FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/30/14, 1455 Project Site/Subsite: W. Vermont
Sample ID: WV-MW-1A-GW ESA 11
Field ID: WES-1A Point Name: MW-1A
Depth to Well Bottom: 29.25 ft. below top of casing (PVC cap)
Depth to Water Level: 20.55 ft. below PVC cap
Depth to Water Level: 20.63 ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump X Submersible Pump ____
Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ____ Liters / 4-inch well ____ Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____
Throttle _____ psi
Total Purged: ~~8.39~~ 24.15 Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: 350 Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading						1445			Stabilization Criteria	Final
Time	1346	1400	1415	1430	1440	1445	~~1450~~	1455	X		1455
pH	7.37	7.28	7.23	7.23	7.20	7.19	7.21	7.21		+/-0.1	7.21
Temperature (°C)	15.52	15.41	15.39	15.32	15.31	15.27	15.27	15.27		NC*	15.27
Specific Conductance (µmhos/cm)	1.62	1.57	1.57	1.58	1.55	1.57	1.57	1.57		+/-3%	1.57
Turbidity (NTU)	121	28.4	17.8	21.1	40.6	13.9	13.9	13.9		+/-10%	13.9
Dissolved Oxygen (mg/L)	1.45	1.37	1.80	1.44	1.40	1.43	1.43	1.43		+/-10% or +/-0.3	1.43
ORP (mV)	-37	-47	-40	-36	-32	-30	-30	-30		+/-10	-30
Each Volume Purged (L)	.350	.350	.350	.350	.350	.350	-35	-35			-35
Total Liters Purged								24.15	5		~~8.39~~ 24.15

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? (No) Yes _____
Sample Remarks (odors, colors, sediment): None Noted odor / Cloudy slight
Comments: _____
Sample(s) Collected By: _____
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/31/14 / 1055 Project Site/Subsite: W. Vermont
Sample ID: WV-MW 1B-GW ; ESA 1.3
Field ID: MW-1B Point Name: 1B
Depth to Well Bottom: 38.0 ft. below top of casing (PVC cap)
Depth to Water Level: 20.5 ft. below PVC cap
Depth to Water Level: 20.5 ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump X Submersible Pump ____
Peristaltic Pump ____
Minimum Purge Volume: 2-inch well X 32 Liters / 4-inch well ____ Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____
325 L/min Throttle _____ psi
Total Purged: 8 gallon Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: 0.5 Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabilization Criteria	Final
Time	950	1000	1015	1020	1030	1035	1040	1045	1050		1055
pH	7.42	7.34	7.31	7.29	7.28	7.28	7.28	7.28	7.28	+/-0.1	7.28
Temperature (°C)	14.30	14.28	14.21	14.29	14.30	14.30	14.31	14.31	14.38	NC*	14.38
Specific Conductance (µmhos/cm)	1.70	1.72	1.71	1.70	1.69	1.65	1.65	1.65	1.65	+/-3%	1.65
Turbidity (NTU)	35.1	21.1	19.3	16.3	13.2	10.7	10.0	9.8	9.7	+/-10%	9.7
Dissolved Oxygen (mg/L)	1.05	1.27	1.18	1.09	1.07	1.03	1.03	1.03	1.03	+/-10% or +/-0.3	1.03
ORP (mV)	-10	-41	-55	-63	-65	-65	-65	-65	-65	+/-10	-65
Each Volume Purged (L)	.500	.50	.5	.5	.5	.5	.5	.5	.5		.5
Total Liters Purged											

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? No (Yes) (Sample ID of Duplicate) WV-MW-1B-GW-D ; ESA 1.2
MS/MSD Sample Collected? (No) Yes
Sample Remarks (odors, colors, sediment): No odor; Colorless Clear; none
Comments:
Sample(s) Collected By: KH
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/31/14 / 11:40 Project Site/Subsite: W. Vermont
Sample ID: WV-MW-1C-GW ESAY4
Field ID: MW-1C Point Name: 1C
Depth to Well Bottom: 54.52 ft. below top of casing (PVC cap)
Depth to Water Level: 20.55 ft. below PVC cap
Depth to Water Level: 20.55 ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump X Submersible Pump ____
Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ____Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____
Throttle _____ psi
Total Purged: 20L ~~5.3~~ KII Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: _____ Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabilization Criteria	Final
Time	11:40	1145	1125	1130	1135	1140					1140
pH	7.55	7.55	7.58	7.60	7.60	7.60				+/-0.1	7.60
Temperature (°C)	14.25	14.25	14.31	14.35	14.35	14.35				NC*	14.35
Specific Conductance (µmhos/cm)	1.73	1.73	1.73	1.73	1.73	1.73				+/-3%	1.73
Turbidity (NTU)	24.1	24.1	20.7	20.7	20.7	20.7				+/-10%	20.7
Dissolved Oxygen (mg/L)	1.05	1.05	1.05	1.05	1.05	1.05				+/-10% or +/-0.3	1.05
ORP (mV)	-17	-22	-25	-27	-27	-27				+/-10	-27
Each Volume Purged (L)	.5	.5	.5	.5	.5	.5					.5
Total Liters Purged											

