TABLE G-1: ENVIRONMENTAL FOOTPRINT INVENTORY DATA SOURCES, JULY 2016 - JUNE 2017

Nevada Environmental Response Trust Site

Henderson, Nevada

Parameter	Data Sources
Personnel Transportation	Personnel transportation estimates are compiled by the Trust, Ramboll Environ, 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 linear distance from the starting location airport to Las Vegas airport.
	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 gasoline usage for on-site vehicles is estimated using approximate mileage amounts provided by Tetra Tech and an assumed fuel efficiency determined based on type of vehicle used and type of 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 is provided by Envirogen. Fuel types are assumed based on mode of transportation. Distances traveled are estimated based on distance between 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 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 distance between 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).
	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 Environ 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 quotes provided by TestAmerica.

TABLE G-2: PERSONNEL TRANSPORTATION, JULY 2016 - JUNE 2017

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	168	30	Light-Duty Truck	Gasoline	[A]
	4	168	30	Car	Gasoline	[A]
	1	120	60	Car	Gasoline	[A]
	2	120	30	Car	Gasoline	[A]
	4	300	20	Car	Gasoline	[A]
	2	150	20	Light-Duty Truck	Gasoline	[A]
Extraction Well and Conveyance Maintenance	1	246	30	Van	Gasoline	[A]
	1	246	30	Heavy-Duty Truck	Gasoline	[A]
Groundwater Monitoring	1	246	30	Van	Gasoline	[A]
General Site Management	1	240	30	Van	Gasoline	[A]
	1	240	30	Heavy-Duty Truck	Gasoline	[A]
IX Monitoring and Management	1	123	30	Heavy-Duty Truck	Gasoline	[A]
Director of Remediation	1	251	10	Car	Gasoline	[B]
Chicago	1	12	3,020	Flight	NA	[B]
Denver	3	1	1,220	Flight	NA	[C]
	1	2				
Nashville	1	8	3,180	Flight	NA	[B]
Las Vegas Area	1	261	20	Light-Duty Truck	Gasoline	[C]
	1	4	30	Light-Duty Truck	Gasoline	[C]
Newark	1	1	4,440	Flight	NA	[C]
Orange County	1	2	540	Light-Duty Truck	Gasoline	[C]
	1	1	450	Flight	NA	[C]
	1	2				[C]
Phoenix	1	1	540	Flight	NA	[D]
Salt Lake City	1	2	660	Flight	NA	[C]
Sacramento	1	3	760	Flight	NA	[D]
San Bernadino	2	3	460	Light-Duty Truck	Gasoline	[C]
San Francisco Bay Area	6	1	820	Flight	NA	[D]
	1	5				
GWM Activities						
Denver	1	5	1,220	Flight	NA	[C]
	1	4				
	1	2				
	1	1				
Irvine	1	1	540	Car	Gasoline	[D]
Las Vegas Area	1	16	20	Car	Gasoline	[C]
	1	20	10	Car	Gasoline	[C]
	1	4	40	Light-Duty Truck	Gasoline	[C]
Minneapolis	1	2	2,560	Flight	NA	[D]

TABLE G-2: PERSONNEL TRANSPORTATION, JULY 2016 - JUNE 2017

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
Phoenix	1	1	540	Flight	NA	[C]
	1	1	570	Light-Duty Truck	Gasoline	[C]
Sacramento	1	1	760	Flight	NA	[D]
San Francisco Bay Area	2	2	820	Flight	NA	[D]
	3	1				

Notes

A) Travel estimates were provided by Envirogen personnel.

B) Travel estimates were provided by the Nevada Environmental Response Trust.

C) Travel estimates were provided by Tetra Tech Personnel.

D) Travel estimates were provided by Ramboll Environ.

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 2016 - JUNE 2017

Nevada Environmental Response Trust Site

Henderson, Nevada

On-site Equipment	Fuel Quantity (gallons)	Fuel Type	Notes
GWETS Activities			
Combined Truck Use	2,830	Gasoline	[A]
Back-up Air Compressor	20	Diesel	[B]
Generators	120	Gasoline	[C]
GWM Activities			
Combined Truck Use	270	Gasoline	[A]

Notes

A) Gasoline usage was estimated based on vehicle usage information provided by Envirogen and Tetra Tech. 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 10 gallons of gasoline are used per month for operation of the pumps at the GW-11 pond corners.

