



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
Well Number and Location: MW- 1
Sampler: Andrey Yorbek
Pump Depth (BTOC): 15'
Purging Method: Low Flow / Micro Purge
Gauging date: 05/01/13 Initial Depth to Water: 2.1' Total Depth: 30.2'
Sampling date/time: 5/1/13 @ 1625

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1548	0.5 gpm	3.0							Ag 05/01/13
1549	0.5 gpm	3.92							
1550	0.5 gpm	4.24							
1551	0.5 gpm	4.55							
1552	0.5 gpm	4.75							
1553	0.5 gpm	4.80							
1554	300 mL/min	4.95							
1555	300	4.98	6.68	0.822	670	6.1	13.69	41	
1600	300	5.50	6.48	0.855	650	5.9	12.73	17	
1605	300	5.65	6.43	0.854	580	5.7	12.89	12	
1610	300	5.60	6.38	0.859	530	5.6	13.05	12	
1615	300	6.00	6.35	0.864	500	5.5	13.05	15	

BTOC = Below Top of Casing

Comments: Water level BTOC began to stabilize when
purge rate was reduced to 300 mL/min

Form Completed By: Andrey Yorbek

~~Ag 05/01/13~~

Low-Flow Groundwater Sampling Log

(Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263

Well Number and Location: MW- 1

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1620	300	6.12	6.29	0.874	470	3.4	12.73	15	
1625	Sample collected at MW-1.								
<div style="position: relative; height: 300px;"> X 05/01/13 </div>									

BTOC = Below Top of Casing

Comments: See previous pg

Form Completed By: Andrew Yorkse

05/01/13



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
Well Number and Location: MW- 15
Sampler: Audrey Yorke
Pump Depth (BTOC): 25'
Purging Method: Low Flow / Micro Purge
Gauging date: 05/01/13 Initial Depth to Water: 3.50' Total Depth: 29.6'
Sampling date/time: 05/01/13 1400

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1335	0.5 gpm	6.75							
1336	0.5 gpm	7.20							
1337	0.5 gpm	7.32							
1338	300	7.00							
1339	300	6.40							
1340	300	6.35	6.49	0.807	560	2.7	13.69	-147	
1345	300	6.40	6.49	0.845	580	2.6	13.17	-144	
1350	300	6.49	6.47	0.878	580	2.6	13.14	-139	
1400	Sample collected at MW-15.								

BTOC = Below Top of Casing

Comments: Water level BTOC began to stabilize when purge rate was reduced to 300 mL/min

Form Completed By: Audrey Yorke



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
 Well Number and Location: MW- 10U
 Sampler: ZB
 Pump Depth (BTOC): 165'
 Purging Method: Low Flow / Micro Purge
 Gauging date: 4/30/13 Initial Depth to Water: 1.9 Total Depth: 174
 Sampling date/time: 5/1/13 @ 1500

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1400	150	5.1	8.86	0.965	200	6.6	16.36	-52	
1405		5.5	8.88	0.996	59	4.7	16.74	-77	
1410		8.1	8.45	1.27	-5	3.3	16.21	-51	
1415		1.2	8.44	1.27	-5	3.2	16.23	-45	
1420		10.05	8.42	1.26	-5	2.9	16.36	-44	
1425		10.10	8.42	1.26	-5	2.7	16.68	-55	
1430		10.30	8.42	1.27	-5	2.6	16.34	-64	
1435		10.50	8.43	1.25	-5	2.5	16.98	-69	
1440		10.80	8.44	1.25	-5	2.4	17.13	-70	
1445		10.51	8.58	1.26	-5	2.4	17.10	-84	
1450		10.51	8.58	1.26	-5	2.3	17.11	-83	
1455		10.51	8.60	1.24	-5	2.2	17.70	-85	

BTOC = Below Top of Casing

Comments: Start flow at 400 mL/min drawdown for quick level rate till well yield = draw. Rate of purge 150. low yielding well!

