 9/13/18
	Effective 8/1/2017 - TWD recorded annually in May - forms are to be marked at NM (Not Measured) per email from Katie Linscott 7/19/2017
Sampling Changes	Effective 3/16/2020 – NDEP approved NERT Remedial Performance Monitoring SAP, Revision 1 - ART-6 will only be sampled by Tetra Tech in November and May.

WATER SAMPLING FIELD LOG

	Well: I-AA
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/8/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/8/21	Time: 08:06
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 46.41 ☐ Manually Taken at Well ☑ Taken at Control Panel	
Height of Water Column(ft): 0.00	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/8/21 Start Time: 10:59

Sample Time	pH	EC/MC	Temp	Well Observations
11:00	6.08 pH	4.68 mS/Cm	22.2 °C	
Sample Appearance: clear w/floaties				
Finish Time: 11:03				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-AB
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/8/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/8/21	Time: 08:06
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 34.53 ☐ Manually Taken at Well ☑ Taken at Control Panel	
Height of Water Column(ft): 0.00	

☑ **Well Purge Required**

Turned pump on at 10:59, flowing at 6.50 gpm. Purged for 5 minutes, 2 minutes required per well purge spreadsheet. Turned well off at 11:07.

Field Measurements- Date: 12/8/21 Start Time: 11:03

Sample Time	pH	EC/MC	Temp	Well Observations
11:04	6.31 pH	4.81 mS/Cm	22.7 °C	
Sample Appearance: clear				
Finish Time: 11:07				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-AC
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/16/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/16/21	Time: 09:23
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 27.50 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at 10:55, flowing at 3.40 gpm. Purged for 5 minutes, 4 minutes required per well purge spreadsheet. Turned well off at 11:03.

Field Measurements- Date: 12/16/21 Start Time: 10:55

Sample Time	pH	EC/MC	Temp	Well Observations
11:00	5.99 pH	6.48 mS/Cm	17.7 °C	
Sample Appearance: Clear				
Finish Time: 11:03				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-AD
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/16/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/16/21	Time: 09:23
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 32.83 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/16/21 Start Time: 11:04

Sample Time	pH	EC/MC	Temp	Well Observations
11:05	6.32 pH	6.66 mS/Cm	18.9 °C	

Sample Appearance: Pale Yellow

Finish Time: 11:07

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-AR
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/8/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/8/21	Time: 08:06
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 34.68	☐ Manually Taken at Well ☑ Taken at Control Panel
Height of Water Column(ft): 0.00	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/8/21 Start Time: 11:24

Sample Time	pH	EC/MC	Temp	Well Observations
11:25	7.47 pH	5.97 mS/Cm	24.1 °C	
Sample Appearance: Pale yellow w/floaties				
Finish Time: 11:27				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-B
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/8/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 12/8/21	Time: 08:06
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 42.96	☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft): 0.00		

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/8/21 Start Time: 11:04

Sample Time	pH	EC/MC	Temp	Well Observations
11:08	6.78 pH	5.38 mS/Cm	22.8 °C	
Sample Appearance: clear				
Finish Time: 11:10				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-C
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/8/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/8/21	Time: 08:06
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 41.47 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft): 0.00	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/8/21 Start Time: 11:31

Sample Time	pH	EC/MC	Temp	Well Observations
11:32	7.44 pH	7.26 mS/Cm	23.3 °C	
Sample Appearance: Pale yellow				
Finish Time: 11:34				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-D
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/8/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/8/21	Time: 08:06
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 31.06 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft): 0.00	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/8/21 Start Time: 11:55

Sample Time	pH	EC/MC	Temp	Well Observations
11:56	7.55 pH	7.84 mS/Cm	25.8 °C	
Sample Appearance: Pale yellow				
Finish Time: 12:00				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

I-D 2021 12 08 - FD
Collected at same time for same analysis before moving on to next well.

pH: 7.55 EC: 7.86 °C 25.9

WATER SAMPLING FIELD LOG

	Well: I-E
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/8/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/8/21	Time: 08:06
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 33.45 ☐ Manually Taken at Well ☑ Taken at Control Panel	
Height of Water Column(ft): 0.00	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/8/21 Start Time: 11:45

Sample Time	pH	EC/MC	Temp	Well Observations
11:46	7.33 pH	7.83 mS/Cm	26.7 °C	
Sample Appearance: Pale yellow				
Finish Time: 11:50				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

I-E 2021 12 08 - EB
Collected for same analysis before moving on to next well.
Time: 1148
pH: 9.01 EC: 0.03 Temp. 21.6

WATER SAMPLING FIELD LOG

	Well: I-F
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/8/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/8/21	Time: 08:06
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 29.54 ☐ Manually Taken at Well ☑ Taken at Control Panel	
Height of Water Column(ft): 0.00	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/8/21 Start Time: 11:35

Sample Time	pH	EC/MC	Temp	Well Observations
11:36	7.44 pH	9.02 mS/Cm	23.3 °C	
Sample Appearance: Yellow w/floaties				
Finish Time: 11:38				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-G
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/13/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 12/13/21	Time: 08:31
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 29.67	☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft): 0.00		

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/13/21 Start Time: 12:07

Sample Time	pH	EC/MC	Temp	Well Observations
12:08	6.72 pH	10.40 mS/Cm	22.8 °C	

Sample Appearance: Yellow

Finish Time: 12:10

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-H
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/13/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/13/21	Time: 08:31
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 29.98 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft): 0.00	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/13/21 Start Time: 12:18

Sample Time	pH	EC/MC	Temp	Well Observations
12:19	7.06 pH	9.85 mS/Cm	23.9 °C	
Sample Appearance: Yellow				
Finish Time: 12:22				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-I
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/16/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/16/21	Time: 09:23
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 22.10 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/16/21 Start Time: 11:22

Sample Time	pH	EC/MC	Temp	Well Observations
11:23	6.95 pH	6.75 mS/Cm	21.6 °C	
Sample Appearance: Yellow				
Finish Time: 11:25				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-J
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/16/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/16/21	Time: 09:23
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 26.69 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/16/21 Start Time: 11:12

Sample Time	pH	EC/MC	Temp	Well Observations
11:13	6.67 pH	6.28 mS/Cm	18.7 °C	
Sample Appearance: Yellow				
Finish Time: 11:16				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
5.99 mS/Cm	7.02 pH
23.6 °C	

WATER SAMPLING FIELD LOG

	Well: I-K
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/16/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/16/21	Time: 09:23
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 24.11 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/16/21 Start Time: 11:08

Sample Time	pH	EC/MC	Temp	Well Observations
11:09	6.46 pH	6.96 mS/Cm	18.1 °C	

Sample Appearance: Pale Yellow

Finish Time: 11:11

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-L
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/8/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 12/8/21	Time: 08:06
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 29.66	☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft): 0.00		

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/8/21 Start Time: 11:17

Sample Time	pH	EC/MC	Temp	Well Observations
11:18	7.22 pH	6.36 mS/Cm	24.7 °C	
Sample Appearance: clear				
Finish Time: 11:20				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
6.35 mS/Cm	7.04 pH
24.7 °C	

WATER SAMPLING FIELD LOG

	Well: I-M
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/8/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 12/8/21	Time: 08:06
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 31.24	☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft): 0.00		

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/8/21 Start Time: 11:51

Sample Time	pH	EC/MC	Temp	Well Observations
11:52	7.38 pH	7.92 mS/Cm	26.1 °C	
Sample Appearance: Pale yellow				
Finish Time: 11:55				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
7.90 mS/Cm	7.03 pH
25.9 °C	

WATER SAMPLING FIELD LOG

	Well: I-N
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/8/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/8/21	Time: 08:06
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 31.13	☐ Manually Taken at Well ☑ Taken at Control Panel
Height of Water Column(ft): 0.00	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/8/21 Start Time: 11:42

Sample Time	pH	EC/MC	Temp	Well Observations
11:43	7.36 pH	7.86 mS/Cm	24.2 °C	
Sample Appearance: Pale yellow				
Finish Time: 11:45				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-O
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/13/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 12/13/21	Time: 08:31
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 28.60	☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft): 0.00		

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/13/21 Start Time: 12:29

Sample Time	pH	EC/MC	Temp	Well Observations
12:30	7.37 pH	7.80 mS/Cm	21.5 °C	
Sample Appearance: Yellow				
Finish Time: 12:33				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-P
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/13/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/13/21	Time: 08:31
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 28.69	☐ Manually Taken at Well ☑ Taken at Control Panel
Height of Water Column(ft): 0.00	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/13/21 Start Time: 12:22

Sample Time	pH	EC/MC	Temp	Well Observations
12:23	7.07 pH	9.17 mS/Cm	22.8 °C	
Sample Appearance: Yellow				
Finish Time: 12:25				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
9.17 mS/Cm	7.01 pH
22.9 °C	

WATER SAMPLING FIELD LOG

	Well: I-Q
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/13/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/13/21	Time: 08:31
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 33.53 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft): 0.00	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/13/21 Start Time: 12:03

Sample Time	pH	EC/MC	Temp	Well Observations
12:04	6.63 pH	10.10 mS/Cm	23.6 °C	
Sample Appearance: Yellow w/floaties				
Finish Time: 12:07				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-R
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/8/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/8/21	Time: 13:37
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 32.20 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft): 0.00	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/8/21 Start Time: 11:10

Sample Time	pH	EC/MC	Temp	Well Observations
11:11	6.95 pH	6.47 mS/Cm	23.4 °C	Transducer level not verified by manual measurement. Manual measurement used instead.
Sample Appearance: clear				
Finish Time: 11:13				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-S
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/8/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/8/21 Time: 08:06
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)
Depth to Water(ft): 29.46 ☐ Manually Taken at Well ☑ Taken at Control Panel
Height of Water Column(ft): 0.00

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/8/21 Start Time: 11:20

Sample Time	pH	EC/MC	Temp	Well Observations
11:21	7.29 pH	6.42 mS/Cm	24.2 °C	
Sample Appearance: Pale yellow				
Finish Time: 11:23				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-T
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/13/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/13/21 Time: 08:31

Total Well Depth(ft): NM
('NM') - No measurement taken, manually measured annually)

Depth to Water(ft): 31.22

☐ Manually Taken at Well ☑ Taken at Control Panel

Height of Water Column(ft): 0.00

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/13/21 Start Time: 12:10

Sample Time	pH	EC/MC	Temp	Well Observations
12:11	6.90 pH	10.53 mS/Cm	24.9 °C	

Sample Appearance: Yellow

Finish Time: 12:13

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-U
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/13/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 12/13/21	Time: 0831
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 32.67	☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft): 0.00		

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/13/21 Start Time: 12:13

Sample Time	pH	EC/MC	Temp	Well Observations
12:14	6.87 pH	10.36 mS/Cm	24.5 °C	

Sample Appearance: Yellow w/floaties

Finish Time: 12:17

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-V
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/16/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/16/21	Time: 09:23
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 30.06 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/16/21 Start Time: 11:26

Sample Time	pH	EC/MC	Temp	Well Observations
11:27	7.15 pH	6.85 mS/Cm	21.3 °C	
Sample Appearance: Clear				
Finish Time: 11:30				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
6.84 mS/Cm	6.97 pH
21.6 °C	

WATER SAMPLING FIELD LOG

	Well: I-W
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/13/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/13/21	Time: 08:31
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 27.99	☐ Manually Taken at Well ☑ Taken at Control Panel
Height of Water Column(ft): 0.00	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/13/21 Start Time: 12:25

Sample Time	pH	EC/MC	Temp	Well Observations
12:26	7.28 pH	8.08 mS/Cm	21.5 °C	

Sample Appearance: Yellow w/floaties

Finish Time: 12:29

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-X
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/8/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/8/21	Time: 08:06
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 32.47	☐ Manually Taken at Well ☑ Taken at Control Panel
Height of Water Column(ft): 0.00	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/8/21 Start Time: 11:38

Sample Time	pH	EC/MC	Temp	Well Observations
11:39	7.40 pH	8.83 mS/Cm	23.3 °C	
Sample Appearance: Yellow				
Finish Time: 11:42				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-Y
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/8/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/8/21	Time: 10:55
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 51.32 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft): 0.00	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/8/21 Start Time: 11:13

Sample Time	pH	EC/MC	Temp	Well Observations
11:14	7.16 pH	6.42 mS/Cm	23.7 °C	
Sample Appearance: clear				
Finish Time: 11:17				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: I-Z
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/16/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/16/21	Time: 09:23
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 29.51 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/16/21 Start Time: 11:17

Sample Time	pH	EC/MC	Temp	Well Observations
11:18	6.81 pH	6.32 mS/Cm	21.0 °C	
Sample Appearance: Yellow				
Finish Time: 11:21				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-1
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☑ **DTW ONLY**

Well Depth Information- Date: 12/15/21	Time: 09:52
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 29.61 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: Start Time:

Sample Time	pH	EC/MC	Temp	Well Observations
	pH	mS/Cm	°C	

Sample Appearance: Clear

Finish Time:

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-1A
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/15/21	Time: 10:25
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 29.01 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/15/21 Start Time: 10:59

Sample Time	pH	EC/MC	Temp	Well Observations
11:00	6.37 pH	6.71 mS/Cm	22.5 °C	
Sample Appearance: Clear				
Finish Time: 11:04				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

ART-1A 2021 12 15 -EB
Collected for same analysis before moving on to next well.

Time: 11:02

PH: 8.88
EC: 0.10
C: 20.2

WATER SAMPLING FIELD LOG

	Well: * ART-2
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

* ART-2 and ART-2A running concurrently, bottles labeled

☐ **DTW ONLY** ART-2/2A 2021 12 15

Well Depth Information- Date: 12/15/21	Time: 09:52
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 32.32 ☐ Manually Taken at Well ☑ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/15/21 Start Time: 11:04

Sample Time	pH	EC/MC	Temp	Well Observations
11:05	6.31 pH	13.75 mS/Cm	22.1 °C	
Sample Appearance: Clear				
Finish Time: 11:08				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: * ART-2A
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

* ART-2 and ART-2A running concurrently, bottles labeled ART-2/2A 2021 12 15

☐ **DTW ONLY**

Well Depth Information- Date: 12/15/21	Time: 10:23
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 32.45 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: Start Time:

Sample Time	pH	EC/MC	Temp	Well Observations
	pH	mS/Cm	°C	See ART-2 Sampling Field Log for Field Measurements
Sample Appearance: Clear				
Finish Time:				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-3
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☑ **DTW ONLY**

Well Depth Information- Date: 12/15/21	Time: 09:52
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 34.59 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: Start Time:

Sample Time	pH	EC/MC	Temp	Well Observations
	pH	mS/Cm	°C	
Sample Appearance: Clear				
Finish Time:				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-3A
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/15/21	Time: 10:18
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 41.98 ☑ Manually Taken at Well ☐ Taken at Control Panel	
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/15/21 Start Time: 11:08

Sample Time	pH	EC/MC	Temp	Well Observations
11:09	6.75 pH	10.43 mS/Cm	21.4 °C	

Sample Appearance: Clear

Finish Time: 11:11

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-4
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/15/21	Time: 09:52
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 38.70 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/15/21 Start Time: 11:11

Sample Time	pH	EC/MC	Temp	Well Observations
11:12	6.94 pH	7.60 mS/Cm	21.5 °C	
Sample Appearance: Clear				
Finish Time: 11:15				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-4A
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☑ **DTW ONLY**

Well Depth Information- Date: 12/15/21 Time: 10:15
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)
Depth to Water(ft): 33.60 ☑ Manually Taken at Well ☐ Taken at Control Panel
Height of Water Column(ft):

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: Start Time:

Sample Time	pH	EC/MC	Temp	Well Observations
	pH	mS/Cm	°C	
Sample Appearance: Clear				
Finish Time:				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-7A
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☑ **DTW ONLY**

Well Depth Information- Date: 12/15/21	Time: 09:52
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 30.12 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: Start Time:

Sample Time	pH	EC/MC	Temp	Well Observations
	pH	mS/Cm	°C	

Sample Appearance: Clear

Finish Time:

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-7B
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/15/21	Time: 10:40
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 37.73 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/15/21 Start Time: 11:15

Sample Time	pH	EC/MC	Temp	Well Observations
11:16	7.01 pH	8.82 mS/Cm	20.2 °C	
Sample Appearance: Clear				
Finish Time: 11:18				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-8
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☑ **DTW ONLY**

Well Depth Information- Date: 12/15/21	Time: 09:52
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 33.53 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date:			Start Time:	
Sample Time	pH	EC/MC	Temp	Well Observations
	pH	mS/Cm	°C	
Sample Appearance: Clear				
Finish Time:				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-8A
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/15/21	Time: 10:20
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 39.72 ☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/15/21 Start Time: 11:18

Sample Time	pH	EC/MC	Temp	Well Observations
11:19	6.86 pH	13.17 mS/Cm	20.3 °C	
Sample Appearance: Clear				
Finish Time: 11:22				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: ART-9
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/15/21	Time: 09:52
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 35.70 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/15/21 Start Time: 11:22

Sample Time	pH	EC/MC	Temp	Well Observations
11:23	7.17 pH	7.72 mS/Cm	21.2 °C	
Sample Appearance: Clear				
Finish Time: 11:26				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
7.70 mS/Cm	7.05 pH
21.3 °C	

WATER SAMPLING FIELD LOG

	Well: PC-150
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: EM	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/15/21	Time: 09:52
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 36.72 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/15/21 Start Time: 11:26

Sample Time	pH	EC/MC	Temp	Well Observations
11:27	7.26 pH	6.64 mS/Cm	20.1 °C	Bucket test 1.5 gpm
Sample Appearance: Clear				
Finish Time: 11:34				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

PC-150 2021 12 15 - FD
Collected at same time for same analysis before moving on to next well.

Ph: 7.25
EC: 6.65
C: 20.5

WATER SAMPLING FIELD LOG

	Well: PC-99 R2/R3
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☑ **DTW ONLY**

Well Depth Information- Date: 12/15/21	Time: 09:43
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 12.94 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/15/21 Start Time: 11:39

Sample Time	pH	EC/MC	Temp	Well Observations
11:40	7.32 pH	4.04 mS/Cm	21.7 °C	
Sample Appearance: Clear				
Finish Time: 11:43				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: PC-115R
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☑ **DTW ONLY**

Well Depth Information- Date: 12/15/21	Time: 09:43
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 11.45 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/15/21 Start Time: 11:43

Sample Time	pH	EC/MC	Temp	Well Observations
11:44	7.51 pH	2.95 mS/Cm	21.1 °C	
Sample Appearance: Clear				
Finish Time: 11:46				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: PC-116R
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/15/21	Time: 09:43
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 14.66 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/15/21 Start Time: 11:46

Sample Time	pH	EC/MC	Temp	Well Observations
11:47	7.27 pH	4.25 mS/Cm	21.3 °C	
Sample Appearance: Clear				
Finish Time: 11:50				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: PC-117
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 12/15/21	Time: 09:43
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 16.31	☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):		

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/15/21 Start Time: 11:51

Sample Time	pH	EC/MC	Temp	Well Observations
11:52	7.26 pH	4.07 mS/Cm	20.7 °C	
Sample Appearance: Clear				
Finish Time: 11:55				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
4.07 mS/Cm	pH
21.0 °C	

WATER SAMPLING FIELD LOG

	Well: PC-118
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/15/21	Time: 09:43
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 5.72 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/15/21 Start Time: 11:56

Sample Time	pH	EC/MC	Temp	Well Observations
11:57	7.39 pH	2.84 mS/Cm	20.7 °C	
Sample Appearance: Clear				
Finish Time: 12:00				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
2.87 mS/Cm	7.03 pH
20.6 °C	

WATER SAMPLING FIELD LOG

	Well: PC-121
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/15/21	Time: 09:43
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 2.59 ☐ Manually Taken at Well	☑ Taken at Control Panel
Height of Water Column(ft):	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/15/21 Start Time: 12:08

Sample Time	pH	EC/MC	Temp	Well Observations
12:09	7.32 pH	2.50 mS/Cm	19.3 °C	
Sample Appearance: Clear				
Finish Time: 12:14				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

PC-121 2021 12 15 - EB
Collected for same analysis before moving on to next well.

Time:12:11

PH: 8.88
EC: 0.11
C: 20.3

WATER SAMPLING FIELD LOG

	Well: PC-133
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/15/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port ☐ Hand Bailed due to well Location	
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 12/15/21	Time: 11:33
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 29.21	☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft):		

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/15/21 Start Time: 12:15

Sample Time	pH	EC/MC	Temp	Well Observations
12:16	7.28 pH	2.90 mS/Cm	19.9 °C	
Sample Appearance: Clear				
Finish Time: 12:19				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: E1-1
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/16/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 12/16/21	Time: 11:48
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 42.71	☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft): 0.00		

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/16/21 Start Time: 11:59

Sample Time	pH	EC/MC	Temp	Well Observations
12:02	7.20 pH	6.06 mS/Cm	21.9 °C	
Sample Appearance: clear				
Finish Time: 12:05				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: E1-2
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/16/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 12/16/21	Time: 11:50
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 43.68	☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft): 0.00		

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/16/21 Start Time: 12:05

Sample Time	pH	EC/MC	Temp	Well Observations
12:06	7.22 pH	6.71 mS/Cm	22.0 °C	

Sample Appearance: clear

Finish Time: 12:09

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: E1-3
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/16/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information- Date: 12/16/21	Time: 11:55
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)	
Depth to Water(ft): 44.10	☑ Manually Taken at Well ☐ Taken at Control Panel
Height of Water Column(ft): 0.00	

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/16/21 Start Time: 12:09

Sample Time	pH	EC/MC	Temp	Well Observations
12:10	7.40 pH	5.01 mS/Cm	21.5 °C	
Sample Appearance: clear				
Finish Time: 12:12				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: E2-1
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/16/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 12/16/21	Time: 12:15
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 40.40	☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft): 0.00		

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/16/21 Start Time: 12:15

Sample Time	pH	EC/MC	Temp	Well Observations
12:16	7.40 pH	3.76 mS/Cm	24.2 °C	
Sample Appearance: clear				
Finish Time: 12:20				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

E2-1 2021 12 16 -FD
Collected at same time for same analysis before moving on to next well.

pH: 7.40 EC: 3.74 °C: 24.5

WATER SAMPLING FIELD LOG

	Well: E2-2
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/16/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 12/16/21	Time: 12:21
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 40.81	☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft): 0.00		

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/16/21 Start Time: 12:21

Sample Time	pH	EC/MC	Temp	Well Observations
12:22	7.27 pH	4.35 mS/Cm	24.1 °C	
Sample Appearance: clear				
Finish Time: 12:26				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

E2-2 2021 12 16 -EB
Collected for same analysis before moving on to next well. Time: 1224

pH: 8.62 EC: 0.06 °C: 20.3

WATER SAMPLING FIELD LOG

	Well: E2-3
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/16/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 12/16/21	Time: 12:27
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 38.94	☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft): 0.00		

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/16/21 Start Time: 12:27

Sample Time	pH	EC/MC	Temp	Well Observations
12:28	7.19 pH	5.28 mS/Cm	24.4 °C	
Sample Appearance: clear				
Finish Time: 12:30				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

WATER SAMPLING FIELD LOG

	Well: E2-4
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/16/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 12/16/21	Time: 12:32
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 41.41	☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft): 0.00		

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/16/21 Start Time: 12:32

Sample Time	pH	EC/MC	Temp	Well Observations
12:35	7.20 pH	5.86 mS/Cm	23.7 °C	

Sample Appearance: clear

Finish Time: 12:38

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
5.83 mS/Cm	6.98 pH
23.8 °C	

WATER SAMPLING FIELD LOG

	Well: E2-5
Project/Site: NERT Project - Henderson Nevada	Date(s): 12/16/21
Sampling Team: Emily McGuire	
Sampling Method: ☑ Collected From Sample Port	☐ Hand Bailed due to well Location
Weather Conditions: Sunny	

☐ **DTW ONLY**

Well Depth Information-	Date: 12/16/21	Time: 12:39
Total Well Depth(ft): NM ('NM') - No measurement taken, manually measured annually)		
Depth to Water(ft): 38.51	☑ Manually Taken at Well	☐ Taken at Control Panel
Height of Water Column(ft): 0.00		

☐ **Well Purge Required**

Turned pump on at_____, flowing at _____ gpm. Purged for _____ minutes, _____ minutes required per well purge spreadsheet. Turned well off at _____.

Field Measurements- Date: 12/16/21 Start Time: 12:39

Sample Time	pH	EC/MC	Temp	Well Observations
12:40	7.22 pH	6.45 mS/Cm	23.8 °C	
Sample Appearance: clear w/floaties				
Finish Time: 12:43				

Analyses:	CLO4	TDS/NO3	CR	CLO3	TDS/NO3/SO4/CL	CRVI
Bottles:	1btl	1btl	1btl	1btl	1btl	1btl

Total Bottles: 5

DUP EC Reading	QC
mS/Cm	pH
°C	

ENVIROGEN

ETI Daily Sampling Log Sheet

Date: 12/8/21	Well Field(s): IWF Mid/West	Start Time: 0806	Finish Time: 1200

Time In	Time Out	Name	Signature	Company/Purpose
0806	1200	Emily McGuire	E. McGuire	ETI/Samping

Time	Observation
0806	Collected PLC DTWs.
1003	Presampling prep.
1020	Calibrated meter.
1055	Manual DTW on Y.
1059	Started I-AB for sampling
1100	Sampled West
1132	Sampled Middle
1200	Completed Sampling

Completed By: E. McGuire

DAILY SAMPLING RIG INSPECTION SHEET

Date: 12/8/21 Completed By: Emily M.

Pre Sampling Safety Meeting-	Time: 1003
Wells to be sampled today:	IWF Middle West
Dangers and hazards with wells to be sampled:	Hex
Name: E. McGuire	Signature: E. McG
Name:	Signature:

Sampling Equipment Inspection-	Time: 1009
Items To Be Checked	Issues Found N/A ☑
☐ Coolers	
☐ Forms	
☐ pH probe (calibrated)	
☐ DTW meter	
☐ Vault Keys	
☐ Water	
☐ PPE	

Vehicle Inspection-	Time: 1012
Items To Be Checked	Issues Found N/A ☑
☐ Tires and Lug Nuts	
☐ Steering Wheel	
☐ Lights	
☐ Horn	
☐ Radiator Fluid	
☐ Engine Oil	
☐ Parking Brake	
☐ Brakes and Brake Fluid	
Check Gauges	
☐ Oil Light	
☐ Battery Light	

ENVIROGEN

DAILY MAINTENANCE AND CALIBRATION LOG

Date: 12/8/21

HANNA FIELD EC METER		Time/Analyst
Known Value	1288	1020 gm
Temp Comp Value	25	
Calibration Value	1295	
Standard Temp	25.1	
Changed Buffers	Yes ☑	

HANNA FIELD pH METER			Time/Analyst
Known Value	7.0	8.0	1024 gm
Calibration Value	7.01	8.02	
Buffer Temp	25.3	25.4	
Changed Buffers	Yes ☐		

Duplicate EC Reading(s)				
Well	1st EC	1st Temp	2nd EC	2nd Temp
I-L	6.36	24.7	6.35	24.7
I-M	7.92	~~7.90~~ gm	7.90	25.9
		26.1		

QC's
7.04
7.03
Closing QC
7.04

G9TWD Meter Heron Imstruments Dipper-T Well Depth Indicator Probe, Serial No: WD790

DTW Meter Geotech Water Level Meter, Serial No:7053

Verified By: E. McLaughlin

ENVIROGEN

ETI Daily Sampling Log Sheet

Date: 12/13/21	Well Field(s): IWF East	Start Time: 0812	Finish Time: 1230

Time In	Time Out	Name	Signature	Company/Purpose
0812	1230	Emily McGuire	E. McGuire	ETI/Sampling

Time	Observation
0812	Presampling prep
0840	Calibrate meter
0831	Collected PCC elev.
1204	Started sampling
1230	Completed sampling

Completed By: E. McGuire

DAILY SAMPLING RIG INSPECTION SHEET

Date: 12/13/21 Completed By: Emily M.

Pre Sampling Safety Meeting-	Time: 0812
Wells to be sampled today:	LWF East
Dangers and hazards with wells to be sampled:	Hex
Name: E. McGuire	Signature: E. McGuire
Name:	Signature:

Sampling Equipment Inspection-	Time: 0815
Items To Be Checked	Issues Found N/A ☑
☐ Coolers	
☐ Forms	
☐ pH probe (calibrated)	
☐ DTW meter	
☐ Vault Keys	
☐ Water	
☐ PPE	

Vehicle Inspection-	Time: 0820
Items To Be Checked	Issues Found N/A ☑
☐ Tires and Lug Nuts	
☐ Steering Wheel	
☐ Lights	
☐ Horn	
☐ Radiator Fluid	
☐ Engine Oil	
☐ Parking Brake	
☐ Brakes and Brake Fluid	
Check Gauges	
☐ Oil Light	
☐ Battery Light	

ENVIROGEN

DAILY MAINTENANCE AND CALIBRATION LOG

Date: 12/13/21

HANNA FIELD EC METER		Time/Analyst
Known Value	1288	EM 0840
Temp Comp Value	25	
Calibration Value	1307	
Standard Temp	25.5	
Changed Buffers	Yes ☑	

HANNA FIELD pH METER			Time/Analyst
Known Value	7.0	8.0	0843 EM
Calibration Value	7.01	8.0	
Buffer Temp	25.3	25.5	
Changed Buffers	Yes ☑		

Duplicate EC Reading(s)				
Well	1st EC	1st Temp	2nd EC	2nd Temp
I-P	9.17	22.8	9.17	22.9

QC's
7.01
Closing QC
7.03

G9TWD Meter Heron Imstruments Dipper-T Well Depth Indicator Probe, Serial No: WD790

DTW Meter Geotech Water Level Meter, Serial No:7053

Verified By: E. McGi

ENVIROGEN

ETI Daily Sampling Log Sheet

Date: 12/15/24	Well Field(s): AWF/SWF	Start Time: 0920	Finish Time: 1230

Time In	Time Out	Name	Signature	Company/Purpose
0920	1230	E. McGuire	E. McGuire	ETI/Sampling

Time	Observation
0920	Presampling prep
0930	Calibration
0943	Collected PLC el.
1000	Left for AWF
1015	Collected manual DTW
1100	Sampled AWF
1140	Sampled SWF
1230	Completed Sampling

Completed By: E. McGuire

DAILY SAMPLING RIG INSPECTION SHEET

Date: 12/15/21 Completed By: Emily M

Pre Sampling Safety Meeting-	Time: 0920
Wells to be sampled today:	AWF | SWF
Dangers and hazards with wells to be sampled:	Vaults
Name: E. McGuire	Signature: E. McGuire
Name:	Signature:

Sampling Equipment Inspection-	Time: 0923	
Items To Be Checked	Issues Found	N/A ☑
☐ Coolers		
☐ Forms		
☐ pH probe (calibrated)		
☐ DTW meter		
☐ Vault Keys		
☐ Water		
☐ PPE		

Vehicle Inspection-	Time: 0927	
Items To Be Checked	Issues Found	N/A ☑
☐ Tires and Lug Nuts		
☐ Steering Wheel		
☐ Lights		
☐ Horn		
☐ Radiator Fluid		
☐ Engine Oil		
☐ Parking Brake		
☐ Brakes and Brake Fluid		
Check Gauges		
☐ Oil Light		
☐ Battery Light		

ENVIROGEN

DAILY MAINTENANCE AND CALIBRATION LOG

Date: 12/15/21

HANNA FIELD EC METER		Time/Analyst
Known Value	1288	0934 EM
Temp Comp Value	25	
Calibration Value	1299	
Standard Temp	25.7	
Changed Buffers	Yes ☑	

HANNA FIELD pH METER			Time/Analyst
Known Value	7.0	8.0	0930 /EM
Calibration Value	7.01	8.01	
Buffer Temp	25.5	25.4	
Changed Buffers	Yes ☑		

Duplicate EC Reading(s)				
Well	1st EC	1st Temp	2nd EC	2nd Temp
ART-9	7.72	21.2	7.70	21.3
PC-11B	2.84	20.7	2.87	20.6

QC's
7.03
Closing QC
7.05

G9TWD Meter Heron Imstruments Dipper-T Well Depth Indicator Probe, Serial No: WD790

DTW Meter Geotech Water Level Meter, Serial No:7053

Verified By: E. McLain

ENVIROGEN

ETI Daily Sampling Log Sheet

Date: 12/16/21	Well Field(s): IWFB/APS	Start Time: 0923	Finish Time: 1300

Time In	Time Out	Name	Signature	Company/Purpose
0923	1300	E. McGuire	E. McGuire	ETI/Sampling

Time	Observation
0923	Collected PLC E1
0935	Pre sampling prep
0952	Calibrated meter
1100	Sampled Borman
1130	Completed Borman
1202	Sampled APS
1130	Collected manual depths for APS
1300	Completed sampling

Completed By: E. McGuire

DAILY SAMPLING RIG INSPECTION SHEET

Date: 12/16/21 Completed By: Emily M.