TABLE G-4: ELECTRICITY USAGE, JULY 2016 - JUNE 2017

Nevada Environmental Response Trust Site

Henderson, Nevada

Grid Electricity	Kilowatt-hours	Energy Source	Notes
Treatment Plant	4,585,712	Colorado River Commission of NV	[A]
Extraction Wells and Lift Stations	1,279,546	NV Energy	[B]
Total Electricity Used	**5,865,258**	-	-

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/2017/06_jun/power-content-insert-south-2017-07_28_30.pdf

TABLE G-5: MATERIALS USAGE AND TRANSPORTATION, JULY 2016 - JUNE 2017

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 ($FeSO_4$)	13,000	gal	California	250	Truck	1.20	10.02
Polymer ICS-2528	380	gal	Arizona	250	Truck	1.05	-
Dry polymer dewatering ICS-6545	4,700	lbs	Arizona	250	Truck	-	-
DAF polymer ICS-2835B	6,300	gal	Arizona	250	Truck	1.03	8.55
Lime (hydrated lime)	11,000	lbs	Missouri	1,600	Truck	2.20	-
Ethanol (190 proof)	90,000	gal	Illinois	1,700	Train/Truck	0.82	-
Phosphoric acid (H_3PO_4)	4,700	gal	China	6,500	Boat	1.23	10.25
				250	Truck		
pH adjustment (NaOH)	12,000	gal	Nevada	50	Truck	1.33	11.10
Micronutrients (VWNA micronutrient)	12,000	gal	California	300	Truck	1.11	9.24
Hydrogen peroxide (H_2O_2)	19,000	gal	Washington	1,150	Truck	1.13	9.44
Ferric chloride ($FeCl_3$)	14,000	gal	California	250	Truck	1.37	-
Ion exchange (IX) resin	700	cubic feet	New Jersey	2,500	Truck	-	5.67
Granular activated carbon (GAC)	0	lbs	-	-	-	-	-

Notes

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. If a range is given for a materials specification, the average of the lower and upper limits is used.

D) According to Envirogen personnel, the GAC is tested annually for potential contaminant breakthrough and is replaced only if breakthrough is observed. The GAC was not replaced during the reporting period.

gal = gallons

lbs = pounds

TABLE G-6: WASTE DISPOSAL AND TRANSPORTATION, JULY 2016 - JUNE 2017

Nevada Environmental Response Trust Site

Henderson, Nevada

Waste Generated	Quantity	Units	Number of Trips	Treatment/Disposal Site	One-way Distance to Site (miles)	Mode of Transportation
Fluidized Bed Reactor (FBR) Sludge	574	tons	80	Apex Industiral Solid Landfill	30	Truck
Groundwater Water Treatment Plant (GWTP) Sludge	8	tons	1			
Ion Exchange (IX) Resin	4	tons	1			

Notes

A) Information regarding waste hauled off-site is compiled from invoices provided by Envirogen personnel. None of the wastes generated are hazardous.

TABLE G-7: WATER USAGE, JULY 2016 - JUNE 2017

Nevada Environmental Response Trust Site

Henderson, Nevada

Water Source	Quantity	Unit	Use/Fate
Extracted Groundwater	528	MGal	Treat and discharge to Las Vegas Wash
Lake Mead	19.0	MGal	See Note A
GW-11 Evaporation	39.0	MGal	Evaporation

Notes

A) Lake Mead water is used for 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. After use, Lake Mead water is discharged to GW-11 and then eventually treated and discharged to the Las Vegas Wash, except for sanitary water which is discharged to an on-site septic system.