Form Completed By: ZB
Sample @ 1500



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
 Well Number and Location: MW- 1 PL
 Sampler: ZB
 Pump Depth (BTOC): 275'
 Purging Method: Low Flow / Micro Purge
 Gauging date: 5/2/13 Initial Depth to Water: 68' Total Depth: 300'
 Sampling date/time: 5/2/13 @ 1115

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1033	275	67.95	6.51	1.92	45	5.7	14.97	18	
1038		68.62	6.39	1.98	38	4.2	16.65	-20	
1043		70.11	6.35	1.97	42	3.9	15.82	-53	
1048		69.9	6.44	1.472	65	3.5	15.82	-84	
1053		73.2	6.39	1.98	58	3.3	15.00	-105	
1058			6.37	1.96	57	3.1	16.0	-103	
1103			6.40	1.97	59	3.0	16.13	-100	
1108			6.46	1.97	48	2.6	16.10	-101	
		Sampled at 1115							

BTOC = Below Top of Casing

Comments: Sampled at 1115 - started purge at lower rate due to faster drawdown

Form Completed By: ZB
Sampled at 1115



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
 Well Number and Location: MW- 2s
 Sampler: Andrew Yorke
 Pump Depth (BTOC): 25'
 Purging Method: Low Flow / Micro Purge
 Gauging date: 05/01/13 Initial Depth to Water: 4.00' Total Depth: 29.00'
 Sampling date/time: 05/01/13 1200

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1040	250	7.42	6.97	0.022	540	3.3	15.88	156	
1045	250	8.56	6.90	0.020	460	2.8	15.34	148	
1050	250	8.99	6.85	0.020	410	2.5	17.25	147	
1055	250	9.40	6.81	0.020	370	2.4	17.60	147	
1100	250	9.46	6.79	0.019	320	2.3	18.24	146	
1105	250	9.45	6.77	0.019	320	2.2	18.94	135	
1110	250	9.43	6.77	0.020	270	2.2	20.07	97	
1115	250	9.90	6.78	0.020	430	2.2	18.52	65	
1120	250	10.30	6.76	0.019	430	3.0	18.52	-14	
1125	250	10.85	6.74	0.019	410	2.2	17.97	43	
1130	250	11.03	6.75	0.019	360	2.9	18.13	44	
1135	250	11.12	6.75	0.019	250	3.3	19.28	-24	

05/02/13

AD

BTOC = Below Top of Casing

Comments: Began purge at 1035 at 1 gpm. Draw down was too rapid so decreased flow to approx 250 mL/min.

Form Completed By: Andrew Yorke

Low-Flow Groundwater Sampling Log

(Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263

Well Number and Location: MW- 25

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1140	250	11.10	6.81	0.020	810	4.5	21.19	-36	
1145	250	11.73	6.91	0.023	580	5.3	17.76	-52	
1150	250	12.10	6.89	0.023	580	5.0	18.24	-52	
1155	250	12.42	6.88	0.023	550	4.9	18.56	-50	
1200	Sample collected at MW-25.								
<div style="font-size: 2em; transform: rotate(-15deg); opacity: 0.5;"> Aug 05/04/13 </div>									

BTOC = Below Top of Casing

Comments: _____

Form Completed By: Andrey Yorbke

Aug 05/02/13



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
 Well Number and Location: MW- 200
 Sampler: Zark Butlex
 Pump Depth (BTOC): 75'
 Purging Method: Low Flow / Micro Purge
 Gauging date: 4/30/13 Initial Depth to Water: 6.6' Total Depth: 116.5
 Sampling date/time: 5/3/13 @ 1105

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1040	250	10.06	6.79	132	-5	2.6	15.37	88	}
1045		10.28	6.77	132	-5	2.1	16.20	35	
1050		10.40	6.78	133	-5	2.0	17.17	30	
1056		10.50	6.78	135	-5	2.0	12.57	30	
1100		10.59	6.79	135	-5	2.1	12.35	30	
Sampled at 1105									