Pre Sampling Safety Meeting-	Time: 0935
Wells to be sampled today:	IWF Borman/APS
Dangers and hazards with wells to be sampled:	Borman/APS vaults
Name: E. McGuire	Signature: E. McGuire
Name:	Signature:

Sampling Equipment Inspection-	Time: 0940	
Items To Be Checked	Issues Found	N/A ☑
☐ Coolers		
☐ Forms		
☐ pH probe (calibrated)		
☐ DTW meter		
☐ Vault Keys		
☐ Water		
☐ PPE		

Vehicle Inspection-	Time: 0945	
Items To Be Checked	Issues Found	N/A ☑
☐ Tires and Lug Nuts		
☐ Steering Wheel		
☐ Lights		
☐ Horn		
☐ Radiator Fluid		
☐ Engine Oil		
☐ Parking Brake		
☐ Brakes and Brake Fluid		
Check Gauges		
☐ Oil Light		
☐ Battery Light		

ENVIROGEN

DAILY MAINTENANCE AND CALIBRATION LOG

Date: 12/16/21

HANNA FIELD EC METER		Time/Analyst
Known Value	1288	0958 EM
Temp Comp Value	25	
Calibration Value	1287	
Standard Temp	24.9	
Changed Buffers	Yes ☑	

HANNA FIELD pH METER			Time/Analyst
Known Value	7.0	8.0	0952 EM
Calibration Value	7.01	8.0	
Buffer Temp	25.3	25.1	
Changed Buffers	Yes ☑		

Duplicate EC Reading(s)				
Well	1st EC	1st Temp	2nd EC	2nd Temp
I-V	6.85	21.3	6.84	21.6
E2-4	5.86	23.7	5.83	23.8

QC's
6.97
6.98
Closing QC
6.96

G9TWD Meter Heron Imstruments Dipper-T Well Depth Indicator Probe, Serial No: WD790

DTW Meter Geotech Water Level Meter, Serial No:7053

Verified By: E. McM

TETRA TECH

TECHNICAL MEMORANDUM

To:	**Chris Ritchie and Chris Stubbs, Ramboll**
Cc:	Steve Clough, Nevada Environmental Response Trust Mia Sosa, John Crowther, Emeryville Lab Data; Ramboll David Bohmann, Tetra Tech
From:	Jesse Bunkers and James Roman
Date:	December 22, 2021
Subject:	**December 2021 Monthly Las Vegas Wash Surface Water Sampling** **Nevada Environmental Response Trust Site** **Henderson, Nevada**

MONTHLY SURFACE WATER SAMPLING ACTIVITIES

At the direction of the Nevada Environmental Response Trust (NERT or Trust), Tetra Tech, Inc. (Tetra Tech) has prepared this summary for the December 2021 Las Vegas Wash Surface Water Sampling event for the NERT Site.

The ten surface water sample locations described in the *Remedial Performance Groundwater Sampling and Analysis Plan (SAP), Revision 1,* dated March 2020, are shown on Figure 1. Tetra Tech collected 30 independent samples from ten sample locations within the Las Vegas Wash (the Wash) and a channel flowing into the Wash (C-1 Channel) on December 7 and 8, 2021. Sample collection within the Wash was performed by wading into the Wash or by float tube. At each sample location, Tetra Tech measured the total depth of the Wash, recorded the water quality field parameters, and collected a sample. All samples were collected at the approximate mid-water depth using the discrete hand-grab sample technique described in the SAP. During sampling of the C-1 Channel, the channel width, depth of water, and flow rate were measured and documented for each sample location in the surface water sampling logs.

Samples were stored in coolers at 4°C and transferred under chain-of-custody documentation to Eurofins TestAmerica (ETA) in Phoenix, Arizona following completion of sampling. All samples were analyzed for perchlorate, chlorate, and total dissolved solids using EPA Methods 314.0, 300.1B, and SM 2540C, respectively. The ETA Laboratory reports are available via Eurofins' Total Access website.

Deviations from the SAP encountered during the December 2021 sampling event are as follows:

- Field personnel were not able to sample the designated location for LVW6.6-3 due to the presence of a sandbar. The sandbar extended above the water surface such that no surface water was present at the designated sample location. Due to the presence of the sandbar, and in order to uniformly space the

Tetra Tech, Inc.
150 S. 4th Street, Unit A, Henderson, NV 89015
Tel 702-854-2295 tetratech.com

LVW6.6 sample locations across the LVW6.6 transect, alternative sample locations were selected for sample locations LVW6.6-1, LVW6.6-2, and LVW6.6-3. The samples were collected as close as possible to the original sample locations. The adjusted sample locations were recorded with a handheld GPS as listed below:

  - LVW6.6-1: 36.08902° N, -114.99316° E
  - LVW6.6-2: 36.08916° N, -114.99318° E
  - LVW6.6-3: 36.08927° N, -114.99319° E

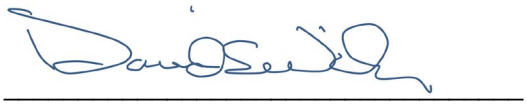
- There was no flow at sample location C-12 Channel #2; therefore, no sample was collected.

Surface water sampling logs are provided as Attachment A. Field investigation daily log and calibration certification forms are included as Attachments B and Attachment C, respectively. The electronic data deliverable (EDD) with the recorded sample depths and field parameters will be transmitted in a separate Excel file.

CERTIFICATION

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been prepared in a manner consistent with the current standards of the profession, and to the best of my knowledge, comply with all applicable federal, state, and local statutes, regulations, and ordinances. I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.

Description of Services Provided: Prepared the December 2021 Monthly Las Vegas Wash Surface Water Sampling Summary



12/22/2021

David S. Wilson, CEM
Principal Engineer
Tetra Tech, Inc.

Date

Nevada CEM Certificate Number: 2385
Nevada CEM Expiration Date: September 19, 2022

Figure

Imagery Source: Esri World Map, June 2015

Legend

- Monthly Sample Locations

TETRA TECH
www.tetratech.com
150 S. 4th Street, Unit A
Henderson, Nevada 89015
PHONE: (702) 854-2293

NEVADA ENVIRONMENTAL RESPONSE TRUST

LAS VEGAS WASH MONTHLY SAMPLING
HENDERSON, NEVADA

LAS VEGAS WASH SAMPLE POINT LOCATIONS

Project No.:	117-7502018
Date:	OCTOBER 08, 2018
Designed By:	ES

Figure No.
1

\\TTS134FS1\SUP-GIS\ARCPRJ2\INERT\MXD\SAMPLE_LOCATION_M15_MONTHLY_032018.MXD

Attachment A
Surface Water Sampling Logs

TETRA TECH

SURFACE WATER SAMPLING LOG

NERT, Henderson, NV

Task Name: LVW Surface Water Sampling	Task Manager: Jesse Bunkers	Task No: M15	Date: 12/7/2021
Field Samplers: G. Schuler / M. Hearn	Sampling Method: Dipper Bottle	Equipment Decon. Method: DI Rinse	

Time	Location ID	Depth of Water (ft)	Depth of Sample (ft)	Temp. (°C)	pH (pH Units)	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Color	Odor
12:45	C1-E	0.0	0.0	20.4	7.59	1.981	7.88	277.9	0.1	Clear	None
12:45	C1-W	0.0	0.0	20.6	7.50	4.136	7.67	272.4	0.2	Clear	None
10:30	LVW 4.75-1	3.0	1.5	19.0	7.86	0.906	8.03	237.4	3.7	Clear	None
10:30	LVW 4.75-2	3.0	1.5	18.9	7.90	1.877	8.33	233.9	2.0	Clear	None
10:30	LVW 4.75-3	2.0	1.0	19.2	7.95	1.829	8.22	251.4	0.1	Clear	None
10:30	LVW 4.75-4	2.0	1.0	19.3	7.94	1.825	8.26	248.5	0.6	Clear	None
10:30	LVW 4.75-5	2.0	1.0	19.3	7.95	1.819	8.28	253.0	0.4	Clear	None
11:45	LVW 5.3-1	2.0	1.0	20.2	8.00	1.801	8.21	240.5	0.4	Clear	None
11:45	LVW 5.3-2	3.0	1.5	20.4	7.98	0.898	8.23	249.0	1.7	Clear	None
11:45	LVW 5.3-3	2.0	1.0	20.2	8.00	0.887	8.29	250.8	-0.3	Clear	None
11:45	LVW 5.3-4	1.0	0.5	20.2	7.98	1.876	8.20	252.9	0.9	Clear	None
11:45	LVW 5.3-5	1.0	0.5	19.6	7.87	1.736	7.97	270.1	0.8	Clear	None
11:45	LVW 5.3-6	1.0	0.5	19.7	7.83	1.808	7.99	268.0	0.8	Clear	None
13:15	LVW 6.05	2.0	1.0	19.9	8.19	1.907	8.74	239.3	1.6	Clear	None
14:15	LVW 6.6-1	3.0	1.5	19.9	8.03	1.822	7.98	235.4	1.5	Clear	None
14:15	LVW 6.6-2	6.0	3.0	20.7	8.10	1.642	7.95	236.8	1.8	Clear	None
14:15	LVW 6.6-3	5.0	2.5	20.7	8.10	1.600	7.96	239.0	2.5	Clear	None
14:45	LVW 7.2	2.0	1.0	21.0	7.98	1.784	7.95	243.4	1.4	Clear	None
15:30	LVW 8.85	1.2	0.6	21.1	7.36	1.511	7.72	262.4	1.0	Clear	None

QA/QC Samples/ID: LVW6.05-1.0-20211207-FD	QA/QC Samples/ID: LVW6.05-20211207-FB	QA/QC Samples/ID:
QA/QC Sample Time: 13:15	QA/QC Sample Time: 13:15	QA/QC Sample Time:
QA/QC Samples/ID: LVW7.2-1.0-20211207-FD	QA/QC Samples/ID: LVW7.2-20211207-FB	QA/QC Samples/ID:
QA/QC Sample Time: 14:45	QA/QC Sample Time: 14:45	QA/QC Sample Time:

C1-E	Flow (L/s): _____	**C1-W**	Flow (L/s): _____	**C-12**	Flow (L/s): No Flow
	Width (ft): 0.59 Depth (ft): 0.03		Width (ft): 0.89 Depth (ft): 0.08		Width (ft): _____ Depth (ft): _____

Observations/Comments:

TETRA TECH

SURFACE WATER SAMPLING LOG

NERT, Henderson, NV

Task Name: LVW Surface Water Sampling	Task Manager: Jesse Bunkers	Task No: M15	Date: 12/8/2021
Field Samplers: G. Schuler / M. Hearn	Sampling Method: Dipper Bottle	Equipment Decon. Method: DI Rinse	

Time	Location ID	Depth of Water (ft)	Depth of Sample (ft)	Temp. (°C)	pH (pH Units)	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Color	Odor
8:15	LVW 0.55	2.4	1.2	18.1	7.99	1.611	8.97	231.1	4.4	Clear	None
8:45	LVW 3.5-1	1.8	0.9	19.4	7.83	1.739	7.85	225.6	2.2	Clear	None
8:45	LVW 3.5-2	2.0	1.0	19.4	7.81	1.750	7.95	237.0	2.2	Clear	None
8:45	LVW 3.5-3	3.0	1.5	19.5	7.79	1.749	7.88	229.5	1.9	Clear	None
8:45	LVW 3.5-4	2.8	1.4	19.5	7.80	1.745	7.94	227.8	2.1	Clear	None
8:45	LVW 3.5-5	3.6	1.8	19.7	7.79	1.753	7.91	239.3	2.0	Clear	None
8:45	LVW 3.5-6	3.6	1.8	19.8	7.79	1.759	7.79	234.9	1.7	Clear	None
9:30	LVW 4.2-1	6.8	3.4	19.5	7.85	1.088	8.08	235.4	2.6	Clear	None
9:30	LVW 4.2-2	4.0	2.0	19.9	7.81	1.754	8.05	232.7	2.7	Clear	None
9:30	LVW 4.2-3	7.4	3.7	19.9	7.82	1.600	8.08	229.9	2.0	Clear	None
9:30	LVW 4.2-4	3.0	1.5	19.9	7.79	1.738	7.89	228.3	2.5	Clear	None

QA/QC Samples/ID: LVW0.55-1.2-20211208-FD	QA/QC Samples/ID: LVW0.55-20211208-FB	QA/QC Samples/ID:
QA/QC Sample Time: 8:15	QA/QC Sample Time: 8:15	QA/QC Sample Time:

C1-E	Flow (L/s): _____	**C1-W**	Flow (L/s): _____	**C-12**	Flow (L/s): _____
	Width (ft): _____ Depth (ft): _____		Width (ft): _____ Depth (ft): _____		Width (ft): _____ Depth (ft): _____

Observations/Comments:

Attachment B
Field Investigation Daily Logs

TETRA TECH

FIELD INVESTIGATION DAILY LOG

NERT, Henderson, NV

Task Name: LVW Surface Water Sampling	Task Manager: Jesse Bunkers	Date: 12/7/21
Field Personnel: GS, MH		Task No: M15
Location: Las Vegas Wash		Reported by: G. Schuler

Weather Conditions: overcast, cool High: 63°

Total Vehicle Mileage: 20

Task Visitors / Subcontractors: none

Matters of Safety: Slips, trips, falls, drowning

Problems / Concerns and Corrective Actions Taken: none

Time	Activities
0700	Meet Sampling Team at Tt office, Safety meeting, gather supplies mobe to field
1000	Arrive at LVW 4.75
1030	collect LVW 4.75-1 thru-5, Mobe to LVW5.3
1145	collect LVW5.3-1 thru-6, Mobe to C-1 channel
1245	Collect C1-E and C1-W, Mobe to LVW6.05
	depth (mm) width (mm)
	C1-E 10 180
	C1-W ~~25~~ 24 ~~315~~ 270
1315	collect LVW6.05 +FD+FB, Mobe to LVW6.6
1415	collect LVW 6.6-1 thru-3, Mobe to LVW7.2
1445	collect LVW7.2 +FD, Mobe to LVW8.85
1530	collect LVW8.85, Mobe to Tt office
1605	Arrive at Tt office, Store Samples/equipment, calibrate YSI
1700	End of day
	YSI Probe: 20F16063
	YSI Handheld: 20F1603J3

☑ **LVW8.85:** 36.107231, -115.019994	☑ **LVW5.3-6:** 36.090660, -114.973903	☐ **LVW4.2-2:** 36.094817, -114.954612
☑ **LVW7.2:** 36.090604, -115.000302	☑ **C1-E:** 36.086147, -114.972022	☐ **LVW4.2-3:** 36.094978, -114.954716
☑ **LVW6.6-1:** 36.08902, -114.99316	☑ **C1-W:** 36.086147, -114.972022	☐ **LVW4.2-4:** 36.095108, -114.954806
☑ **LVW6.6-2:** 36.08916, -114.99318	☑ **C12:** 36.086125, -114.970255 No Flow	☐ **LVW3.5-1:** 36.100422, -114.943298
☑ **LVW6.6-3:** 36.08927, -114.99319	☑ **LVW4.75-1:** 36.092979, -114.961810	☐ **LVW3.5-2:** 36.100459, -114.943329
☑ **LVW6.05:** 36.087849, -114.985682	☑ **LVW4.75-2:** 36.093130, -114.961928	☐ **LVW3.5-3:** 36.100548, -114.943390
☑ **LVW5.3-1:** 36.089867, -114.973112	☑ **LVW4.75-3:** 36.093277, -114.962051	☐ **LVW3.5-4:** 36.100585, -114.943405
☑ **LVW5.3-2:** 36.090072, -114.973322	☑ **LVW4.75-4:** 36.093431, -114.962174	☐ **LVW3.5-5:** 36.100606, -114.943451
☑ **LVW5.3-3:** 36.090218, -114.973467	☑ **LVW4.75-5:** 36.093580, -114.962301	☐ **LVW3.5-6:** 36.100645, -114.943493
☑ **LVW5.3-4:** 36.090367, -114.973612	☐ **LVW4.2-1:** 36.094695, -114.954570	☐ **LVW0.55:** 36.122158, -114.904631
☑ **LVW5.3-5:** 36.090513, -114.973758		

Prepared by: G. Schuler Signature: [signature] Date: 12/7/21

TETRA TECH

FIELD INVESTIGATION DAILY LOG

NERT, Henderson, NV

Task Name: LVW Surface Water Sampling	Task Manager: Jesse Bunkers	Date: 12/8/21
Field Personnel: GS. M. Hearn		Task No: M15
Location: Las Vegas Wash		Reported by: G. Schuler

Weather Conditions: Sunny, cool High: 67°

Total Vehicle Mileage: 20

Task Visitors / Subcontractors: None

Matters of Safety: Slips, trips, falls, drowning, wildlife, Sunburn

Problems / Concerns and Corrective Actions Taken: None

Time	Activities
0730	Meet Sampling team at Tt office, gather Supplies, Mobe to LVW0.55
0800	Arrive at LVW0.55/Lake mead park
0815	collect LVW0.55+FD+FB, mobe to LVW 3.5
0845	collect LVW3.5-1 thru-6, mobe to LVW 4.2
0930	Collect LVW4.2-1 thru-4, Mobe to Tt office.
1005	Arrive at Tt office, Store equipment, pack Sample coolers
1105	Hand off Samples to ETA courier
1215	End day

☐ **LVW8.85:** 36.107231, -115.019994	☐ **LVW5.3-6:** 36.090660, -114.973903	☑ **LVW4.2-2:** 36.094817, -114.954612
☐ **LVW7.2:** 36.090604, -115.000302	☐ **C1-E:** 36.086147, -114.972022	☑ **LVW4.2-3:** 36.094978, -114.954716
☐ **LVW6.6-1:** 36.08902, -114.99316	☐ **C1-W:** 36.086147, -114.972022	☑ **LVW4.2-4:** 36.095108, -114.954806
☐ **LVW6.6-2:** 36.08916, -114.99318	☐ **C12:** 36.086125, -114.970255	☑ **LVW3.5-1:** 36.100422, -114.943298
☐ **LVW6.6-3:** 36.08927, -114.99319	☐ **LVW4.75-1:** 36.092979, -114.961810	☑ **LVW3.5-2:** 36.100459, -114.943329
☐ **LVW6.05:** 36.087849, -114.985682	☐ **LVW4.75-2:** 36.093130, -114.961928	☑ **LVW3.5-3:** 36.100548, -114.943390
☐ **LVW5.3-1:** 36.089867, -114.973112	☐ **LVW4.75-3:** 36.093277, -114.962051	☑ **LVW3.5-4:** 36.100585, -114.943405
☐ **LVW5.3-2:** 36.090072, -114.973322	☐ **LVW4.75-4:** 36.093431, -114.962174	☑ **LVW3.5-5:** 36.100606, -114.943451
☐ **LVW5.3-3:** 36.090218, -114.973467	☐ **LVW4.75-5:** 36.093580, -114.962301	☑ **LVW3.5-6:** 36.100645, -114.943493
☐ **LVW5.3-4:** 36.090367, -114.973612	☑ **LVW4.2-1:** 36.094695, -114.954570	☑ **LVW0.55:** 36.122158, -114.904631
☐ **LVW5.3-5:** 36.090513, -114.973758		

Prepared by: G. Schuler Signature: [signature] Date: 12/8/21

Attachment C
Calibration Certification

EQUIPCO
Rentals Sales Service

YSI ProDSS RENTAL
CALIBRATION CERTIFICATE

SERVICE TECHNICIAN: MH DATE: 12/04/2021

RENTAL CUSTOMER: _____

INSTRUMENT INFORMATION

RENTAL I.D. NUMBER: YSIPRODSS.43

SERIAL NUMBER: _____

CALIBRATION INFORMATION

PARAMETER:	STANDARD:	PASS	LOT #
1. CONDUCTIVITY	1,000 µMhos	✓	057939
2. pH ZERO	pH 7	✓	056161
pH SLOPE	pH 4	✓	056160
pH SLOPE	pH 10	✓	054162
3. DISSOLVED OXYGEN	Air Calibration Barometric pressure = 760mmHg	✓	N/A
DISSOLVED OXYGEN ZERO TEST	(Sodium Sulfite)	✓	12022021
4. TURBIDITY ZERO	0.0 NTU's	✓	12-02-2021
TURBIDITY SPAN	100 NTU's	✓	12-02-2021
5. REDOX (ORP)	231mV (YSI Zobell solution)	✓	09214

2100 Meridian Park Blvd, Concord, CA 94520 Phone (888) 234-5678 Fax (925) 305-1301

TETRA TECH

CALIBRATION LOG - WATER QUALITY METER

NERT, Henderson, NV

Task Name: LVW Surface Water Sampling	Task No.: M15	Rental from: EQUIPCO	Task Manager: Jesse Bunkers
Field Personnel: MCH		Serial Number: 20F16036 3/20F000297	Type: YSI ProDSS

			Pre-Calibration							Post-Calibration						
Date	Time	Temp (°C)	pH (pH = 4.0)	pH (pH = 7.0)	pH (pH = 10.0)	ORP (mV)	Cond. (mS/cm)	DO (%)	Turbidity (NTU)	pH (pH = 4.0)	pH (pH = 7.0)	pH (pH = 10.0)	ORP (mV)	Cond. (mS/cm)	DO (%)	Turbidity (NTU)
12/7/21	1620	19.0	4.05	6.83	9.65	234.2	1020	96.5	0.33	4.00	7.03	10.07	238.0	1000	100	0.0

Notes:

APPENDIX E
DATA VALIDATION SUMMARY REPORT (DVSR)
(AVAILABLE ELECTRONICALLY ON USB FLASH DRIVE)

Data Validation Summary Report
Semi-Annual Groundwater Monitoring and GWETS Performance Sampling
July through December 2021
Nevada Environmental Response Trust (NERT)
Henderson, Nevada

Prepared for

Ramboll
Emeryville, California

Prepared by

Laboratory Data Consultants, Inc.
2701 Loker Avenue West, Suite 220
Carlsbad, California 92010

April 15, 2022

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LIST OF TABLES

ATTACHMENTS

LIST OF ACRONYMS AND ABBREVIATIONS

DL	Detection Limit
DNR	Do Not Report
DQO	Data Quality Objectives
DUP	Duplicate
DVSR	Data Validation Summary Report
EB	Equipment Blank
EPA	United States Environmental Protection Agency
FB	Field Blank
FD	Field Duplicate
GWETS	Groundwater Extraction and Treatment System
LCS/LCSD	Laboratory Control Sample / Laboratory Control Sample Duplicate
LDC	Laboratory Data Consultants, Inc.
MDL	Method Detection Limit
MS/MSD	Matrix Spike / Matrix Spike Duplicate
NDEP	Nevada Department of Environmental Protection
NERT	Nevada Environmental Response Trust
NFG	National Functional Guidelines
NO3/NO2-N	Nitrate/Nitrite as Nitrogen
PARCCS	Precision, Accuracy, Representativeness, Comparability, Completeness, Sensitivity
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance / Quality Control
RPD	Relative Percent Difference
SAP	Sampling and Analysis Plan
SDG	Sample Delivery Group
SQL	Sample Quantitation Limit
TB	Trip Blank
TDS	Total Dissolved Solids
TIN	Total Inorganic Nitrogen
TOC	Total Organic Carbon
TOX	Total Organic Halides
TRP	Total Recoverable Phenolics
%R	Percent Recovery

1.0 INTRODUCTION

This data validation summary report (DVSR) has been prepared by Laboratory Data Consultants, Inc. (LDC) to assess the validity and usability of laboratory analytical data from the Groundwater Monitoring and Groundwater Extraction and Treatment System (GWETS) Performance Sampling conducted during July to December 2021 at the Nevada Environmental Response Trust (NERT) site in Henderson, Nevada. Data collection and management was performed in accordance with the *Remedial Performance Sampling and Analysis Plan, Revision 1, Nevada Environmental Response Trust Site, Henderson, Nevada* (SAP Revision 1) dated March 2020 and included the collection and analyses of 719 environmental and quality control (QC) samples. The analyses were performed by the following methods:

Metals by Environmental Protection Agency (EPA) Methods 200.7
Wet Chemistry:
Hexavalent Chromium by EPA Method 218.6
Chloride, Nitrate as Nitrogen, Nitrite as Nitrogen, and Sulfate (Anions) by EPA Method 300.0
Nitrate/Nitrite as Nitrogen (NO3/NO2-N) and Total Inorganic Nitrogen (TIN) by Calculation
Chlorate by EPA Method 300.1B
Perchlorate by EPA Method 314.0
Ammonia as Nitrogen by EPA Method 350.1
Total Recoverable Phenolics (TRP) by EPA Method 420.4
Conductivity by Standard Method 2510B
Total Dissolved Solids (TDS) by Standard Method 2540C
Total Organic Carbon (TOC) by Standard Method 5310B
Total Organic Halides (TOX) by EPA SW 846 Method 9020B
Field pH by Field Test Method

Laboratory analytical services were provided by Eurofins. Field pH readings were recorded on the chain-of-custody at the time of sampling and reported with the analytical data. The samples were grouped into sample delivery groups (SDGs). The water samples are associated with quality assurance and quality control (QA/QC) samples designed to document the data quality of the entire SDG or a sub-group of samples within an SDG. Table I is a cross-reference table listing each sample, analysis, SDG, collection date, laboratory sample number, matrix, and validation level. An individual sample may be on multiple rows if it is reported on more than one SDG. Table II is a reference table that identifies the QC elements reviewed for each validation level per method, as applicable.

The laboratory analytical data were validated in accordance with procedures described in the Nevada Division of Environmental Protection (NDEP) *Data Validation Guidance* established for the BMI Plant Sites and Common Areas Projects, Henderson, Nevada, July 13, 2018. Consistent with the NDEP requirements, one hundred percent of the analytical data were validated according to Stage 2A data validation procedures. The number of analytical results for each method is presented in Table III.

The analytical data were evaluated for QA/QC based on the following documents: SAP Revision 1 (March 2020)*, USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review* (November 2020); and the *EPA SW 846 Third Edition, Test Methods for Evaluating Solid Waste,* update I, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IV, February 2007; update V, July 2014.

This report summarizes the QA/QC evaluation of the data according to precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) relative to the project data quality objectives (DQOs). This report provides a quantitative and qualitative assessment of the data and identifies potential sources of error, uncertainty, and bias that may affect the overall usability.

PARCCS summary report evaluates and summarizes the results of QA/QC data validation for the entire sampling program. Each analytical fraction has a separate section for each of the PARCCS criteria. These sections interpret specific QC deviations and their effects on both individual data points and the analyses as a whole. Section 5.0 presents a summary of the PARCCS criteria by comparing quantitative parameters with acceptability criteria defined in the project DQOs. Qualitative PARCCS criteria are also summarized in this section.

Precision and Accuracy of Environmental Data

Environmental data quality depends on sample collection procedures, analytical methods and instrumentation, documentation, and sample matrix properties. Both sampling procedures and laboratory analyses contain potential sources of uncertainty, error, and/or bias, which affect the overall quality of a measurement. Errors for sample data may result from incomplete equipment decontamination, inappropriate sampling techniques, sample heterogeneity, improper filtering, and improper preservation. The accuracy of analytical results is dependent on selecting appropriate analytical methods, maintaining equipment properly, and complying with QC requirements. The sample matrix also is an important factor in the ability to obtain precise and accurate results within a given media.

Environmental and laboratory QA/QC samples assess the effects of sampling procedures and evaluate laboratory contamination, laboratory performance, and matrix effects. QA/QC samples include: trip blanks (TB), equipment blanks (EB), field blanks (FB), field duplicates (FD), method blanks, laboratory control samples/laboratory control sample duplicates (LCS/LCSD), laboratory duplicates (DUP), and matrix spike/matrix spike duplicates (MS/MSD).

Before conducting the PARCCS evaluation, the analytical data were validated according to the NDEP Data Validation Guidance (July 2018), NFG (USEPA 2020), and EPA SW 846 Test Methods. Samples not meeting the acceptance criteria were qualified with a flag, an abbreviation indicating a deficiency with the data. The following are flags used in data validation.

J- Estimated The associated numerical value is an estimated quantity with a negative bias. The analyte was detected but the reported value may not be accurate or precise.

J+ Estimated The associated numerical value is an estimated quantity with a positive bias. The analyte was detected but the reported value may not be accurate or precise.

J Estimated The associated numerical value is an estimated quantity. It is not possible to assess the direction of the potential bias. The analyte was detected but the reported value may not be accurate or precise. The "J" qualification indicates the data fell outside the QC limits, but the exceedance was not sufficient to cause rejection of the data.

R Rejected The data is unusable (the analyte may or may not be present). Use of the "R" qualifier indicates a significant variance from functional guideline acceptance criteria. Either resampling or reanalysis is necessary to determine the presence or absence of the rejected analyte.

U Nondetected Analyses were performed for the analyte, but it was not detected.

UJ Estimated/Nondetected Analyses were performed for the analyte, but it was not detected, and the sample quantitation or detection limit is an estimated quantity due to poor accuracy or precision. This qualification is also used to flag possible false negative results in the case where low bias in the analytical system is indicated by low calibration response, surrogate, or other spike recovery.

DNR Do Not Report A more appropriate result is reported from another analysis or dilution.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

The hierarchy of flags is listed below:

R > J	The R flag will always take precedence over the J qualifier.
J+	The high bias (J+) flag is applied only to detected results.
J > J+ or J-	A non-biased (J) flag will always supersede biased (J+ or J-) flags since it is not possible to assess the direction of the potential bias.
J = J+ plus J-	Adding biased (J+, J-) flags with opposite signs will result in a non-biased flag (J).
UJ = U plus J	The UJ flag is used when a non-detected (U) flag is added to a non-biased flag (J).

Table IV lists the reason codes used. Reason codes explain why flags have been applied and allow data users to assess if a result is usable with qualification due to QA/QC outliers or not usable when rejected due to QA/QC outliers. Reason codes are cumulative except when one of the flags is R then only the reason code associated to the R flag will be used.

Table V presents the overall qualified results after all the flags or validation qualifiers and associated reason codes have been applied.

Once the data are reviewed and qualified according to the NDEP Data Validation Guidance (July 2018), NFG, and EPA Test Methods, the data set is then evaluated using PARCCS criteria. PARCCS criteria provide an evaluation of overall data usability. The following is a discussion of PARCCS criteria as related to the project DQOs.

Precision is a measure of the agreement or reproducibility of analytical results under a given set of conditions. It is a quantity that cannot be measured directly but is calculated from reported concentrations.

Precision is expressed as the relative percent difference (RPD):

$RPD = (D1-D2)/\{1/2(D1+D2)\} \times 100$
where:
D1 = reported concentration for the sample
D2 = reported concentration for the duplicate

Precision is primarily assessed by calculating an RPD from the reported concentrations of the spiked compounds for each sample in the MS/MSD pair. In the absence of an MS/MSD pair, a laboratory duplicate or LCS/LCSD pair can be analyzed as an alternative means of assessing precision. An additional measure of sampling precision was obtained by collecting and analyzing field duplicate samples, which were compared using the RPD result as the evaluation criteria.

MS and MSD samples are field samples spiked by the laboratory with target analytes prior to preparation and analysis. These samples measure the overall efficiency of the analytical method in recovering target analytes from an environmental matrix. An LCS is similar to an MS/MSD sample in that the LCS is spiked with the same target analytes prior to preparation and analysis. However, the LCS is prepared

using a controlled interference-free matrix instead of a field sample aliquot. Laboratory reagent water is used to prepare aqueous LCS. The LCS measures laboratory efficiency in recovering target analytes from an aqueous matrix in the absence of matrix interferences.

DUPs measure laboratory precision. DUPs are replicate samples and are prepared by taking two aliquots from one sample container. The analytical results for DUPs are reported as the RPD between the results of the two aliquots.

Laboratory and field sampling precision are evaluated by calculating RPDs for field sample duplicate pairs. The sampler collects two field samples at the same location and under identically controlled conditions. The laboratory then analyzes the samples under identical conditions.

An RPD outside the numerical QC limit in the LCS/LCSD, MS/MSD, DUPs, or field duplicates indicates imprecision. Imprecision is the variance in the consistency with which the laboratory arrives at a particular reported result. Thus, the actual analyte concentration may be higher or lower than the reported result.

Possible causes of poor precision include sample heterogeneity, improper sample collection or handling, inconsistent sample preparation, and poor instrument stability. In some duplicate pairs, results maybe reported in either the primary or duplicate samples at levels below the practical quantitation limit (PQL) or non-detected. Since these values are considered to be estimates, RPD exceedances from these duplicate pairs do not suggest a significant impact on the data quality.

Accuracy is a measure of the agreement of an experimental determination and the true value of the parameter being measured. It is used to identify bias in a given measurement system. Recoveries outside acceptable QC limits may be caused by factors such as instrumentation, analyst error, or matrix interference. Accuracy is assessed through the analysis of MS, MSD, LCS, and samples containing surrogate spikes. In some cases, samples from multiple SDGs were within one QC batch and therefore are associated with the same laboratory QC samples. Surrogate spikes are either isotopically labeled compounds or compounds that are not typically detected in the samples. Surrogate spikes are added to every blank, environmental sample, LCS, MS/MSD, and standard, for all applicable organic analyses. Accuracy of inorganic analyses is determined using the percent recoveries of MS and LCS analyses.

Percent recovery (%R) is calculated using the following equation:

$$\%R = (A-B)/C \times 100$$

where:
A = measured concentration in the spiked sample
B = measured concentration of the spike compound in the unspiked sample
C = concentration of the spike

The percent recovery of each analyte spiked in MS/MSD samples, LCS/LCSD, and surrogate compounds added to environmental samples is evaluated with the acceptance criteria specified by the previously noted documents. Spike recoveries outside the acceptable QC accuracy limits provide an indication of bias, where the reported data may overestimate or underestimate the actual concentration of compounds detected or quantitation limits reported for environmental samples.

Representativeness is a qualitative parameter that expresses the degree to which the sample data are characteristic of a population. It is evaluated by reviewing the QC results of blanks, samples and holding times. Positive detects of compounds in the blank samples identify compounds that may have been introduced into the samples during sample collection, transport, preparation, or analysis. The QA/QC blanks collected and analyzed are method blanks, EBs, and FBs.

A method blank is a laboratory grade water or solid matrix that contains the method reagents and has undergone the same preparation and analysis as the environmental samples. The method blank provides a measure of the combined contamination derived from the laboratory source water, glassware, instruments, reagents, and sample preparation steps. Method blanks are prepared for each sample of a similar matrix extracted by the same method at a similar concentration level.

Trip blanks are used to identify possible volatile organic contamination introduced into the sample during transport. A trip blank is a sample bottle filled in the laboratory with reagent-grade water and preserved to a pH less than 2 with hydrochloric acid or solid matrix. It is transported to the site, stored with the sample containers, and returned unopened to the laboratory for analysis.

Equipment blanks consist of analyte-free water poured over or through the sample collection equipment. The water is collected in a sample container for laboratory analysis. These blanks are collected after the sampling equipment is decontaminated and measure effectiveness of the decontamination procedure.

Field blanks consist of analyte-free source water stored at the sample collection site. The water is collected from each source water used during each sampling event.

Holding times are evaluated to assure that the sample integrity is intact for accurate sample preparation and analysis. Holding times will be specific for each method and matrix analyzed. Holding time exceedance can cause loss of sample constituents due to biodegradation, precipitation, volatization, and chemical degradation.