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? (No) Yes _____
Sample Remarks (odors, colors, sediment): No odors Colorless Sight ~~Odor~~
Comments: _____
Sample(s) Collected By: _____
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/29/14, 1549 Project Site/Subsite: _____
Sample ID: WV-MW-2A-GW
Field ID: 2A Point Name: 2A
Depth to Well Bottom: 29.70 ft. below top of casing (PVC cap)
Depth to Water Level: 20.38 ft. below PVC cap
Depth to Water Level: 20.38 ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump ____ Submersible Pump ____ Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ____Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____ Throttle _____ psi
Total Purged: 2.15 Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: _____ Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabilization Criteria	Final
Time	1440	1450	1500	1515	1530	1540	1545	1549			1549
pH	7.22	7.30	7.32	7.31	7.32	7.31	7.31	7.32		+/-0.1	7.32
Temperature (°C)	15.68	15.60	15.59	15.59	15.56	15.58	15.58	15.55		NC*	15.55
Specific Conductance (µmhos/cm)	2.14	2.14	2.14	2.15	2.15	2.15	2.16	2.15		+/-3%	2.15
Turbidity (NTU)	342	220	212	100	32.6	24.6	24.6	24.6		+/-10%	24.6
Dissolved Oxygen (mg/L)	2.10	2.03	2.10	2.12	1.77	1.68	1.68	1.68		+/-10% or +/-0.3	1.68
ORP (mV)	5	16	23	31	37	39	40	40		+/-10	40
Each Volume Purged (L)	.350	.350	.350	.350	.350	.350	.350	.350			.350
Total Liters Purged											

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? No Yes _____
Sample Remarks (odors, colors, sediment): Clear Colorless No odor
Comments: _____
Sample(s) Collected By: _____
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/30/14 / 1005 Project Site/Subsite: _____
Sample ID: WV-MW-2B-GW
Field ID: 2B Point Name: 2B
Depth to Well Bottom: 38.86 ft. below top of casing (PVC cap)
Depth to Water Level: 20.47 ft. below PVC cap
Depth to Water Level: 20.60 ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump X Submersible Pump ____
Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ____Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____
Throttle _____ psi
Total Purged: _____ Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: _____ Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabilization Criteria	Final
Time	840	845	905	915	925	935	945	1000	1005		1005
pH	6.89	7.19	7.31	7.48	7.48	7.43	7.45	7.41	7.41	+/-0.1	7.41
Temperature (°C)	12.98	13.47	14.05	14.34	14.30	14.30	14.48	14.49	14.49	NC*	14.49
Specific Conductance (µmhos/cm)	0.548	0.545	1.46	1.58	1.60	1.60	1.61	1.61	1.61	+/-3%	1.61
Turbidity (NTU)	133	118	79.2	19.7	18.6	17.9	17.5	17.5	17.5	+/-10%	17.5
Dissolved Oxygen (mg/L)	5.95	5.91	6.50	6.10	6.08	5.92	5.00	4.57	4.57	+/-10% or +/-0.3	4.57
ORP (mV)	222	215	111	-12	-12	-13	-14	-18	-18	+/-10	-18
Each Volume Purged (L)	.400	.400	.400	.400	.400	.400	.400	.400	.400		.400
Total Liters Purged		0.400									

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? No (Yes) (Sample ID of Duplicate) WV-MW-2B-GW Dupe ; ESAXY
MS/MSD Sample Collected? No Yes _____
Sample Remarks (odors, colors, sediment): No odor Colorless Slight cloudy
Comments: _____
Sample(s) Collected By: _____
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/30/14, 1300 Project Site/Subsite: W. Vermont
Sample ID: WV-MW-2C-GW
Field ID: MW-2C Point Name: 2C
Depth to Well Bottom: 47.03 ft. below top of casing (PVC cap)
Depth to Water Level: 19.91 ft. below PVC cap
Depth to Water Level: 19.84 ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump X Submersible Pump ____
Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ____Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____
23.56 ~~24.75~~ Throttle _____ psi
Total Purged: ~~452.25~~ 5 Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: _____ Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabilization Criteria	Final
Time	1035	1050	11:00	1110	1120	1130	1140	1145	1200		
pH	7.81	7.72	7.75	7.69	7.63	7.61	7.57	7.51	7.54	+/-0.1	
Temperature (°C)	14.11	14.45	14.68	14.81	14.91	15.05	15.19	15.28	15.41	NC*	
Specific Conductance (µmhos/cm)	1.72	1.60	1.56	1.51	1.40	1.35	1.34	1.34	1.31	+/-3%	
Turbidity (NTU)	110	93.5	91.5	99.4	373	302	209	164	160	+/-10%	
Dissolved Oxygen (mg/L)	6.91	6.67	4.79	4.52	1.61	0.90	0.92	2.03	1.38	+/-10% or +/-0.3	
ORP (mV)	72	66	38	-33	-95	-47	-130	-131	-130	+/-10	
Each Volume Purged (L)	.250	.250	.250	.250	.250	.250	.250	.250	.250		
Total Liters Purged											