BTOC = Below Top of Casing

Comments: Start purge at 1/2 Gpm - very low yielding
- reduce yield to 250ml/min

Form Completed By: ZB
Sampled at 1105



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263

Well Number and Location: MW- 20L

Sampler: ZB

Pump Depth (BTOC): 208

Purging Method: Low Flow / Micro Purge

Gauging date: 4/30/13 Initial Depth to Water: 3.8 Total Depth: 219.6

Sampling date/time: 4/30/13 @ 1510

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1442	250 mL/min	14.9	8.40	2.80	170	3.4	14.47	72	[Handwritten signature and notes spanning multiple rows]
1447		15.	8.31	2.70	73	3.3	14.58	74	
1452		14.8	8.29	2.65	44	3.1	14.68	74	
1457		15.0	8.28	2.45	30	3.0	14.64	72	
1502		15.2	8.28	2.37	28	3.0	14.76	71	
1507		15.0	8.28	2.31	25	2.9	14.84	70	
Sampled at 1510									

BTOC = Below Top of Casing

Comments: Started purge at 15 gpm - lowered rate until yield & draw equalled out - rate 250 mL/min

Form Completed By: ZB

Sampled at 1510



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
 Well Number and Location: MW- 3s
 Sampler: Andrey Yorque
 Pump Depth (BTOC): 20'
 Purging Method: Low Flow / Micro Purge
 Gauging date: 05/01/13 Initial Depth to Water: 4.00' Total Depth: 29.80'
 Sampling date/time: 05/01/13 0910

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
0835	250	4.23	6.67	0.188	680	2.8	13.13	192	none
0840	250	4.20	6.49	0.154	580	2.5	12.40	197	↓
0845	250	4.20	6.39	0.191	550	2.4	12.73	202	
0850	250	4.25	6.37	0.186	580	2.4	12.40	206	
0855	250	4.30	6.31	0.185	520	2.3	12.45	210	
0900	250	4.24	6.30	0.184	510	2.3	12.63	211	
0905	250	4.29	6.30	0.184	510	2.3	12.50	212	
0910	Sample collected at MW-3s.								
<i>By 05/01/13</i>									

BTOC = Below Top of Casing

Comments: none

Form Completed By: Andrey Yorque 05/01/13



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
 Well Number and Location: MW- 3D 95
 Sampler: ZB
 Pump Depth (BTOC): 95'
 Purging Method: Low Flow / Micro Purge
 Gauging date: 4/30/13 Initial Depth to Water: 4.9 Total Depth: 250
 Sampling date/time: 5/1/13 @ 1235

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1205	2.0 2.1	5.0	8.49	.440	50	2.9	12.77	-62	
1210		5.1	8.44	.438	49	2.9	12.72	-62	
1215		5.18	8.22	.437	37	2.7	12.82	-55	
1220		5.18	8.14	.438	63	2.5	12.80	-52	
1225		5.18	8.13	.438	65	2.4	12.86	-52	
1230			8.13	.438	67	2.4	12.83	-53	
		Sampled		at	1235				

BTOC = Below Top of Casing

Comments: Purged at 1.5 GPM and lowered rate to equalize yield.

Form Completed By: ZB

Sampled at 1235



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
 Well Number and Location: MW- 3D 170'
 Sampler: ZB
 Pump Depth (BTOC): 170'
 Purging Method: Low Flow / Micro Purge
 Gauging date: 5/1/13 Initial Depth to Water: 30' Total Depth: 250
 Sampling date/time: 5/1/13 @ 1010

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
945	400	5.88	8.41	.447	76	2.2	12.31	-69	
950		5.90	8.45	.442	74	2.1	12.33	-76	
955		5.90	8.46	.447	71	2.0	12.35	-78	
1000		5	8.44	.449	85	2.0	12.34	-81	
1005			8.50	.451	75	1.9	12.35	-82	
Sampled at 1010									