Comparability is a qualitative expression of the confidence with which one data set may be compared to another. It provides an assessment of the equivalence of the analytical results to data obtained from other analyses. It is important that data sets be comparable if they are used in conjunction with other data sets. The factors affecting comparability include the following: sample collection and handling techniques, matrix type, and analytical method. If these aspects of sampling and analysis are carried out according to standard analytical procedures, the data are considered comparable. Comparability is also dependent upon other PARCCS criteria, because only when precision, accuracy, and representativeness are known can data sets be compared with confidence.

Completeness is defined as the percentage of acceptable sample results compared to the total number of sample results. Completeness is evaluated to determine if an acceptable amount of usable data were obtained so that a valid scientific site assessment can be completed. Completeness equals the total number of sample results for each fraction minus the total number of rejected sample results divided by the total number of sample results multiplied by 100. As specified in the project DQOs, the goal for completeness for target analytes in each analytical fraction is 90 percent.

Percent completeness is calculated using the following equation:

$$\%C = (T - R)/T \times 100$$

where:
%C = percent completeness
T = total number of sample results
R = total number of rejected sample results

Completeness is also determined by comparing the planned number of samples per method and matrix as specified in the SAP Revision 1 (March 2020), with the number determined above.

Sensitivity is the ability of an analytical method or instrument to discriminate between measurement responses representing different concentrations. This capability is established during the planning phase to meet the DQOs. It is important that detection limits (DLs), and PQLs presented in the SAP Revision 1

(March 2020) are achieved and that target analytes can be detected at concentrations necessary to support the DQOs. The method detection limits (MDLs) represent the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero. Sample quantitation limits (SQLs) are adjusted MDL values that reflect sample specific actions, such as dilutions or varying aliquot sizes. PQLs are the lowest level at which the entire analytical system gives a recognizable signal and acceptable calibration point for the analyte. The laboratory is required to report detected analytes down to the SQL for this project. In addition, sample results are compared to method blank and field blank results to identify potential effects of laboratory background and field procedures on sensitivity.

The QA/QC criteria were met with the exceptions noted in the following sections for each analytical method.

2.0 METALS

All metals data were assessed to be valid since none of the 535 total results were rejected based on holding time and QC exceedances. This section discusses the QA/QC supporting documentation as defined by the PARCCS criteria and evaluated based on the DQOs.

2.1 Precision and Accuracy

2.1.1 MS/MSD Samples

In instances where MS/MSD %Rs were above the laboratory acceptance criteria and the associated results were not detected or greater than 4X the spike concentration no data were qualified.

All MS/MSD RPDs met the laboratory acceptance criteria.

2.1.2 LCS/LCSD Samples

All LCS/LCSD %Rs and RPDs met the laboratory acceptance criteria.

2.1.3 FD Samples

All FD RPDs met the acceptance criteria.

2.2 Representativeness

2.2.1 Sample Preservation and Holding Times

The evaluation of holding times to verify compliance with the method was conducted. All samples met the 180-day analysis holding time criteria.

2.2.2 Blanks

Method blanks, EBs, and FBs were analyzed to evaluate representativeness. The concentration for an individual target analyte in any of the types of QA/QC blanks was used for data qualification.
If contaminants were detected in a blank, corrective actions were made for the chemical analytical data during data validation. The corrective action consisted of amending the laboratory reported results based on the following criteria.

> Results Below the PQL - If a sample result was less than the PQL, the sample result was qualified as estimated (J) at the reported concentration. Reason codes are applied to distinguish if the

blank concentration was above or below the PQL.

Results Above the PQL - If a sample result and blank contaminant value were greater than the PQL and the sample result was less than 10 times the blank contaminant value, the sample result was qualified as detected estimated (J+) at the reported concentration. Reason codes are applied to distinguish if the blank concentration was above or below the PQL.

No Action - If blank contaminant values were less than the PQL and associated sample results were greater than the PQL, or if blank contaminant values were greater than the PQL and associated sample results were greater than 10 times the blank contaminant value, the result was not qualified.

2.2.2.1 Method Blanks

As a result of contamination found in the associated method blanks, the manganese result for sample M-7B-20210818 was qualified as detected estimated (J). The details regarding the qualification of results are provided in Attachment A.

2.2.2.2 EBs and FBs

No data were qualified due to the contaminants detected in the equipment and field blanks.

2.3 Comparability

The laboratory used standard analytical methods for all of the analyses. In all cases, the SQLs attained were at or below the PQLs. Target analytes detected below the PQLs flagged (J) by the laboratory should be considered estimated. The comparability of the metals data is regarded as acceptable.

2.4 Completeness

The completeness level attained for metal field samples was 100 percent. This percentage was calculated as the total number of accepted sample results divided by the total number of sample results multiplied by 100.

2.5 Sensitivity

The calibration was evaluated for instrument sensitivity and was determined to be technically acceptable. All laboratory PQLs were acceptable.

3.0 WET CHEMISTRY

All wet chemistry data were assessed to be valid since none of the 3,071 total results were rejected based on holding time and QC exceedances. This section discusses the QA/QC supporting documentation as defined by the PARCCS criteria and evaluated based on the DQOs.

3.1 Precision and Accuracy

3.1.1 Surrogate

All surrogate %Rs met the laboratory acceptance criteria.

3.1.2 MS/MSD Samples

MS/MSD samples were evaluated for anions, hexavalent chromium, chlorate, perchlorate, and total recoverable phenolics.

Eight (8) chlorate, and eight (8) nitrate as nitrogen results were qualified as detected estimated (J-) due to MS/MSD %Rs below the laboratory acceptance criteria. The bias flag (-) was removed for two (2) of the nitrate as nitrogen results because the results were also qualified for field duplicate RPD.

Twenty (20) hexavalent chromium, and 35 chlorate results were qualified as detected estimated (J+) due to MS/MSD %Rs above the laboratory acceptance criteria.

Eight (8) chlorate, and nine (9) hexavalent chromium results were qualified as detected estimated (J) due to MS/MSD %Rs both above and below the laboratory acceptance criteria.

Eight (8) chlorate results were qualified as detected estimated (J) due to an MS/MSD RPD above the laboratory acceptance criteria.

The details regarding the qualification of results are presented in Attachment B.

In instances where MS/MSD %Rs were above the laboratory acceptance criteria and the associated results were not detected or greater than 4X the spike concentration no data were qualified.

3.1.3 DUP Samples

DUP samples were evaluated for TDS. All DUP RPDs met the laboratory criteria.

3.1.4 LCS/LCSD Samples

All LCS/LCSD %Rs and RPDs met the laboratory acceptance criteria

3.1.5 FD Samples

Due to RPDs outside the acceptance criteria of ≤ 30, two (2) chlorate results that were reported above the PQL in field duplicate samples E2-1-20210811 and E2-1-20210811-FD, two (2) hexavalent chromium results that were reported above the PQL in field duplicate samples ART-8-20211115 and ART-8A-20211115-FD and six (6) nitrate as nitrogen results that were reported above the PQL in field duplicate samples ART-8A-20210714 and ART-8A-20210714-FD, PC-119-20210714 and PC-119-20210714-FD, and ART-2/2A-20210915 and ART-2/2A-20210915-FD were qualified as detected estimated (J). The details regarding the qualification of results are presented in Attachment B.

Given the additional uncertainty in results reported below the PQL, no data were qualified when the RPDs were outside the QAPP acceptance criteria and the associated results in either the primary or duplicate samples were below the PQL or not detected.

3.1.6 Target Analyte Quantitation

The nitrate as nitrogen result for sample I-E-20210803 was qualified as detected estimated (J). The associated result exceeded the calibration range.

3.2 Representativeness

3.2.1 Sample Preservation and Holding Times

The evaluation of holding times to verify compliance with all wet chemistry methods was conducted. All water samples met the 24-hour analysis holding time criteria for hexavalent chromium, 48-hour analysis holding time criteria for nitrite as nitrogen, and the 28-day analysis holding time criteria for ammonia as nitrogen, chloride, conductivity, phenolics, sulfate, TOC, and TOX.

Three (3) nitrate as nitrogen results were qualified as detected estimated (J-) as a result of exceeding the analysis holding time criteria of 48 hours, seven (7) TDS result was qualified as detected estimated (J-) and estimated non-detect (UJ) as a result of exceeding the analysis holding time criteria of seven days, and one (1) perchlorate result was qualified as detected estimated (J-) as a result of exceeding the analysis holding time criteria of 28 days. The initial analyses for these samples were performed within the method holding time, but the samples were re-analyzed outside the holding time because the initial analysis exceeded the calibration range or due to a QC nonconformance.

3.2.2 Blanks

Method blanks, EBs, and FBs were analyzed to evaluate representativeness.

If contaminants were detected in a blank, corrective actions were made for the chemical analytical data during data validation based on the criteria presented in Section 2.2.2.

3.2.2.1 Method Blanks

No contaminants were detected in the method blanks.

3.2.2.2 EBs and FBs

No data were qualified due to the contaminants detected in the equipment and field blanks.

3.3 Comparability

The laboratory used standard analytical methods for all of the analyses. In all cases, the SQLs attained were at or below the PQLs. Target analytes detected below the PQLs flagged (J) by the laboratory should be considered estimated. The comparability of the data is regarded as acceptable.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed not reportable.

3.4 Completeness

The completeness level attained for wet chemistry field samples was 100 percent. This percentage was calculated as the total number of accepted sample results divided by the total number of sample results multiplied by 100.

3.5 Sensitivity

The calibration was evaluated for instrument sensitivity and was determined to be technically acceptable. All laboratory PQLs were acceptable.

4.0 VARIANCES IN ANALYTICAL PERFORMANCE

The laboratory used standard analytical methods for all analyses throughout the project. The analyses were conducted within all specifications of the method. For this data set TOC was analyzed by Method Standard Method 5310B, instead of Method 5310C as specified in SAP Revision 1 (March 2020). The detection limit for Method 5310C is typically lower than Method 5310B; however, TOC was detected in all of the samples collected as part of this sampling event. Therefore, the method variance does not affect data usability.

No systematic variances in analytical performance were noted in the laboratory case narratives.

5.0 SUMMARY OF PARCCS CRITERIA

The validation reports present the PARCCS results for all SDGs. Each PARCCS criterion is discussed in detail in the following sections.

5.1 Precision and Accuracy

Precision and accuracy were evaluated using data quality indicators such as surrogates, MS/MSD, DUP, LCS/LCSD, and field duplicates. The precision and accuracy of the data set were considered acceptable after integration of result qualification.

All surrogate, MS/MSD, DUP, LCS/LCSD, and field duplicate percent recoveries and RPDs met acceptance criteria and all results were within the calibration range with the exceptions noted in Sections 3.1.2, 3.1.5 and 3.1.6.

5.2 Representativeness

All samples for each method and matrix were evaluated for holding time compliance. All holding times were met with the exception noted in Section 3.2.1. All samples were associated with a method blank in each individual SDG. The representativeness of the project data is considered acceptable after integration of result qualification due to blank contamination as noted in Section 2.2.2.1.

5.3 Comparability

Sampling frequency requirements were met in obtaining necessary field blanks and field duplicates. The laboratory used standard analytical methods for the analyses. The analytical results were reported in correct standard units. Sample integrity criteria were met and sample preservation and holding times were within QC criteria with the exception noted in Section 3.2.1. The overall comparability is considered acceptable after integration of result qualification.

5.4 Completeness

Of the 3,606 total analytes reported, none of the results were rejected. The completeness for the SDGs is as follows:

Parameter	Total Number of Validated Results	Number of Rejected Results	Percent Completeness
Metals	535	0	100
Wet Chemistry:			
CrVI	400	0	100
Anions	507	0	100
NO3/NO2-N and TIN	4	0	100

Chlorate	704	0	100
Perchlorate	719	0	100
Ammonia-N	2	0	100
Total Recoverable Phenolics	4	0	100
Conductivity	4	0	100
TDS	719	0	100
TOC	4	0	100
TOX	4	0	100
Total	**3,606**	**0**	**100**

The completeness percentage based on rejected data met the 90 percent DQO goal.

5.5 Sensitivity

Sensitivity was achieved by the laboratory to support the DQOs. Calibration concentrations, metals, and wet chemistry PQLs met the project requirements and low-level contamination in the method blanks, equipment blanks, and field blanks did not affect sensitivity.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The analytical data quality assessment for the water sample laboratory analytical results generated during the July to December 2021 Groundwater Monitoring and GWETS Performance Sampling at the NERT site in Henderson, Nevada established that the overall project requirements and completeness levels were met. No sample results included in this data set were rejected (R). Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Stage 2A data validation, all other results are considered valid and usable for all purposes.

7.0 REFERENCES

American Public Health Association 2012. Standard Method for the Examination of Water and Wastewater (22nd ed.). Washington, DC: American Public Health Association; Rice, Baird, Eaton, and Clesceri.

NDEP 2018. NDEP Data Validation Guidance. July.

NDEP. 2018b. Email from NDEP to the Trust regarding Multiple Results Reported. December 7.

Ramboll 2020. Remedial Performance Sampling and Analysis Plan, Nevada Environmental Response Trust Site, Henderson, Nevada. March 9. NDEP approved April 30, 2020.

Region 9 Superfund Data Evaluation/Validation Guidance, R6QA/006.1, Draft. December 2001.

USEPA 1983. EPA Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, Cincinnati, Ohio. March.

USEPA 1996. EPA SW 846 Third Edition, Test Methods for Evaluating Solid Waste, update I, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IV, February 2007; update V, July 2014.+

USEPA 2020. USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review. November.

TABLES

Table I. Sample Cross-Reference

LDC	SDG	Client Sample ID	Lab ID	Sample Date	Validation Level	Matrix	QC Type	Chromium (200.7)	Metals (200.7)	CrVI (218.6)	Anions (300.0)	TIN (Calc)	Chlorate (300.1)	Perchlorate (314.0)	Ammonia as N (350.1)	Phenolics (420.4)	Conductivity (2510B)	TDS (2540C)	TOC (SM5310B)	TOX (SW9020)
51824	5501666071	I-C-20210707	550-166607-1	07/07/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501666071	I-F-20210707	550-166607-2	07/07/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501666071	I-X-20210707	550-166607-3	07/07/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501666071	I-N-20210707	550-166607-4	07/07/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501666071	I-E-20210707	550-166607-5	07/07/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501666071	I-M-20210707	550-166607-6	07/07/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501666071	I-D-20210707	550-166607-7	07/07/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501666071	I-X-20210707-EB	550-166607-8	07/07/21	Stage 2A	Water	EB	X		X	X		X	X				X		
51824	5501666081	I-Q-20210707	550-166608-1	07/07/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501666081	I-G-20210707	550-166608-2	07/07/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501666081	I-T-20210707	550-166608-3	07/07/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501666081	I-U-20210707	550-166608-4	07/07/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501666081	I-H-20210707	550-166608-5	07/07/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501666081	I-P-20210707	550-166608-6	07/07/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501666081	I-W-20210707	550-166608-7	07/07/21	Stage 2A	Water	FD1	X		X	X		X	X				X		
51824	5501666081	I-O-20210707	550-166608-8	07/07/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501666081	I-W-20210707-FD	550-166608-9	07/07/21	Stage 2A	Water	FD1	X		X	X		X	X				X		
51824	5501668901	I-AA-20210712	550-166890-1	07/12/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501668901	I-AB-20210712	550-166890-2	07/12/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501668901	I-B-20210712	550-166890-3	07/12/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501668901	I-R-20210712	550-166890-4	07/12/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501668901	I-Y-20210712	550-166890-5	07/12/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501668901	I-L-20210712	550-166890-6	07/12/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501668901	I-S-20210712	550-166890-7	07/12/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501668901	I-AR-20210712	550-166890-8	07/12/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501669911	E1-1-20210713	550-166991-1	07/13/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501669911	E1-2-20210713	550-166991-2	07/13/21	Stage 2A	Water	FD2	X		X	X		X	X				X		
51824	5501669911	E1-3-20210713	550-166991-3	07/13/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501669911	E2-1-20210713	550-166991-4	07/13/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501669911	E2-2-20210713	550-166991-5	07/13/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501669911	E2-3-20210713	550-166991-6	07/13/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501669911	E2-4-20210713	550-166991-7	07/13/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501669911	E2-5-20210713	550-166991-8	07/13/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501669911	E1-2-20210713-FD	550-166991-9	07/13/21	Stage 2A	Water	FD2	X		X	X		X	X				X		
51824	5501669911	E1-3-20210713-EB	550-166991-10	07/13/21	Stage 2A	Water	EB	X		X	X		X	X				X		
51824	5501670611	ART-1A-20210714	550-167061-1	07/14/21	Stage 2A	Water		X		X	X		X	X				X		

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LDC	SDG	Client Sample ID	Lab ID	Sample Date	Validation Level	Matrix	QC Type	Chromium (200.7)	Metals (200.7)	CrVI (218.6)	Anions (300.0)	TIN (Calc)	Chlorate (300.1)	Perchlorate (314.0)	Ammonia as N (350.1)	Phenolics (420.4)	Conductivity (2510B)	TDS (2540C)	TOC (SM5310B)	TOX (SW9020)
51824	5501670611	ART-2/2A-20210714	550-167061-2	07/14/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501670611	ART-3A-20210714	550-167061-3	07/14/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501670611	ART-4-20210714	550-167061-4	07/14/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501670611	ART-7B-20210714	550-167061-5	07/14/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501670611	ART-8A-20210714	550-167061-6	07/14/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501670611	ART-9-20210714	550-167061-7	07/14/21	Stage 2A	Water	FD3	X		X	X		X	X				X		
51824	5501670611	PC-150-20210714	550-167061-8	07/14/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501670611	ART-8A-20210714-FD	550-167061-9	07/14/21	Stage 2A	Water	FD3	X		X	X		X	X				X		
51824	5501670611	ART-9-20210714-EB	550-167061-10	07/14/21	Stage 2A	Water	EB	X		X	X		X	X				X		
51824	5501670621	PC-99R2/R3-20210714	550-167062-1	07/14/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501670621	PC-115R-20210714	550-167062-2	07/14/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501670621	PC-116R-20210714	550-167062-3	07/14/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501670621	PC-117-20210714	550-167062-4	07/14/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501670621	PC-118-20210714	550-167062-5	07/14/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501670621	PC-119-20210714	550-167062-6	07/14/21	Stage 2A	Water	FD4	X		X	X		X	X				X		
51824	5501670621	PC-120-20210714	550-167062-7	07/14/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501670621	PC-121-20210714	550-167062-8	07/14/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501670621	PC-133-20210714	550-167062-9	07/14/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501670621	PC-119-20210714-FD	550-167062-10	07/14/21	Stage 2A	Water	FD4	X		X	X		X	X				X		
51824	5501670621	PC-120-20210714-EB	550-167062-11	07/14/21	Stage 2A	Water	EB	X		X	X		X	X				X		
51824	5501670791	LVW4.2-1-2.0-20210713	550-167079-1	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW4.2-2-2.9-20210713	550-167079-2	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW4.2-3-3.1-20210713	550-167079-3	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW4.2-4-2.6-20210713	550-167079-4	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW3.5-1-1.0-20210713	550-167079-5	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW3.5-2-1.2-20210713	550-167079-6	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW3.5-3-1.6-20210713	550-167079-7	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW3.5-4-1.5-20210713	550-167079-8	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW3.5-5-1.9-20210713	550-167079-9	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW3.5-6-1.9-20210713	550-167079-10	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW0.55-0.9-20210713	550-167079-11	07/13/21	Stage 2A	Water	FD5						X	X				X		
51824	5501670791	LVW5.3-1-2.7-20210713	550-167079-12	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW5.3-2-0.9-20210713	550-167079-13	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW5.3-3-0.5-20210713	550-167079-14	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW5.3-4-0.6-20210713	550-167079-15	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW5.3-5-0.7-20210713	550-167079-16	07/13/21	Stage 2A	Water							X	X				X		

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LDC	SDG	Client Sample ID	Lab ID	Sample Date	Validation Level	Matrix	QC Type	Chromium (200.7)	Metals (200.7)	CrVI (218.6)	Anions (300.0)	TIN (Calc)	Chlorate (300.1)	Perchlorate (314.0)	Ammonia as N (350.1)	Phenolics (420.4)	Conductivity (2510B)	TDS (2540C)	TOC (SM5310B)	TOX (SW9020)
51824	5501670791	LVW5.3-6-0.5-20210713	550-167079-17	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW4.75-1-1.3-20210713	550-167079-18	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW4.75-2-1.4-20210713	550-167079-19	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW4.75-3-1.0-20210713	550-167079-20	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW4.75-4-1.2-20210713	550-167079-21	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW4.75-5-1.2-20210713	550-167079-22	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW8.85-0.6-20210713	550-167079-23	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW7.2-1.0-20210713	550-167079-24	07/13/21	Stage 2A	Water	FD6						X	X				X		
51824	5501670791	LVW7.2-1.0-20210713-FD	550-167079-25	07/13/21	Stage 2A	Water	FD6						X	X				X		
51824	5501670791	LVW6.6-1-1.6-20210713	550-167079-26	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW6.6-2-3.1-20210713	550-167079-27	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW6.6-3-2.2-20210713	550-167079-28	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW6.05-0.7-20210713	550-167079-29	07/13/21	Stage 2A	Water	FD7						X	X				X		
51824	5501670792	LVW6.05-0.7-20210713-FD	550-167079-30	07/13/21	Stage 2A	Water	FD7						X	X				X		
51824	5501670791	LVW6.05-20210713-FB	550-167079-31	07/13/21	Stage 2A	Water	FB						X	X				X		
51824	5501670791	C1-E-0.0-20210713	550-167079-32	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	C1-W-0.0-20210713	550-167079-33	07/13/21	Stage 2A	Water							X	X				X		
51824	5501670791	LVW0.55-0.9-20210713-FD	550-167079-34	07/13/21	Stage 2A	Water	FD5						X	X				X		
51824	5501670791	LVW0.55-20210713-FB	550-167079-35	07/13/21	Stage 2A	Water	FB						X	X				X		
51824	5501672191	I-AC-20210715	550-167219-1	07/15/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501672191	I-AD-20210715	550-167219-2	07/15/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501672191	I-K-20210715	550-167219-3	07/15/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501672191	I-J-20210715	550-167219-4	07/15/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501672191	I-Z-20210715	550-167219-5	07/15/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501672191	I-I-20210715	550-167219-6	07/15/21	Stage 2A	Water		X		X	X		X	X				X		
51824	5501672191	I-V-20210715	550-167219-7	07/15/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501682671	I-C-20210803	550-168267-1	08/03/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501682671	I-F-20210803	550-168267-2	08/03/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501682671	I-X-20210803	550-168267-3	08/03/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501682671	I-N-20210803	550-168267-4	08/03/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501682671	I-E-20210803	550-168267-5	08/03/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501682671	I-M-20210803	550-168267-6	08/03/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501682671	I-D-20210803	550-168267-7	08/03/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501685831	LVW8.85-0.5-20210805	550-168583-1	08/05/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW7.2-1.0-20210806	550-168583-2	08/06/21	Stage 2A	Water	FD8						X	X				X		
52311	5501685831	LVW7.2-1.0-20210806-FD	550-168583-3	08/06/21	Stage 2A	Water	FD8						X	X				X		

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LDC	SDG	Client Sample ID	Lab ID	Sample Date	Validation Level	Matrix	QC Type	Chromium (200.7)	Metals (200.7)	CrVI (218.6)	Anions (300.0)	TIN (Calc)	Chlorate (300.1)	Perchlorate (314.0)	Ammonia as N (350.1)	Phenolics (420.4)	Conductivity (2510B)	TDS (2540C)	TOC (SM5310B)	TOX (SW9020)
52311	5501685831	LVW6.6-1-2.1-20210806	550-168583-4	08/06/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW6.6-2-3.0-20210806	550-168583-5	08/06/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW6.6-3-2.7-20210806	550-168583-6	08/06/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW6.05-0.7-20210806	550-168583-7	08/06/21	Stage 2A	Water	FD9						X	X				X		
52311	5501685831	LVW6.05-0.7-20210806-FD	550-168583-8	08/06/21	Stage 2A	Water	FD9						X	X				X		
52311	5501685831	LVW6.05-20210806-FB	550-168583-9	08/06/21	Stage 2A	Water	FB						X	X				X		
52311	5501685831	C1-E-0.0-20210805	550-168583-10	08/05/21	Stage 2A	Water							X	X				X		
52311	5501685831	C1-W-0.0-20210805	550-168583-11	08/05/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW5.3-1-2.5-20210806	550-168583-12	08/06/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW5.3-2-1.1-20210806	550-168583-13	08/06/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW5.3-3-0.3-20210806	550-168583-14	08/06/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW5.3-4-0.6-20210806	550-168583-15	08/06/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW5.3-5-0.7-20210806	550-168583-16	08/06/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW5.3-6-0.4-20210806	550-168583-17	08/06/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW4.75-1-1.0-20210805	550-168583-18	08/05/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW4.75-2-1.5-20210805	550-168583-19	08/05/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW4.75-3-1.0-20210805	550-168583-20	08/05/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW4.75-4-1.2-20210805	550-168583-21	08/05/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW4.75-5-1.1-20210805	550-168583-22	08/05/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW4.2-1-1.8-20210805	550-168583-23	08/05/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW4.2-2-2.4-20210805	550-168583-24	08/05/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW4.2-3-3.2-20210805	550-168583-25	08/05/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW4.2-4-1.7-20210805	550-168583-26	08/05/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW3.5-1-1.5-20210805	550-168583-27	08/05/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW3.5-2-1.0-20210805	550-168583-28	08/05/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW3.5-3-1.7-20210805	550-168583-29	08/05/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW3.5-4-1.6-20210805	550-168583-30	08/05/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW3.5-5-2.0-20210805	550-168583-31	08/05/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW3.5-6-1.8-20210805	550-168583-32	08/05/21	Stage 2A	Water							X	X				X		
52311	5501685831	LVW0.55-0.9-20210805	550-168583-33	08/05/21	Stage 2A	Water	FD10						X	X				X		
52311	5501685831	LVW0.55-0.9-20210805-FD	550-168583-34	08/05/21	Stage 2A	Water	FD10						X	X				X		
52311	5501685831	LVW0.55-20210805-FB	550-168583-35	08/05/21	Stage 2A	Water	FB						X	X				X		
52311	5501686681	I-AA-20210809	550-168668-1	08/09/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501686681	I-B-20210809	550-168668-2	08/09/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501686681	I-R-20210809	550-168668-3	08/09/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501686681	I-Y-20210809	550-168668-4	08/09/21	Stage 2A	Water	FD11	X		X	X		X	X				X		

Table I. Sample Cross-Reference

LDC	SDG	Client Sample ID	Lab ID	Sample Date	Validation Level	Matrix	QC Type	Chromium (200.7)	Metals (200.7)	CrVI (218.6)	Anions (300.0)	TIN (Calc)	Chlorate (300.1)	Perchlorate (314.0)	Ammonia as N (350.1)	Phenolics (420.4)	Conductivity (2510B)	TDS (2540C)	TOC (SM5310B)	TOX (SW9020)
52311	5501686681	I-L-20210809	550-168668-5	08/09/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501686681	I-S-20210809	550-168668-6	08/09/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501686681	I-AR-20210809	550-168668-7	08/09/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501686681	I-Y-20210809-FD	550-168668-8	08/09/21	Stage 2A	Water	FD11	X		X	X		X	X				X		
52311	5501686691	I-Q-20210809	550-168669-1	08/09/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501686691	I-G-20210809	550-168669-2	08/09/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501686691	I-T-20210809	550-168669-3	08/09/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501686691	I-U-20210809	550-168669-4	08/09/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501686691	I-H-20210809	550-168669-5	08/09/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501686691	I-P-20210809	550-168669-6	08/09/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501686691	I-W-20210809	550-168669-7	08/09/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501686691	I-O-20210809	550-168669-8	08/09/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501688511	E1-1-20210811	550-168851-1	08/11/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501688511	E1-2-20210811	550-168851-2	08/11/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501688511	E1-3-20210811	550-168851-3	08/11/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501688511	E2-1-20210811	550-168851-4	08/11/21	Stage 2A	Water	FD12	X		X	X		X	X				X		
52311	5501688511	E2-2-20210811	550-168851-5	08/11/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501688511	E2-3-20210811	550-168851-6	08/11/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501688511	E2-4-20210811	550-168851-7	08/11/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501688511	E2-5-20210811	550-168851-8	08/11/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501688511	E2-1-20210811-FD	550-168851-9	08/11/21	Stage 2A	Water	FD12	X		X	X		X	X				X		
52311	5501688511	E2-2-20210811-EB	550-168851-10	08/11/21	Stage 2A	Water	EB	X		X	X		X	X				X		
52311	5501688521	I-AC-20210811	550-168852-1	08/11/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501688521	I-AD-20210811	550-168852-2	08/11/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501688521	I-K-20210811	550-168852-3	08/11/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501688521	I-J-20210811	550-168852-4	08/11/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501688521	I-Z-20210811	550-168852-5	08/11/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501688521	I-I-20210811	550-168852-6	08/11/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501688521	I-V-20210811	550-168852-7	08/11/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501688521	I-Z-20210811-EB	550-168852-8	08/11/21	Stage 2A	Water	EB	X		X	X		X	X				X		
52311	5501689551	PC-99R2/R3-20210812	550-168955-1	08/12/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501689551	PC-115R-20210812	550-168955-2	08/12/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501689551	PC-116R-20210812	550-168955-3	08/12/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501689551	PC-117-20210812	550-168955-4	08/12/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501689551	PC-118-20210812	550-168955-5	08/12/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501689551	PC-119-20210812	550-168955-6	08/12/21	Stage 2A	Water		X		X	X		X	X				X		

Table I. Sample Cross-Reference

LDC	SDG	Client Sample ID	Lab ID	Sample Date	Validation Level	Matrix	QC Type	Chromium (200.7)	Metals (200.7)	CrVI (218.6)	Anions (300.0)	TIN (Calc)	Chlorate (300.1)	Perchlorate (314.0)	Ammonia as N (350.1)	Phenolics (420.4)	Conductivity (2510B)	TDS (2540C)	TOC (SM5310B)	TOX (SW9020)
52311	5501689551	PC-120-20210812	550-168955-7	08/12/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501689551	PC-121-20210812	550-168955-8	08/12/21	Stage 2A	Water	FD13	X		X	X		X	X				X		
52311	5501689551	PC-133-20210812-EB	550-168955-9	08/12/21	Stage 2A	Water	EB	X		X	X		X	X				X		
52311	5501689551	PC-121-20210812-FD	550-168955-10	08/12/21	Stage 2A	Water	FD13	X		X	X		X	X				X		
52311	5501689551	PC-133-20210812	550-168955-11	08/12/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501689581	ART-1A-20210812	550-168958-1	08/12/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501689581	ART-2/2A-20210812	550-168958-2	08/12/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501689581	ART-3A-20210812	550-168958-3	08/12/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501689581	ART-4-20210812	550-168958-4	08/12/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501689581	ART-7B-20210812	550-168958-5	08/12/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501689581	ART-8A-20210812	550-168958-6	08/12/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501689581	ART-9-20210812	550-168958-7	08/12/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501689581	PC-150-20210812	550-168958-8	08/12/21	Stage 2A	Water	FD14	X		X	X		X	X				X		
52311	5501689581	PC-150-20210812-FD	550-168958-9	08/12/21	Stage 2A	Water	FD14	X		X	X		X	X				X		
52311	5501689581	ART-1A-20210812-EB	550-168958-10	08/12/21	Stage 2A	Water	EB	X		X	X		X	X				X		
52311	5501690621	I-AB-20210816	550-169062-1	08/16/21	Stage 2A	Water		X		X	X		X	X				X		
52311	5501691571	M-44-20210817	550-169157-1	08/17/21	Stage 2A	Water		X		X				X				X		
52311	5501691571	M-95-20210817	550-169157-2	08/17/21	Stage 2A	Water	FD15	X		X				X				X		
52311	5501691571	M-95-20210817-FD4	550-169157-3	08/17/21	Stage 2A	Water	FD15	X		X				X				X		
52311	5501691581	H-28A-20210817	550-169158-1	08/17/21	Stage 2A	Water			X		X			X		X	X	X	X	X
52311	5501692521	M-37-20210818	550-169252-1	08/18/21	Stage 2A	Water		X		X				X				X		
52311	5501692531	M-6A-20210818	550-169253-1	08/18/21	Stage 2A	Water			X		X			X		X	X	X	X	X
52311	5501692531	M-7B-20210818	550-169253-2	08/18/21	Stage 2A	Water			X		X			X		X	X	X	X	X
52311	5501692531	M-5A-20210818	550-169253-3	08/18/21	Stage 2A	Water			X		X			X		X	X	X	X	X
52311	5501693521	M-12A-20210819	550-169352-1	08/19/21	Stage 2A	Water		X		X				X				X		
52311	5501693521	M-12A-20210819-FB4	550-169352-2	08/19/21	Stage 2A	Water	FD	X		X				X				X		
52311	5501693521	M-10-20210819	550-169352-3	08/19/21	Stage 2A	Water			X	X	X	X		X	X			X		
52311	5501693521	M-38-20210819	550-169352-4	08/19/21	Stage 2A	Water		X		X				X				X		
52311	5501693521	M-80-20210819	550-169352-5	08/19/21	Stage 2A	Water		X		X				X				X		
52311	5501693521	M-11-20210819	550-169352-6	08/19/21	Stage 2A	Water		X		X				X				X		
52311	5501693521	M-11-20210819-EB4	550-169352-7	08/19/21	Stage 2A	Water	EB	X		X				X				X		
52950	5501701041	LVW8.85-1.1-20210902	550-170104-1	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW7.2-1.1-20210902	550-170104-2	09/02/21	Stage 2A	Water	FD16						X	X				X		
52950	5501701041	LVW7.2-1.1-20210902-FD	550-170104-3	09/02/21	Stage 2A	Water	FD16						X	X				X		
52950	5501701041	LVW6.6-1-1.5-20210902	550-170104-4	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW6.6-2-3.3-20210902	550-170104-5	09/02/21	Stage 2A	Water							X	X				X		