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? (No) Yes _____
Sample Remarks (odors, colors, sediment): No odor greyish Brown Sediment
Comments: _____
Sample(s) Collected By: _____
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/30/14 / 1300 Project Site/Subsite: _____
Sample ID: WV-MW-2C-GW
Field ID: _____ Point Name: 2C
Depth to Well Bottom: 47.03 ft. below top of casing (PVC cap)
Depth to Water Level: 19.91 ft. below PVC cap
Depth to Water Level: 19.84 ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump X Submersible Pump ____
Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ____Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____
Throttle _____ psi
Total Purged: 23.56 Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: _____ Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	~~Initial Reading~~ X									Stabilization Criteria	Final
Time	1230	1235	1240	1245	1250	1255	1300				1300
pH	7.51	7.53	7.53	7.54	7.54	7.54	7.54			+/-0.1	7.54
Temperature (°C)	15.44	15.50	15.51	15.50	15.50	15.50	15.50			NC*	15.50
Specific Conductance (µmhos/cm)	1.29	1.30	1.30	1.29	1.30	1.30	1.30			+/-3%	1.30
Turbidity (NTU)	153	140	128	120	113	112	112			+/-10%	112
Dissolved Oxygen (mg/L)	1.40	1.48	1.46	1.45	1.48	1.42	1.42			+/-10% or +/-0.3	1.42
ORP (mV)	-139	-132	-132	-138	-132	-131	-130			+/-10	-130
Each Volume Purged (L)	0.075	0.075	.075	.075	.075	.075	.075				.075
Total Liters Purged											23.56

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? (No) Yes _____
Sample Remarks (odors, colors, sediment): _____
Comments: _____
Sample(s) Collected By: _____
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/21/14 / 1333 Project Site/Subsite: West Vermont
Sample ID: WV-MW-3A-GW ESA59 Tag 45006
Field ID: MW-3A Point Name: _____
Depth to Well Bottom: 35.1 ft. below top of casing (PVC cap)
Depth to Water Level: 22.72 ft. below PVC cap
Depth to Water Level: 22.80 ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump X Submersible Pump ____
Peristaltic Pump ____
Minimum Purge Volume: 2-inch well 22 Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____
Throttle _____ psi
Total Purged: 32.5 Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: .5 Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed**	Initial Reading									Stabilization Criteria	Final
Time	1245	1300	1315	1320	1323	1325	1327	1329			1333
pH	7.07	6.83	6.82	6.78	6.80	6.79	6.77	6.78	6.76	+/-0.1	6.76
Temperature (°C)	14.27	14.24	1413	1403	1405	1405	14.04	1400	14.08	NC*	1408
Specific Conductance (µmhos/cm)	1.41	1.50	1.47	1.47	1.47	1.47	1.47	1.47	1.47	+/-3%	1.47
Turbidity (NTU)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	+/-10%	0.0
Dissolved Oxygen (mg/L)	4.08	1.12	1.44	0.91	089	.88	.88	.88	87	+/-10% or +/-0.3	87
ORP (mV)	13	-32	-32	-35	-36	-35	-34	-35	-34	+/-10	-34
Each Volume Purged (L)	.500	.500	.500	.500	.500	.500	.500	.500	.500		.500
Total Liters Purged											

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? No Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? No Yes _____
Sample Remarks (odors, colors, sediment): Colorless Clear no odor or sediment
Comments: water was clear
Sample(s) Collected By: _____
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/21/14 1200 Project Site/Subsite: MW 3B
Sample ID: MW-3B-GW E5A58 E5A58
Field ID: 3B Point Name: 3B
Depth to Well Bottom: 40.76 ft. below top of casing (PVC cap)
Depth to Water Level: 22.72 ft. below PVC cap
Depth to Water Level: 22.91 ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump X Submersible Pump ____
Peristaltic Pump ____
Minimum Purge Volume: 2-inch well 3.3 Liters / 4-inch well ____Liters
Control Box Settings: Box # 4 Refill _____ Discharge _____
Throttle _____ psi
Total Purged: 10.56 Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: .55 Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabilization Criteria	Final
Time	1045	1050	1055	1100	1105	1115	1130	1140	1150		1150
pH	6.125	6.75	6.99	7.02	6.90	6.85	6.79	6.80	6.81	+/-0.1	6.81
Temperature (°C)	13.51	13.48	13.58	13.72	13.75	13.78	14.44	14.30	14.29	NC*	14.29
Specific Conductance (µmhos/cm)	1.92	1.90	1.86	1.86	1.88	1.93	1.98	1.98	1.97	+/-3%	1.97
Turbidity (NTU)	730	672	573	120	93	95.5	66.1	48.6	48.0	+/-10%	48.0
Dissolved Oxygen (mg/L)	1.05	1.11	1.09	1.07	1.13	1.02	1.03	0.89	0.89	+/-10% or +/-0.3	0.89
ORP (mV)	42	24	7	-30	-38	-44	-70	-84	-96	+/-10	-96
Each Volume Purged (L)	.550	.550	.550	.55	0.55	0.55	0.55	0.55	0.55		0.550
Total Liters Purged	.550										10.56