BTOC = Below Top of Casing

Comments: After purging at 16pm - low rate until yield is equal to draw rate. 400 mL/min is stable

Form Completed By: ZB
sampled at 1010



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
 Well Number and Location: MW-4
 Sampler: Audrey Yorlke
 Pump Depth (BTOC): 22'
 Purging Method: Low Flow/ Micro Purge
 Gauging date: 05/02/13 Initial Depth to Water: 11.9' Total Depth: 30.1
 Sampling date/time: _____

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1125	0.5 gpm	12.65							Aug 05/02/13
1126	0.5 gpm	13.15							
1127	0.5 gpm	13.43							
1128	250 mL/min	13.40							
1129	250	13.30							
1130	250	13.17	6.75	0.835	-5	2.5	15.82	61	
1135	250	12.80	6.61	0.855	-5	2.3	15.53	50	
1140	250	12.63	6.57	0.858	620	2.3	15.22	40	
1145	250	12.55	6.54	0.860	480	2.3	15.47	34	
1150	250	12.40	6.54	0.858	380	2.1	17.77	36	
1155	250	12.50	6.52	0.863	360	2.4	15.05	29	
1200	250	12.80	6.49	0.865	220	2.4	14.50	22	

BTOC = Below Top of Casing

Comments: Water Level BTOC stabilized at approximately 250 mL/min.

Form Completed By: Audrey Yorlke Aug 05/02/13

Low-Flow Groundwater Sampling Log

(Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263

Well Number and Location: MW- 4

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1205	250	12.75	6.48	0.867	0	2.2	15.61	23	<div style="writing-mode: vertical-rl; transform: rotate(180deg);"> 11/20/13 AS 05/02/13 </div>
1210	250	12.55	6.49	0.868	0	2.1	16.86	26	
1215	250	12.80	6.48	0.873	0	2.4	14.27	19	
1220	Sample collected at				MW-4.				

BTOC = Below Top of Casing

Comments: _____

Form Completed By: Audrey Jarke

by 05/02/13



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
 Well Number and Location: MW- 4DU
 Sampler: Zack Bentley
 Pump Depth (BTOC): 110'
 Purging Method: Low Flow / Micro Purge
 Gauging date: 4/30/13 Initial Depth to Water: 11.81 Total Depth: 118'
 Sampling date/time: 5/8/13 @ 1450

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1400	250	11.81	6.72	1.595	-5	2.9	13.64	-31	Very turbid
1405		12.0	6.69	1.596	-5	2.7	14.55	-47	Very turbid
1410		11.95	7.79	1.596	-5	2.8	13.42	-22	Very turbid
1415		12.10	7.75	1.566	-5	2.0	14.01	-31	Very turbid
1420		12.18	7.75	1.621	-5	2.0	14.02	-32	Very turbid
1425		12.20	7.72	1.622	-5	1.9	14.02	-30	
1430		12.12	7.71	1.634	-5	1.8	14.22	-30	
1435		12.15	7.71	1.646	-5	1.8	14.22	-30	
1440		12.15	7.71	1.648	-5	1.7	14.21	-30	
		Sampled		at 1450					
ZB									

BTOC = Below Top of Casing

Comments: Final purge at .75 Gpm - lower rate to 250 mL/min - very turbid water

Form Completed By: ZB
Sampled at 1450



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
 Well Number and Location: MW- 406
 Sampler: Zank Bentley
 Pump Depth (BTOC): 235
 Purging Method: Low Flow / Micro Purge
 Gauging date: 4/30/13 Initial Depth to Water: 12.8 Total Depth: 245
 Sampling date/time: 5/3/13 @ 1325