MGal = million gallons

TABLE G-8: OFF-SITE LABORATORY ANALYSES, JULY 2016 - JUNE 2017

Nevada Environmental Response Trust Site

Henderson, Nevada

Analyte	Analytic Method	Matrix	Estimated Analytical Unit Price	Number of Analyses
GWETS Laboratory Analyses				
2,3,7,8-Tetrachlorodibenzofuran	EPA 1613B	Water	$325	5
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 1613B	Water	$325	6
HEM Oil/Grease	EPA 1664	Water	$35	6
Antimony	EPA 200.7	Water	$8	6
Arsenic	EPA 200.7	Water	$8	9
Beryllium	EPA 200.7	Water	$8	6
Boron	EPA 200.7	Water	$8	18
Cadmium	EPA 200.7	Water	$8	6
Calcium	EPA 200.7	Water	$8	2
Chromium (total)	EPA 200.7	Water	$25	327
Copper	EPA 200.7	Water	$8	6
Iron	EPA 200.7	Water	$8	106
Lead	EPA 200.7	Water	$8	6
Manganese	EPA 200.7	Water	$8	48
Molybdenum	EPA 200.7	Water	$8	4
Nickel	EPA 200.7	Water	$8	6
Selenium	EPA 200.7	Water	$8	13
Silver	EPA 200.7	Water	$8	6
Thallium	EPA 200.7	Water	$8	6
Vanadium	EPA 200.7	Water	$8	4
Zinc	EPA 200.7	Water	$8	6
Uranium-238	EPA 200.8	Water	$25	4
Chromium VI	EPA 218.6	Water	$50	301
Mercury	EPA 245.1	Water	$22	6
Chloride	EPA 300	Water	$8	17
Nitrate	EPA 300	Water	$8	253
Nitrate Nitrite as N	EPA 300	Water	$0	151
Nitrite	EPA 300	Water	$8	151
Sulfate	EPA 300	Water	$8	47
Chlorate	EPA 300.1	Solid	$17	1
Chlorate	EPA 300.1	Water	$12	51
Chlorate	EPA 300.1B	Water	$12	73
Chlorite	EPA 300.1B	Water	$12	51
Perchlorate	EPA 314.0	Solid	$35	13
Perchlorate	EPA 314.0	Water	$25	639
Ammonia (as N)	EPA 350.1	Water	$20	135
Total Kjeldahl Nitrogen	EPA 351.2	Water	$25	81
Phosphorus (total)	EPA 365.3	Water	$22	99
Volatile Organics	EPA 524.2	Water	$76	4
Metals	EPA 6010	Solid	$90	1
Calcium	EPA 6010B	Water	$8	22
Chromium (total)	EPA 6010B	Solid	$25	10
Chromium (total)	EPA 6010B	Water	$25	77
Iron	EPA 6010B	Water	$8	22
Manganese	EPA 6010B	Water	$8	37
Metals	EPA 6010R	Leachate	$90	3
Volume and Weight, TCLP Leachate	EPA 6010R	Leachate	$40	4
Aluminum	EPA 6020	Water	$8	32
Antimony	EPA 6020	Water	$8	32
Arsenic	EPA 6020	Water	$8	32