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? No Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? No Yes _____
Sample Remarks (odors, colors, sediment): Cloudy Colorless / slight odor unknown
Comments: _____
Sample(s) Collected By: _____
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/21/14 / 1200 Project Site/Subsite: _____
Sample ID: WV-MW-3B-GW
Field ID: 3B Point Name: 3B
Depth to Well Bottom: _____ ft. below top of casing (PVC cap)
Depth to Water Level: _____ ft. below PVC cap
Depth to Water Level: _____ ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump ____ Submersible Pump ____ Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ____Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____ Throttle _____ psi
Total Purged: _____ Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: _____ Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabiliz-ation Criteria	Final
Time		1155	1200								1200
pH		6.81	6.81							+/-0.1	6.81
Temperature (°C)		14.29	14.29							NC*	14.29
Specific Conductance (µmhos/cm)		1.97	1.97							+/-3%	1.97
Turbidity (NTU)		48.0	48.6							+/-10%	48.6
Dissolved Oxygen (mg/L)		.88	.88							+/-10% or +/-0.3	.88
ORP (mV)		-98	-98							+/-10	-98
Each Volume Purged (L)											
Total Liters Purged											

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? No Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? No Yes _____
Sample Remarks (odors, colors, sediment): No odor Cloudy C
Comments: Well Contains Heavy Sediment
Sample(s) Collected By: _____
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/29/14 / 1325 Project Site/Subsite: W. Vermont
Sample ID: WW - MW-4A-GW E5AW9
Field ID: _____ Point Name: 4A
Depth to Well Bottom: _____ ft. below top of casing (PVC cap)
Depth to Water Level: 20.42 ft. below PVC cap
Depth to Water Level: _____ ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump ____ Submersible Pump ____ Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ____Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____ Throttle _____ psi
Total Purged: _____ Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: _____ Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabilization Criteria	Final	
Time	11:15	11:30	11:40	1150	1210	1225	1240	1250	1305		1320	1325
pH	7.37	7.34	7.42	754	759	760	764	762	764	+/-0.1	766	76.6
Temperature (°C)	13.44	13.58	13.58	1373	1423	1411	1439	14.28	1430	NC*	1412	1412
Specific Conductance (µmhos/cm)	1.84	1.10	1.08	105	105	104	106	106	106	+/-3%	105	105
Turbidity (NTU)	27.2	24.5	18.4	13.9	110	10.4	11.4	11.9	8.6	+/-10%	6.3	6.3
Dissolved Oxygen (mg/L)	2.14	1.23	1.20	1.59	1.11	1.36	108	1.08	106	+/-10% or +/-0.3	1.09	1.09
ORP (mV)	91	88	52	11	-25	-33	-43	-46	-49	+/-10	-54	-54
Each Volume Purged (L)	.350	.350	.350	.350	.350	.350	.350	.350	.350		0.35	035
Total Liters Purged												

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? (No) Yes _____
Sample Remarks (odors, colors, sediment): _____
Comments: _____
Sample(s) Collected By: _____
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/29/14 / 1057 Project Site/Subsite: _____
Sample ID: NV-MW-4B-GW ESAW8
Field ID: 4A Point Name: NV-MW-4A-GW
Depth to Well Bottom: 29.31 ft. below top of casing (PVC cap)
Depth to Water Level: 21.32 ft. below PVC cap
Depth to Water Level: 21.32 ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump X Submersible Pump ____
Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ____Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____
Throttle _____ psi
Total Purged: _____ Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: _____ Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabilization Criteria	Final
Time	901	920	930	940	950	1000	1010	1020	1050		1057
pH	7.15	7.56	7.62	7.62	7.64	7.63	7.60	7.62	7.62	+/-0.1	7.62
Temperature (°C)	11.09	13.14	13.23	13.45	13.56	13.57	13.66	13.66	13.66	NC*	13.67
Specific Conductance (µmhos/cm)	1.07	1.03	1.03	1.02	1.02	1.02	1.02	1.02	1.02	+/-3%	1.02
Turbidity (NTU)	440	37	15.9	8.0	1.7	0.0	0.0	0.0	0.0	+/-10%	0.0
Dissolved Oxygen (mg/L)	3.45	2.26	2.02	2.16	1.96	1.89	1.89	1.82	1.83	+/-10% or +/-0.3	1.89
ORP (mV)	204	84	75	78	82	84	87	90	90	+/-10	90
Each Volume Purged (L)	0.275	.275	.275	.275	.275	.275	.275	.275	.275		.275
Total Liters Purged											

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? (No) Yes _____
Sample Remarks (odors, colors, sediment): no odor / clear / colorless
Comments: _____
Sample(s) Collected By: KH + JR
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/22/14 / 1123 Project Site/Subsite: _____
Sample ID: WV-MW-5A-GW ESATI 45008
Field ID: 5A Point Name: 5A
Depth to Well Bottom: 24.40 ft. below top of casing (PVC cap)
Depth to Water Level: 19.90 ft. below PVC cap
Depth to Water Level: 19.90 ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump X Submersible Pump ____ Peristaltic Pump ____
Minimum Purge Volume: 2-inch well 8 Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____ Throttle _____ psi
Total Purged: 13.9 Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: _____ Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabilization Criteria	Final
Time	0950	1000	1015	1020	1030	1035	1040	1055	1100		
pH	6.61	6.62	6.65	6.67	6.73	6.73	6.75	6.66	6.64	+/-0.1	
Temperature (°C)	13.52	13.43	13.58	13.70	14.08	14.47	14.52	15.15	15.16	NC*	
Specific Conductance (µmhos/cm)	1.93	1.96	1.99	1.95	2.02	2.03	2.04	2.04	2.06	+/-3%	
Turbidity (NTU)	156	123	77.8	57.3	38.3	21.3	17.3	7.8	7.5	+/-10%	
Dissolved Oxygen (mg/L)	2.46	2.13	1.96	1.94	1.97	1.81	1.86	1.76	1.76	+/-10% or +/-0.3	
ORP (mV)	-17	-23	-31	-35	-37	-39	-34	-20	-16	+/-10	
Each Volume Purged (L)	.150	.150	.150	.150	.150	.150	.150	.150	.150		
Total Liters Purged											