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1235	250	14.51	6.68	1.691	26	3.7	16.5	-64	
1240		15.9	6.63	1.687	14	2.8	16.78	-79	
1245		17.8	6.63	1.688	14	2.8	16.87	-81	
1250		18.9	6.63	1.714	98	2.8	15.07	-122	
1255		21.0	6.63	1.714	98	2.5	15.29	-123	
1300		21.9	6.63	1.709	90	2.3	17.16	-121	
1308		23.35	6.65	1.724	110	2.2	16.97	-132	
1310		23.8	6.61	1.737	120	2.2	15.91	-134	
1315		23.98	6.61	1.740	120	2.3	15.70	-133	
1320		24.2	6.61	1.741	115	2.3	15.70	-133	
Sampled at 1325									

BTOC = Below Top of Casing

Comments: (contaminated water) water drawn at initial rate of 0.5 gpm then reduced water yield equals draw - very low yield

Form Completed By: ZB

Sampled at 1325



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
 Well Number and Location: OW-4L
 Sampler: ZB
 Pump Depth (BTOC): 200'
 Purging Method: Low Flow / Micro Purge
 Gauging date: 4/30/13 Initial Depth to Water: 7.8" Total Depth: 249
 Sampling date/time: 5/2/13 @ 1550

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1510	3000	6.81	6.02	.386	95	2.9	12.97	7	[Handwritten bracket spanning rows 1-8]
1515		6.90	5.96	.386	140	2.6	12.98	-16	
1520		7.22	5.96	.387	140	2.6	12.97	-18	
1525		7.25	5.96	.387	140	2.6	12.97	-33	
1530		7.45	5.98	.386	140	2.5	12.99	-44	
1535		7.55	6.06	.387	9	2.5	12.98	-44	
1540		7.60	6.07	.387	10	2.5	12.98	-45	
1545		7.66	6.08	.387	12	2.4	12.98	-45	
Sampled at 1550									
[Handwritten signature]									

BTOC = Below Top of Casing

Comments: Well was initially purged at 1 gpm - low rate to equalize draw to yield - rate of 3000 mL/min

Form Completed By: ZB
Sampled @ 1550

* rate lock missing



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
 Well Number and Location: 01W-4U
 Sampler: Zach Bentley
 Pump Depth (BTOC): 98'
 Purging Method: Low Flow / Micro Purge
 Gauging date: 4/30/13 Initial Depth to Water: 10. Total Depth: 128'
 Sampling date/time: 5/2/13 @ 1355

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1313	300 mL	18.6	6.46	.519	-5	3.0	18.42	-62	
1318		19.2	6.34	.533	-5	2.5	16.22	-36	
1323		19.2	6.33	.537	-5	2.5	16.43	-22	
1328		19.2	6.33	.541	-5	2.3	16.87	-1	
1333		19.2	6.33	.541	-5	2.3	16.87	-1	
1338		19.2	6.35	.540	-5	2.2	17.16	6	
1343		19.2	6.37	.538	-5	2.1	17.49	9	
1348		19.2	6.41	.556	-5	2.2	16.75	5	
1353		19.2	6.45	.557	-5	2.2	16.80	9	
Sampled at 1355									
8/15									

BTOC = Below Top of Casing

Comments: Start purge at 1 Gpm - well level dropping too fast - lower purge until draw equals YEL in well. well stabilizes at

Form Completed By: ZB

Sampled at 1355



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
 Well Number and Location: MW- 55
 Sampler: ZB
 Pump Depth (BTOC): 25'
 Purging Method: Low Flow / Micro Purge
 Gauging date: 4/30/13 Initial Depth to Water: 5.32 Total Depth: 29.9
 Sampling date/time: 4/30/13 @ 1250

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1225	150	6.9	8.04	.184	98	7.8	12.21	150	[Handwritten signature and scribbles]
1230		6.10	8.77	.187 .187	58	7.5	12.17	167	
1235		6.13	8.70	.187	53	7.6	12.08	173	
1240		6.14	8.66	.187	41	7.5	11.98	178	
1245			8.65	.186	31	7.9	11.96	183	
Sampled at 1250									