TABLE G-8: OFF-SITE LABORATORY ANALYSES, JULY 2016 - JUNE 2017

Nevada Environmental Response Trust Site

Henderson, Nevada

Analyte	Analytic Method	Matrix	Estimated Analytical Unit Price	Number of Analyses
Barium	EPA 6020	Water	$8	32
Beryllium	EPA 6020	Water	$8	32
Cadmium	EPA 6020	Water	$8	32
Chromium (total)	EPA 6020	Water	$25	32
Cobalt	EPA 6020	Water	$8	32
Copper	EPA 6020	Water	$8	32
Iron	EPA 6020	Water	$8	32
Lead	EPA 6020	Water	$8	32
Manganese	EPA 6020	Water	$8	32
Nickel	EPA 6020	Water	$8	32
Selenium	EPA 6020	Water	$8	32
Silver	EPA 6020	Water	$8	32
Thallium	EPA 6020	Water	$8	32
Uranium-238	EPA 6020	Water	$8	32
Vanadium	EPA 6020	Water	$8	32
Zinc	EPA 6020	Water	$8	32
Pesticides and PCBs	EPA 608	Water	$120	6
Volatile Organics	EPA 624	Water	$40	4
Volatile Organics	EPA 624	Water	$45	7
Semivolatile Organics	EPA 625	Water	$125	6
Ignitability	EPA 7.1.2	Solid	$23	1
Ignitability	EPA 7.1.2	Water	$23	1
Chromium VI	EPA 7199	Solid	$60	10
Chromium VI	EPA 7199	Water	$50	227
Mercury, weight, volume (TCLP Leachate)	EPA 7470R	Leachate	$62	3
Mercury	EPA 7471	Solid	$22	1
Petroleum Hydrocarbons	EPA 8015	Solid	$68	1
Volatile Organics	EPA 8260	Solid	$50	1
Volatile Organics	EPA 8260	Water	$45	1
Volatile Organics	EPA 8260B-LL	Water	$45	1
Volatile Organics	EPA 8260R	Leachate	$50	2
Hexachlorobenzene	EPA 8270	Solid	$125	1
Dioxins and Furans	EPA 8290	Water	$425	1
pH	EPA 9045	Solid	$8	1
Temperature	EPA 9045	Solid	$8	1
Chloride	EPA 9056	Solid	$8	1
Field pH	FIELD SAMPLING	Water	$8	73
Total Inorganic Nitrogen-Calc	NTOTAL	Water	$5	122
Apparent Color	SM 2120	Water	$10	88
pH	SM 2120	Water	$8	88
Bicarbonate as HCO3, Carbonate as C03, Total Alkalinity as CaCO3	SM 2320	Water	$11	4
Dissolved Solids (total)	SM 2540C	Water	$10	93
Suspended Solids (total)	SM 2540D	Water	$10	55
Cyanide (total)	SM 4500 CN-E	Water	$33	4
Weak Acid Dissociable Cyanide	SM 4500 CN-I	Water	$29	2
pH	SM 4500 H+	Water	$8	24
Ammonia (as N)	SM 4500 NH3-D	Water	$20	2
Dissolved Oxygen	SM 4500 O-G	Water	$10	52
Sulfide (total)	SM 4500 S2	Water	$23	95
Sulfide (total)	SM 4500 S2-D	Water	$23	19

TABLE G-8: OFF-SITE LABORATORY ANALYSES, JULY 2016 - JUNE 2017

Nevada Environmental Response Trust Site

Henderson, Nevada

Analyte	Analytic Method	Matrix	Estimated Analytical Unit Price	Number of Analyses
Carbonaceous Biochemical Oxygen Demand	SM 5210B	Water	$30	81
Estimated Cost of Analyses				**$92,882**
GWM Laboratory Analyses				
Arsenic	EPA 200.7	Water	$8	2
Boron	EPA 200.7	Water	$8	44
Chromium (total)	EPA 200.7	Water	$25	1103
Iron	EPA 200.7	Water	$8	12
Manganese	EPA 200.7	Water	$8	12
Selenium	EPA 200.7	Water	$8	2
Sodium	EPA 200.7	Water	$8	8
Chromium VI	EPA 218.6	Water	$50	659
Chloride	EPA 300	Water	$8	42
Nitrate as N	EPA 300	Water	$8	801
Nitrate Nitrite as N	EPA 300	Water	$0	4
Nitrite	EPA 300	Water	$8	4
Sulfate	EPA 300	Water	$8	38
Chlorate	EPA 300.1	Water	$12	863
Perchlorate	EPA 314.0	Water	$25	1239
Ammonia (as N)	EPA 350.1	Water	$20	4
Phenolics, Recoverable (total)	EPA 420.1	Water	$35	4
Phenolics, Recoverable (total)	EPA 420.4	Water	$35	4
VOCs	EPA 8260	Water	$45	314
1,2,3-Trichloropropane	EPA 8260B SIM	Water	$40	314
1,4-Dioxane	EPA 8260B SIM	Water	$40	314
Organic Halides (total)	EPA 9020	Water	$75	9
Field pH	FIELD SAMPLING	Water	$8	800
Total Inorganic Nitrogen-Calc	NTOTAL	Water	$5	4
Conductivity	SM 2510	Water	$10	8
Dissolved Solids (total)	SM 2540C	Water	$10	1235
Carbon	SM 5310C	Water	$30	8
Estimated Cost of Analyses				**$168,951**

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 Environ 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.