continued →

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? No Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? No Yes _____
Sample Remarks (odors, colors, sediment): _____
Comments: _____
Sample(s) Collected By: _____
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/22/14 / 1123 Project Site/Subsite: _____
Sample ID: WV-MW-5A-GW ESATI 45008
Field ID: 5A Point Name: 5A
Depth to Well Bottom: 24.40 ft. below top of casing (PVC cap)
Depth to Water Level: 19.90 ft. below PVC cap
Depth to Water Level: _____ ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump ____ Submersible Pump ____ Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ____Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____ Throttle _____ psi
Total Purged: 13.95 Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: _____ Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabiliz-ation Criteria	Final
Time		1110	1115	1123							1123
pH		6.60	6.58	6.59						+/-0.1	6.59
Temperature (°C)		15.31	15.41	15.50						NC*	15.50
Specific Conductance (µmhos/cm)		2.08	2.08	2.08						+/-3%	2.08
Turbidity (NTU)		7.9	7.9	7.9						+/-10%	7.9
Dissolved Oxygen (mg/L)		1.71	1.73	1.72						+/-10% or +/-0.3	1.72
ORP (mV)		-10	-8	-8						+/-10	-8
Each Volume Purged (L)		.15	.15	.15							.15
Total Liters Purged											13.9

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? (No) Yes _____
Sample Remarks (odors, colors, sediment): Slight Cloudy Colorless
Comments: _____
Sample(s) Collected By: _____
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/22/14 / 1346 Project Site/Subsite: West Vermont
Sample ID: WV-MW-5B-GW
Field ID: 5B Point Name: 5B
Depth to Well Bottom: 37.15 ft. below top of casing (PVC cap)
Depth to Water Level: 19.50 ft. below PVC cap
Depth to Water Level: 19.54 ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump ____ Submersible Pump ____ Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ____ Liters / 4-inch well ____ Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____ 24 KH Throttle _____ psi
Total Purged: ~~33.6~~ Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: .250 Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabilization Criteria	Final
Time	1210	1220	1230	1245	13:00	13:10	13:20	13:30	13:40		13:46
pH	7.41	6.89	6.84	6.83	6.82	6.82	6.81	6.89	6.80	+/-0.1	6.80
Temperature (°C)	15.90	15.12	15.12	14.93	14.98	15.06	14.94	14.96		NC*	14.96
Specific Conductance (µmhos/cm)	0.686	1.44	1.46	1.46	1.46	1.47	1.46	1.46	1.45	+/-3%	1.45
Turbidity (NTU)	20.0	4.6	0.7	0.0	0.0	0.0	0.0	0.0	0.0	+/-10%	0.0
Dissolved Oxygen (mg/L)	2.15	1.04	1.12	0.92	0.84	1.40	1.46	1.48	1.46	+/-10% or +/-0.3	1.47
ORP (mV)	47	32	22	12	3	3	3	1	2	+/-10	2
Each Volume Purged (L)	.250	.250	.250	.250	.25	.250	.250	.250	.250		.250
Total Liters Purged											

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? No Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? No Yes _____
Sample Remarks (odors, colors, sediment): No odor Colorless Clear
Comments: _____
Sample(s) Collected By: _____
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/22/14 / 1551 Project Site/Subsite: West Vermont
Sample ID: WV-MW-5C-GW ESAT3
Field ID: MW-~~GW~~-5C-GW Point Name: _____
Depth to Well Bottom: 49.1 ft. below top of casing (PVC cap)
Depth to Water Level: 19.11 ft. below PVC cap
Depth to Water Level: _____ ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump ✓ Submersible Pump ____
Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ✓ Liters / 4-inch well ____ Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____
Throttle _____ psi
Total Purged: 33.25 Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: 0.35 Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabilization Criteria	Final
Time	14:05	14:30	14:40	14:50	15:00	15:10	15:20	15:30	15:40		15:51
pH	6.75	6.79	6.79	6.77	6.76	6.77	6.76	6.74	6.74	+/-0.1	6.74
Temperature (°C)	15.17	15.09	15.16	15.13	15.06	15.01	14.95	14.95	14.95	NC*	14.95
Specific Conductance (µmhos/cm)	1.32	1.40	1.48	1.49	1.49	1.47	1.48	1.47	1.48	+/-3%	1.48
Turbidity (NTU)	72.6	62.3	22.2	13.0	8.6	5.2	5.3	5.4	5.4	+/-10%	5.3
Dissolved Oxygen (mg/L)	1.93	1.56	1.05	0.93	0.94	0.94	0.92 ~~0.84~~	.87	.88	+/-10% or +/-0.3	.88
ORP (mV)	53	61	83	91	96	97	98	98	98	+/-10	97
Each Volume Purged (L)	.350	.350	.350	.350	.350	.350	.35	.350	.350		.350
Total Liters Purged											