BTOC = Below Top of Casing

Comments: Purged at .5 gpm - yield did not hold - lowered down till even yield/draw = 150 mL/min

Form Completed By: ZB

Sampled at 1250



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
 Well Number and Location: MW- 50 upper
 Sampler: ZB
 Pump Depth (BTOC): 80'
 Purging Method: Low Flow / Micro Purge
 Gauging date: 4/30/13 Initial Depth to Water: 12.49 Total Depth: 93
 Sampling date/time: 4/30/13 @ 1000

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
926	200	14.3	9.5	1.15	-5	4.4	13.37	134	[Large handwritten circle around the data rows]
931		14.3	9.47	1.15	-5	4.4	13.51	135	
136		14.25	9.42	1.14	-5	4.2	13.67	134	
941		14.25	9.43	1.14	-5	4.2	13.69	134	
946		14.20	9.55	1.13	-5	4.1	13.93	129	
951		14.20	9.69	1.14	-5	4.0	13.87	124	
956		14.20	9.65	1.13	-5	4.0	14.0	120	
		Sampled at			1000				

BTOC = Below Top of Casing

Comments: Start 1.5 GPM - could not yield - found that MW-50 upper can hold a yield of 200 mL/min

Form Completed By: ZB

sampled at 1000



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
 Well Number and Location: MW- 5DL
 Sampler: ZK
 Pump Depth (BTOC): 150'
 Purging Method: Low Flow / Micro Purge
 Gauging date: 4/30/13 Initial Depth to Water: 9.8 Total Depth: 187.4
 Sampling date/time: 4/30/13 @ 1125

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1056	250 mL/min	17.65	9.68	.575	-5	1.9	14.76	-119	
1101		17.72	9.73	.572	-5	1.8	14.92	-125	
1106		17.89	9.71	.571	-5	1.8	15.02	-127	
1111	200 mL/min	17.99	9.72	.566	77	1.6	15.04	-123	
1116		18.00	9.75	.566	58	1.6	15.12	-122	
1121		18.04	9.73	.565	34	1.6	15.35	-119	
		Sampled at 1125							

BTOC = Below Top of Casing

Comments: Determine what MW- 5DL can yield - start purge at 1 Gpm and lower till well is stable level - can yield 250 mL/min

Form Completed By: ZK
Sampled at 1125



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263

Well Number and Location: MW- 65

Sampler: Audrey Yankee

Pump Depth (BTOC): 27'

Purging Method: Low Flow/ Micro Purge

Gauging date: 04/30/13 Initial Depth to Water: 1.6' Total Depth: 28.9'

Sampling date/time: 04/30/13 1450

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1415	250	2.20	6.45	0.172	-5	8.0	13.76	104	water is turbid/cloudy
1420		2.35	6.23	0.167	-5	7.3	13.24	138	
1425		2.40	6.12	0.155	-5	7.2	12.59	157	
1430		2.45	5.92	0.147	-5	6.8	12.34	175	
1435		2.42	5.85	0.140	-5	6.7	12.25	182	
1440	↓	2.45	5.73	0.137	-5	6.6	12.05	187	
1450	Sample collected at MW-65.				by 04/30/13				
by 04/30/13									

BTOC = Below Top of Casing

Comments: water was initially very turbid but cleared up slightly throughout the purge.

Form Completed By: Audrey Yankee
AJ 05/02/13



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
Well Number and Location: MW- 8
Sampler: Andrew Yorke
Pump Depth (BTOC): 25'
Purging Method: Low Flow / Micro Purge
Gauging date: 05/02/13 Initial Depth to Water: 11.62' Total Depth: 30.10'
Sampling date/time: 05/02/13 1525

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1452	0.5 gpm	12.13'							
1453	0.5 gpm	12.80							
1454	0.5 gpm	13.55							
1455	250 mL/min	13.94	6.55	0.959	380	2.6	14.63	75	
1500	250	14.03	6.66	0.961	380	2.4	14.67	73	
1505	250	14.16	6.65	0.966	580	2.4	15.38	69	
1510	250	14.10	6.65	0.964	360	2.4	16.52	69	
1515	250	14.02	6.65	0.986	330	2.5	15.76	68	
1520	250	15.90	6.70	0.973	320	2.4	17.05	68	
1525	Sample	collected	at	MW-8.					

BTOC = Below Top of Casing

Comments:

Form Completed By: Andrew Yorke

Aug 05/02/13



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
 Well Number and Location: 01W-6L
 Sampler: ZS
 Pump Depth (BTOC): 240
 Purging Method: Low Flow / Micro Purge
 Gauging date: 4/30/13 Initial Depth to Water: 5.30 Total Depth: 260
 Sampling date/time: 5/2/13 @ 1915

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1835	1000	11.25	6.59	.409	-5	2.3	12.72	-49	
1840		11.30	6.58	.410	-5	2.3	12.72	-50	
1845		11.12	6.59	.417	-5	2.1	12.74	-61	
1850		11.22	6.60	.423	550	2.1	12.76	-68	
1900		11.25	6.62	.430	-5	2.0	12.76	-76	
1905		11.30	6.64	.437	-5	2.0	12.77	-70	
1910		11.28	6.65	.439	-5	2.0	12.76	-73	
		Sampled at 1915							

BTOC = Below Top of Casing

Comments: Well initially purged at 1.5 Gpm. Lower rate to 3000 mL/min to equal rate draw to field.

Form Completed By: ZS

Sampled at 1915

Duplicate 2 taken here



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
 Well Number and Location: OW- 6 upper
 Sampler: ZB
 Pump Depth (BTOC): 80'
 Purging Method: Low Flow / Micro Purge
 Gauging date: 4/30/13 Initial Depth to Water: +1.2 Total Depth: 130'
 Sampling date/time: 5/2/13 @ 1750

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1710	800	6.70	6.32	.550	560	2.6	12.74	53	Sampled at 1750
1715		6.73	6.31	.548	570	2.5	12.75	46	
1720		6.75	6.32	.548	650	2.4	12.74	40	
1725		6.77	6.33	.544	660	2.4	12.78	36	
1730		6.75	6.38	.543	740	2.3	12.77	30	
1735		6.75	6.39	.543	720	2.3	12.78	29	
1740			6.40	.542	735	2.2	12.79	25	

BTOC = Below Top of Casing

Comments: Start purge at 3785 ml/min reduce flow to 800 ml/min well yielding almost equal to drawdown - low to 700 ml/min

Form Completed By: ZB

Sampled at 1750



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263

Well Number and Location: MW- 7DL

Sampler: Zach Bentley

Pump Depth (BTOC): 195'

Purging Method: Low Flow / Micro Purge

Gauging date: 8/3/13 Initial Depth to Water: +1.8 Total Depth: 210'

Sampling date/time: 8/3/13 @ 8:15

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
750	18.20	19.69	6.84	1.04	28	2.1	13.08	63	
755		19.70	6.62	1.04	15	2.1	12.92	57	
800		19.73	6.62	1.04	7	2.0	13.13	56	
805		17.75	6.63	1.03	5	2.0	13.15	53	
810		17.72	6.64	1.03	2	1.9	13.17	54	
		Sample at 8:15							
8:15									

BTOC = Below Top of Casing

Comments: start flow at 1.5 Gpm & lower rate until well yield was equal with well draw at .5 Gpm

Form Completed By: ZB
Sample at 8:15

Duplicate 3 taken here



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
 Well Number and Location: MW- 75
 Sampler: Andrey Yorke
 Pump Depth (BTOC): 20'
 Purging Method: Low Flow/ Micro Purge
 Gauging date: 05/02/13 Initial Depth to Water: 1.85' Total Depth: 29.3'
 Sampling date/time: 05/02/13 1800