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LDC	SDG	Client Sample ID	Lab ID	Sample Date	Validation Level	Matrix	QC Type	Chromium (200.7)	Metals (200.7)	CrVI (218.6)	Anions (300.0)	TIN (Calc)	Chlorate (300.1)	Perchlorate (314.0)	Ammonia as N (350.1)	Phenolics (420.4)	Conductivity (2510B)	TDS (2540C)	TOC (SM5310B)	TOX (SW9020)
52950	5501701041	LVW6.6-3-2.4-20210902	550-170104-6	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW6.05-1.2-20210902	550-170104-7	09/02/21	Stage 2A	Water	FD17						X	X				X		
52950	5501701041	LVW6.05-1.2-20210902-FD	550-170104-8	09/02/21	Stage 2A	Water	FD17						X	X				X		
52950	5501701041	LVW6.05-20210902-FB	550-170104-9	09/02/21	Stage 2A	Water	FB						X	X				X		
52950	5501701041	C1-E-0.0-20210902	550-170104-10	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	C1-W-0.0-20210902	550-170104-11	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW5.3-1-0.6-20210902	550-170104-12	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW5.3-2-1.0-20210902	550-170104-13	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW5.3-3-0.5-20210902	550-170104-14	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW5.3-4-0.7-20210902	550-170104-15	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW5.3-5-0.9-20210902	550-170104-16	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW5.3-6-0.5-20210902	550-170104-17	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW4.75-1-1.3-20210902	550-170104-18	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW4.75-2-1.3-20210902	550-170104-19	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW4.75-3-1.1-20210902	550-170104-20	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW4.75-4-1.3-20210902	550-170104-21	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW4.75-5-1.2-20210902	550-170104-22	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW4.2-1-2.9-20210902	550-170104-23	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW4.2-2-1.8-20210902	550-170104-24	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW4.2-3-3.2-20210902	550-170104-25	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW4.2-4-1.3-20210902	550-170104-26	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW3.5-1-0.9-20210902	550-170104-27	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW3.5-2-1.3-20210902	550-170104-28	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW3.5-3-1.6-20210902	550-170104-29	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW3.5-4-1.3-20210902	550-170104-30	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW3.5-5-1.8-20210902	550-170104-31	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW3.5-6-1.7-20210902	550-170104-32	09/02/21	Stage 2A	Water							X	X				X		
52950	5501701041	LVW0.55-1.2-20210902	550-170104-33	09/02/21	Stage 2A	Water	FD18						X	X				X		
52950	5501701041	LVW0.55-1.2-20210902-FD	550-170104-34	09/02/21	Stage 2A	Water	FD18						X	X				X		
52950	5501701041	LVW0.55-20210902-FB	550-170104-35	09/02/21	Stage 2A	Water	FB						X	X				X		
52950	5501702821	I-C-20210908	550-170282-1	09/08/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501702821	I-F-20210908	550-170282-2	09/08/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501702821	I-X-20210908	550-170282-3	09/08/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501702821	I-N-20210908	550-170282-4	09/08/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501702821	I-E-20210908	550-170282-5	09/08/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501702821	I-M-20210908	550-170282-6	09/08/21	Stage 2A	Water		X		X	X		X	X				X		

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LDC	SDG	Client Sample ID	Lab ID	Sample Date	Validation Level	Matrix	QC Type	Chromium (200.7)	Metals (200.7)	CrVI (218.6)	Anions (300.0)	TIN (Calc)	Chlorate (300.1)	Perchlorate (314.0)	Ammonia as N (350.1)	Phenolics (420.4)	Conductivity (2510B)	TDS (2540C)	TOC (SM5310B)	TOX (SW9020)
52950	5501702821	I-D-20210908	550-170282-7	09/08/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501702831	I-AA-20210908	550-170283-1	09/08/21	Stage 2A	Water	FD19	X		X	X		X	X				X		
52950	5501702831	I-AB-20210908	550-170283-2	09/08/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501702831	I-B-20210908	550-170283-3	09/08/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501702831	I-R-20210908	550-170283-4	09/08/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501702831	I-Y-20210908	550-170283-5	09/08/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501702831	I-L-20210908	550-170283-6	09/08/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501702831	I-S-20210908	550-170283-7	09/08/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501702831	I-AR-20210908	550-170283-8	09/08/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501702831	I-AA-20210908-FD	550-170283-9	09/08/21	Stage 2A	Water	FD19	X		X	X		X	X				X		
52950	5501702831	I-AB-20210908-EB	550-170283-10	09/08/21	Stage 2A	Water	EB	X		X	X		X	X				X		
52950	5501703881	I-Q-20210909	550-170388-1	09/09/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501703881	I-G-20210909	550-170388-2	09/09/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501703881	I-T-20210909	550-170388-3	09/09/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501703881	I-U-20210909	550-170388-4	09/09/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501703881	I-H-20210909	550-170388-5	09/09/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501703881	I-P-20210909	550-170388-6	09/09/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501703881	I-W-20210909	550-170388-7	09/09/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501703881	I-O-20210909	550-170388-8	09/09/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501705351	E1-1-20210913	550-170535-1	09/13/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501705351	E1-2-20210913	550-170535-2	09/13/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501705351	E1-3-20210913	550-170535-3	09/13/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501705351	E2-1-20210913	550-170535-4	09/13/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501705351	E2-2-20210913	550-170535-5	09/13/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501705351	E2-3-20210913	550-170535-6	09/13/21	Stage 2A	Water	FD20	X		X	X		X	X				X		
52950	5501705351	E2-4-20210913	550-170535-7	09/13/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501705351	E2-5-20210913	550-170535-8	09/13/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501705351	E2-3-20210913-FD	550-170535-9	09/13/21	Stage 2A	Water	FD20	X		X	X		X	X				X		
52950	5501705351	E2-4-20210913-EB	550-170535-10	09/13/21	Stage 2A	Water	EB	X		X	X		X	X				X		
52950	5501706341	I-AC-20210914	550-170634-1	09/14/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501706341	I-AD-20210914	550-170634-2	09/14/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501706341	I-K-20210914	550-170634-3	09/14/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501706341	I-J-20210914	550-170634-4	09/14/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501706341	I-Z-20210914	550-170634-5	09/14/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501706341	I-I-20210914	550-170634-6	09/14/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501706341	I-V-20210914	550-170634-7	09/14/21	Stage 2A	Water		X		X	X		X	X				X		

Table I. Sample Cross-Reference

LDC	SDG	Client Sample ID	Lab ID	Sample Date	Validation Level	Matrix	QC Type	Chromium (200.7)	Metals (200.7)	CrVI (218.6)	Anions (300.0)	TIN (Calc)	Chlorate (300.1)	Perchlorate (314.0)	Ammonia as N (350.1)	Phenolics (420.4)	Conductivity (2510B)	TDS (2540C)	TOC (SM5310B)	TOX (SW9020)
52950	5501707291	ART-1A-20210915	550-170729-1	09/15/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501707291	ART-2/2A-20210915	550-170729-2	09/15/21	Stage 2A	Water	FD21	X		X	X		X	X				X		
52950	5501707291	ART-3A-20210915	550-170729-3	09/15/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501707291	ART-4-20210915	550-170729-4	09/15/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501707291	ART-7B-20210915	550-170729-5	09/15/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501707291	ART-8A-20210915	550-170729-6	09/15/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501707291	ART-9-20210915	550-170729-7	09/15/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501707291	PC-150-20210915	550-170729-8	09/15/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501707291	ART-2/2A-20210915-FD	550-170729-9	09/15/21	Stage 2A	Water	FD21	X		X	X		X	X				X		
52950	5501707291	ART-3A-20210915-EB	550-170729-10	09/15/21	Stage 2A	Water	EB	X		X	X		X	X				X		
52950	5501707301	PC-99R2/R3-20210915	550-170730-1	09/15/21	Stage 2A	Water	FD22	X		X	X		X	X				X		
52950	5501707301	PC-115R-20210915	550-170730-2	09/15/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501707301	PC-116R-20210915	550-170730-3	09/15/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501707301	PC-117-20210915	550-170730-4	09/15/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501707301	PC-118-20210915	550-170730-5	09/15/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501707301	PC-119-20210915	550-170730-6	09/15/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501707301	PC-120-20210915	550-170730-7	09/15/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501707301	PC-121-20210915	550-170730-8	09/15/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501707301	PC-133-20210915	550-170730-9	09/15/21	Stage 2A	Water		X		X	X		X	X				X		
52950	5501707301	PC-99R2/R3-20210915-FD	550-170730-10	09/15/21	Stage 2A	Water	FD22	X		X	X		X	X				X		
52950	5501707301	PC-115R-20210915-EB	550-170730-11	09/15/21	Stage 2A	Water	EB	X		X	X		X	X				X		
52949	5501718781	E1-1-20211006	550-171878-1	10/06/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501718781	E1-2-20211006	550-171878-2	10/06/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501718781	E1-3-20211006	550-171878-3	10/06/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501718781	E2-1-20211006	550-171878-4	10/06/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501718781	E2-2-20211006	550-171878-5	10/06/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501718781	E2-3-20211006	550-171878-6	10/06/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501718781	E2-4-20211006	550-171878-7	10/06/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501718781	E2-5-20211006	550-171878-8	10/06/21	Stage 2A	Water	FD23	X		X	X		X	X				X		
52949	5501718781	E2-5-20211006-FD	550-171878-9	10/06/21	Stage 2A	Water	FD23	X		X	X		X	X				X		
52949	5501718781	E1-1-20211006-EB	550-171878-10	10/06/21	Stage 2A	Water	EB	X		X	X		X	X				X		
52949	5501722551	LVW8.85-1.0-20211012	550-172255-1	10/12/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW7.2-0.9-20211012	550-172255-2	10/12/21	Stage 2A	Water	FD24						X	X				X		
52949	5501722551	LVW7.2-0.9-20211012-FD	550-172255-3	10/12/21	Stage 2A	Water	FD24						X	X				X		
52949	5501722551	LVW6.6-1-1.5-20211012	550-172255-4	10/12/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW6.6-2-3.6-20211012	550-172255-5	10/12/21	Stage 2A	Water							X	X				X		

Table I. Sample Cross-Reference

LDC	SDG	Client Sample ID	Lab ID	Sample Date	Validation Level	Matrix	QC Type	Chromium (200.7)	Metals (200.7)	CrVI (218.6)	Anions (300.0)	TIN (Calc)	Chlorate (300.1)	Perchlorate (314.0)	Ammonia as N (350.1)	Phenolics (420.4)	Conductivity (2510B)	TDS (2540C)	TOC (SM5310B)	TOX (SW9020)
52949	5501722551	LVW6.6-3-2.0-20211012	550-172255-6	10/12/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW6.05-0.9-20211011	550-172255-7	10/11/21	Stage 2A	Water	FD25						X	X				X		
52949	5501722551	LVW6.05-0.9-20211011-FD	550-172255-8	10/11/21	Stage 2A	Water	FD25						X	X				X		
52949	5501722551	LVW6.05-20211011-FB	550-172255-9	10/11/21	Stage 2A	Water	FB						X	X				X		
52949	5501722551	C1-E-0.0-20211011	550-172255-10	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	C1-W-0.0-20211011	550-172255-11	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW5.3-1-2.6-20211011	550-172255-12	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW5.3-2-0.9-20211011	550-172255-13	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW5.3-3-1.2-20211011	550-172255-14	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW5.3-4-0.7-20211011	550-172255-15	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW5.3-5-0.9-20211011	550-172255-16	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW5.3-6-0.6-20211011	550-172255-17	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW4.75-1-1.1-20211011	550-172255-18	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW4.75-2-1.5-20211011	550-172255-19	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW4.75-3-1.1-20211011	550-172255-20	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW4.75-4-1.3-20211011	550-172255-21	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW4.75-5-1.0-20211011	550-172255-22	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW4.2-1-2.5-20211011	550-172255-23	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW4.2-2-2.3-20211011	550-172255-24	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW4.2-3-3.3-20211011	550-172255-25	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW4.2-4-1.5-20211011	550-172255-26	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW3.5-1-1.3-20211011	550-172255-27	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW3.5-2-1.0-20211011	550-172255-28	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW3.5-3-1.3-20211011	550-172255-29	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW3.5-4-1.7-20211011	550-172255-30	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW3.5-5-1.7-20211011	550-172255-31	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW3.5-6-1.8-20211011	550-172255-32	10/11/21	Stage 2A	Water							X	X				X		
52949	5501722551	LVW0.55-1.0-20211011	550-172255-33	10/11/21	Stage 2A	Water	FD26						X	X				X		
52949	5501722551	LVW0.55-1.0-20211011-FD	550-172255-34	10/11/21	Stage 2A	Water	FD26						X	X				X		
52949	5501722551	LVW0.55-20211011-FB	550-172255-35	10/11/21	Stage 2A	Water	FB						X	X				X		
52949	5501722561	I-C-20211012	550-172256-1	10/12/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501722561	I-F-20211012	550-172256-2	10/12/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501722561	I-X-20211012	550-172256-3	10/12/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501722561	I-N-20211012	550-172256-4	10/12/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501722561	I-E-20211012	550-172256-5	10/12/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501722561	I-M-20211012	550-172256-6	10/12/21	Stage 2A	Water		X		X	X		X	X				X		

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LDC	SDG	Client Sample ID	Lab ID	Sample Date	Validation Level	Matrix	QC Type	Chromium (200.7)	Metals (200.7)	CrVI (218.6)	Anions (300.0)	TIN (Calc)	Chlorate (300.1)	Perchlorate (314.0)	Ammonia as N (350.1)	Phenolics (420.4)	Conductivity (2510B)	TDS (2540C)	TOC (SM5310B)	TOX (SW9020)
52949	5501722561	I-D-20211012	550-172256-7	10/12/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501722611	I-AA-20211012	550-172261-1	10/12/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501722611	I-AB-20211012	550-172261-2	10/12/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501722611	I-B-20211012	550-172261-3	10/12/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501722611	I-R-20211012	550-172261-4	10/12/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501722611	I-Y-20211012	550-172261-5	10/12/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501722611	I-L-20211012	550-172261-6	10/12/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501722611	I-S-20211012	550-172261-7	10/12/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501722611	I-AR-20211012	550-172261-8	10/12/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501723531	I-AC-20211013	550-172353-1	10/13/21	Stage 2A	Water	FD27	X		X	X		X	X				X		
52949	5501723531	I-AD-20211013	550-172353-2	10/13/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501723531	I-K-20211013	550-172353-3	10/13/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501723531	I-J-20211013	550-172353-4	10/13/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501723531	I-Z-20211013	550-172353-5	10/13/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501723531	I-I-20211013	550-172353-6	10/13/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501723531	I-V-20211013	550-172353-7	10/13/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501723531	I-AC-20211013-FD	550-172353-8	10/13/21	Stage 2A	Water	FD27	X		X	X		X	X				X		
52949	5501723531	I-AD-20211013-EB	550-172353-9	10/13/21	Stage 2A	Water	EB	X		X	X		X	X				X		
52949	5501723551	I-Q-20211013	550-172355-1	10/13/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501723551	I-G-20211013	550-172355-2	10/13/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501723551	I-T-20211013	550-172355-3	10/13/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501723551	I-U-20211013	550-172355-4	10/13/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501723551	I-H-20211013	550-172355-5	10/13/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501723551	I-P-20211013	550-172355-6	10/13/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501723551	I-W-20211013	550-172355-7	10/13/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501723551	I-O-20211013	550-172355-8	10/13/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501724601	PC-99R2/R3-20211014	550-172460-1	10/14/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501724601	PC-115R-20211014	550-172460-2	10/14/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501724601	PC-116R-20211014	550-172460-3	10/14/21	Stage 2A	Water	FD27	X		X	X		X	X				X		
52949	5501724601	PC-117-20211014	550-172460-4	10/14/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501724601	PC-118-20211014	550-172460-5	10/14/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501724601	PC-119-20211014	550-172460-6	10/14/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501724601	PC-120-20211014	550-172460-7	10/14/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501724601	PC-121-20211014	550-172460-8	10/14/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501724601	PC-133-20211014	550-172460-9	10/14/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501724601	PC-116R-20211014-FD	550-172460-10	10/14/21	Stage 2A	Water	FD27	X		X	X		X	X				X		

Table I. Sample Cross-Reference

LDC	SDG	Client Sample ID	Lab ID	Sample Date	Validation Level	Matrix	QC Type	Chromium (200.7)	Metals (200.7)	CrVI (218.6)	Anions (300.0)	TIN (Calc)	Chlorate (300.1)	Perchlorate (314.0)	Ammonia as N (350.1)	Phenolics (420.4)	Conductivity (2510B)	TDS (2540C)	TOC (SM5310B)	TOX (SW9020)
52949	5501724601	PC-117-20211014-EB	550-172460-11	10/14/21	Stage 2A	Water	EB	X		X	X		X	X				X		
52949	5501724631	ART-1A-20211014	550-172463-1	10/14/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501724631	ART-2/2A-20211014	550-172463-2	10/14/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501724631	ART-3A-20211014	550-172463-3	10/14/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501724631	ART-4-20211014	550-172463-4	10/14/21	Stage 2A	Water	FD28	X		X	X		X	X				X		
52949	5501724631	ART-7B-20211014	550-172463-5	10/14/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501724631	ART-8A-20211014	550-172463-6	10/14/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501724631	ART-9-20211014	550-172463-7	10/14/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501724631	PC-150-20211014	550-172463-8	10/14/21	Stage 2A	Water		X		X	X		X	X				X		
52949	5501724631	ART-4-20211014-FD	550-172463-9	10/14/21	Stage 2A	Water	FD28	X		X	X		X	X				X		
52949	5501724631	ART-7B-20211014-EB	550-172463-10	10/14/21	Stage 2A	Water	EB	X		X	X		X	X				X		
53222	5501734301	PC-157B-20211101	550-173430-1	11/01/21	Stage 2A	Water		X			X		X	X				X		
53222	5501734301	PC-155B-20211101	550-173430-2	11/01/21	Stage 2A	Water	EB	X			X		X	X				X		
53222	5501734301	PC-155B-20211101-EB5	550-173430-3	11/01/21	Stage 2A	Water		X			X		X	X				X		
53222	5501734301	PC-90-20211101	550-173430-4	11/01/21	Stage 2A	Water		X			X		X	X				X		
53222	5501734301	PC-97-20211101	550-173430-5	11/01/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	PC-157A-20211102	550-173530-1	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	ART-6-20211102	550-173530-2	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	M-12A-20211102	550-173530-3	11/02/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501735301	M-189-20211102	550-173530-4	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	M-193-20211102	550-173530-5	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	PC-155A-20211102	550-173530-6	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	M-190-20211102	550-173530-7	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	M-191-20211102	550-173530-8	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	M-11-20211102	550-173530-9	11/02/21	Stage 2A	Water	FD29	X		X	X		X	X				X		
53222	5501735301	M-11-20211102-FD4	550-173530-10	11/02/21	Stage 2A	Water	FD29	X		X	X		X	X				X		
53222	5501735301	M-192-20211102	550-173530-11	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	PC-136-20211102	550-173530-12	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	PC-137D-20211102	550-173530-13	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	PC-53-20211102	550-173530-14	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	MW-K5-20211102	550-173530-15	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	ARP-7-20211102	550-173530-16	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	ARP-7-20211102-FB6	550-173530-17	11/02/21	Stage 2A	Water	FB	X			X		X	X				X		
53222	5501735301	ARP-6B-20211102	550-173530-18	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	ARP-5A-20211102	550-173530-19	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	ARP-3A-20211102	550-173530-20	11/02/21	Stage 2A	Water		X			X		X	X				X		

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LDC	SDG	Client Sample ID	Lab ID	Sample Date	Validation Level	Matrix	QC Type	Chromium (200.7)	Metals (200.7)	CrVI (218.6)	Anions (300.0)	TIN (Calc)	Chlorate (300.1)	Perchlorate (314.0)	Ammonia as N (350.1)	Phenolics (420.4)	Conductivity (2510B)	TDS (2540C)	TOC (SM5310B)	TOX (SW9020)
53222	5501735301	MW-K4-20211102	550-173530-21	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	PC-158-20211102	550-173530-22	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	PC-91-20211102	550-173530-23	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	PC-91-20211102-FB5	550-173530-24	11/02/21	Stage 2A	Water	FB	X			X		X	X				X		
53222	5501735301	PC-94-20211102	550-173530-25	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	PC-122-20211102	550-173530-26	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	ARP-2A-20211102	550-173530-27	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501735301	PC-122-20211102-EB6	550-173530-28	11/02/21	Stage 2A	Water	EB	X			X		X	X				X		
53222	5501735301	PC-101R-20211102	550-173530-29	11/02/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	PC-124-20211103	550-173618-1	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	PC-126-20211103	550-173618-2	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	PC-126-20211103-EB7	550-173618-3	11/03/21	Stage 2A	Water	EB	X			X		X	X				X		
53222	5501736181	PC-127-20211103	550-173618-4	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	PC-18-20211103	550-173618-5	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	PC-55-20211103	550-173618-6	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	PC-130-20211103	550-173618-7	11/03/21	Stage 2A	Water	FD30	X			X		X	X				X		
53222	5501736181	PC-130-20211103-FD6	550-173618-8	11/03/21	Stage 2A	Water	FD30	X			X		X	X				X		
53222	5501736181	PC-152-20211103	550-173618-9	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	M-48A-20211103	550-173618-10	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	M-44-20211103	550-173618-11	11/03/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501736181	PC-132-20211103	550-173618-12	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	PC-153R-20211103	550-173618-13	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	PC-151-20211103	550-173618-14	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	ARP-1-20211103	550-173618-15	11/03/21	Stage 2A	Water	FD31	X			X		X	X				X		
53222	5501736181	ARP-1-20211103-FD7	550-173618-16	11/03/21	Stage 2A	Water	FD31	X			X		X	X				X		
53222	5501736181	PC-154-20211103	550-173618-17	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	PC-159-20211103	550-173618-18	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	M-186D-20211103	550-173618-19	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	M-35-20211103	550-173618-20	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	M-19-20211103	550-173618-21	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	M-68-20211103	550-173618-22	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	M-67-20211103-FB7	550-173618-23	11/03/21	Stage 2A	Water	FB	X			X		X	X				X		
53222	5501736181	M-67-20211103	550-173618-24	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	M-31A-20211103	550-173618-25	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	PC-123-20211103	550-173618-26	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	PC-129-20211103	550-173618-27	11/03/21	Stage 2A	Water		X			X		X	X				X		

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53222	5501736181	PC-129-20211103-FB8	550-173618-28	11/03/21	Stage 2A	Water	FB	X			X		X	X				X		
53222	5501736181	PC-131-20211103	550-173618-29	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	PC-160-20211103	550-173618-30	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	PC-144-20211103	550-173618-31	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736181	PC-134D-20211103	550-173618-32	11/03/21	Stage 2A	Water		X			X		X	X				X		
53222	5501736311	E1-1-20211103	550-173631-1	11/03/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501736311	E1-2-20211103	550-173631-2	11/03/21	Stage 2A	Water	FD32	X		X	X		X	X				X		
53222	5501736311	E1-3-20211103	550-173631-3	11/03/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501736311	E2-1-20211103	550-173631-4	11/03/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501736311	E2-2-20211103	550-173631-5	11/03/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501736311	E2-3-20211103	550-173631-6	11/03/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501736311	E2-4-20211103	550-173631-7	11/03/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501736311	E2-5-20211103	550-173631-8	11/03/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501736311	E1-2-20211103-FD	550-173631-9	11/03/21	Stage 2A	Water	FD32	X		X	X		X	X				X		
53222	5501736311	E1-3-20211103-EB	550-173631-10	11/03/21	Stage 2A	Water	EB	X		X	X		X	X				X		
53222	5501737731	M-10-20211104	550-173773-1	11/04/21	Stage 2A	Water			X	X	X	X	X	X	X			X		
53222	5501737731	M-52-20211104	550-173773-2	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737731	M-73-20211104	550-173773-3	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737731	M-74-20211104	550-173773-4	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737731	M-81A-20211104	550-173773-5	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737731	M-83-20211104	550-173773-6	11/04/21	Stage 2A	Water	FD33	X			X		X	X				X		
53222	5501737731	M-83-20211104-FD8	550-173773-7	11/04/21	Stage 2A	Water	FD33	X			X		X	X				X		
53222	5501737731	M-80-20211104	550-173773-8	11/04/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501737731	M-80-20211104-EB4	550-173773-9	11/04/21	Stage 2A	Water	EB	X		X	X		X	X				X		
53222	5501737731	PC-135A-20211104	550-173773-10	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737731	PC-148-20211104	550-173773-11	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737731	PC-149-20211104	550-173773-12	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737731	M-37-20211104	550-173773-13	11/04/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501737731	M-72-20211104	550-173773-14	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737731	M-69-20211104	550-173773-15	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737731	PC-156A-20211104	550-173773-16	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737731	PC-156B-20211104	550-173773-17	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737731	M-95-20211104	550-173773-18	11/04/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501737731	M-95-20211104-FB4	550-173773-19	11/04/21	Stage 2A	Water	FB	X		X	X		X	X				X		
53222	5501737731	M-23-20211104	550-173773-20	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737731	M-71-20211104	550-173773-21	11/04/21	Stage 2A	Water		X			X		X	X				X		

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53222	5501737731	M-162D-20211104	550-173773-22	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737731	M-161D-20211104	550-173773-23	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737731	M-22A-20211104	550-173773-24	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737731	M-25-20211104	550-173773-25	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737731	M-14A-20211104	550-173773-26	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737731	ARP-4A-20211104	550-173773-27	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737731	PC-60-20211104	550-173773-28	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737731	PC-60-20211104-EB8	550-173773-29	11/04/21	Stage 2A	Water	EB	X			X		X	X				X		
53222	5501737731	M-38-20211104	550-173773-30	11/04/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501737731	PC-72-20211104	550-173773-31	11/04/21	Stage 2A	Water		X			X		X	X				X		
53222	5501737751	I-C-20211104	550-173775-1	11/04/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501737751	I-F-20211104	550-173775-2	11/04/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501737751	I-X-20211104	550-173775-3	11/04/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501737751	I-N-20211104	550-173775-4	11/04/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501737751	I-E-20211104	550-173775-5	11/04/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501737751	I-M-20211104	550-173775-6	11/04/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501737751	I-D-20211104	550-173775-7	11/04/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501737751	I-C-20211104-EB	550-173775-8	11/04/21	Stage 2A	Water	EB	X		X	X		X	X				X		
53222	5501737761	I-AA-20211104	550-173776-1	11/04/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501737761	I-AB-20211104	550-173776-2	11/04/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501737761	I-B-20211104	550-173776-3	11/04/21	Stage 2A	Water	FD33	X		X	X		X	X				X		
53222	5501737761	I-R-20211104	550-173776-4	11/04/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501737761	I-Y-20211104	550-173776-5	11/04/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501737761	I-L-20211104	550-173776-6	11/04/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501737761	I-S-20211104	550-173776-7	11/04/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501737761	I-AR-20211104	550-173776-8	11/04/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501737761	I-B-20211104-FD	550-173776-9	11/04/21	Stage 2A	Water	FD33	X		X	X		X	X				X		
53222	5501738581	PC-54-20211105	550-173858-1	11/05/21	Stage 2A	Water		X			X		X	X				X		
53222	5501738581	PC-98R-20211105	550-173858-2	11/05/21	Stage 2A	Water		X			X		X	X				X		
53222	5501738581	PC-103-20211105	550-173858-3	11/05/21	Stage 2A	Water		X			X		X	X				X		
53222	5501738581	PC-56-20211105	550-173858-4	11/05/21	Stage 2A	Water		X			X		X	X				X		
53222	5501738581	PC-58-20211105	550-173858-5	11/05/21	Stage 2A	Water	FD34	X			X		X	X				X		
53222	5501738581	PC-58-20211105-FD5	550-173858-6	11/05/21	Stage 2A	Water	FD34	X			X		X	X				X		
53222	5501738581	M-64-20211105	550-173858-7	11/05/21	Stage 2A	Water		X			X		X	X				X		
53222	5501738581	M-65-20211105	550-173858-8	11/05/21	Stage 2A	Water		X			X		X	X				X		
53222	5501738581	M-66-20211105	550-173858-9	11/05/21	Stage 2A	Water		X			X		X	X				X		

Table I. Sample Cross-Reference

LDC	SDG	Client Sample ID	Lab ID	Sample Date	Validation Level	Matrix	QC Type	Chromium (200.7)	Metals (200.7)	CrVI (218.6)	Anions (300.0)	TIN (Calc)	Chlorate (300.1)	Perchlorate (314.0)	Ammonia as N (350.1)	Phenolics (420.4)	Conductivity (2510B)	TDS (2540C)	TOC (SM5310B)	TOX (SW9020)
53222	5501738581	M-70-20211105	550-173858-10	11/05/21	Stage 2A	Water		X			X		X	X				X		
53222	5501738581	M-70-20211105-EB9	550-173858-11	11/05/21	Stage 2A	Water	EB	X			X		X	X				X		
53222	5501738581	M-79-20211105	550-173858-12	11/05/21	Stage 2A	Water		X			X		X	X				X		
53222	5501738581	M-135-20211105	550-173858-13	11/05/21	Stage 2A	Water		X			X		X	X				X		
53222	5501738581	M-57A-20211105	550-173858-14	11/05/21	Stage 2A	Water		X			X		X	X				X		
53222	5501738581	M-57A-20211105-FB9	550-173858-15	11/05/21	Stage 2A	Water	FB	X			X		X	X				X		
53222	5501738581	PC-62-20211105	550-173858-16	11/05/21	Stage 2A	Water		X			X		X	X				X		
53222	5501738581	PC-59-20211105	550-173858-17	11/05/21	Stage 2A	Water	FD35	X			X		X	X				X		
53222	5501738581	PC-59-20211105-FD9	550-173858-18	11/05/21	Stage 2A	Water	FD35	X			X		X	X				X		
53222	5501738581	PC-71-20211105	550-173858-19	11/05/21	Stage 2A	Water		X			X		X	X				X		
53222	5501741101	I-Q-20211110	550-174110-1	11/10/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501741101	I-G-20211110	550-174110-2	11/10/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501741101	I-T-20211110	550-174110-3	11/10/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501741101	I-U-20211110	550-174110-4	11/10/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501741101	I-H-20211110	550-174110-5	11/10/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501741101	I-P-20211110	550-174110-6	11/10/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501741101	I-W-20211110	550-174110-7	11/10/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501741101	I-O-20211110	550-174110-8	11/10/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501743061	PC-99R2/R3-20211115	550-174306-1	11/15/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501743061	PC-115R-20211115	550-174306-2	11/15/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501743061	PC-116R-20211115	550-174306-3	11/15/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501743061	PC-117-20211115	550-174306-4	11/15/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501743061	PC-118-20211115	550-174306-5	11/15/21	Stage 2A	Water	FD36	X		X	X		X	X				X		
53222	5501743061	PC-119-20211115	550-174306-6	11/15/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501743061	PC-120-20211115	550-174306-7	11/15/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501743061	PC-121-20211115	550-174306-8	11/15/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501743061	PC-133-20211115	550-174306-9	11/15/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501743061	PC-118-20211115-FD	550-174306-10	11/15/21	Stage 2A	Water	FD36	X		X	X		X	X				X		
53222	5501743061	PC-119-20211115-EB	550-174306-11	11/15/21	Stage 2A	Water	EB	X		X	X		X	X				X		
53222	5501743091	ART-1A-20211115	550-174309-1	11/15/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501743091	ART-2/2A-20211115	550-174309-2	11/15/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501743091	ART-3A-20211115	550-174309-3	11/15/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501743091	ART-4-20211115	550-174309-4	11/15/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501743091	ART-7B-20211115	550-174309-5	11/15/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501743091	ART-8-20211115	550-174309-6	11/15/21	Stage 2A	Water	FD37	X		X	X		X	X				X		
53222	5501743091	ART-9-20211115	550-174309-7	11/15/21	Stage 2A	Water		X		X	X		X	X				X		

Table I. Sample Cross-Reference

LDC	SDG	Client Sample ID	Lab ID	Sample Date	Validation Level	Matrix	QC Type	Chromium (200.7)	Metals (200.7)	CrVI (218.6)	Anions (300.0)	TIN (Calc)	Chlorate (300.1)	Perchlorate (314.0)	Ammonia as N (350.1)	Phenolics (420.4)	Conductivity (2510B)	TDS (2540C)	TOC (SM5310B)	TOX (SW9020)
53222	5501743091	PC-150-20211115	550-174309-8	11/15/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501743091	ART-8A-20211115-FD	550-174309-9	11/15/21	Stage 2A	Water	FD37	X		X	X		X	X				X		
53222	5501743091	ART-9-20211115-EB	550-174309-10	11/15/21	Stage 2A	Water	EB	X		X	X		X	X				X		
53222	5501743971	LVW8.85-1.1-2021116-20211116	550-174397-1	11/16/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW7.2-1.0-20211116	550-174397-2	11/16/21	Stage 2A	Water	FD38						X	X				X		
53222	5501743971	LVW7.2-1.0-20211116-FD	550-174397-3	11/16/21	Stage 2A	Water	FD38						X	X				X		
53222	5501743971	LVW6.6-1-1.0-20211116	550-174397-4	11/16/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW6.6-2-2.8-20211116	550-174397-5	11/16/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW6.6-3-2.7-20211116	550-174397-6	11/16/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW6.05-0.8-20211116	550-174397-7	11/16/21	Stage 2A	Water	FD39						X	X				X		
53222	5501743971	LVW6.05-0.8-20211116-FD	550-174397-8	11/16/21	Stage 2A	Water	FD39						X	X				X		
53222	5501743971	LVW6.05-20211116-FB	550-174397-9	11/16/21	Stage 2A	Water	FB						X	X				X		
53222	5501743971	C1-E-0.0-20211116	550-174397-10	11/16/21	Stage 2A	Water							X	X				X		
53222	5501743971	C1-W-0.0-20211116	550-174397-11	11/16/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW5.3-1-2.6-20211115	550-174397-12	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW5.3-2-1.0-20211115	550-174397-13	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW5.3-3-1.1-20211115	550-174397-14	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW5.3-4-0.6-20211115	550-174397-15	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW5.3-5-0.7-20211115	550-174397-16	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW5.3-6-0.5-20211115	550-174397-17	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW4.75-1-1.6-20211115	550-174397-18	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW4.75-2-1.4-20211115	550-174397-19	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW4.75-3-1.1-20211115	550-174397-20	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW4.75-4-0.9-20211115	550-174397-21	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW4.75-5-1.2-20211115	550-174397-22	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW4.2-1-2.4-20211115	550-174397-23	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW4.2-2-3.2-20211115	550-174397-24	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW4.2-3-3.5-20211115	550-174397-25	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW4.2-4-1.8-20211115	550-174397-26	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW3.5-1-1.2-20211115	550-174397-27	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW3.5-2-1.0-20211115	550-174397-28	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW3.5-3-1.5-20211115	550-174397-29	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW3.5-4-1.5-20211115	550-174397-30	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW3.5-5-1.8-20211115	550-174397-31	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW3.5-6-1.7-20211115	550-174397-32	11/15/21	Stage 2A	Water							X	X				X		
53222	5501743971	LVW0.55-0.9-20211115	550-174397-33	11/15/21	Stage 2A	Water	FD40						X	X				X		