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? (No) Yes _____
Sample Remarks (odors, colors, sediment): _____
Comments: _____
Sample(s) Collected By: _____
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/23/14 / Project Site/Subsite: W. Vermont
Sample ID: WV-MW-6A-GW / E5AT5
Field ID: 6A Point Name: 6A
Depth to Well Bottom: 30.41 ft. below top of casing (PVC cap)
Depth to Water Level: 17.80 ft. below PVC cap
Depth to Water Level: 17.87 ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump X Submersible Pump ____
Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ____Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____
Throttle _____ psi
Total Purged: 24.50 Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: _____ Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabilization Criteria	Final
Time	950	1010	1025	1035	1040	1045	1050	1055			1100
pH	6.66	6.71	6.84	6.83	6.84	6.84	6.84	6.84		+/-0.1	6.84
Temperature (°C)	13.29	13.32	13.46	13.66	13.69	13.69	13.69	13.69		NC*	13.69
Specific Conductance (µmhos/cm)	1.22	1.23	1.24	1.23	1.24	1.23	1.23	1.24		+/-3%	1.24
Turbidity (NTU)	155	137	112	3.7	2.2	0.0	0.0	0.0		+/-10%	0.0
Dissolved Oxygen (mg/L)	1.98	1.90	1.75	1.62	1.88	1.50	1.45	1.45		+/-10% or +/-0.3	1.45
ORP (mV)	104	7	-85	-85	-85	-93	-99	-100		+/-10	-101
Each Volume Purged (L)	.350	.350	.350	.350	.350	.350	.350	.350			.350
Total Liters Purged											24.50

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? No (Yes) (Sample ID of Duplicate) E5AT5
MS/MSD Sample Collected? No Yes
Sample Remarks (odors, colors, sediment): No odor Colorless Clear
Comments:
Sample(s) Collected By: KH + JR
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/23/14 / 1327 Project Site/Subsite: W. Vermont
Sample ID: WV-MW-63-GW
Field ID: 63 Point Name: 63
Depth to Well Bottom: 48.56 ft. below top of casing (PVC cap)
Depth to Water Level: 17.54 ft. below PVC cap
Depth to Water Level: 17.51 ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump X Submersible Pump ____
Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ____Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____
Throttle _____ psi
Total Purged: 35.7 Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: .350 Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabiliz-ation Criteria	Final
Time	1145	1200	1215	1230	1245	1305	1310	1315	1320		1327
pH	7.19	7.07	7.08	7.08	7.08	7.08	7.07	7.07	7.09	+/-0.1	7.09
Temperature (°C)	13.81	13.80	13.83	13.85	13.85	13.85	13.87	13.91	13.89	NC*	13.90
Specific Conductance (µmhos/cm)	1.27	1.18	1.17	1.15	1.15	1.15	1.15	1.15	1.15	+/-3%	1.15
Turbidity (NTU)	47.1	44.1	34.8	15.0	14.81	6.9	6.9	6.7	6.7	+/-10%	6.7
Dissolved Oxygen (mg/L)	10.17	9.9	8.14	7.22	4.72	4.90	4.96	4.97	4.90	+/-10% or +/-0.3	4.91
ORP (mV)	-119	-120	-121	-124	-125	-125	-125	-130	-129	+/-10	-129
Each Volume Purged (L)	.350	.350	0.350	.350	.350	.350	.350	.350	.350		.350
Total Liters Purged									35.7		35.7

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? (No) Yes _____
Sample Remarks (odors, colors, sediment): Clear Colorless no odor
Comments: _____
Sample(s) Collected By: XH + JR
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/21/14 / 1500 Project Site/Subsite: W. Vermont
Sample ID: MW-WV-7A-~~GW~~ ESATO Tag #45007
Field ID: MW-7A Point Name: 7A
Depth to Well Bottom: 47.8 ft. below top of casing (PVC cap)
Depth to Water Level: 20.81 ft. below PVC cap
Depth to Water Level: 20.87 ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump X Submersible Pump ____
Peristaltic Pump ____
Minimum Purge Volume: 2-inch well 48 Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____
Throttle _____ psi
Total Purged: 48.7 Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: .65 Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabilization Criteria	Final
Time	1345	1400	1415	1430	1440	1445	1450	1455	1500		1500
pH	7.20	7.00	7.04	6.98	6.96	6.94	6.95	6.95	6.94	+/-0.1	6.94
Temperature (°C)	14.25	14.12	14.02	14.00	14.00	13.96	13.99	13.99	13.99	NC*	13.99
Specific Conductance (µmhos/cm)	1.33	1.33	1.34	1.33	1.34	1.34	1.34	1.34	1.34	+/-3%	1.34
Turbidity (NTU)	0.0	0.0	0.0	0	0	0	0	0	0	+/-10%	0
Dissolved Oxygen (mg/L)	2.70	1.25	1.06	0.92	.86	.84	.84	.84	.84	+/-10% or +/-0.3	.84
ORP (mV)	-94	-107	-110	-111	-112	-113	-113	-113	-113	+/-10	-113
Each Volume Purged (L)	.65	.65	.65	.65	.65	.65	.60	.65	.65		.65
Total Liters Purged											48.7