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1715	0.5 gpm	2.30							_____
1716	0.5 gpm	2.35							
1717	0.5 gpm	2.38							
1718	0.5 gpm	2.40							
1719	0.5 gpm	2.43							
1720	0.5 gpm	2.50	6.41	0.908	5	3.3	12.89	89	
1725	0.5 gpm	2.65	6.31	0.881	930	2.9	12.31	42	
1730	0.5 gpm	2.87	6.23	0.840	690	2.8	12.11	26	
1735	0.5 gpm	3.05							_____
1740	0.5 gpm	3.30	6.25	0.861	320	2.7	12.23	30	
1750	0.5 gpm	3.19	6.26	0.864	300	2.6	12.41	30	
1755	0.5 gpm	3.20	6.27	0.875	280	2.6	12.52	30	

BTOC = Below Top of Casing

Comments: Connection to Heriba was bad so readings at 1735 & 1740 were not recorded.

Form Completed By: Andrey Yorke

Ay 05/02/13

Duplicate 1 taken here



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
 Well Number and Location: MW- 7DV
 Sampler: Zachary Bentley
 Pump Depth (BTOC): 140'
 Purging Method: Low Flow / Micro Purge
 Gauging date: 4/30/13 Initial Depth to Water: +2.8' Total Depth: 155'
 Sampling date/time: 5/3/13 @ 945

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
920	4300	4.92	6.62	.765	43	1.9	13.32	-112	}
925		4.94	6.62	.765	24	1.9	13.32	-113	
930		4.99	6.63	.763	12	1.8	13.34	-114	
935		5.11	6.63	.763	10	1.8	13.33	-114	
940		5.21	6.64	.781	6	1.8	13.35	-115	
Sampled at 945									
3/13									

BTOC = Below Top of Casing

Comments: Started purge at very high rate - well can easily yield 4300 mL/min

Form Completed By: sampled at 945



Low-Flow Groundwater Sampling Log

(Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
Well Number and Location: MW- 13
Sampler: Zack Bentley
Pump Depth (BTOC): 20'
Purging Method: Low Flow / Micro Purge
Gauging date: 4/30/13 Initial Depth to Water: 7.15 Total Depth: 25'
Sampling date/time: 5/3/13 @ 1205

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
1140	250 mL/min	8.30	6.62	1792	11	5.5	14.9	113	[Handwritten bracket spanning rows 1140 to 1200]
1145		8.44	6.58	1790	5	4.8	15.04	111	
1150		8.52	6.58	1792	4	4.7	15.84	111	
1155		8.56	6.58	1791	7	4.8	15.24	112	
1200		8.79	6.58	1793	8	4.5	15.52	114	
Sampled at					1205				
3/13									

BTOC = Below Top of Casing

Comments: Final purge rate 500 mL/min - reduced flow rate until draw equal yield - 250 mL/min

Form Completed By: Sampled at 1205



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC SITE - Perkiomenville PA, GTAC5-1-263
Well Number and Location: MW- 14
Sampler: Andrey Yorbke
Pump Depth (BTOC): 13
Purging Method: Low Flow / Micro Purge
Gauging date: 05/02/13 Initial Depth to Water: AY 05/02/13 ~~7.35~~ 7.20' Total Depth: 14.5
Sampling date/time: 05/02/13 0920

FIELD MEASUREMENTS

Time	Rate (mL/min)	Water Level (BTOC)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	OrP (mV)	Notes
0900	250	8.10'	6.05	1.22	790	4.0	11.97	-35	petroleum-like odor
0905	250	8.50'	6.09	1.22	780	3.4	11.90	-33	↓
0910	250	8.62	6.07	1.22	770	3.1	11.88	-68	↓
0915	250	9.10	6.08	1.22	770	2.9	11.96	-81	↓
0920	Sample collected at MW-14.								
AY 05/02/13									

BTOC = Below Top of Casing

Comments:

Form Completed By:

Andrey Yorbke

AY 05/02/13