Table I. Sample Cross-Reference

LDC	SDG	Client Sample ID	Lab ID	Sample Date	Validation Level	Matrix	QC Type	Chromium (200.7)	Metals (200.7)	CrVI (218.6)	Anions (300.0)	TIN (Calc)	Chlorate (300.1)	Perchlorate (314.0)	Ammonia as N (350.1)	Phenolics (420.4)	Conductivity (2510B)	TDS (2540C)	TOC (SM5310B)	TOX (SW9020)
53222	5501743971	LVW0.55-0.9-20211115-FD	550-174397-34	11/15/21	Stage 2A	Water	FD40						X	X				X		
53222	5501743971	LVW0.55-20211115-FB	550-174397-35	11/15/21	Stage 2A	Water	FB						X	X				X		
53222	5501744711	I-AC-20211117	550-174471-1	11/17/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501744711	I-AD-20211117	550-174471-2	11/17/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501744711	I-K-20211117	550-174471-3	11/17/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501744711	I-J-20211117	550-174471-4	11/17/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501744711	I-Z-20211117	550-174471-5	11/17/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501744711	I-I-20211117	550-174471-6	11/17/21	Stage 2A	Water		X		X	X		X	X				X		
53222	5501744711	I-V-20211117	550-174471-7	11/17/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501754501	LVW8.85-0.6-20211207	550-175450-1	12/07/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW7.2-1.0-20211207	550-175450-2	12/07/21	Stage 2A	Water	FD41						X	X				X		
53295	5501754501	LVW7.2-1.0-20211207-FD	550-175450-3	12/07/21	Stage 2A	Water	FD41						X	X				X		
53295	5501754501	LVW6.6-1-1.5-20211207	550-175450-4	12/07/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW6.6-2-3.0-20211207	550-175450-5	12/07/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW6.6-3-2.5-20211207	550-175450-6	12/07/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW6.05-1.0-20211207	550-175450-7	12/07/21	Stage 2A	Water	FD42						X	X				X		
53295	5501754501	LVW6.05-1.0-20211207-FD	550-175450-8	12/07/21	Stage 2A	Water	FD42						X	X				X		
53295	5501754501	LVW6.05-20211207-FB	550-175450-9	12/07/21	Stage 2A	Water	FB						X	X				X		
53295	5501754501	C1-E-0.0-20211207	550-175450-10	12/07/21	Stage 2A	Water							X	X				X		
53295	5501754501	C1-W-0.0-20211207	550-175450-11	12/07/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW5.3-1-1.0-20211207	550-175450-12	12/07/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW5.3-2-1.5-20211207	550-175450-13	12/07/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW5.3-3-1.0-20211207	550-175450-14	12/07/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW5.3-4-0.5-20211207	550-175450-15	12/07/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW5.3-5-0.5-20211207	550-175450-16	12/07/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW5.3-6-0.5-20211207	550-175450-17	12/07/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW4.75-1-1.5-20211207	550-175450-18	12/07/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW4.75-2-1.5-20211207	550-175450-19	12/07/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW4.75-3-1.0-20211207	550-175450-20	12/07/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW4.75-4-1.0-20211207	550-175450-21	12/07/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW4.75-5-1.0-20211207	550-175450-22	12/07/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW4.2-1-3.4-20211208	550-175450-23	12/08/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW4.2-2-2.0-20211208	550-175450-24	12/08/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW4.2-3-3.7-20211208	550-175450-25	12/08/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW4.2-4-1.5-20211208	550-175450-26	12/08/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW3.5-1-0.9-20211208	550-175450-27	12/08/21	Stage 2A	Water							X	X				X		

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LDC	SDG	Client Sample ID	Lab ID	Sample Date	Validation Level	Matrix	QC Type	Chromium (200.7)	Metals (200.7)	CrVI (218.6)	Anions (300.0)	TIN (Calc)	Chlorate (300.1)	Perchlorate (314.0)	Ammonia as N (350.1)	Phenolics (420.4)	Conductivity (2510B)	TDS (2540C)	TOC (SM5310B)	TOX (SW9020)
53295	5501754501	LVW3.5-2-1.0-20211208	550-175450-28	12/08/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW3.5-3-1.5-20211208	550-175450-29	12/08/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW3.5-4-1.4-20211208	550-175450-30	12/08/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW3.5-5-1.8-20211208	550-175450-31	12/08/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW3.5-6-1.8-20211208	550-175450-32	12/08/21	Stage 2A	Water							X	X				X		
53295	5501754501	LVW0.55-1.2-20211208	550-175450-33	12/08/21	Stage 2A	Water	FD43						X	X				X		
53295	5501754501	LVW0.55-1.2-20211208-FD	550-175450-34	12/08/21	Stage 2A	Water	FD43						X	X				X		
53295	5501754501	LVW0.55-20211208-FB	550-175450-35	12/08/21	Stage 2A	Water	FB						X	X				X		
53295	5501754551	I-AA-20211208	550-175455-1	12/08/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501754551	I-AB-20211208	550-175455-2	12/08/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501754551	I-B-20211208	550-175455-3	12/08/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501754551	I-R-20211208	550-175455-4	12/08/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501754551	I-Y-20211208	550-175455-5	12/08/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501754551	I-L-20211208	550-175455-6	12/08/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501754551	I-S-20211208	550-175455-7	12/08/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501754551	I-AR-20211208	550-175455-8	12/08/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501754561	I-C-20211208	550-175456-1	12/08/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501754561	I-F-20211208	550-175456-2	12/08/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501754561	I-X-20211208	550-175456-3	12/08/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501754561	I-N-20211208	550-175456-4	12/08/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501754561	I-E-20211208	550-175456-5	12/08/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501754561	I-M-20211208	550-175456-6	12/08/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501754561	I-D-20211208	550-175456-7	12/08/21	Stage 2A	Water	FD44	X		X	X		X	X				X		
53295	5501754561	I-D-20211208-FD	550-175456-8	12/08/21	Stage 2A	Water	FD44	X		X	X		X	X				X		
53295	5501754561	I-E-20211208-EB	550-175456-9	12/08/21	Stage 2A	Water	EB	X		X	X		X	X				X		
53295	5501757481	I-Q - 20211213	550-175748-1	12/13/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501757481	I-G - 20211213	550-175748-2	12/13/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501757481	I-T - 20211213	550-175748-3	12/13/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501757481	I-U - 20211213	550-175748-4	12/13/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501757481	I-H - 20211213	550-175748-5	12/13/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501757481	I-P - 20211213	550-175748-6	12/13/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501757481	I-W - 20211213	550-175748-7	12/13/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501757481	I-O - 20211213	550-175748-8	12/13/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501758961	ART-1A-20211215	550-175896-1	12/15/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501758961	ART-2/2A-20211215	550-175896-2	12/15/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501758961	ART-3A-20211215	550-175896-3	12/15/21	Stage 2A	Water		X		X	X		X	X				X		

Table I. Sample Cross-Reference

LDC	SDG	Client Sample ID	Lab ID	Sample Date	Validation Level	Matrix	QC Type	Chromium (200.7)	Metals (200.7)	CrVI (218.6)	Anions (300.0)	TIN (Calc)	Chlorate (300.1)	Perchlorate (314.0)	Ammonia as N (350.1)	Phenolics (420.4)	Conductivity (2510B)	TDS (2540C)	TOC (SM5310B)	TOX (SW9020)
53295	5501758961	ART-4-20211215	550-175896-4	12/15/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501758961	ART-7B-20211215	550-175896-5	12/15/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501758961	ART-8A-20211215	550-175896-6	12/15/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501758961	ART-9-20211215	550-175896-7	12/15/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501758961	PC-150-20211215	550-175896-8	12/15/21	Stage 2A	Water	FD45	X		X	X		X	X				X		
53295	5501758961	PC-150-20211215-FD	550-175896-9	12/15/21	Stage 2A	Water	FD45	X		X	X		X	X				X		
53295	5501758961	ART-1A-20211215-EB	550-175896-10	12/15/21	Stage 2A	Water	EB	X		X	X		X	X				X		
53295	5501758971	PC-99R2/R3 - 20211215	550-175897-1	12/15/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501758971	PC-115R - 20211215	550-175897-2	12/15/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501758971	PC-116R - 20211215	550-175897-3	12/15/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501758971	PC-117 - 20211215	550-175897-4	12/15/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501758971	PC-118 - 20211215	550-175897-5	12/15/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501758971	PC-119 - 20211215	550-175897-6	12/15/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501758971	PC-120 - 20211215	550-175897-7	12/15/21	Stage 2A	Water	FD46	X		X	X		X	X				X		
53295	5501758971	PC-121 - 20211215	550-175897-8	12/15/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501758971	PC-133 - 20211215	550-175897-9	12/15/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501758971	PC-120-20211215-FD	550-175897-10	12/15/21	Stage 2A	Water	FD46	X		X	X		X	X				X		
53295	5501758971	PC-121 - 20211215 - EB	550-175897-11	12/15/21	Stage 2A	Water	EB	X		X	X		X	X				X		
53295	5501759881	I-AC - 20211216	550-175988-1	12/16/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501759881	I-AD - 20211216	550-175988-2	12/16/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501759881	I-K - 20211216	550-175988-3	12/16/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501759881	I-J - 20211216	550-175988-4	12/16/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501759881	I-Z - 20211216	550-175988-5	12/16/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501759881	I-I - 20211216	550-175988-6	12/16/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501759881	I-V - 20211216	550-175988-7	12/16/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501759891	E1-1-20211216	550-175989-1	12/16/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501759891	E1-2-20211216	550-175989-2	12/16/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501759891	E1-3-20211216	550-175989-3	12/16/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501759891	E2-1-20211216	550-175989-4	12/16/21	Stage 2A	Water	FD47	X		X	X		X	X				X		
53295	5501759891	E2-2-20211216	550-175989-5	12/16/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501759891	E2-3-20211216	550-175989-6	12/16/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501759891	E2-4-20211216	550-175989-7	12/16/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501759891	E2-5-20211216	550-175989-8	12/16/21	Stage 2A	Water		X		X	X		X	X				X		
53295	5501759891	E2-1-20211216-FD	550-175989-9	12/16/21	Stage 2A	Water	FD47	X		X	X		X	X				X		
53295	5501759891	E2-2-20211216-EB	550-175989-10	12/16/21	Stage 2A	Water	EB	X		X	X		X	X				X		

Table II. Stage 2A Validation Elements

Quality Control Elements	Stage 2A		
	VOCs	Metals	Wet Chemistry
Sample Receipt & Technical Holding Time	√	√	√
Instrument Performance Check	-	-	-
Initial Calibration (ICAL)	-	-	-
Initial Calibration Verification (ICV)	-	-	-
Continuing Calibration Verification (CCV)	-	-	-
Laboratory Blanks	√	√	√
Initial Calibration Blank and Continuing Calibration Blank (ICB/CCB)	N/A	-	-
Field Blanks	√	√	√
Inductively Coupled Plasma (ICP) Interference Check Sample	N/A	-	N/A
Surrogate Spikes	√	N/A	√
Matrix Spike (MS)/ Matrix Spike Duplicate (MSD)	√	√	√
Laboratory Duplicate (DUP)	N/A	N/A	√
Laboratory Control Sample (LCS)/ Laboratory Control Sample Duplicate (LCSD)	√	√	√
Serial Dilution	N/A	-	N/A
Internal Standards	-	-	N/A
Field Duplicate	√	√	√
Project Quantitation Limits (QLs)[1]	√	√	√
Multiple Results for One Sample	√	√	√
Compound Quantitation/ Sample Result Verification	-	-	-
Overall Data Usability Assessment	√	√	√

√ = Reviewed for Stage 2A review
N/A = Not applicable to method or not performed during this sampling event
- = Not applicable for Stage 2A review
[1]PQLs verified for all methods.

Table III. Stage 2A Validation Percentages

Parameter	Stage 2A Results	Total Results	Stage 2A (%)
Metals	535	535	100
Hexavalent Chromium	400	400	100
Chloride, Nitrate-N, Nitrite-N, and Sulfate	507	507	100
Nitrate/Nitrite-N and Total Inorganic Nitrogen - Calculation	4	4	100
Chlorate	704	704	100
Perchlorate	719	719	100
Ammonia-N	2	2	100
Total Recoverable Phenolics	4	4	100
Conductivity	4	4	100
TDS	719	719	100
TOC	4	4	100
TOX	4	4	100

Table IV. Reason Codes and Definitions

Reason Code	Explanation
a	qualified due to low abundance (radiochemical activity)
ba	blank contamination above PQL
bb	blank contamination below PQL
be	qualified due to equipment blank contamination
bf	qualified due to field blank contamination
bl	qualified due to lab blank contamination
bt	qualified due to trip blank contamination
bp	qualified due to pump blank contamination (wells w/o dedicated pumps, when contamination is detected in the Pump Blk)
br	qualified due to filter blank contamination (aqueous Hexavalent Chromium and Dissolved sample fractions)
c	qualified due to calibration problems
cp	qualified due to insufficient ingrowth (radiochemical only)
dc	dual column confirmation RPD exceeded
e	concentration exceeded the calibration range
fd	qualified due to field duplicate imprecision
h	qualified due to holding time exceedance
i	qualified due to internal standard areas
k	qualified as Estimated Maximum Possible Concentrations (dioxins and PCB congeners)
l	qualified due to LCS recoveries
ld	qualified due to lab duplicate imprecision (matrix duplicate, MSD, LCSD)
m	qualified due to matrix spike recoveries
nb	qualified due to negative lab blank contamination (nondetect results only)
nd	qualified due to non-detected target analyte
o	other
orr	other result reported
p	qualified as a false positive due to contamination during shipping
pH	sample preservation not within acceptance range
q	qualified due to quantitation problem
s	qualified due to surrogate recoveries
sd	serial dilution did not meet control criteria
sp	detected value reported >SQL <PQL
st	sample receipt temperature exceeded
t	qualified due to elevated helium tracer concentrations
vh	volatile headspace detected in aqueous sample containers submitted for VOC analysis
x	qualified due to low % solids
z	qualified due to ICS results

Table V. Overall Qualified Results

SDG	Client Sample ID	Sample Date	Method	Client Analyte ID	Analyte	Lab Results	Lab Qualifiers	SQL	PQL	Units	Validator Qualifiers	Reason Code	Data Quality Indicator	Qualification Finding	Acceptance Criteria	
5501666071	I-C-20210707	07/07/21	E218.6	550-166607-1	Chromium VI	3400	F1	0.20	10	ug/l	J+	m	MS/MSD %R	114	90-110	%
5501666071	I-D-20210707	07/07/21	E218.6	550-166607-7	Chromium VI	5700		0.20	40	ug/l	J+	m	MS/MSD %R	114	90-110	%
5501666071	I-E-20210707	07/07/21	E218.6	550-166607-5	Chromium VI	6900		0.20	40	ug/l	J+	m	MS/MSD %R	114	90-110	%
5501666071	I-F-20210707	07/07/21	E218.6	550-166607-2	Chromium VI	14000		0.20	100	ug/l	J+	m	MS/MSD %R	114	90-110	%
5501666071	I-M-20210707	07/07/21	E218.6	550-166607-6	Chromium VI	6500		0.20	40	ug/l	J+	m	MS/MSD %R	114	90-110	%
5501666071	I-N-20210707	07/07/21	E218.6	550-166607-4	Chromium VI	8200		0.20	100	ug/l	J+	m	MS/MSD %R	114	90-110	%
5501666071	I-X-20210707	07/07/21	E218.6	550-166607-3	Chromium VI	11000		0.20	100	ug/l	J+	m	MS/MSD %R	114	90-110	%
5501666081	I-G-20210707	07/07/21	E218.6	550-166608-2	Chromium VI	18000		0.20	100	ug/l	J+	m	MS/MSD %R	114	90-110	%
5501666081	I-H-20210707	07/07/21	E218.6	550-166608-5	Chromium VI	15000		0.20	100	ug/l	J+	m	MS/MSD %R	114	90-110	%
5501666081	I-O-20210707	07/07/21	E300	550-166608-8	Nitrate as N	36	E	0.014	0.014	mg/l	DNR	orr				
5501666081	I-O-20210707	07/07/21	E300	550-166608-8	Nitrate as N	35	H	0.014	0.70	mg/l	J-	h	Holding Times	156	48	hours
5501666081	I-O-20210707	07/07/21	E218.6	550-166608-8	Chromium VI	11000		0.20	100	ug/l	J+	m	MS/MSD %R	114	90-110	%
5501666081	I-P-20210707	07/07/21	E218.6	550-166608-6	Chromium VI	14000		0.20	100	ug/l	J+	m	MS/MSD %R	114	90-110	%
5501666081	I-Q-20210707	07/07/21	E218.6	550-166608-1	Chromium VI	17000		0.20	100	ug/l	J+	m	MS/MSD %R	114	90-110	%
5501666081	I-T-20210707	07/07/21	E218.6	550-166608-3	Chromium VI	18000		0.20	100	ug/l	J+	m	MS/MSD %R	114	90-110	%
5501666081	I-U-20210707	07/07/21	E218.6	550-166608-4	Chromium VI	18000		0.20	100	ug/l	J+	m	MS/MSD %R	114	90-110	%
5501666081	I-W-20210707	07/07/21	E218.6	550-166608-7	Chromium VI	12000		0.20	100	ug/l	J+	m	MS/MSD %R	114	90-110	%
5501666081	I-W-20210707-FD	07/07/21	E218.6	550-166608-9	Chromium VI	12000		0.20	100	ug/l	J+	m	MS/MSD %R	114	90-110	%
5501669911	E1-1-20210713	07/13/21	E300.1	550-166991-1	Chlorate	19000	F1	4.9	490	ug/l	J+	m	MS/MSD %R	138, 156	75-125	%
5501669911	E1-2-20210713	07/13/21	E300.1	550-166991-2	Chlorate	150000		4.9	4900	ug/l	J+	m	MS/MSD %R	138, 156	75-125	%
5501669911	E1-3-20210713	07/13/21	E300.1	550-166991-3	Chlorate	220000		4.9	4900	ug/l	J+	m	MS/MSD %R	138, 156	75-125	%
5501669911	E1-3-20210713-EB	07/13/21	E300	550-166991-10	Nitrate as N	0.020	J	0.014	0.014	mg/l	J	sp	< PQL			
5501669911	E2-1-20210713	07/13/21	E300.1	550-166991-4	Chlorate	11000	F1	4.9	240	ug/l	J+	m	MS/MSD %R	138,-	75-125	%
5501669911	E2-2-20210713	07/13/21	E300	550-166991-5	Nitrate as N	20	H	0.014	0.070	mg/l	J	h	Holding Times	53	48	hours
5501669911	E2-2-20210713	07/13/21	E300	550-166991-5	Nitrate as N	22	E	0.014	0.014	mg/l	DNR	orr				
5501669911	E2-2-20210713	07/13/21	E300.1	550-166991-5	Chlorate	10000		4.9	240	ug/l	J+	m	MS/MSD %R	138,-	75-125	%
5501669911	E2-3-20210713	07/13/21	E300.1	550-166991-6	Chlorate	23000		4.9	490	ug/l	J+	m	MS/MSD %R	138, 156	75-125	%
5501669911	E2-4-20210713	07/13/21	E300.1	550-166991-7	Chlorate	29000		4.9	490	ug/l	J+	m	MS/MSD %R	138, 156	75-125	%
5501670611	ART-8A-20210714	07/14/21	E300	550-167061-6	Nitrate as N	11		0.014	0.070	mg/l	J	fd	FD RPD	38	30	%
5501670611	ART-8A-20210714-FD	07/14/21	E300	550-167061-9	Nitrate as N	7.5		0.014	0.014	mg/l	J	fd	FD RPD	38	30	%
5501670621	PC-117-20210714	07/14/21	E200.7	550-167062-4	Chromium (total)	0.0025	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501670621	PC-119-20210714	07/14/21	E300	550-167062-6	Nitrate as N	0.078		0.014	0.014	mg/l	J	fd	FD RPD	50	30	%
5501670621	PC-119-20210714-FD	07/14/21	E300	550-167062-10	Nitrate as N	0.13		0.014	0.014	mg/l	J	fd	FD RPD	50	30	%
5501670621	PC-120-20210714-EB	07/14/21	E300	550-167062-11	Nitrate as N	0.046	J	0.014	0.014	mg/l	J	sp	< PQL			
5501670621	PC-133-20210714	07/14/21	E300.1	550-167062-9	Chlorate	28	J	4.9	9.8	ug/l	J	sp	< PQL			
5501685831	LVW6.6-2-3.0-20210806	08/06/21	E314.0	550-168583-5	Perchlorate	0.63	J	0.31	0.31	ug/l	J	sp	< PQL			
5501685831	LVW7.2-1.0-20210806	08/06/21	E314.0	550-168583-2	Perchlorate	0.47	J	0.31	0.31	ug/l	J	sp	< PQL			
5501685831	LVW8.85-0.5-20210805	08/05/21	E314.0	550-168583-1	Perchlorate	0.49	J	0.31	0.31	ug/l	J	sp	< PQL			
5501686691	I-G-20210809	08/09/21	E300.1	550-168669-2	Chlorate	2800000		4.9	49000	ug/l	J	m,ld	MS/MSD %R, RPD	212, 69; 27	75-125; 25	%
5501686691	I-H-20210809	08/09/21	E300.1	550-168669-5	Chlorate	2700000		4.9	49000	ug/l	J	m,ld	MS/MSD %R, RPD	212, 69; 27	75-125; 25	%
5501686691	I-O-20210809	08/09/21	E300.1	550-168669-8	Chlorate	1900000		4.9	49000	ug/l	J	m,ld	MS/MSD %R, RPD	212, 69; 27	75-125; 25	%
5501686691	I-P-20210809	08/09/21	E300.1	550-168669-6	Chlorate	2300000		4.9	49000	ug/l	J	m,ld	MS/MSD %R, RPD	212, 69; 27	75-125; 25	%
5501686691	I-Q-20210809	08/09/21	E300.1	550-168669-1	Chlorate	3900000	F1F2	4.9	49000	ug/l	J	m,ld	MS/MSD %R, RPD	212, 69; 27	75-125; 25	%
5501686691	I-T-20210809	08/09/21	E300.1	550-168669-3	Chlorate	3400000		4.9	49000	ug/l	J	m,ld	MS/MSD %R, RPD	212, 69; 27	75-125; 25	%

Table V. Overall Qualified Results

SDG	Client Sample ID	Sample Date	Method	Client Analyte ID	Analyte	Lab Results	Lab Qualifiers	SQL	PQL	Units	Validator Qualifiers	Reason Code	Data Quality Indicator	Qualification Finding	Acceptance Criteria	
5501686691	I-U-20210809	08/09/21	E300.1	550-168669-4	Chlorate	3100000		4.9	49000	ug/l	J	m,ld	MS/MSD %R, RPD	212, 69; 27	75-125; 25	%
5501686691	I-W-20210809	08/09/21	E300.1	550-168669-7	Chlorate	2000000	cn	4.9	150000	ug/l	J	m,ld	MS/MSD %R, RPD	212, 69; 27	75-125; 25	%
5501688511	E1-2-20210811	08/11/21	E300.1	550-168851-2	Chlorate	140000	cn	4.9	24000	ug/l	J-	m	MS/MSD %R	36,-	75-125	%
5501688511	E1-3-20210811	08/11/21	E300.1	550-168851-3	Chlorate	140000	cn	4.9	24000	ug/l	J-	m	MS/MSD %R	36,-	75-125	%
5501688511	E2-1-20210811	08/11/21	E300.1	550-168851-4	Chlorate	10000		4.9	240	ug/l	J	m,fd	MS/MSD %R, FD RPD	36,-; 40	75-125; 30	%
5501688511	E2-1-20210811-FD	08/11/21	E300.1	550-168851-9	Chlorate	15000	F1	4.9	240	ug/l	J	m,fd	MS/MSD %R, FD RPD	36,-; 40	75-125; 30	%
5501688511	E2-2-20210811	08/11/21	E300.1	550-168851-5	Chlorate	11000		4.9	240	ug/l	J-	m	MS/MSD %R	36,-	75-125	%
5501688511	E2-2-20210811-EB	08/11/21	E314.0	550-168851-10	Perchlorate	0.97	J	0.31	0.31	ug/l	J	sp	< PQL			
5501688511	E2-3-20210811	08/11/21	E300.1	550-168851-6	Chlorate	28000		4.9	490	ug/l	J-	m	MS/MSD %R	36,-	75-125	%
5501688511	E2-4-20210811	08/11/21	E300.1	550-168851-7	Chlorate	26000		4.9	490	ug/l	J-	m	MS/MSD %R	36,-	75-125	%
5501688511	E2-5-20210811	08/11/21	E300.1	550-168851-8	Chlorate	48000		4.9	2400	ug/l	J-	m	MS/MSD %R	36,-	75-125	%
5501688521	I-I-20210811	08/11/21	E218.6	550-168852-6	Chromium VI	5000	F1	0.20	100	ug/l	J+	m	MS/MSD %R	111,-	90-110	%
5501688521	I-V-20210811	08/11/21	E218.6	550-168852-7	Chromium VI	16000		0.20	100	ug/l	J+	m	MS/MSD %R	111,-	90-110	%
5501689551	PC-116R-20210812	08/12/21	E200.7	550-168955-3	Chromium (total)	0.0023	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501689551	PC-117-20210812	08/12/21	E200.7	550-168955-4	Chromium (total)	0.0035	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501689551	PC-118-20210812	08/12/21	E200.7	550-168955-5	Chromium (total)	0.0033	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501689581	ART-1A-20210812-EB	08/12/21	E200.7	550-168958-10	Chromium (total)	0.0011	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501689581	ART-8A-20210812	08/12/21	E300.1	550-168958-6	Chlorate	69000		4.9	2400	ug/l	J+	m	MS/MSD %R	129,-	75-125	%
5501689581	ART-9-20210812	08/12/21	E300.1	550-168958-7	Chlorate	300000	F1	4.9	4900	ug/l	J+	m	MS/MSD %R	129,-	75-125	%
5501689581	PC-150-20210812	08/12/21	E218.6	550-168958-8	Chromium VI	40	F1	0.20	0.20	ug/l	J+	m	MS/MSD %R	-,112	90-110	%
5501689581	PC-150-20210812	08/12/21	E300.1	550-168958-8	Chlorate	91000		4.9	2400	ug/l	J+	m	MS/MSD %R	129,-	75-125	%
5501689581	PC-150-20210812-FD	08/12/21	E300.1	550-168958-9	Chlorate	110000		4.9	2400	ug/l	J+	m	MS/MSD %R	129,-	75-125	%
5501690621	I-AB-20210816	08/16/21	E300.1	550-169062-1	Chlorate	15000	F1	4.9	240	ug/l	J+	m	MS/MSD %R	129,-	75-125	%
5501690621	I-AB-20210816	08/16/21	E218.6	550-169062-1	Chromium VI	1.1	F1	0.20	0.20	ug/l	J+	m	MS/MSD %R	111,-	90-110	%
5501692531	M-6A-20210818	08/18/21	E420.4	550-169253-1	Phenolics, Recoverable (total)	0.0068	J	0.0068	0.0068	mg/l	J	sp	< PQL			
5501692531	M-7B-20210818	08/18/21	E200.7	550-169253-2	Manganese	0.0098	JB	0.00019	0.00019	mg/l	J	sp,bl,bb	Blank Contamination, < PQL		0.00043	mg/l
5501693521	M-10-20210819	08/19/21	E200.7	550-169352-3	Selenium	0.0090	J	0.0025	0.0025	mg/l	J	sp	< PQL			
5501693521	M-10-20210819	08/19/21	E200.7	550-169352-3	Arsenic	0.011	J	0.0039	0.0039	mg/l	J	sp	< PQL			
5501693521	M-11-20210819-EB4	08/19/21	E200.7	550-169352-7	Chromium (total)	0.0015	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501693521	M-12A-20210819-FB4	08/19/21	E200.7	550-169352-2	Chromium (total)	0.00087	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501702821	I-D-20210908	09/08/21	E300	550-170282-7	Nitrate as N	46	Hcn	0.014	0.14	mg/l	DNR	orr				
5501702821	I-M-20210908	09/08/21	E300	550-170282-6	Nitrate as N	47	Hcn	0.014	0.14	mg/l	DNR	orr				
5501702831	I-AA-20210908	09/08/21	E218.6	550-170283-1	Chromium VI	56		0.20	0.20	ug/l	J	m	MS/MSD %R	87,113	90-110	%
5501702831	I-AA-20210908-FD	09/08/21	E300.1	550-170283-9	Chlorate	19000		4.9	240	ug/l	J+	m	MS/MSD %R	-,127	75-125	%
5501702831	I-AA-20210908-FD	09/08/21	E218.6	550-170283-9	Chromium VI	56		0.20	0.20	ug/l	J	m	MS/MSD %R	87,113	90-110	%
5501702831	I-AB-20210908	09/08/21	E218.6	550-170283-2	Chromium VI	15		0.20	0.20	ug/l	J	m	MS/MSD %R	87,113	90-110	%
5501702831	I-AB-20210908	09/08/21	E300.1	550-170283-2	Chlorate	15000	F1	4.9	240	ug/l	J+	m	MS/MSD %R	-,127	75-125	%
5501702831	I-AB-20210908	09/08/21	E300	550-170283-2	Nitrate as N	22	Hcn	0.014	0.070	mg/l	DNR	orr				
5501702831	I-AR-20210908	09/08/21	E218.6	550-170283-8	Chromium VI	760		0.20	4.0	ug/l	J	m	MS/MSD %R	87,113	90-110	%
5501702831	I-AR-20210908	09/08/21	E300.1	550-170283-8	Chlorate	210000		4.9	9800	ug/l	J+	m	MS/MSD %R	-,127	75-125	%
5501702831	I-B-20210908	09/08/21	E300.1	550-170283-3	Chlorate	58000		4.9	4900	ug/l	J+	m	MS/MSD %R	-,127	75-125	%
5501702831	I-B-20210908	09/08/21	E218.6	550-170283-3	Chromium VI	210		0.20	2.0	ug/l	J	m	MS/MSD %R	87,113	90-110	%
5501702831	I-L-20210908	09/08/21	E218.6	550-170283-6	Chromium VI	1100		0.20	10	ug/l	J	m	MS/MSD %R	87,113	90-110	%
5501702831	I-L-20210908	09/08/21	E300.1	550-170283-6	Chlorate	270000		4.9	24000	ug/l	J+	m	MS/MSD %R	-,127	75-125	%

Table V. Overall Qualified Results

SDG	Client Sample ID	Sample Date	Method	Client Analyte ID	Analyte	Lab Results	Lab Qualifiers	SQL	PQL	Units	Validator Qualifiers	Reason Code	Data Quality Indicator	Qualification Finding	Acceptance Criteria	
5501702831	I-R-20210908	09/08/21	E300.1	550-170283-4	Chlorate	230000		4.9	4900	ug/l	J+	m	MS/MSD %R	-,127	75-125	%
5501702831	I-R-20210908	09/08/21	E218.6	550-170283-4	Chromium VI	830	F1	0.20	10	ug/l	J	m	MS/MSD %R	87,113	90-110	%
5501702831	I-S-20210908	09/08/21	E218.6	550-170283-7	Chromium VI	1500		0.20	10	ug/l	J	m	MS/MSD %R	87,113	90-110	%
5501702831	I-S-20210908	09/08/21	E300.1	550-170283-7	Chlorate	350000		4.9	24000	ug/l	J+	m	MS/MSD %R	-,127	75-125	%
5501702831	I-Y-20210908	09/08/21	E300.1	550-170283-5	Chlorate	290000		4.9	24000	ug/l	J+	m	MS/MSD %R	-,127	75-125	%
5501702831	I-Y-20210908	09/08/21	E218.6	550-170283-5	Chromium VI	1100		0.20	10	ug/l	J	m	MS/MSD %R	87,113	90-110	%
5501703881	I-G-20210909	09/09/21	E300	550-170388-2	Nitrate as N	74		0.014	0.14	mg/l	J-	m	MS/MSD %R	59,74	80-120	%
5501703881	I-H-20210909	09/09/21	E300	550-170388-5	Nitrate as N	86		0.014	0.14	mg/l	J-	m	MS/MSD %R	59,74	80-120	%
5501703881	I-H-20210909	09/09/21	E300.1	550-170388-5	Chlorate	2700000		4.9	49000	ug/l	J+	m	MS/MSD %R	139,126	75-125	%
5501703881	I-O-20210909	09/09/21	E300.1	550-170388-8	Chlorate	1800000		4.9	49000	ug/l	J+	m	MS/MSD %R	139,126	75-125	%
5501703881	I-O-20210909	09/09/21	E300	550-170388-8	Nitrate as N	44		0.014	0.14	mg/l	J-	m	MS/MSD %R	59,74	80-120	%
5501703881	I-P-20210909	09/09/21	E300	550-170388-6	Nitrate as N	67		0.014	0.14	mg/l	J-	m	MS/MSD %R	59,74	80-120	%
5501703881	I-P-20210909	09/09/21	E300.1	550-170388-6	Chlorate	2400000		4.9	49000	ug/l	J+	m	MS/MSD %R	139,126	75-125	%
5501703881	I-Q-20210909	09/09/21	E300	550-170388-1	Nitrate as N	82	F1	0.014	0.14	mg/l	J-	m	MS/MSD %R	59,74	80-120	%
5501703881	I-T-20210909	09/09/21	E300	550-170388-3	Nitrate as N	94		0.014	0.14	mg/l	J-	m	MS/MSD %R	59,74	80-120	%
5501703881	I-T-20210909	09/09/21	E300.1	550-170388-3	Chlorate	3200000	F1	4.9	49000	ug/l	J+	m	MS/MSD %R	139,126	75-125	%
5501703881	I-U-20210909	09/09/21	E300.1	550-170388-4	Chlorate	3100000		4.9	49000	ug/l	J+	m	MS/MSD %R	139,126	75-125	%
5501703881	I-U-20210909	09/09/21	E300	550-170388-4	Nitrate as N	100		0.014	0.14	mg/l	J-	m	MS/MSD %R	59,74	80-120	%
5501703881	I-W-20210909	09/09/21	E300	550-170388-7	Nitrate as N	53		0.014	0.14	mg/l	J-	m	MS/MSD %R	59,74	80-120	%
5501703881	I-W-20210909	09/09/21	E300.1	550-170388-7	Chlorate	2000000		4.9	49000	ug/l	J+	m	MS/MSD %R	139,126	75-125	%
5501705351	E1-1-20210913	09/13/21	E300.1	550-170535-1	Chlorate	26000		4.9	490	ug/l	J+	m	MS/MSD %R	132,127	75-125	%
5501705351	E1-2-20210913	09/13/21	E300.1	550-170535-2	Chlorate	160000		4.9	4900	ug/l	J+	m	MS/MSD %R	132,127	75-125	%
5501705351	E1-3-20210913	09/13/21	E300.1	550-170535-3	Chlorate	180000		4.9	4900	ug/l	J+	m	MS/MSD %R	132,127	75-125	%
5501705351	E2-1-20210913	09/13/21	E300.1	550-170535-4	Chlorate	13000	F1	4.9	240	ug/l	J+	m	MS/MSD %R	132,127	75-125	%
5501705351	E2-2-20210913	09/13/21	E300.1	550-170535-5	Chlorate	11000		4.9	240	ug/l	J+	m	MS/MSD %R	132,127	75-125	%
5501705351	E2-3-20210913	09/13/21	E300.1	550-170535-6	Chlorate	20000		4.9	490	ug/l	J+	m	MS/MSD %R	132,127	75-125	%
5501705351	E2-3-20210913-FD	09/13/21	E300.1	550-170535-9	Chlorate	20000		4.9	490	ug/l	J+	m	MS/MSD %R	132,127	75-125	%
5501705351	E2-4-20210913	09/13/21	E300.1	550-170535-7	Chlorate	18000		4.9	490	ug/l	J+	m	MS/MSD %R	132,127	75-125	%
5501705351	E2-5-20210913	09/13/21	E300.1	550-170535-8	Chlorate	47000		4.9	980	ug/l	J+	m	MS/MSD %R	132,127	75-125	%
5501705351	E1-3-20210913	09/13/21	E300	550-170535-3	Nitrate as N	83	Hcn	0.014	0.14	mg/l	J-	h	Holding Times	848	48	hours
5501707291	ART-2/2A-20210915	09/15/21	E300	550-170729-2	Nitrate as N	1.6		0.014	0.014	mg/l	J	fd	FD RPD	48	30	%
5501707291	ART-2/2A-20210915-FD	09/15/21	E300	550-170729-9	Nitrate as N	2.6		0.014	0.014	mg/l	J	fd	FD RPD	48	30	%
5501707301	PC-116R-20210915	09/15/21	E200.7	550-170730-3	Chromium (total)	0.0027	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501707301	PC-117-20210915	09/15/21	E200.7	550-170730-4	Chromium (total)	0.0035	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501707301	PC-121-20210915	09/15/21	E314.0	550-170730-8	Perchlorate	0.95	J	0.31	0.31	ug/l	J	sp	< PQL			
5501718781	E1-3-20211006	10/06/21	E300	550-171878-3	Nitrate as N	69	Hcn	0.014	0.28	mg/l	DNR	orr				
5501718781	E1-3-20211006	10/06/21	E300	550-171878-3	Nitrate as N	71	Hcn	0.014	0.28	mg/l	DNR	orr				
5501718781	E2-5-20211006	10/06/21	E300	550-171878-8	Nitrate as N	120	Hcn	0.014	0.28	mg/l	DNR	orr				
5501718781	E2-5-20211006-FD	10/06/21	E300	550-171878-9	Nitrate as N	120	Hcn	0.014	0.28	mg/l	DNR	orr				
5501722551	LVW8.85-1.0-20211012	10/12/21	E314.0	550-172255-1	Perchlorate	0.87	J	0.31	0.31	ug/l	J	sp	< PQL			
5501723531	I-AD-20211013-EB	10/13/21	E200.7	550-172353-9	Chromium (total)	0.0052	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501724601	PC-117-20211014	10/14/21	E200.7	550-172460-4	Chromium (total)	0.0020	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501734301	PC-97-20211101	11/01/21	E300.1	550-173430-5	Chlorate	10	J	4.9	4.9	ug/l	J	sp	< PQL			
5501735301	ARP-2A-20211102	11/02/21	E200.7	550-173530-27	Chromium (total)	0.0029	J	0.00085	0.00085	mg/l	J	sp	< PQL			

Table V. Overall Qualified Results

SDG	Client Sample ID	Sample Date	Method	Client Analyte ID	Analyte	Lab Results	Lab Qualifiers	SQL	PQL	Units	Validator Qualifiers	Reason Code	Data Quality Indicator	Qualification Finding	Acceptance Criteria	
5501735301	ARP-3A-20211102	11/02/21	E200.7	550-173530-20	Chromium (total)	0.0059	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501735301	MW-K5-20211102	11/02/21	E200.7	550-173530-15	Chromium (total)	0.0032	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501735301	PC-101R-20211102	11/02/21	E200.7	550-173530-29	Chromium (total)	0.0065	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501735301	PC-122-20211102-EB6	11/02/21	E314.0	550-173530-28	Perchlorate	0.95	J	0.31	0.31	ug/l	J	sp	< PQL			
5501736181	M-67-20211103-FB7	11/03/21	E300.1	550-173618-23	Chlorate	19	J	4.9	4.9	ug/l	J	sp	< PQL			
5501736181	PC-129-20211103-FB8	11/03/21	E314.0	550-173618-28	Perchlorate	0.40	J	0.31	0.31	ug/l	J	sp	< PQL			
5501736181	PC-131-20211103	11/03/21	E300.1	550-173618-29	Chlorate	31	J	4.9	9.8	ug/l	J	sp	< PQL			
5501736181	PC-132-20211103	11/03/21	E300	550-173618-12	Nitrate as N	0.044	J	0.014	0.014	mg/l	J	sp	< PQL			
5501736181	PC-134D-20211103	11/03/21	E314.0	550-173618-32	Perchlorate	0.42	J	0.31	0.31	ug/l	J	sp	< PQL			
5501736181	PC-152-20211103	11/03/21	E200.7	550-173618-9	Chromium (total)	0.0037	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501736311	E1-3-20211103-EB	11/03/21	E314.0	550-173631-10	Perchlorate	0.40	J	0.31	0.31	ug/l	J	sp	< PQL			
5501737731	M-10-20211104	11/04/21	E350.1	550-173773-1	Ammonia (as N)	0.047	J	0.039	0.039	mg/l	J	sp	< PQL			
5501737731	M-10-20211104	11/04/21	E200.7	550-173773-1	Selenium	0.0048	J	0.0025	0.0025	mg/l	J	sp	< PQL			
5501737731	M-10-20211104	11/04/21	E200.7	550-173773-1	Arsenic	0.011	J	0.0039	0.0039	mg/l	J	sp	< PQL			
5501737731	M-10-20211104	11/04/21	E300	550-173773-1	Nitrate as N	0.014	J	0.014	0.014	mg/l	J	sp	< PQL			
5501737731	M-161D-20211104	11/04/21	E300.1	550-173773-23	Chlorate	16	J	4.9	4.9	ug/l	J	sp	< PQL			
5501737731	M-80-20211104-EB4	11/04/21	E300.1	550-173773-9	Chlorate	19	J	4.9	4.9	ug/l	J	sp	< PQL			
5501737731	PC-156A-20211104	11/04/21	E200.7	550-173773-16	Chromium (total)	0.0019	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501737731	PC-156B-20211104	11/04/21	E300.1	550-173773-17	Chlorate	20	J	4.9	9.8	ug/l	J	sp	< PQL			
5501737731	PC-156B-20211104	11/04/21	E200.7	550-173773-17	Chromium (total)	0.0095	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501737731	PC-60-20211104	11/04/21	E300.1	550-173773-28	Chlorate	31	J	4.9	9.8	ug/l	J	sp	< PQL			
5501737751	I-C-20211104-EB	11/04/21	E200.7	550-173775-8	Chromium (total)	0.0018	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501737761	I-R-20211104	11/04/21	E314.0	550-173776-4	Perchlorate	640000	Hcn	0.31	6300	ug/l	J-	h	Holding Times	34	28	days
5501737761	I-R-20211104	11/04/21	E314.0	550-173776-4	Perchlorate	630000	Hcn	0.31	6300	ug/l	DNR	orr				
5501738581	PC-103-20211105	11/05/21	E300.1	550-173858-3	Chlorate	13	J	4.9	4.9	ug/l	J	sp	< PQL			
5501738581	PC-56-20211105	11/05/21	E200.7	550-173858-4	Chromium (total)	0.0013	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501738581	PC-98R-20211105	11/05/21	E200.7	550-173858-2	Chromium (total)	0.0024	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501741101	I-O-20211110	11/10/21	E314.0	550-174110-8	Perchlorate	700000	cn	0.31	16000	ug/l	DNR	orr				
5501741101	I-Q-20211110	11/10/21	E314.0	550-174110-1	Perchlorate	590000	cn	0.31	6300	ug/l	DNR	orr				
5501741101	I-T-20211110	11/10/21	E314.0	550-174110-3	Perchlorate	770000	cn	0.31	16000	ug/l	DNR	orr				
5501741101	I-U-20211110	11/10/21	E314.0	550-174110-4	Perchlorate	750000	cn	0.31	16000	ug/l	DNR	orr				
5501741101	I-W-20211110	11/10/21	E314.0	550-174110-7	Perchlorate	530000	cn	0.31	16000	ug/l	DNR	orr				
5501743061	PC-117-20211115	11/15/21	E200.7	550-174306-4	Chromium (total)	0.0018	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501743061	PC-119-20211115-EB	11/15/21	E300	550-174306-11	Nitrate as N	0.047	J	0.014	0.014	mg/l	J	sp	< PQL			
5501743091	ART-2/2A-20211115	11/15/21	E200.7	550-174309-2	Chromium (total)	0.0021	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501743091	ART-8-20211115	11/15/21	E218.6	550-174309-6	Chromium VI	69		0.50	2.5	ug/l	J	fd	FD RPD	36	30	%
5501743091	ART-8A-20211115-FD	11/15/21	E218.6	550-174309-9	Chromium VI	48		0.50	2.5	ug/l	J	fd	FD RPD	36	30	%
5501743091	ART-9-20211115-EB	11/15/21	E300	550-174309-10	Nitrate as N	0.047	J	0.014	0.014	mg/l	J	sp	< PQL			
5501743971	LVW0.55-0.9-20211115	11/15/21	SM2540C	550-174397-33	Dissolved Solids (total)	1100	H	20	20	mg/l	J-	h	Holding Times	8	7	days
5501743971	LVW0.55-0.9-20211115-FD	11/15/21	SM2540C	550-174397-34	Dissolved Solids (total)	1200	H	20	20	mg/l	J-	h	Holding Times	8	7	days
5501743971	LVW0.55-20211115-FB	11/15/21	SM2540C	550-174397-35	Dissolved Solids (total)		UH	20	20	mg/l	UJ	h,nd	Holding Times	8	7	days
5501743971	LVW3.5-6-1.7-20211115	11/15/21	SM2540C	550-174397-32	Dissolved Solids (total)	1200	H	20	20	mg/l	J-	h	Holding Times	8	7	days
5501754501	LVW6.6-3-2.5-20211207	12/07/21	E300.1	550-175450-6	Chlorate	78	J	4.9	24	ug/l	J	sp	< PQL			
5501754501	LVW7.2-1.0-20211207	12/07/21	E300.1	550-175450-2	Chlorate	88	J	4.9	24	ug/l	J	sp	< PQL			

Table V. Overall Qualified Results

SDG	Client Sample ID	Sample Date	Method	Client Analyte ID	Analyte	Lab Results	Lab Qualifiers	SQL	PQL	Units	Validator Qualifiers	Reason Code	Data Quality Indicator	Qualification Finding	Acceptance Criteria	
5501754501	LVW7.2-1.0-20211207-FD	12/07/21	E300.1	550-175450-3	Chlorate	87	J	4.9	24	ug/l	J	sp	< PQL			
5501754501	LVW8.85-0.6-20211207	12/07/21	E300.1	550-175450-1	Chlorate	69	J	4.9	24	ug/l	J	sp	< PQL			
5501754551	I-AB-20211208	12/08/21	E200.7	550-175455-2	Chromium (total)	0.0082	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501758971	PC-117 - 20211215	12/15/21	E200.7	550-175897-4	Chromium (total)	0.0033	J	0.00085	0.00085	mg/l	J	sp	< PQL			
5501759891	E2-1-20211216-FD	12/16/21	SM2540C	550-175989-9	Dissolved Solids (total)	2700	cn	20	40	mg/l	DNR	orr				
5501759891	E2-1-20211216-FD	12/16/21	SM2540C	550-175989-9	Dissolved Solids (total)	2700	H	20	40	mg/l	J-	h,sp	Holding Times, < PQL	13	7	days
5501759891	E2-2-20211216	12/16/21	SM2540C	550-175989-5	Dissolved Solids (total)	3100	H	20	40	mg/l	J-	h,sp	Holding Times, < PQL	13	7	days
5501759891	E2-2-20211216	12/16/21	SM2540C	550-175989-5	Dissolved Solids (total)	2700	cn	20	40	mg/l	DNR	orr				
5501759891	E2-3-20211216	12/16/21	SM2540C	550-175989-6	Dissolved Solids (total)	3800	H	20	100	mg/l	J-	h,sp	Holding Times, < PQL	13	7	days
5501759891	E2-3-20211216	12/16/21	SM2540C	550-175989-6	Dissolved Solids (total)	4400	cn	20	100	mg/l	DNR	orr				
5501682671	I-E-20210803	8/3/2021	E300	550-168267-5	Nitrate as N	29	E	0.014	0.014	mg/l	J	e	Exceeded calibration range			

ATTACHMENT A

Metals Data Validation Report

Arsenic, Boron, Chromium, Iron, Manganese, Selenium, and Sodium by Environmental Protection Agency (EPA) Method 200.7

I. Sample Receipt and Technical Holding Times

All samples were received in good condition.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

SDG	Blank ID	Analyte	Maximum Concentration	Associated Samples
550-169253-1	PB (prep blank)	Manganese	0.00043 mg/L	All samples in SDG 550-169253-1
550-169253-1	PB (prep blank)	Sodium	0.0471 mg/L	All samples in SDG 550-169253-1
550-169253-1	PB (prep blank)	Sodium Boron	1.49 mg/L 0.427 mg/L	No associated samples in this SDG
550-169352-1	PB (prep blank)	Iron	0.0229 mg/L	M-10-20210819
550-170282-1	PB (prep blank)	Chromium	0.00279 mg/L	All samples in SDG 550-170282-1
550-170283-1	PB (prep blank)	Chromium	0.00279 mg/L	All samples in SDG 550-170283-1
550-173773-1	PB (prep blank)	Manganese	0.00166 mg/L	M-10-20211104
550-174110-1	PB (prep blank)	Chromium	0.00184 mg/L	All samples in SDG 550-174110-1

Data qualification by the laboratory blanks was based on the maximum contaminant concentration in the laboratory blanks in the analysis of each analyte. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated laboratory blanks with the following exceptions:

SDG	Sample	Analyte	Reported Concentration	Modified Final Concentration
550-169253-1	M-7B-20210818	Manganese	0.0098 mg/L	0.0098J mg/L

III. Field Blanks

Samples I-X-2021 07 07-EB (from SDG 550-166607-1), E1-3 - 2021 07 13-EB (from SDG 550-166991-1), ART-9 - 2021 07 14-EB (from SDG 550-167061-1), PC-120 - 2021 07 14-EB (from SDG 550-167062-1), I-Z - 2021 08 11-EB (from SDG 550-168852-1), PC-133 - 2021 08 12-EB (from SDG 550-168955-1), ART-1A - 2021 08 12-EB (from SDG 550-168958-1), M-11-20210819-EB4 (from SDG 550-169352-1), I-AB-2021 09 08-EB (from SDG 550-170283-1), E2-4-2021 09 13-EB (from SDG 550-170535-1), ART-3A-2021 09 15-EB (from SDG 550-170729-1), PC-115R-2021 09 15-EB (from SDG 550-170730-1), E1-1-2021 10 06-EB (from SDG 550-171878-1), I-AD-2021 10 13-EB (from SDG 550-172353-1), PC-117-2021 10 14-EB (from SDG 550-172460-1), ART-7B-2021 10 14-EB (from SDG 550-172463-1), PC-155B-20211101-EB5 (from SDG 550-173430-1), PC-122-20211102-EB6 (from SDG 550-173530-1), PC-126-20211103-EB7 (from SDG 550-173618-1), E1-3-20211103-EB (from SDG 550-173631-1), M-80-20211104-EB4 and PC-60-20211104-EB8 (both from SDG 550-173773-1), I-C-20211104-EB (from SDG 550-173775-1), M-70-20211105-EB9 (from SDG 550-173858-1), PC-119-20211115-EB (from SDG 550-174306-1), ART-9-20211115-EB (from SDG 550-174309-1), I-E-20211208-EB (from SDG 550-175456-1), ART-1A-20211215-EB (from SDG 550-175896-1), PC-121-20211215-EB (from SDG 550-175897-1), and E2-2-20211216-EB (from SDG 550-175989-1) were identified as equipment blanks. No contaminants were found with the following exceptions:

SDG	Blank ID	Collection Date	Analyte	Concentration	Associated Samples
550-168958-1	ART-1A - 2021 08 12-EB	08/12/21	Chromium	0.0011 mg/L	ART-1A - 2021 08 12
550-169352-1	M-11-20210819-EB4	08/19/21	Chromium	0.0015 mg/L	M-11-20210819
550-172353-1	I-AD-2021 10 13-EB	10/13/21	Chromium	0.0052 mg/L	I-AD-2021 10 13
550-173775-1	I-C-20211104-EB	11/04/21	Chromium	0.0018 ug/L	I-C-20211104

Samples M-12A-20210819-FB4 (from SDG 550-169352-1), ARP-7-20211102-FB6 and PC-91-20211102-FB5 (both from SDG 550-173530-1), M-67-20211103-FB7 and PC-129-20211103-FB8 (both from SDG 550-173618-1), M-95-20211104-FB4 (from SDG 550-173773-1), and M-57A-20211105-FB9 (from SDG 550-173858-1) were identified as a field blanks. No contaminants were found with the following exceptions:

SDG	Blank ID	Collection Date	Analyte	Concentration	Associated Samples
550-169352-1	M-12A-20210819-FB4	08/19/21	Chromium	0.00087 mg/L	M-12A-20210819

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated field blanks.

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. For M-10-20211104MS/MSD (from SDG 550-173773-1), no data were qualified for iron percent recoveries (%R) outside the QC limits since the parent sample results were greater than 4X the spike concentration. Relative percent differences (RPD) were within QC limits.

V. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in these SDGs, and therefore duplicate analyses were not performed for these SDGs.

VI. Serial Dilution

Serial dilution was not performed for these SDGs.

VII. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

VIII. Field Duplicates

Samples I-W-2021 07 07 and I-W-2021 07 07-FD (both from SDG 550-166608-1), samples E1-2 - 2021 07 13 and E1-2 - 2021 07 13-FD (both from SDG 550-166991-1), samples ART-8A - 2021 07 14 and ART-8A - 2021 07 14-FD (both from SDG 550-167061-1), samples PC-119 - 2021 07 14 and PC-119 - 2021 07 14-FD (both from SDG 550-167062-1) samples I-Y - 2021 08 09 and I-Y - 2021 08 09-FD (both from SDG 550-168668-1), samples E2-1 - 2021 08 11 and E2-1 - 2021 08 11-FD (both from SDG 550-168851-1), samples PC-121 - 2021 08 12 and PC-121 - 2021 08 12-FD (both from SDG 550-168955-1), samples PC-150 - 2021 08 12 and PC-150 - 2021 08 12-FD (both from SDG 550-168958-1), samples M-95 – 20210817 and M-95 - 20210817-FD4 (both from SDG 550-169157-1), samples I-AA-2021 09 08 and I-AA-2021 09 08-FD (both from SDG 550-170283-1), samples E2-3-2021 09 13 and E2-3-2021 09 13-FD (both from SDG 550-170535-1), samples ART-2/2A-2021 09 15 and ART-2/2A-2021 09 15-FD (both from SDG 550-170729-1), samples PC-99R2/R3-2021 09 15 and PC-99R2/R3-2021 09 15-FD (both from SDG 550-170730-1), samples E2-5-2021 10 06 and E2-5-2021 10 06-FD (both from SDG 550-171878-1), samples I-AC-2021 10 13 and I-AC-2021 10 13-FD (both from SDG 550-172353-1), samples PC-116R-2021 10 14 and PC-116R-2021 10 14-FD (both from SDG 550-172460-1), samples ART-4-2021 10 14 and ART-4-2021 10 14-FD (both from SDG 550-172463-1), Samples M-11-20211102 and M-11-20211102-FD4 (both from SDG 550-173530-1), samples PC-130-20211103 and PC-130-20211103-FD6 (both from SDG 550-173618-1), samples ARP-1-20211103 and ARP-1-20211103-FD7 (both from SDG 550-173618-1), samples E1-2-20211103 and E1-2-20211103-FD (both from SDG 550-173631-1), samples M-83-20211104 and M-83-20211104-FD8 (both from SDG 550-173773-1), samples I-B-20211104 and I-B-

20211104-FD (both from SDG 550-173776-1), samples PC-58-20211105 and PC-58-20211105-FD5 (both from SDG 550-173858-1), samples PC-59-20211105 and PC-59-20211105-FD9 (both from SDG 550-173858-1), samples PC-118-20211115 and PC-118-20211115-FD (both from SDG 550-174306-1), samples ART-8-20211115 and ART-8A-20211115-FD (both from SDG 550-174309-1), samples I-D-20211208 and I-D-20211208-FD (both from SDG 550-175456-1), samples PC-150-20211215 and PC-150-20211215-FD (both from SDG 550-175896-1), samples PC-120-20211215 and PC-120-20211215-FD (both from SDG 550-175897-1), samples E2-1-20211216 and E2-1-20211216-FD (both from SDG 550-175989-1) were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		I-W-2021 07 07	I-W-2021 07 07-FD			
550-166608-1	Chromium	10	9.6	4 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		E1-2 - 2021 07 13	E1-2 - 2021 07 13-FD			
550-166991-1	Chromium	0.46	0.47	2 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		ART-8A - 2021 07 14	ART-8A - 2021 07 14-FD			
550-167061-1	Chromium	0.065	0.067	3 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		I-Y - 2021 08 09	I-Y - 2021 08 09-FD			
550-168668-1	Chromium	1.2	1.3	8 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		E2-1 - 2021 08 11	E2-1 - 2021 08 11-FD			
550-168851-1	Chromium	0.042	0.038	10 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		PC-150 - 2021 08 12	PC-150 - 2021 08 12-FD			
550-168958-1	Chromium	0.039	0.040	3 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		M-95 - 20210817	M-95 - 20210817-FD4			
550-169157-1	Chromium	0.28	0.30	7 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		I-AA-2021 09 08	I-AA-2021 09 08-FD			
550-170283-1	Chromium	0.054	0.049	10 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		E2-3-2021 09 13	E2-3-2021 09 13-FD			
550-170535-1	Chromium	0.10	0.083	19 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		E2-5-2021 10 06	E2-5-2021 10 06-FD			
550-171878-1	Chromium	0.18	0.17	6 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		I-AC-2021 10 13	I-AC-2021 10 13-FD			
550-172353-1	Chromium	1.8	1.9	5 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		ART-4-2021 10 14	ART-4-2021 10 14-FD			
550-172463-1	Chromium	0.11	0.11	0 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		M-11-20211102	M-11-20211102-FD4			
550-173530-1	Chromium	3.1	3.3	6 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		PC-130-20211103	PC-130-20211103-FD6			
550-173618-1	Chromium	0.50	0.51	2 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		E1-2-20211103	E1-2-20211103-FD			
550-173631-1	Chromium	0.49	0.50	2 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		M-83-20211104	M-83-20211104-FD8			
550-173773-1	Chromium	0.21	0.20	5 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		I-B-20211104	I-B-20211104-FD			
550-173776-1	Chromium	0.22	0.22	0 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		PC-58-20211105	PC-58-20211105-FD5			
550-173858-1	Chromium	0.017	0.017	0 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		ART-8-20211115	ART-8A-20211115-FD			
550-174309-1	Chromium	0.088	0.094	7 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		I-D-20211208	I-D-20211208-FD			
550-175456-1	Chromium	4.1	4.1	0 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		PC-150-20211215	PC-150-20211215-FD			
550-175896-1	Chromium	0.044	0.046	4 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		E2-1-20211216	E2-1-20211216-FD			
550-175989-1	Chromium	0.033	0.029	13 (≤30)	-	-

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in these SDGs.

Due to laboratory blank contamination, one manganese result was qualified as estimated in one sample.

NERT GWM Performance Sampling, July-December 2021
Chromium - Data Qualification Summary - SDGs 550-166607-1, 550-166608-1, 550-166890-1, 550-166991-1, 550-167061-1, 550-167062-1, 550-167219-1, 550-168267-1, 550-168668-1, 550-168669-1, 550-168851-1, 550-168852-1, 550-168955-1, 550-168958-1, 550-169062-1, 550-169157-1, 550-169158-1, 550-169252-1, 550-169253-1, 550-169352-1, 550-170282-1, 550-170283-1, 550-170388-1, 550-170535-1, 550-170634-1, 550-170729-1, 550-170730-1, 550-171878-1, 550-172256-1, 550-172261-1, 550-172353-1, 550-172355-1, 550-172460-1, 550-172463-1, 550-173430-1, 550-173530-1, 550-173618-1, 550-173631-1, 550-173773-1, 550-173775-1, 550-173776-1, 550-173858-1, 550-174110-1, 550-174306-1, 550-174309-1, 550-174471-1, 550-175455-1, 550-175456-1, 550-175748-1, 550-175896-1, 550-175897-1, 550-175989-1

No Sample Data Qualified in these SDGs

NERT GWM Performance Sampling, July-December 2021
Chromium - Laboratory Blank Data Qualification Summary - SDGs 550-166607-1, 550-166608-1, 550-166890-1, 550-166991-1, 550-167061-1, 550-167062-1, 550-167219-1, 550-168267-1, 550-168668-1, 550-168669-1, 550-168851-1, 550-168852-1, 550-168955-1, 550-168958-1, 550-169062-1, 550-169157-1, 550-169158-1, 550-169252-1, 550-169253-1, 550-169352-1, 550-170282-1, 550-170283-1, 550-170388-1, 550-170535-1, 550-170634-1, 550-170729-1, 550-170730-1, 550-171878-1, 550-172256-1, 550-172261-1, 550-172353-1, 550-172355-1, 550-172460-1, 550-172463-1, 550-173430-1, 550-173530-1, 550-173618-1, 550-173631-1, 550-173773-1, 550-173775-1, 550-173776-1, 550-173858-1, 550-174110-1, 550-174306-1, 550-174309-1, 550-174471-1, 550-175455-1, 550-175456-1, 550-175748-1, 550-175896-1, 550-175897-1, 550-175989-1

SDG	Sample	Analyte	Reported Concentration	Modified Final Concentration	A or P	Code
550-169253-1	M-7B-20210818	Manganese	0.0098 mg/L	0.0098J mg/L	A	bl

NERT GWM Performance Sampling, July--December 2021
Chromium - Field Blank Data Qualification Summary - SDGs 550-166607-1, 550-166608-1, 550-166890-1, 550-166991-1, 550-167061-1, 550-167062-1, 550-167219-1, 550-168267-1, 550-168668-1, 550-168669-1, 550-168851-1, 550-168852-1, 550-168955-1, 550-168958-1, 550-169062-1, 550-169157-1, 550-169158-1, 550-169252-1, 550-169253-1, 550-169352-1, 550-170282-1, 550-170283-1, 550-170388-1, 550-170535-1, 550-170634-1, 550-170729-1, 550-170730-1, 550-171878-1, 550-172256-1, 550-172261-1, 550-172353-1, 550-172355-1, 550-172460-1, 550-172463-1, 550-173430-1, 550-173530-1, 550-173618-1, 550-173631-1, 550-173773-1, 550-173775-1, 550-173776-1, 550-173858-1, 550-174110-1, 550-174306-1, 550-174309-1, 550-174471-1, 550-175455-1, 550-175456-1, 550-175748-1, 550-175896-1, 550-175897-1, 550-175989-1

No Sample Data Qualified in these SDGs

ATTACHMENT B

Wet Chemistry Data Validation Report

Ammonia as Nitrogen by Environmental Protection Agency (EPA) Method 350.1
Chlorate by EPA Method 300.1B
Chloride, Nitrate as Nitrogen, Nitrite as Nitrogen, and Sulfate (Anions) by EPA Method 300.0
Conductivity by Standard Method 2510B
Field pH
Hexavalent Chromium by EPA Method 218.6
Nitrate as Nitrogen by EPA Method 300.0
Nitrate/Nitrite as Nitrogen by Calculation
Perchlorate by EPA Method 314.0
Total Dissolved Solids by Standard Method 2540C
Total Inorganic Nitrogen by Calculation
Total Recoverable Phenolics by EPA Method 420.4
Total Organic Carbon by Standard Method 5310B
Toxic Organic Halides by EPA SW 846 Method 9020B

I. Sample Receipt and Technical Holding Times

All samples were received in good condition.

All technical holding time requirements were met with the following exceptions:

SDG	Sample	Analyte	Total Time From Sample Collection Until Analysis	Required Holding Time From Sample Collection Until Analysis	Flag	A or P
550-166608-1	I-O-2021 07 07DL	Nitrate as N	156 hours	48 hours	J- (all detects)	A
550-166991-1	E2-2 – 2021 07 13DL	Nitrate as N	53 hours	48 hours	J- (all detects)	A
550-170282-1	I-M-2021 09 08DL I-D-2021 09 08DL	Nitrate as N	62 hours	48 hours	J- (all detects)	P
550-170283-1	I-AB-2021 09 08DL	Nitrate as N	61 hours	48 hours	J- (all detects)	P
550-170535-1	E1-3-2021 09 13	Nitrate as N	848 hours	48 hours	J- (all detects)	P
550-171878-1	E1-3-2021 10 06RE1 E1-3-2021 10 06RE2	Nitrate as N	899 hours	48 hours	J- (all detects)	A
550-171878-1	E2-5-2021 10 06RE	Nitrate as N	922 hours	48 hours	J- (all detects)	A
550-171878-1	E2-5-2021 10 06-FDRE	Nitrate as N	923 hours	48 hours	J- (all detects)	A
550-173776-1	I-R-20211104 I-R-20211104RE	Perchlorate	34 days	28 days	J- (all detects)	P

SDG	Sample	Analyte	Total Time From Sample Collection Until Analysis	Required Holding Time From Sample Collection Until Analysis	Flag	A or P
550-174397-1	LVW3.5-6-1.7-20211115 LVW0.55-0.9-20211115 LVW0.55-0.9-20211115-FD LVW0.55-20211115-FB	Total dissolved solids	8 days	7 days	J- (all detects) UJ (all non-detects)	P
550-175989-1	E2-2-20211216RE E2-3-20211216RE E2-1-20211216-FDRE	Total dissolved solids	13 days	7 days	J- (all detects)	P

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the methods. No contaminants were found in the laboratory blanks.

III. Field Blanks

Samples I-X-2021 07 07-EB (from SDG 550-166607-1), E1-3 - 2021 07 13-EB (from SDG 550-166991-1), ART-9 - 2021 07 14-EB (from SDG 550-167061-1), PC-120 - 2021 07 14-EB (from SDG 550-167062-1), E2-2 - 2021 08 11-EB (from SDG 550-168851-1), I-Z - 2021 08 11-EB (from SDG 550-168852-1), PC-133 - 2021 08 12-EB (from SDG 550-168955-1), ART-1A - 2021 08 12-EB (from SDG 550-168958-1), M-11-20210819-EB4 (from SDG 550-169352-1), I-AB-2021 09 08-EB (from SDG 550-170283-1), E2-4-2021 09 13-EB (from SDG 550-170535-1), ART-3A-2021 09 15-EB (from SDG 550-170729-1), PC-115R-2021 09 15-EB (from SDG 550-170730-1), E1-1-2021 10 06-EB (from SDG 550-171878-1), I-AD-2021 10 13-EB (from SDG 550-172353-1), PC-117-2021 10 14-EB (from SDG 550-172460-1), ART-7B-2021 10 14-EB (from SDG 550-172463-1), PC-155B-20211101-EB5 (from SDG 550-173430-1), PC-122-20211102-EB6 (from SDG 550-173530-1), PC-126-20211103-EB7 (from SDG 550-173618-1), E1-3-20211103-EB (from SDG 550-173631-1), M-80-20211104-EB4 and PC-60-20211104-EB8 (both from SDG 550-173773-1), I-C-20211104-EB (from SDG 550-173775-1), M-70-20211105-EB9 (from SDG 550-173858-1), PC-119-20211115-EB (from SDG 550-174306-1), ART-9-20211115-EB (from SDG 550-174309-1), I-E-20211208-EB (from SDG 550-175456-1), sample ART-1A-20211215-EB (from SDG 550-175896-1), PC-121-20211215-EB (from SDG 550-175897-1), and E2-2-20211216-EB (from SDG 550-175989-1) were identified as equipment blanks. No contaminants were found with the following exceptions:

SDG	Blank ID	Collection Date	Analyte	Concentration	Associated Samples
550-166607-1	I-X-2021 07 07-EB	07/13/21	Total dissolved solids Perchlorate	94 mg/L 4.7 ug/L	I-X-2021 07 07
550-166991-1	E1-3 - 2021 07 13-EB	07/13/21	Nitrate as N Perchlorate	0.020 mg/L 1.0 ug/L	E1-3 - 2021 07 13

SDG	Blank ID	Collection Date	Analyte	Concentration	Associated Samples
550-167062-1	PC-120 - 2021 07 14-EB	07/14/21	Nitrate as N	0.046 mg/L	PC-120 - 2021 07 14
550-168851-1	E2-2 - 2021 08 11-EB	08/11/21	Perchlorate	0.97 ug/L	E2-2 - 2021 08 11
550-173530-1	PC-122-20211102-EB6	11/03/21	Perchlorate	0.95 ug/L	PC-122-20211102
550-173631-1	E1-3-20211103-EB	11/03/21	Perchlorate	0.40 ug/L	E1-3-20211103
550-173773-1	M-80-20211104-EB4	11/04/21	Chlorate	19 ug/L	M-80-20211104
550-174306-1	PC-119-20211115-EB	11/15/21	Nitrate as N	0.047 mg/L	PC-119-20211115
550-174309-1	ART-9-20211115-EB	11/15/21	Nitrate as N	0.047 mg/L	ART-9-20211115

Samples LVW6.05-20210713-FB and LVW0.55-20210713-FB (both from SDG 550-167079-1), LVW6.05-20210806-FB, LVW0.55-20210805-FB (both from SDG 550-168583-1), M-12A-20210819-FB4 (from SDG 550-169352-1), LVW6.05-20210902-FB and LVW0.55-20210902-FB (both from SDG 550-170104-1), LVW6.05-20211011-FB and LVW0.55-20211011-FB (both from SDG 550-172255-1), ARP-7-20211102-FB6 and PC-91-20211102-FB5 (both from SDG 550-173530-1), M-67-20211103-FB7 and PC-129-20211103-FB8 (both from SDG 550-173618-1), M-95-20211104-FB4 (from SDG 550-173773-1), M-57A-20211105-FB9 (from SDG 550-173858-1), LVW6.05-20211116-FB and LVW0.55-20211115-FB (both from SDG 550-174397-1), and LVW6.05-20211207-FB and LVW0.55-20211208-FB (both from SDG 550-175450-1) were identified as field blanks. No contaminants were found with the following exceptions:

SDG	Blank ID	Collection Date	Analyte	Concentration	Associated Samples
550-173618-1	M-67-20211103-FB7	11/03/21	Chlorate	19 ug/L	M-67-20211103
550-173618-1	PC-129-20211103-FB8	11/03/21	Perchlorate	0.40 ug/L	PC-129-20211103

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated field blanks.

IV. Surrogates

Surrogates were added to all samples as required by Method 300.1B. All surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits with the following exceptions:

SDG	Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	Flag	A or P
550-166607-1	I-C-2021 07 07MS/MSD (I-C-2021 07 07 I-F-2021 07 07 I-X-2021 07 07 I-N-2021 07 07 I-E-2021 07 07 I-M-2021 07 07 I-D-2021 07 07)	Hexavalent chromium	114 (90-110)	-	J+ (all detects)	A
550-166608-1	I-C-2021 07 07MS/MSD (All samples in SDG 550-166608-1)	Hexavalent chromium	114 (90-110)	-	J+ (all detects)	A
550-166991-1	E1-1 - 2021 07 13MS/MSD (E1-1 - 2021 07 13 E1-2 - 2021 07 13 E1-3 - 2021 07 13 E2-3 - 2021 07 13 E2-4 - 2021 07 13)	Chlorate	138 (75-125)	156 (75-125)	J+ (all detects)	A
550-166991-1	E2-1 - 2021 07 13MS/MSD (E2-1 - 2021 07 13 E2-2 - 2021 07 13)	Chlorate	138 (75-125)	-	J+ (all detects)	A
550-168669-1	I-Q - 2021 08 09MS/MSD (All samples in SDG 550-168669-1)	Chlorate	212 (75-125)	69 (75-125)	J (all detects)	A
550-168851-1	E2-1 - 2021 08 11-FDMS/MSD (E1-2 - 2021 08 11 E1-3 - 2021 08 11 E2-1 - 2021 08 11 E2-2 - 2021 08 11 E2-3 - 2021 08 11 E2-4 - 2021 08 11 E2-5 - 2021 08 11 E2-1 - 2021 08 11-FD)	Chlorate	36 (75-125)	-	J- (all detects)	A
550-168852-1	I-I - 2021 08 11MS/MSD (I-I - 2021 08 11# I-V - 2021 08 11)#	Hexavalent chromium	111 (90-110)	-	J+ (all detects)	A
550-168958-1	PC-150 - 2021 08 12MS/MSD (PC-150 - 2021 08 12)	Hexavalent chromium	-	112 (90-110)	J+ (all detects)	A
550-168958-1	PC-150 - 2021 08 12MS/MSD (PC-150 - 2021 08 12-FD)	Hexavalent chromium	-	112 (90-110)	NA	-

SDG	Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	Flag	A or P
550-168958-1	PC-150 - 2021 08 12MS/MSD (ART-8A - 2021 08 12# ART-9 - 2021 08 12# PC-150 - 2021 08 12# PC-150 - 2021 08 12-FD)#	Chlorate	129 (75-125)	-	J+ (all detects)	A
550-169062-1	I-AB - 2021 08 16MS/MSD (All samples in SDG 550-169062-1)	Hexavalent chromium Chlorate	- -	111 (90-110) 129 (75-125)	J+ (all detects) J+ (all detects)	A
550-170283-1	I-R-2021 09 08MS/MSD (I-AA-2021 09 08 I-AB-2021 09 08 I-B-2021 09 08 I-R-2021 09 08 I-Y-2021 09 08 I-L-2021 09 08 I-S-2021 09 08 I-AR-2021 09 08 I-AA-2021 09 08-FD)	Hexavalent chromium	87 (90-110)	113 (90-110)	J (all detects)	A
550-170283-1	I-AB-2021 09 08MS/MSD (I-AB-2021 09 08 I-B-2021 09 08 I-R-2021 09 08 I-Y-2021 09 08 I-L-2021 09 08 I-S-2021 09 08 I-AR-2021 09 08 I-AA-2021 09 08-FD)	Chlorate	-	127 (75-125)	J+ (all detects)	A
550-170388-1	I-Q-2021 09 09MS/MSD (All samples in SDG 550-170388-1)	Nitrate as N	59 (80-120)	74 (80-120)	J- (all detects)	A
550-170388-1	I-T-2021 09 09MS/MSD (I-T-2021 09 09 I-U-2021 09 09 I-H-2021 09 09 I-P-2021 09 09 I-W-2021 09 09 I-O-2021 09 09)	Chlorate	139 (75-125)	126 (75-12)	J+ (all detects)	A
550-170535-1	E2-1-2021 09 13MS/MSD (E1-1-2021 09 13 E1-2-2021 09 13 E1-3-2021 09 13 E2-1-2021 09 13 E2-2-2021 09 13 E2-3-2021 09 13 E2-4-2021 09 13 E2-5-2021 09 13 E2-3-2021 09 13-FD)	Chlorate	132 (75-125)	127 (75-125)	J+ (all detects)	A

Relative percent differences (RPD) were within QC limits with the following exceptions:

SDG	Spike ID (Associated Samples)	Analyte	RPD (Limits)	Flag	A or P
550-168669-1	I-Q - 2021 08 09MS/MSD (All samples in SDG 550-168669-1)	Chlorate	27 (≤25)	J (all detects)	A

VI. Duplicate Sample Analysis

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the methods. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

VIII. Field Duplicates

Samples I-W-2021 07 07 and I-W-2021 07 07-FD (both from SDG 550-166608-1), samples E1-2 - 2021 07 13 and E1-2 - 2021 07 13-FD (both from SDG 550-166991-1), samples ART-8A - 2021 07 14 and ART-8A - 2021 07 14-FD (both from SDG 550-167061-1), samples PC-119 - 2021 07 14 and PC-119 - 2021 07 14-FD (both from SDG 550-167062-1), samples LVW0.55-0.9-20210713 and LVW0.55-0.9-20210713-FD (both from SDG 550-167079-1), samples LVW7.2-1.0-20210713 and LVW7.2-1.0-20210713-FD (both from SDG 550-167079-1), sample LVW6.05-0.7-20210713 (from SDG 550-167079-1), sample LVW6.05-0.7-20210713-FD (from SDG 550-167079-2), samples LVW7.2-1.0-20210806 and LVW7.2-1.0-20210806-FD (both from SDG 550-168583-1), samples LVW6.05-0.7-20210806 and LVW6.05-0.7-20210806-FD (both from SDG 550-168583-1), samples LVW0.55-0.9-20210805 and LVW0.55-0.9-20210805-FD (both from SDG 550-168583-1), samples I-Y - 2021 08 09 and I-Y - 2021 08 09-FD (both from SDG 550-168668-1), samples E2-1 - 2021 08 11 and E2-1 - 2021 08 11-FD (both from SDG 550-168851-1), samples PC-121 - 2021 08 12 and PC-121 - 2021 08 12-FD (both from SDG 550-168955-1), samples PC-150 - 2021 08 12 and PC-150 - 2021 08 12-FD (both from SDG 550-168958-1), samples M-95 – 20210817 and M-95 - 20210817-FD4 (both from SDG 550-169157-1), samples LVW7.2-1.1-20210902 and LVW7.2-1.1-20210902-FD (both from SDG 550-170104-1), samples LVW6.05-1.2-20210902 and LVW6.05-1.2-20210902-FD (both from SDG 550-170104-1), samples LVW0.55-1.2-20210902 and LVW0.55-1.2-20210902-FD (both from SDG 550-170104-1), samples I-AA-2021 09 08 and I-AA-2021 09 08-FD (both from SDG 550-170283-1), samples E2-3-2021 09 13 and E2-3-2021 09 13-FD (both from SDG 550-170535-1), samples ART-2/2A-2021 09 15 and ART-2/2A-2021 09 15-FD (both from SDG 550-170729-1), samples PC-99R2/R3-2021 09 15 and PC-99R2/R3-2021 09 15-FD (both from SDG 550-170730-1), samples E2-5-2021 10 06 and E2-5-2021 10 06-FD (both from SDG 550-171878-1), samples E2-5-2021 10 06RE and E2-5-2021 10 06-FDRE (both from SDG 550-171878-1), samples LVW7.2-0.9-20211012 and LVW7.2-0.9-20211012-FD

(both from SDG 550-172255-1), samples LVW6.05-0.9-20211011 and LVW6.05-0.9-20211011-FD (both from SDG 550-172255-1), samples LVW0.55-1.0-20211011 and LVW0.55-1.0-20211011-FD (both from SDG 550-172255-1), samples I-AC-2021 10 13 and I-AC-2021 10 13-FD (both from SDG 550-172353-1), samples PC-116R-2021 10 14 and PC-116R-2021 10 14-FD (both from SDG 550-172460-1), samples ART-4-2021 10 14 and ART-4-2021 10 14-FD (both from SDG 550-172463-1), samples M-11-20211102 and M-11-20211102-FD4 (both from SDG 550-173530-1), samples PC-130-20211103 and PC-130-20211103-FD6 (both from SDG 550-173618-1), samples ARP-1-20211103 and ARP-1-20211103-FD7 (both from SDG 550-173618-1), samples E1-2-20211103 and E1-2-20211103-FD (both from SDG 550-173631-1), samples M-83-20211104 and M-83-20211104-FD8 (both from SDG 550-173773-1), samples I-B-20211104 and I-B-20211104-FD (both from SDG 550-173776-1), samples PC-58-20211105 and PC-58-20211105-FD5 (both from SDG 550-173858-1), samples PC-59-20211105 and PC-59-20211105-FD9 (both from SDG 550-173858-1), samples PC-118-20211115 and PC-118-20211115-FD (both from SDG 550-174306-1), samples ART-8-20211115 and ART-8A-20211115-FD (both from SDG 550-174309-1), samples LVW7.2-1.0-20211116 and LVW7.2-1.0-20211116-FD (both from SDG 550-174397-1), samples LVW6.05-0.8-20211116 and LVW6.05-0.8-20211116-FD (both from SDG 550-174397-1), samples LVW0.55-0.9-20211115 and LVW0.55-0.9-20211115-FD (both from SDG 550-174397-1), samples LVW7.2-1.0-20211207 and LVW7.2-1.0-20211207-FD (both from SDG 550-175450-1), samples LVW6.05-1.0-20211207 and LVW6.05-1.0-20211207-FD (both from SDG 550-175450-1), samples LVW0.55-1.2-20211208 and LVW0.55-1.2-20211208-FD (both from SDG 550-175450-1), samples I-D-20211208 and I-D-20211208-FD (both from SDG 550-175456-1), samples PC-150-20211215 and PC-150-20211215-FD (both from SDG 550-175896-1), samples PC-120-20211215 and PC-120-20211215-FD (both from SDG 550-175897-1), and samples E2-1-20211216 and E2-1-20211216-FD (both from SDG 550-175989-1) were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		I-W-2021 07 07	I-W-2021 07 07-FD			
550-166608-1	Hexavalent chromium	12000 ug/L	12000 ug/L	0 (≤30)	-	-
	Nitrate as N	52 mg/L	56 mg/L	7 (≤30)	-	-
	Chlorate	2100000 ug/L	2000000 ug/L	5 (≤30)	-	-
	Perchlorate	580000	610000 ug/L	5 (≤30)	-	-
	Total dissolved solids	7600 mg/L	7500 mg/L	1 (≤30)	-	-
	Field pH	7.68 SU	7.68 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		E1-2 - 2021 07 13	E1-2 - 2021 07 13-FD			
550-166991-1	Hexavalent chromium	470 ug/L	480 ug/L	2 (≤30)	-	-
	Nitrate as N	86 mg/L	82 mg/L	5 (≤30)	-	-
	Chlorate	150000 ug/L	150000 ug/L	0 (≤30)	-	-
	Perchlorate	970000 ug/L	990000 ug/L	2 (≤30)	-	-
	Total dissolved solids	3500 mg/L	3900 mg/L	11 (≤30)	-	-
	pH	6.69 SU	6.69 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		ART-8A - 2021 07 14	ART-8A - 2021 07 14-FD			
550-167061-1	Hexavalent chromium	79 ug/L	84 ug/L	6 (≤30)	-	-
	Nitrate as N	11 mg/L	7.5 mg/L	38 (≤30)	J (all detects)	A
	Chlorate	54000 ug/L	54000 ug/L	0 (≤30)	-	-
	Perchlorate	65000 ug/L	63000 ug/L	3 (≤30)	-	-
	Total dissolved solids	6600 mg/L	7200 mg/L	9 (≤30)	-	-
	pH	7.00 SU	7.01 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		PC-119 - 2021 07 14	PC-119 - 2021 07 14-FD			
550-167062-1	Nitrate as N	0.078 mg/L	0.13 mg/L	50 (≤30)	J (all detects)	A
	Perchlorate	160 ug/L	160 ug/L	0 (≤30)	-	-
	Total dissolved solids	1200 mg/L	1300 mg/L	8 (≤30)	-	-
	Field pH	7.41 SU	7.40 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		LVW0.55-0.9-20210713	LVW0.55-0.9-20210713-FD			
550-167079-1	Chlorate	190 ug/L	190 ug/L	0 (≤30)	-	-
	Perchlorate	37 ug/L	36 ug/L	3 (≤30)	-	-
	Total dissolved solids	1100 mg/L	1000 mg/L	10 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		LVW7.2-1.0-20210713	LVW7.2-1.0-20210713-FD			
550-167079-1	Chlorate	200 ug/L	190 ug/L	5 (≤30)	-	-
	Perchlorate	68 ug/L	66 ug/L	3 (≤30)	-	-
	Total dissolved solids	1200 mg/L	1000 mg/L	18 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		LVW6.05-0.7-20210713	LVW6.05-0.7-20210713-FD			
550-167079-1	Chlorate	190 ug/L	180 ug/L	5 (≤30)	-	-
	Perchlorate	72 ug/L	74 ug/L	3 (≤30)	-	-
	Total dissolved solids	1200 mg/L	1100 mg/L	9 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		LVW6.05-0.7-20210713	LVW6.05-0.7-20210713-FD			
550-167079-2	Chlorate	190 ug/L	180 ug/L	5 (≤30)	-	-
	Perchlorate	72 ug/L	74 ug/L	3 (≤30)	-	-
	Total dissolved solids	1200 mg/L	1100 mg/L	9 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		LVW7.2-1.0-20210806	LVW7.2-1.0-20210806-FD			
550-168583-1	Chlorate	170 ug/L	170 ug/L	0 (≤30)	-	-
	Perchlorate	0.47 ug/L	1.0U ug/L	200 (≤30)	NQ	-
	Total dissolved solids	1100 mg/L	1100 mg/L	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		LVW6.05-0.7-20210806	LVW6.05-0.7-20210806-FD			
550-168583-1	Chlorate	170 ug/L	160 ug/L	6 (≤30)	-	-
	Perchlorate	19 ug/L	19 ug/L	0 (≤30)	-	-
	Total dissolved solids	1200 mg/L	1100 mg/L	9 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		LVW0.55-0.9-20210805	LVW0.55-0.9-20210805-FD			
550-168583-1	Chlorate	230 ug/L	260 ug/L	12 (≤30)	-	-
	Perchlorate	47 ug/L	48 ug/L	2 (≤30)	-	-
550-168583-1	Total dissolved solids	1100 mg/L	1200 mg/L	9 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		I-Y - 2021 08 09	I-Y - 2021 08 09-FD			
550-168668-1	Hexavalent chromium	1700 ug/L	1600 ug/L	6 (≤30)	-	-
	Nitrate as N	62 mg/L	61 mg/L	2 (≤30)	-	-
	Chlorate	360000 ug/L	360000 ug/L	0 (≤30)	-	-
	Perchlorate	400000 ug/L	410000 ug/L	2 (≤30)	-	-
	Total dissolved solids	4700 mg/L	4500 mg/L	4 (≤30)	-	-
	Field pH	7.31 SU	7.31 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		E2-1 - 2021 08 11	E2-1 - 2021 08 11-FD			
550-168851-1	Hexavalent chromium	23 ug/L	24 ug/L	4 (≤30)	-	-
	Nitrate as N	20 mg/L	19 mg/L	5 (≤30)	-	-
	Chlorate	10000 ug/L	15000 ug/L	40 (≤30)	J (all detects)	A
	Perchlorate	110000 ug/L	86000 ug/L	24 (≤30)	-	-
	Total dissolved solids	2900 mg/L	2800 mg/L	4 (≤30)	-	-
	Field pH	6.89 SU	6.88 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		PC-121 - 2021 08 12	PC-121 - 2021 08 12-FD			
550-168955-1	Total dissolved solids	1500 mg/L	1500 mg/L	0 (≤30)	-	-
	Field pH	7.45 SU	7.45 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		PC-150 - 2021 08 12	PC-150 - 2021 08 12-FD			
550-168958-1	Hexavalent chromium	40 ug/L	1.0U ug/L	200 (≤30)	NQ	-
	Nitrate as N	11 mg/L	11 mg/L	0 (≤30)	-	-
	Chlorate	91000 ug/L	110000 ug/L	19 (≤30)	-	-
	Perchlorate	49000 ug/L	49000 ug/L	0 (≤30)	-	-
	Total dissolved solids	5500 mg/L	6100 mg/L	10 (≤30)	-	-
	Field pH	7.29 SU	7.29 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		M-95 - 20210817	M-95 - 20210817-FD4			
550-169157-1	Hexavalent chromium	300 ug/L	300 ug/L	0 (≤30)	-	-
	Perchlorate	130000 ug/L	130000 ug/L	0 (≤30)	-	-
	Total dissolved solids	5500 mg/L	6100 mg/L	10 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		LVW7.2-1.1-20210902	LVW7.2-1.1-20210902-FD			
550-170104-1	Chlorate	160 ug/L	150 ug/L	6 (≤30)	-	-
	Perchlorate	1.7 ug/L	1.6 ug/L	6 (≤30)	-	-
	Total dissolved solids	1000 mg/L	1000 mg/L	0 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		LVW6.05-1.2-20210902	LVW6.05-1.2-20210902-FD			
550-170104-1	Chlorate	170 ug/L	170 ug/L	0 (≤30)	-	-
	Perchlorate	7.5 ug/L	7.5 ug/L	0 (≤30)	-	-
	Total dissolved solids	1100 mg/L	940 mg/L	16 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		LVW0.55-1.2-20210902	LVW0.55-1.2-20210902-FD			
550-170104-1	Chlorate	180 ug/L	180 ug/L	0 (≤30)	-	-
	Perchlorate	44 ug/L	44 ug/L	0 (≤30)	-	-
	Total dissolved solids	1300 mg/L	1400 mg/L	7 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		I-AA-2021 09 08	I-AA-2021 09 08-FD			
550-170283-1	Hexavalent chromium	56 ug/L	56 ug/L	0 (≤30)	-	-
	Nitrate as N	14 mg/L	13 mg/L	7 (≤30)	-	-
	Chlorate	19000 ug/L	19000 ug/L	0 (≤30)	-	-
	Perchlorate	31000 ug/L	31000 ug/L	0 (≤30)	-	-
	Total dissolved solids	2900 mg/L	2900 mg/L	0 (≤30)	-	-
	Field pH	7.01 SU	7.00 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		E2-3-2021 09 13	E2-3-2021 09 13-FD			
550-170535-1	Hexavalent chromium	74 ug/L	84 ug/L	13 (≤30)	-	-
	Nitrate as N	77 mg/L	79 mg/L	3 (≤30)	-	-
	Chlorate	20000 ug/L	20000 ug/L	0 (≤30)	-	-
	Perchlorate	980000 ug/L	1000000 ug/L	2 (≤30)	-	-
	Total dissolved solids	3200 mg/L	3600 mg/L	12 (≤30)	-	-
	Field pH	7.01 SU	7.01 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		ART-2/2A-2021 09 15	ART-2/2A-2021 09 15-FD			
550-170729-1	Hexavalent chromium	3.3 ug/L	3.4 ug/L	3 (≤30)	-	-
	Nitrate as N	1.6 mg/L	2.6 mg/L	48 (≤30)	J (all detects)	A
	Chlorate	6300 ug/L	6100 ug/L	3 (≤30)	-	-
	Perchlorate	9900 ug/L	9800 ug/L	1 (≤30)	-	-
	Total dissolved solids	8300 mg/L	7600 mg/L	9 (≤30)	-	-
	Field pH	6.78 SU	6.78 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		PC-99R2/R3-2021 09 15	PC-99R2/R3-2021 09 15-FD			
550-170730-1	Nitrate as N	6.5 mg/L	6.6 mg/L	2 (≤30)	-	-
	Chlorate	11000 ug/L	12000 ug/L	9 (≤30)	-	-
	Perchlorate	17000 ug/L	17000 ug/L	0 (≤30)	-	-
	Total dissolved solids	2800 mg/L	2900 mg/L	4 (≤30)	-	-
	Field pH	7.45 SU	7.45 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		E2-5-2021 10 06	E2-5-2021 10 06-FD			
550-171878-1	Hexavalent chromium	170 ug/L	170	0 (≤30)	-	-
	Nitrate as N	100 mg/L	120	18 (≤30)	-	-
	Chlorate	50000 ug/L	51000	2 (≤30)	-	-
	Perchlorate	140000 ug/L	140000	0 (≤30)	-	-
	Total dissolved solids	4700 mg/L	4100	14 (≤30)	-	-
	Field pH	7.13 SU	7.13 SU	0 (≤30)	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Flag	A or P
		E2-5-2021 10 06RE	E2-5-2021 10 06-FDRE			
550-171878-1	Nitrate as N	120	120	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		LVW7.2-0.9-20211012	LVW7.2-0.9-20211012-FD			
550-172255-1	Chlorate	130 ug/L	140 ug/L	7 (≤30)	-	-
	Total dissolved solids	1200 mg/L	1100 mg/L	9 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		LVW6.05-0.9-20211011	LVW6.05-0.9-20211011-FD			
550-172255-1	Chlorate	120 ug/L	120 ug/L	0 (≤30)	-	-
	Perchlorate	13 ug/L	12 ug/L	8 (≤30)	-	-
	Total dissolved solids	1000 mg/L	1000 mg/L	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		LVW0.55-1.0-20211011	LVW0.55-1.0-20211011-FD			
550-172255-1	Chlorate	180 ug/L	180 ug/L	0 (≤30)	-	-
	Perchlorate	48 ug/L	44 ug/L	9 (≤30)	-	-
	Total dissolved solids	1200 mg/L	1400 mg/L	15 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		I-AC-2021 10 13	I-AC-2021 10 13-FD			
550-172353-1	Hexavalent chromium	2000 ug/L	2100 ug/L	5 (≤30)	-	-
	Nitrate as N	12 mg/L	12 mg/L	0 (≤30)	-	-
	Chlorate	550000 ug/L	530000 ug/L	4 (≤30)	-	-
	Perchlorate	200000 ug/L	230000 ug/L	14 (≤30)	-	-
	Total dissolved solids	5300 mg/L	5000 mg/L	6 (≤30)	-	-
	Field pH	7.35 SU	7.35 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		PC-116R-2021 10 14	PC-116R-2021 10 14-FD			
550-172353-1	Hexavalent chromium	4.9 ug/L	4.8 ug/L	2 (≤30)	-	-
	Nitrate as N	6.5 mg/L	6.4 mg/L	2 (≤30)	-	-
	Chlorate	14000 ug/L	15000 ug/L	7 (≤30)	-	-
	Perchlorate	15000 ug/L	15000 ug/L	0 (≤30)	-	-
	Total dissolved solids	2800 mg/L	2800 mg/L	0 (≤30)	-	-
	Field pH	7.36 SU	7.36 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		ART-4-2021 10 14	ART-4-2021 10 14-FD			
550-172353-1	Hexavalent chromium	130 ug/L	120 ug/L	8 (≤30)	-	-
	Nitrate as N	13 mg/L	13 mg/L	0 (≤30)	-	-
	Chlorate	130000 ug/L	120000 ug/L	8 (≤30)	-	-
	Perchlorate	120000 ug/L	130000 ug/L	8 (≤30)	-	-
	Total dissolved solids	4500 mg/L	4500 mg/L	0 (≤30)	-	-
	Field pH	6.93 SU	6.93 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		M-11-20211102	M-11-20211102-FD4			
550-173530-1	Total dissolved solids	7600 mg/L	7200 mg/L	5 (≤30)	-	-
	Nitrate as N	8.2 mg/L	8.3 mg/L	1 (≤30)	-	-
	Chlorate	540000 ug/L	560000 ug/L	4 (≤30)	-	-
	Perchlorate	62000 ug/L	63000 ug/L	2 (≤30)	-	-
	Hexavalent chromium	940 ug/L	1000 ug/L	6 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		PC-130-20211103	PC-130-20211103-FD6			
550-173618-1	Total dissolved solids	7000 mg/L	6800 mg/L	3 (≤30)	-	-
	Nitrate as N	34 mg/L	34 mg/L	0 (≤30)	-	-
	Chlorate	300000 ug/L	290000 ug/L	3 (≤30)	-	-
	Perchlorate	260000 ug/L	260000 ug/L	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		ARP-1-20211103	ARP-1-20211103-FD7			
550-173618-1	Total dissolved solids	3900 mg/L	4000 mg/L	3 (≤30)	-	-
	Nitrate as N	9.3 mg/L	9.3 mg/L	0 (≤30)	-	-
	Chlorate	6700 ug/L	6600 ug/L	2 (≤30)	-	-
	Perchlorate	39000 ug/L	39000 ug/L	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		E1-2-20211103	E1-2-20211103-FD			
550-173631-1	Total dissolved solids	4200 mg/L	3600 mg/L	15 (≤30)	-	-
	Nitrate as N	82 mg/L	78 mg/L	5 (≤30)	-	-
	Chlorate	210000 ug/L	190000 ug/L	10 (≤30)	-	-
	Perchlorate	1400000 ug/L	1100000 ug/L	24 (≤30)	-	-
	Hexavalent chromium	480 ug/L	480 ug/L	0 (≤30)	-	-
	Field pH	7.12 SU	7.11 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		M-83-20211104	M-83-20211104-FD8			
550-173773-1	Total dissolved solids	900 mg/L	1000 mg/L	11 (≤30)	-	-
	Nitrate as N	6.7 mg/L	6.8 mg/L	1 (≤30)	-	-
	Chlorate	52000 ug/L	51000 ug/L	2 (≤30)	-	-
	Perchlorate	57000 ug/L	56000 ug/L	2 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		I-B-20211104	I-B-20211104-FD			
550-173776-1	Total dissolved solids	2700 mg/L	3100 mg/L	14 (≤30)	-	-
	Nitrate as N	54 mg/L	57 mg/L	5 (≤30)	-	-
	Chlorate	59000 ug/L	61000 ug/L	3 (≤30)	-	-
	Perchlorate	290000 ug/L	290000 ug/L	0 (≤30)	-	-
	Hexavalent chromium	220 ug/L	220 ug/L	0 (≤30)	-	-
	Field pH	6.82 SU	6.82 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		PC-58-20211105	PC-58-20211105-FD5			
550-173858-1	Total dissolved solids	2300 mg/L	1900 mg/L	19 (≤30)	-	-
	Nitrate as N	9.7 mg/L	9.7 mg/L	0 (≤30)	-	-
	Chlorate	59000 ug/L	58000 ug/L	2 (≤30)	-	-
	Perchlorate	720 ug/L	780 ug/L	8 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		PC-59-20211105	PC-59-20211105-FD9			
550-173858-1	Total dissolved solids	1600 mg/L	1500 mg/L	6 (≤30)	-	-
	Nitrate as N	0.79 mg/L	0.81 mg/L	3 (≤30)	-	-
	Chlorate	55 ug/L	54 ug/L	2 (≤30)	-	-
	Perchlorate	250 ug/L	230 ug/L	8 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		PC-118-20211115	PC-118-20211115-FD			
550-174306-1	Total dissolved solids	1700 mg/L	1700 mg/L	0 (≤30)	-	-
	Field pH	7.18 SU	7.19 SU	0 (≤30)	-	-
	Nitrate as N	0.66 mg/L	0.64 mg/L	3 (≤30)	-	-
	Chlorate	420 ug/L	430 ug/L	2 (≤30)	-	-
	Perchlorate	1200 ug/L	1200 ug/L	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		ART-8-20211115	ART-8A-20211115-FD			
550-174309-1	Total dissolved solids	9600 mg/L	9700 mg/L	1 (≤30)	-	-
	Field pH	7.36 SU	7.11 SU	3 (≤30)	-	-
	Nitrate as N	11 mg/L	11 mg/L	0 (≤30)	-	-
	Chlorate	82000 ug/L	84000 ug/L	2 (≤30)	-	-
	Perchlorate	61000 ug/L	60000 ug/L	2 (≤30)	-	-
	Hexavalent chromium	69 ug/L	48 ug/L	36 (≤30)	J (all detects)	A

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		LVW7.2-1.0-20211116	LVW7.2-1.0-20211116-FD			
550-174397-1	Total dissolved solids	1000 mg/L	980 mg/L	2 (≤30)	-	-
	Chlorate	160 ug/L	170 ug/L	6 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		LVW6.05-0.8-20211116	LVW6.05-0.8-20211116-FD			
550-174397-1	Total dissolved solids	1200 mg/L	1300 mg/L	8 (≤30)	-	-
	Chlorate	150 ug/L	150 ug/L	0 (≤30)	-	-
	Perchlorate	23 ug/L	23 ug/L	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		LVW0.55-0.9-20211115	LVW0.55-0.9-20211115-FD			
550-174397-1	Total dissolved solids	1100 mg/L	1200 mg/L	9 (≤30)	-	-
	Chlorate	140 ug/L	140 ug/L	0 (≤30)	-	-
	Perchlorate	39 ug/L	40 ug/L	3 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		LVW7.2-1.0-20211207	LVW7.2-1.0-20211207-FD			
550-175450-1	Chlorate	88 ug/L	87 ug/L	1 (≤30)	-	-
	Perchlorate	1.3 ug/L	1.4 ug/L	7 (≤30)	-	-
	Total dissolved solids	1300 mg/L	1300 mg/L	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		LVW6.05-1.0-20211207	LVW6.05-1.0-20211207-FD			
550-175450-1	Chlorate	93 ug/L	90 ug/L	3 (≤30)	-	-
	Perchlorate	10 ug/L	11 ug/L	10 (≤30)	-	-
	Total dissolved solids	1400 mg/L	1300 mg/L	7 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		LVW0.55-1.2-20211208	LVW0.55-1.2-20211208-FD			
550-175450-1	Chlorate	110 ug/L	110 ug/L	0 (≤30)	-	-
	Perchlorate	40 ug/L	39 ug/L	3 (≤30)	-	-
	Total dissolved solids	1300 mg/L	1200 mg/L	8 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		I-D-20211208	I-D-20211208-FD			
550-175456-1	Hexavalent chromium	3500 ug/L	3400 ug/L	3 (≤30)	-	-
	Nitrate as N	46 mg/L	44 mg/L	4 (≤30)	-	-
	Chlorate	1100000 ug/L	1100000 ug/L	0 (≤30)	-	-
	Perchlorate	470000 ug/L	480000 ug/L	2 (≤30)	-	-
	Total dissolved solids	6100 mg/L	6200 mg/L	2 (≤30)	-	-
	Field pH	7.55 SU	7.55 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		PC-150-20211215	PC-150-20211215-FD			
550-175896-1	Hexavalent chromium	45 ug/L	44 ug/L	2 (≤30)	-	-
	Nitrate as N	12 mg/L	12 mg/L	0 (≤30)	-	-
	Chlorate	32000 ug/L	39000 ug/L	20 (≤30)	-	-
	Perchlorate	48000 ug/L	46000 ug/L	4 (≤30)	-	-
	Total dissolved solids	4600 mg/L	4300 mg/L	7 (≤30)	-	-
	Field pH	7.26 SU	7.25 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		PC-120-20211215	PC-120-20211215-FD			
550-175897-1	Chlorate	3.3 ug/L	3.8 ug/L	14 (≤30)	-	-
	Total dissolved solids	1500 mg/L	1500 mg/L	0 (≤30)	-	-
	Field pH	7.34 SU	7.34 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		E2-1-20211216	E2-1-20211216-FD			
550-175989-1	Hexavalent chromium	27 ug/L	26 ug/L	4 (≤30)	-	-
	Nitrate as N	14 mg/L	14 mg/L	0 (≤30)	-	-
	Chlorate	11000 ug/L	13000 ug/L	17 (≤30)	-	-
	Perchlorate	85000 ug/L	83000 ug/L	2 (≤30)	-	-
	Total dissolved solids	2800 mg/L	2700 mg/L	4 (≤30)	-	-
	Field pH	7.40 SU	7.40 SU	0 (≤30)	-	-

NQ = No data were qualified when either the primary or duplicate result was not detected or was below the practical quantitation limit (PQL).

IX. Target Analyte Quantitation

All target analyte quantitations were acceptable with the following exceptions:

SDG	Sample	Analyte	Finding	Criteria	Flag	A or P
550-168267-1	I-E - 2021 08 03	Nitrate as N	Sample result exceeded linear range.	Reported result should be within linear range.	J (all detects)	A

X. Overall Assessment of Data

The analysis was conducted within all specifications of the methods.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed not reportable as follows:

SDG	Sample	Analyte	Reason	Flag	A or P
550-166608-1	I-O-2021 07 07	Nitrate as N	Results exceeded calibration range.	Do not report	-
550-166991-1	E2-2 – 2021 07 03	Nitrate as N	Results exceeded calibration range.	Do not report	-
550-170282-1	I-M-2021 09 08DL I-D-2021 09 08DL	Nitrate as N	Results exceeded calibration range.	Do not report	-
550-170283-1	I-AB-2021 09 08DL	Nitrate as N	Results exceeded calibration range.	Do not report	-
550-171878-1	E1-3-2021 10 06RE1 E1-3-2021 10 06RE2 E2-5-2021 10 06RE E2-5-2021 10 06-FDRE	Nitrate as N	Re-analyzed to confirm the original result.	Do not report	-
550-173776-1	I-R-20211104RE	Perchlorate	Re-analyzed to confirm the original result.	Do not report	-
550-174110-1	I-Q-20211110RE I-T-20211110RE I-U-20211110RE I-W-20211110RE I-O-20211110RE	Perchlorate	Re-analyzed to confirm the original result.	Do not report	-
550-175989-1	E2-2-20211216 E2-3-20211216 E2-1-20211216-FD	Total dissolved solids	Per the case narrative, the samples were incorrectly prepared	Do not report	-

Due to technical holding time, MS/MSD %R, RPD, field duplicate RPD and calibration range exceedance, one hundred eight (108) results were qualified as estimated.

NERT GWM Performance Sampling, July-December 2021
Wet Chemistry - Data Qualification Summary - SDGs 550-166607-1, 550-166608-1, 550-166890-1, 550-166991-1, 550-167061-1, 550-167062-1, 550-167079-1, 550-167079-2, 550-167219-1, 550-168267-1, 550-168583-1, 550-168668-1, 550-168669-1, 550-168851-1, 550-168852-1, 550-168955-1, 550-168958-1, 550-169062-1, 550-169157-1, 550-169158-1, 550-169252-1, 550-169253-1, 550-169352-1, 550-170104-1, 550-170282-1, 550-170283-1, 550-170388-1, 550-170535-1, 550-170634-1, 550-170729-1, 550-170730-1, 550-171878-1, 550-172255-1, 550-172256-1, 550-172261-1, 550-172353-1, 550-172355-1, 550-172460-1, 550-172463-1, 550-173430-1, 550-173530-1, 550-173618-1, 550-173631-1, 550-173773-1, 550-173775-1, 550-173776-1, 550-173858-1, 550-174110-1, 550-174306-1, 550-174309-1, 550-174397-1, 550-174471-1, 550 - 175450-1, 550-175455-1, 550-175456-1, 550-175748-1, 550-175896-1, 550-175897-1, 550-175988-1, 550-175989-1

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
550-166608-1	I-O-2021 07 07DL	Nitrate as N	J- (all detects)	A	Technical holding times (h)
550-166991-1	E2-2 – 2021 07 13DL	Nitrate as N	J- (all detects)	A	Technical holding times (h)
550-170535-1	E1-3-2021 09 13	Nitrate as N	J- (all detects)	P	Technical holding times (h)
550-173776-1	I-R-20211104	Perchlorate	J- (all detects)	P	Technical holding times (h)
550-174397-1	LVW3.5-6-1.7-20211115 LVW0.55-0.9-20211115 LVW0.55-0.9-20211115-FD LVW0.55-20211115-FB	Total dissolved solids	J- (all detects) UJ (all non-detects)	P	Technical holding times (h)
550-175989-1	E2-2-20211216RE E2-3-20211216RE E2-1-20211216-FDRE	Total dissolved solids	J- (all detects)	P	Technical holding times (h)
550-166607-1	I-C-2021 07 07 I-F-2021 07 07 I-X-2021 07 07 I-N-2021 07 07 I-E-2021 07 07 I-M-2021 07 07 I-D-2021 07 07	Hexavalent chromium	J+ (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (m)
550-166608-1	I-Q-2021 07 07 I-G-2021 07 07 I-T-2021 07 07 I-U-2021 07 07 I-H-2021 07 07 I-P-2021 07 07 I-W-2021 07 07 I-O-2021 07 07 I-W-2021 07 07-FD	Hexavalent chromium	J+ (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (m)

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
550-166991-1	E1-1 - 2021 07 13 E1-2 - 2021 07 13 E1-3 - 2021 07 13 E2-3 - 2021 07 13 E2-4 - 2021 07 13	Chlorate	J+ (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (m)
550-166991-1	E2-1 - 2021 07 13 E2-2 - 2021 07 13	Chlorate	J+ (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (m)
550-168669-1	I-Q - 2021 08 09 I-G - 2021 08 09 I-T - 2021 08 09 I-U - 2021 08 09 I-H - 2021 08 09 I-P - 2021 08 09 I-W - 2021 08 09 I-O - 2021 08 09	Chlorate	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (m)
550-168851-1	E1-2 - 2021 08 11 E1-3 - 2021 08 11 E2-1 - 2021 08 11 E2-2 - 2021 08 11 E2-3 - 2021 08 11 E2-4 - 2021 08 11 E2-5 - 2021 08 11 E2-1 - 2021 08 11-FD	Chlorate	J- (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (m)
550-168852-1	I-I - 2021 08 11 I-V - 2021 08 11	Hexavalent chromium	J+ (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (m)
550-168958-1	PC-150 - 2021 08 12	Hexavalent chromium	J+ (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (m)
550-168958-1	ART-8A - 2021 08 12 ART-9 - 2021 08 12 PC-150 - 2021 08 12 PC-150 - 2021 08 12-FD	Chlorate	J+ (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (m)
550-169062-1	I-AB - 2021 08 16	Hexavalent chromium Chlorate	J+ (all detects) J+ (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (m)
550-168669-1	I-Q - 2021 08 09 I-G - 2021 08 09 I-T - 2021 08 09 I-U - 2021 08 09 I-H - 2021 08 09 I-P - 2021 08 09 I-W - 2021 08 09 I-O - 2021 08 09	Chlorate	J (all detects)	A	Matrix spike/Matrix spike duplicate (RPD) (ld)

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
550-170283-1	I-AA-2021 09 08 I-AB-2021 09 08 I-B-2021 09 08 I-R-2021 09 08 I-Y-2021 09 08 I-L-2021 09 08 I-S-2021 09 08 I-AR-2021 09 08 I-AA-2021 09 08-FD	Hexavalent chromium	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (m)
550-170283-1	I-AB-2021 09 08 I-B-2021 09 08 I-R-2021 09 08 I-Y-2021 09 08 I-L-2021 09 08 I-S-2021 09 08 I-AR-2021 09 08 I-AA-2021 09 08-FD	Chlorate	J+ (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (m)
550-170388-1	I-Q-2021 09 09 I-G-2021 09 09 I-T-2021 09 09 I-U-2021 09 09 I-H-2021 09 09 I-P-2021 09 09 I-W-2021 09 09 I-O-2021 09 09	Nitrate as N	J- (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (m)
550-170388-1	I-T-2021 09 09 I-U-2021 09 09 I-H-2021 09 09 I-P-2021 09 09 I-W-2021 09 09 I-O-2021 09 09	Chlorate	J+ (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (m)
550-170535-1	E1-1-2021 09 13 E1-2-2021 09 13 E1-3-2021 09 13 E2-1-2021 09 13 E2-2-2021 09 13 E2-3-2021 09 13 E2-4-2021 09 13 E2-5-2021 09 13 E2-3-2021 09 13-FD	Chlorate	J+ (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (m)
550-167061-1	ART-8A - 2021 07 14 ART-8A - 2021 07 14-FD	Nitrate as N	J (all detects)	A	Field duplicates (RPD) (fd)
550-167062-1	PC-119 - 2021 07 14 PC-119 - 2021 07 14-FD	Nitrate as N	J (all detects)	A	Field duplicates (RPD) (fd)
550-168851-1	E2-1 - 2021 08 11 E2-1 - 2021 08 11-FD	Chlorate	J (all detects)	A	Field duplicates (RPD) (fd)
550-170729-1	ART-2/2A-2021 09 15 ART-2/2A-2021 09 15-FD	Nitrate as N	J (all detects)	A	Field duplicates (RPD) (fd)

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
550-174309-1	ART-8-20211115 ART-8A-20211115-FD	Hexavalent chromium	J (all detects)	A	Field duplicates (RPD) (fd)
550-168267-1	I-E - 2021 08 03	Nitrate as N	J (all detects)	A	Target analyte quantitation (exceeded range) (e)
550-166608-1	I-O-2021 07 07	Nitrate as N	Do not report	-	Overall assessment of data (orr)
550-166991-1	E2-2 - 2021 07 13	Nitrate as N	Do not report	-	Overall assessment of data (orr)
550-170282-1	I-M-2021 09 08DL I-D-2021 09 08DL	Nitrate as N	Do not report	-	Overall assessment of data (orr)
550-170283-1	I-AB-2021 09 08DL	Nitrate as N	Do not report	-	Overall assessment of data (orr)
550-171878-1	E1-3-2021 10 06RE1 E1-3-2021 10 06RE2 E2-5-2021 10 06RE E2-5-2021 10 06-FDRE	Nitrate as N	Do not report	-	Overall assessment of data (orr)
550-173776-1	I-R-20211104RE	Perchlorate	Do not report	-	Overall assessment of data (orr)
550-174110-1	I-Q-20211110RE I-T-20211110RE I-U-20211110RE I-W-20211110RE I-O-20211110RE	Perchlorate	Do not report	-	Overall assessment of data (orr)
550-175989-1	E2-2-20211216 E2-3-20211216 E2-1-20211216-FD	Total dissolved solids	Do not report	-	Overall assessment of data (orr)

NERT GWM Performance Sampling, July-December 2021
Wet Chemistry - Laboratory Blank Data Qualification Summary - SDGs 550-166607-1, 550-166608-1, 550-166890-1, 550-166991-1, 550-167061-1, 550-167062-1, 550-167079-1, 550-167079-2, 550-167219-1, 550-168267-1, 550-168583-1, 550-168668-1, 550-168669-1, 550-168851-1, 550-168852-1, 550-168955-1, 550-168958-1, 550-169062-1, 550-169157-1, 550-169158-1, 550-169252-1, 550-169253-1, 550-169352-1, 550-170104-1, 550-170282-1, 550-170283-1, 550-170388-1, 550-170535-1, 550-170634-1, 550-170729-1, 550-170730-1, 550-171878-1, 550-172255-1, 550-172256-1, 550-172261-1, 550-172353-1, 550-172355-1, 550-172460-1, 550-172463-1, 550-173430-1, 550-173530-1, 550-173618-1, 550-173631-1, 550-173773-1, 550-173775-1, 550-173776-1, 550-173858-1, 550-174110-1, 550-174306-1, 550-174309-1, 550-174397-1, 550-174471-1, 550 - 175450-1, 550-175455-1, 550-175456-1, 550-175748-1, 550-175896-1, 550-175897-1, 550-175988-1, 550-175989-1

No Sample Data Qualified in these SDGs

NERT GWM Performance Sampling, July-December 2021
Wet Chemistry - Field Blank Data Qualification Summary - SDGs 550-166607-1, 550-166608-1, 550-166890-1, 550-166991-1, 550-167061-1, 550-167062-1, 550-167079-1, 550-167079-2, 550-167219-1, 550-168267-1, 550-168583-1, 550-168668-1, 550-168669-1, 550-168851-1, 550-168852-1, 550-168955-1, 550-168958-1, 550-169062-1, 550-169157-1, 550-169158-1, 550-169252-1, 550-169253-1, 550-169352-1, 550-170104-1, 550-170282-1, 550-170283-1, 550-170388-1, 550-170535-1, 550-170634-1, 550-170729-1, 550-170730-1, 550-171878-1, 550-172255-1, 550-172256-1, 550-172261-1, 550-172353-1, 550-172355-1, 550-172460-1, 550-172463-1, 550-173430-1, 550-173530-1, 550-173618-1, 550-173631-1, 550-173773-1, 550-173775-1, 550-173776-1, 550-173858-1, 550-174110-1, 550-174306-1, 550-174309-1, 550-174397-1, 550-174471-1, 550 - 175450-1, 550-175455-1, 550-175456-1, 550-175748-1, 550-175896-1, 550-175897-1, 550-175988-1, 550-175989-1

No Sample Data Qualified in these SDGs

APPENDIX F
ELECTRONIC DATA DELIVERABLE (EDD)
(AVAILABLE ELECTRONICALLY ON USB FLASH DRIVE)

APPENDIX G
ENVIRONMENTAL FOOTPRINT ANALYSIS

TABLE G-1: ENVIRONMENTAL FOOTPRINT INVENTORY DATA SOURCES, JULY - DECEMBER 2021

Nevada Environmental Response Trust Site

Henderson, Nevada

Parameter	Data Sources
Personnel Transportation	Personnel transportation estimates are compiled by the Trust, Ramboll, Tetra Tech, and Envirogen for tasks associated with the Groundwater Monitoring Program and the Groundwater Extraction and Treatment System (GWETS).
	Flight distances are estimated using the approximate distance from the starting location city/airport to Las Vegas airport. Driving distances are estimated using the approximate driving distance reported by Google Maps.
	Transportation associated with one-time events (e.g. system construction) is not included.
On-site Equipment Usage	Envirogen's gasoline usage for on-site vehicles is compiled from available vehicle analysis reports.
	Tetra Tech's and Ramboll's gasoline usage for on-site vehicles is estimated using approximate mileage amounts provided by field personnel and an assumed fuel efficiency determined based on type of vehicle used and type of vehicle usage.
	Estimates for fuel usage for other on-site equipment are provided by Envirogen.
	Equipment usage associated with one-time events (e.g. system construction) is not included.
Electricity Usage	Electricity usage is compiled from invoices received from the Colorado River Commission of Nevada and NV Energy.
	Fuel mix information for grid electricity is available from the Colorado River Commission of Nevada and NV Energy websites.
Materials Usage and Transportation	Materials usage information is provided by Envirogen personnel based on electronic outputs from their process control systems.
	All information regarding specifications and formulations is obtained from Safety Data Sheets maintained at the Site.
	Information regarding mode of transportation to the Site and location of manufacture is provided by Envirogen. Fuel types are assumed based on mode of transportation. Distances traveled are estimated based on the approximate distance between the manufacturing location and the Site.
	Materials usage and transportation associated with one-time events (e.g. system construction) is not included.
Waste Disposal and Transportation	Waste disposal and transportation information is compiled from invoices provided by Envirogen and Tetra Tech containing information regarding waste hauled off-site. Invoice line items are counted to determine the number of pickup trips. Distances traveled are estimated based on the distance between the disposal location and the Site.
Water Usage	Surface water usage is determined based on totalizer readings from the Site's main water supply line and subtracting totalizer readings associated with usage by Tronox (not part of Site operations). For periods when readings from the Site's main water supply line were not available, surface water usage was estimated by summing readings from individual point discharge locations.
	Extracted groundwater is calculated from the GWETS field sheet maintained by Tetra Tech and Envirogen.
	GW-11 evaporation is estimated based on GW-11 stage area estimates provided by Envirogen and historic pan evaporation data (Shevenell 1996).
Off-site Laboratory Analyses	The total number of analyses conducted is compiled based on information available from the Site's Analytical Database maintained by Ramboll and only includes sampling related to GWETS operations or the groundwater monitoring program. Quality Assurance (QA) and Quality Control (QC) samples, including equipment blanks, field blanks, trip blanks, and field duplicates, are also included. Pricing information for each analytical method is estimated based on unit prices provided by TestAmerica.

TABLE G-2: PERSONNEL TRANSPORTATION, JULY - DECEMBER 2021

Nevada Environmental Response Trust Site

Henderson, Nevada

Personnel Location/ Activities	Number of Personnel	Estimated Roundtrips to Site per Person	Roundtrip Distance to Site (miles)	Mode of Transportation	Transport Fuel Type	Notes
GWETS Activities						
GWETS Operations and Maintenance	1	84	30	Light-Duty Truck	Gasoline	[A]
	3	84	30	Car	Gasoline	
	1	120	20	Light-Duty Truck	Gasoline	
	1	120	20	Car	Gasoline	
	3	150	30	Car	Gasoline	
	3	150	30	Light-Duty Truck	Gasoline	
Extraction Well and Conveyance Maintenance	1	123	30	Van	Gasoline	
	1	123	30	Heavy-Duty Truck	Gasoline	
Groundwater Monitoring	1	123	30	Van	Gasoline	
General Site Management	1	120	30	Van	Gasoline	
	1	120	30	Heavy-Duty Truck	Gasoline	
IX Monitoring and Management	1	123	30	Heavy-Duty Truck	Gasoline	
Director of Remediation	1	0	10	Car	Gasoline	[B]
Chicago	1	1	3,020	Flight	NA	[B]
Denver	1	2	1,260	Flight	NA	[C]
	1	1	1,260	Flight	NA	[C]
Las Vegas Area	2	5	20	Car	Gasoline	[C]
	1	132	20	Car	Gasoline	[C]
Medford	1	1	1,200	Flight	NA	[D]
GWM Activities						
Boise	1	2	1,040	Flight	NA	[C]
Billings	1	1	1,510	Flight	NA	[C]
	1	1	1,970	Car	Gasoline	[C]
Denver	1	2	1,260	Flight	NA	[C]
Irvine	1	1	540	Car	Gasoline	[C]
Las Vegas Area	1	29	20	Car	Gasoline	[C]
	1	16				
Phoenix	1	1	590	Car	Gasoline	[C]
Sacramento	1	1	790	Car	Gasoline	[C]
Salt Lake City	1	2	740	Flight	NA	[D]

Notes

Due to national travel restrictions in place during the reporting period, some personnel traveled via car rather than flying and only essential trips to the Site were made (other routine business was conducted remotely).

A) Travel estimates were provided by Envirogen.

B) Travel estimates were provided by the Nevada Environmental Response Trust.

C) Travel estimates were provided by Tetra Tech.

D) Travel estimates were provided by Ramboll.

E) Average roundtrip distances are rounded to the nearest 10 miles.

F) For each flight, a 30-mile car trip is assumed to account for roundtrip transportation from the airport to the Site.

NA = Not Applicable

TABLE G-3: ON-SITE EQUIPMENT USAGE, JULY - DECEMBER 2021

Nevada Environmental Response Trust Site

Henderson, Nevada

On-site Equipment	Fuel Quantity (gallons)	Fuel Type	Notes
GWETS Activities			
Combined Truck Use	1,060	Gasoline	[A]
Back-up Air Compressor	10	Diesel	[B]
Pressure Washer	24	Gasoline	[C]
GWM Activities			
Combined Truck Use	190	Gasoline	[A]

Notes

A) Gasoline usage was estimated based on vehicle usage information provided by Envirogen, Tetra Tech, and Ramboll personnel. Estimates shown are rounded to the nearest 10 gallons.

B) Personnel with Envirogen indicated approximately 20 gallons of diesel are used per year for operation of the back up air compressor at the groundwater treatment plant (GWTP).

C) Personnel with Envirogen indicated approximately 4 gallons of gasoline are used per month for operation of the pressure washer.

TABLE G-4: ELECTRICITY USAGE, JULY - DECEMBER 2021

Nevada Environmental Response Trust Site

Henderson, Nevada

Grid Electricity	Kilowatt-hours	Energy Source	Notes
Treatment Plant	2,237,822	Colorado River Commission of NV	[A]
Extraction Wells and Lift Stations	700,637	NV Energy	[B]
Total Electricity Used	**2,938,459**	-	-

Notes

A) The Colorado River Commission of Nevada is responsible for acquiring and managing Nevada's water and hydropower resources from the Colorado River. Electricity provided by the Colorado River Commission of Nevada to the NERT Site is generated from hydropower resources.

B) NV Energy is listed as the electricity provider on invoices for the off-site extraction wells and pump stations. Information regarding the energy sources of electricity provided is available from the following document:
https://www.nvenergy.com/publish/content/dam/nvenergy/bill_inserts/2022/01_jan/power-content-insert-south-2021_1_30.pdf

TABLE G-5: MATERIALS USAGE AND TRANSPORTATION, JULY - DECEMBER 2021

Nevada Environmental Response Trust Site

Henderson, Nevada

Material Type	Quantity	Units	Location of Manufacture	One-way Distance to Site (miles)	Mode of Transportation	Specific Gravity	Density (lbs/gal)
Ferrous sulfate ($FeSO_4$)	6,300	gal	South Gate, CA	250	Truck	1.203	10.02
PolymerDewater BF CP 9869	350	gal	Riceboro, GA	2,200	Truck	0.12	1.00
DAF polymer BF CP 2661	3,500	gal	Greensboro, South Carolina	2,250	Truck	1.03	8.60
Polymer Superfloc 4818 RS GWTP	370	lbs	Madison, Alabama	1,750	Truck	1.072	8.95
Lime (hydrated lime)	510	lbs	Sainte Genevieve, MO	1,600	Truck	2.2	-
Ethanol (190 proof)	42,000	gal	Peoria, IL	1,950 250	Train Truck	0.817	-
Phosphoric acid (H_3PO_4)	2,000	gal	Pocatello, ID	600	Truck	1.20-1.26	10.0-10.5
pH adjustment (NaOH)	7,900	gal	Plaquemine, LA	1,650	Train/Truck	1.33	11.1
Micronutrients (VWNA micronutrient)	4,400	gal	South Gate, CA	250	Truck	1.1075	9.24
Hydrogen peroxide (H_2O_2)	8,800	gal	Longview, WA Woodstock, TN	1,050 1,600	Truck	1.1327	9.44
Ferric chloride ($FeCl_3$)	3,700	gal	Vernon, CA	300	Truck	-	11.8-12.0
Ion exchange (IX) resin	200	cubic feet	India	10,400 2,550	Boat Truck	1.0-1.15	-
Granular activated carbon (GAC)	0	lbs	Pittsburg, PA	2,200	Truck	0.4-0.7	3.3-5.8

Notes

gal = gallons lbs = pounds

A) Materials usage information is provided by Envirogen personnel based on electronic outputs from their process control systems and inventory ordering information. Envirogen reported all materials are refined and none of the materials are from recycled sources.

B) Information regarding location of manufacture and mode of transportation is provided by Envirogen personnel. Approximate one-way distance to the Site is estimated using Google Maps rounded to the nearest 50 miles.

C) Specific gravity and density information for each material is obtained from Safety Data Sheets maintained at the Site.

D) According to Envirogen personnel, the GAC is tested annually for potential contaminant breakthrough and is replaced only if breakthrough is observed. Approximately one hundred percent of the GAC is regenerated and reused.

TABLE G-6: WASTE DISPOSAL AND TRANSPORTATION, JULY - DECEMBER 2021

Nevada Environmental Response Trust Site

Henderson, Nevada

Waste Generated	Notes	Quantity	Units	Number of Trips	Treatment/ Disposal Site	One-way Distance to Site (miles)	Mode of Transportation
Fluidized Bed Reactor (FBR) Sludge	A	194	tons	40	Apex Industrial Solid Landfill	30	Truck
Groundwater Water Treatment Plant (GWTP) Sludge		7	tons	1			
Ion Exchange (IX) Resin		7	tons	3			
Hazardous cleaning solution	B	2,500	gallons	2	US Ecology	120	

Notes

A) Information regarding FBR sludge, GWTP sludge, IX resin and Spent GAC hauled off-site was compiled from invoices provided by Envirogen personnel.

B) Information regarding wastes from the Hydrogen-based Gas Permeable Membrane (HGPM) Pilot System was provided by Tetra Tech. The activities associated with the HGPM are included as GWETS activities.

TABLE G-7: WATER USAGE, JULY - DECEMBER 2021

Nevada Environmental Response Trust Site

Henderson, Nevada

Water Source	Quantity	Unit	Use/Fate
Extracted Groundwater	331	MGal	Treat and discharge to Las Vegas Wash
Lake Mead	7.3	MGal	See Note A
GW-11 Evaporation	19.0	MGal	Evaporation - See Note B

Notes

MGal = million gallons

A) Lake Mead water is used for granular activated carbon (GAC) backwash events, which occur on average three times per month. Lake Mead water is also used for Fluidized Bed Reactor (FBR) polymer additions, groundwater treatment plant polymer additions, washing down equipment in the treatment plant, sanitary water, seal water for FBR pumps, AP Area flushing, and AP-5 solids removal and treatment (which ended in the second half of 2018). After use, Lake Mead water is discharged to GW-11 and then eventually treated and discharged to Las Vegas Wash, except for sanitary water which is discharged to an on-site septic system.

B) GW-11 evaporation was estimated using information contained within the GW-11 Pond Volume Model maintained by Envirogen. The GW-11 Pond Volume Model includes measured pond water levels (collected approximately twice per month) and corresponding calculated pond volume and stage area estimates. Stage area estimates and historical pan evaporation data (Shevenell 1996) are used to calculate estimated evaporation during the reporting period. Details of these calculations are included in the SEFA input workbook.

TABLE G-8: OFF-SITE LABORATORY ANALYSES, JULY - DECEMBER 2021

Nevada Environmental Response Trust Site

Henderson, Nevada

Analyte	Method	Estimated Analytical Unit Price	Number of Analyses
Groundwater Extraction and Treatment System (GWETS) Analyses			
East Well Feed and West Well Feed - Weekly			
Chromium	EPA 200.7	$25	52
Chromium, Hexavalent Dissolved	EPA 218.6	$50	52
Perchlorate	EPA 314.0	$25	52
FBR Plant Influent - Weekly			
Chromium	EPA 200.7	$25	26
Iron		$8	26
Chromium, Hexavalent Dissolved	EPA 218.6	$50	26
Nitrate as N	EPA 300_ORGFMS	$8	26
Nitrite as N		$8	26
Total Inorganic Nitrogen	NTOTAL	$5	26
Perchlorate	EPA 314.0	$25	26
Nitrogen, Kjeldahl	EPA 351.2	$25	26
Ammonia as N	SM400-NH3-D	$20	26
FBR Plant Effluent - Weekly			
Chromium	EPA 200.7	$25	26
Chromium, Hexavalent Dissolved	EPA 218.6	$50	26
Nitrate as N	EPA 300_ORGFMS	$8	26
Perchlorate	EPA 314.0	$25	26
FBR Effluent and FBR Influent - Monthly			
Chlorate	EPA 300.1	$12	12
FBR Influent - Quarterly			
Manganese	EPA 200.7	$25	2
Total Dissolved Solids	SM 2540C	$10	2
GW-11 Composite			
Calcium	EPA 200.7	$25	2
Iron		$8	2
Chromium, Hexavalent Dissolved	EPA 218.6	$50	2
Chloride	EPA 300_ORGFM_28D	$8	2
Sulfate		$8	2
Chlorate	EPA 300.1	$12	2
Total Suspended Solids	SM 2540D	$10	2
pH	SM 4500H+	$8	2
pH (Field)	FIELD SAMPLING (SM 4500H+)	$0	8
GW-11 Static Mixer			
Chromium	EPA 200.7	$25	6
Chromium, Hexavalent Dissolved	EPA 218.6	$50	6
Perchlorate	EPA 314.0	$25	6

TABLE G-8: OFF-SITE LABORATORY ANALYSES, JULY - DECEMBER 2021

Nevada Environmental Response Trust Site

Henderson, Nevada

Analyte	Method	Estimated Analytical Unit Price	Number of Analyses
GWTP Discharge			
Chromium	EPA 200.7	$25	26
Chromium, Hexavalent Dissolved	EPA 218.6	$50	26
Perchlorate	EPA 314.0	$25	26
IX Effluent - Composite and IX Influent - Composite			
Perchlorate	EPA 314.0	$25	52
IX Influent			
Chromium	EPA 200.7	$25	6
Molybdenum		$8	6
Selenium		$8	6
Vanadium		$8	6
Uranium	EPA 200.8	$8	6
Total Phosphorus as P	EPA 365.3	$22	6
Bicarbonate as HCO3	SM 2320	$11	6
Carbonate as CO3			
Total Alkalinity as CaCO3			
Total Dissolved Solids	SM 2540C	$10	2
Outfall 001 Effluent - Quarterly			
Antimony	EPA 200.7	$100	2
Arsenic			
Beryllium			
Boron			
Cadmium			
Chromium			
Copper			
Lead			
Nickel			
Selenium			
Silver			
Thallium			
Zinc			
Mercury	EPA 245.1	$22	2
Chloride	EPA 300_ORGFM_28D	$8	2
Asbestos	EPA 600/R-94-134	$306	2
Pesticides & PCBs	EPA 608	$120	2
Volatile Organics	EPA 624	$45	4
Base Neutral Acid Extractables	EPA 625	$125	2
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 1613B	$325	2
Oil & Grease	EPA 1664	$35	2
Total Dissolved Solids	SM 2540C	$10	2

TABLE G-8: OFF-SITE LABORATORY ANALYSES, JULY - DECEMBER 2021

Nevada Environmental Response Trust Site

Henderson, Nevada

Analyte	Method	Estimated Analytical Unit Price	Number of Analyses
Cyanide, Total	SM 4500-CN-E	$33	2
Outfall 001 Effluent - Monthly			
Sulfate	EPA 300_ORGFM_28D	$8	6
Sulfide	SM 4500-S2-D	$23	6
Outfall 001 Effluent - Weekly			
Chromium	EPA 200.7	$25	26
Iron	EPA 200.7	$8	26
Manganese	EPA 200.7	$8	26
Chromium, Hexavalent Dissolved	EPA 218.6	$50	26
Nitrate as N	EPA 300_ORGFMS	$8	26
Nitrite as N		$8	26
Total Inorganic Nitrogen	NTOTAL	$5	26
Perchlorate	EPA 314.0	$25	26
Ammonia as N	EPA 350.1	$20	26
Total Phosphorus as P	EPA 365.3	$22	26
Apparent Color	SM 2120	$10	26
pH		$8	26
Total Suspended Solids	SM 2540D	$10	26
Dissolved Oxygen	SM 4500 OG	$10	26
pH	SM 4500H+	$8	26
pH (Field)	FIELD SAMPLING (SM 4500H+)	$0	26
Carbonaceous Biochemical Oxygen Demand	SM 5210B	$30	26
Las Vegas Wash 5.5			
Iron	EPA 200.7	$25	2
Manganese		$8	2
Total Dissolved Solids	SM 2540C	$10	2
GW-11 Composite			
Arsenic	EPA 200.7	$25	2
Boron		$8	2
Chromium		$8	2
Manganese		$8	2
Selenium		$8	2
Nitrate as N	EPA 300_ORGFMS	$8	2
Nitrite as N		$8	2
Total Inorganic Nitrogen	NTOTAL	$5	2
Perchlorate	EPA 314.0	$25	2
Ammonia as N	EPA 350.1	$20	2
Total Phosphorus as P	EPA 365.3	$22	2
Total Dissolved Solids	SM 2540C	$10	2
Estimated Total Cost of GWETS Analyses		**$27,624**	

TABLE G-8: OFF-SITE LABORATORY ANALYSES, JULY - DECEMBER 2021

Nevada Environmental Response Trust Site

Henderson, Nevada

Analyte	Method	Estimated Analytical Unit Price	Number of Analyses
Performance Monitoring (PM) Analyses			
Performance Monitoring Program Wells			
Chromium	EPA 200.7	$25	524
Chromium, Hexavalent	EPA 218.6	$50	408
Nitrate as N	EPA 300_ORGFMS	$8	508
Chlorate	EPA 300.1	$12	508
Perchlorate	EPA 314.0	$25	524
Total Dissolved Solids	SM 2540C	$10	524
pH (Field)	FIELD SAMPLING (SM 4500H+)	$0	384
NPDES Requirements for Performance Monitoring Well M-10			
Arsenic	EPA 200.7	$8	2
Boron		$8	2
Iron		$8	2
Manganese		$8	2
Selenium		$8	2
Chloride	EPA 300_ORGFM_28D	$8	2
Nitrite as N	EPA 300_ORGFMS	$8	2
Ammonia as N	EPA 350.1	$20	2
Total Inorganic Nitrogen	NTOTAL	$5	2
RCRA Requirements for Performance Monitoring Wells H-28A, M-5A, M-6A, and M-7B			
Boron	EPA 200.7	$8	4
Iron		$8	4
Manganese		$8	4
Sodium		$8	4
Chloride	EPA 300_ORGFM_28D	$8	4
Sulfate		$8	4
Phenols	EPA 420	$35	4
Specific Conductance	SM 2510	$10	4
Total Organic Carbon	SM 5310C	$30	4
Total Organic Halides	SW 9020B	$75	4
Performance Monitoring Program Surface Water Sampling			
Chlorate	EPA 300.1	$12	222
Perchlorate	EPA 314.0	$25	222
Total Dissolved Solids	SM 2540C	$10	222
Performance Monitoring Program Northshore Road (LVW 0.55)			
Perchlorate	EPA 314.0	$25	12
Estimated Total Cost of PM Analyses		**$73,688**	

TABLE G-8: OFF-SITE LABORATORY ANALYSES, JULY - DECEMBER 2021

Nevada Environmental Response Trust Site

Henderson, Nevada

Analyte	Method	Estimated Analytical Unit Price	Number of Analyses

Notes

A) Analytical costs were estimated based on TestAmerica Laboratories Inc. 2017 Unit Price List for NERT Projects included in the Master Project Subcontract Agreement between Ramboll and TestAmerica and correspondence with TestAmerica. Laboratory method names, matrix designations, and total number of analyses conducted were compiled from laboratory EDDs maintained in the NERT project database.