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? (No) Yes _____
Sample Remarks (odors, colors, sediment): Clear Colorless
Comments: _____
Sample(s) Collected By: KH - JR
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/24/14 / 11:57 Project Site/Subsite: W. Vermont
Sample ID: WV-MW-8A-GW
Field ID: 8A Point Name: 8A
Depth to Well Bottom: 31.69 ft. below top of casing (PVC cap)
Depth to Water Level: 18.79 ft. below PVC cap
Depth to Water Level: 18.88 ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump X Submersible Pump ____
Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ____Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____
Throttle _____ psi
Total Purged: 30.45 Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: .350 Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabilization Criteria	Final
Time	1030	1040	1050	1100	1110	1120	1125	1130	1135		1157
pH	7.18	7.52	7.41	7.48	7.53	7.51	7.47	7.47	7.47	+/-0.1	7.48
Temperature (°C)	15.71	15.72	15.70	15.75	15.90	16.28	16.43	16.50	16.50	NC*	16.50
Specific Conductance (µmhos/cm)	1.81	1.26	1.29	1.35	1.35	1.35	1.35	1.35	1.35	+/-3%	1.35
Turbidity (NTU)	10.7	10.9	9.8	7.8	7.0	6.2	0.0	0.0	0.0	+/-10%	0.0
Dissolved Oxygen (mg/L)	9.72	8.54	7.21	5.69	3.06	2.40	2.44	2.42	2.42	+/-10% or +/-0.3	2.44
ORP (mV)	-110	-121	-111	-91	-97	-99	-99	-99	-99	+/-10	-99
Each Volume Purged (L)	0.350	.350	.350	.350	.350	.350	.350	.350	.350		.350
Total Liters Purged											30.45

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? No Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? No Yes _____
Sample Remarks (odors, colors, sediment): Clear Colorless No odor Noted
Comments: _____
Sample(s) Collected By: _____
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/24/14 / 1404 Project Site/Subsite: W. Vermont
Sample ID: WV-MW-8B-GW
Field ID: 8B Point Name: 8B
Depth to Well Bottom: 50.97 ft. below top of casing (PVC cap)
Depth to Water Level: 19.20 ft. below PVC cap
Depth to Water Level: 19.32 ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump X Submersible Pump ____
Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ____Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____
Throttle _____ psi
Total Purged: 25.90 Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: .350 Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabilization Criteria	Final
Time	1250	1300	1310	1320	1330	1340	1350	1355	1400		1404
pH	7.57	7.54	7.65	7.50	7.63	7.62	7.62	7.62	7.62	+/-0.1	7.62
Temperature (°C)	16.00	15.88	15.87	15.86	15.86	16.04	16.04	16.02	16.02	NC*	16.02
Specific Conductance (µmhos/cm)	1.07	1.11	1.12	1.10	1.10	1.10	1.10	1.11	1.11	+/-3%	1.11
Turbidity (NTU)	4.9	3.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0	+/-10%	0.0
Dissolved Oxygen (mg/L)	1.29	1.33	1.01	0.99	0.86	0.76	0.71	0.71	0.71	+/-10% or +/-0.3	0.71
ORP (mV)	-25	-55	-114	-114	-114	-114	-114	-114	-114	+/-10	-114
Each Volume Purged (L)	.350	.350	.350	.350	.350	.350	.350	.350	.350		.350
Total Liters Purged											25.9

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? No Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? No Yes _____
Sample Remarks (odors, colors, sediment): no odor / Colorless / Clear
Comments: _____
Sample(s) Collected By: _____
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

9A

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/23/14 / 1508 Project Site/Subsite: W. Vermont
Sample ID: MW-WV-9A-GW ESA T7
Field ID: 9A Point Name: 9A
Depth to Well Bottom: 30.05 ft. below top of casing (PVC cap)
Depth to Water Level: 18.04 ft. below PVC cap
Depth to Water Level: 18.09 ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump X Submersible Pump ____
Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ____Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____
Throttle _____ psi
Total Purged: 60 Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: 1350 Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabilization Criteria	Final
Time	1400	14:10	14:30	14:40	14:50	1500					15:00
pH	6.54	6.82	6.51	6.71	6.78	6.78				+/-0.1	6.78
Temperature (°C)	14.62	14.62	14.62	14.62	14.63	14.53				NC*	14.53
Specific Conductance (µmhos/cm)	1.12	1.14	1.16	1.16	1.14	1.14				+/-3%	1.14
Turbidity (NTU)	63.2	54.4	21.6	0.0	0.0	0.0				+/-10%	0.0
Dissolved Oxygen (mg/L)	2.53	2.54	2.47	2.41	2.27	2.17				+/-10% or +/-0.3	1.16
ORP (mV)	-75	-80	-80	-90	-111	-113				+/-10	-114
Each Volume Purged (L)	.35	.35	.35	.35	.35	.35					.35
Total Liters Purged						60					60

Sample 16:08

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? No Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? No Yes _____
Sample Remarks (odors, colors, sediment): _____
Comments: _____
Sample(s) Collected By: _____
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/23/14 / 16:24 Project Site/Subsite: W. Vermont
Sample ID: WV-MW-9B GW ESA T8
Field ID: 9B Point Name: 9B
Depth to Well Bottom: _____ ft. below top of casing (PVC cap)
Depth to Water Level: 17.36 ft. below PVC cap
Depth to Water Level: _____ ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump X Submersible Pump ____
Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ____Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____
Throttle _____ psi
Total Purged: 17.5 Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: 1350 Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabilization Criteria	Final
Time	1530	1540	1550	1600	1610	1620					1624
pH	6.82	6.71	6.77	6.77	6.77	6.79				+/-0.1	6.79
Temperature (°C)	14.61	14.64	14.58	14.66	14.74	14.75				NC*	14.78
Specific Conductance (µmhos/cm)	1.18	1.21	1.21	1.21	1.18	1.17				+/-3%	1.17
Turbidity (NTU)	0.0	0.0	0.0	0.0	0.0	0.0				+/-10%	0.0
Dissolved Oxygen (mg/L)	1.29	1.25	0.82	0.81	0.86	0.74				+/-10% or +/-0.3	0.74
ORP (mV)	-90	-81	-110	-112	-117	-122				+/-10	-122
Each Volume Purged (L)	.35	.35	.35	.35	.35	.35					.35
Total Liters Purged											17.5

1624 Sample time

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? (No) Yes _____
Sample Remarks (odors, colors, sediment): No odors Colorless Clear
Comments: _____
Sample(s) Collected By: KH + JR
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/27/14 / 1357 Project Site/Subsite: Allison Transmission MW-1003-53
Sample ID: WV-MW-10-GW
Field ID: MW-1003-53 Point Name: _____
Depth to Well Bottom: 55 ft. below top of casing (PVC cap)
Depth to Water Level: 24.95 ft. below PVC cap
Depth to Water Level: _____ ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump X Submersible Pump ____
Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ____Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____
Throttle _____ psi
Total Purged: 29.75 Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: _____ Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabilization Criteria	Final
Time	1225	1235	1245	1255	1310	1330	1340	1345	1350		1350
pH	7.37	7.35	7.31	7.32	7.27	7.32	7.29	7.28	7.28	+/-0.1	7.28
Temperature (°C)	15.12	14.75	14.57	14.58	14.41	14.38	14.52	14.59	14.54	NC*	14.54
Specific Conductance (µmhos/cm)	2.71	2.54	2.54	2.53	2.53	2.54	2.53	2.53	2.53	+/-3%	2.53
Turbidity (NTU)	26.1	23.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	+/-10%	0.0
Dissolved Oxygen (mg/L)	7.2	4.5	4.27	3.31	3.23	1.72	0.75	0.75	0.75	+/-10% or +/-0.3	0.75
ORP (mV)	7	6	-2	-7	-7	-11	-6	-6	-6	+/-10	-6
Each Volume Purged (L)	.350	.350	.350	.350	.350	.350	.350	.350	.350		.350
Total Liters Purged											

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? (No) Yes _____
Sample Remarks (odors, colors, sediment): Clear Colorless odorless
Comments: _____
Sample(s) Collected By: _____
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters

FIGURE 1 - LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date/Time of Sample Collection: 10/27/14, 1138 Project Site/Subsite: West Vermont
Sample ID: WV-MW-11-GW ; ESA W5 MW-1105-53/4
Field ID: MW 11 Point Name: _____
Depth to Well Bottom: 75.00 ft. below top of casing (PVC cap)
Depth to Water Level: 16.43 ft. below PVC cap
Depth to Water Level: _____ ft. below PVC cap prior to sampling
Method of Purging: Bladder Pump ____ Submersible Pump ____ 72'
Peristaltic Pump ____
Minimum Purge Volume: 2-inch well ____Liters / 4-inch well ____Liters
Control Box Settings: Box # _____ Refill _____ Discharge _____
Throttle _____ psi
Total Purged: _____ Liters (Purge Rate goal = 0.5 Liters/Min.)
Actual Purge Rate: _____ Liters/Min.

Purge Calculations

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed**	Initial Reading									Stabilization Criteria	Final
Time	1010	1032	1040	1100	1105	1110	1115	1120	1125		1138
pH	7.35	7.84	7.90	8.05	8.07	8.05	7.92	7.92	7.92	+/-0.1	7.89
Temperature (°C)	15.14	15.48	15.40	16.12	16.05	16.03	16.34	17.08	16.97	NC*	16.89
Specific Conductance (µmhos/cm)	0.741	0.728	0.726	.712	.707	.706	.699	.707	.705	+/-3%	.705
Turbidity (NTU)	83.90	26.2	19.2	2.4	0.7	0.6	1.8	0.0	0.0	+/-10%	0.0
Dissolved Oxygen (mg/L)	1.77	1.17	1.13	0.96	0.93	.92	1.52	0.97	0.99	+/-10% or +/-0.3	.99
ORP (mV)	36	-94	-108	-146	-152	-151	-147	-159	-149	+/-10	-149
Each Volume Purged (L)	.130	.130	.130	0.130	.130	.130	0.150	0.150			0.150
Total Liters Purged											

*NC = No Criteria. **Stabilization criteria listed should be used unless project-specific plans specify alternate stabilization criteria.

Duplicate Sample Collected? No Yes (Sample ID of Duplicate) _____
MS/MSD Sample Collected? No Yes _____
Sample Remarks (odors, colors, sediment): _____
Comments: _____
Sample(s) Collected By: KH
Pump System Purge Volume Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters