Field Form - Low Flow Purging and Sampling
Ground Water Sampling Measurements and Calculations

Weather: Sunny 75°F

WELL NUMBER	WELL INFORMATION					Date: 8/19/2014
MW-27B	Well Diameter (inches)	Total (1) Depth (ft)	Depth to Water TOC (ft)	Depth to Product TOC (ft)	PID (ppm)	TRC Personnel: Matt Levy, Chris Weinman
PERMIT NUMBER						Site Name: Hoffmann La Roche
						Site Location: IA-10 GW Program
	2	50.13	3.67	NM	7.9	TRC Job Number: 198233

(1) Use a previously determined total depth. Confirm the total depth of well after sampling.
TOC = top of casing

PURGING INFORMATION							TRC METER NUMBERS		
Pump Type	Tubing Type	Pump (2) Intake Depth (ft)	Purge Start Time	Purge Stop Time	Flow Rate (ml/m)	Total Purge Vol. (gal)	pH:	Cond:	DO:
							Eh:	Turbidity:	NJDEP Cert. No. 20043
							Rental Meter Name: Horiba U-52		
Monsoon	Teflon	47.63	0837	0932	248	4.00	Rental Meter Serial No.: 21246(Probe), 21910(Meter)		

(2) Below TOC

PURGING PARAMETERS (measurements are to be taken approximately every 5 minutes)

Rental Meter Serial No.:		<0.3 ft	± 3%	± 0.1 su	± 3%	± 10%	± 10 mv	± 10%(3)	N/A	N/A		
Time	Flow Rate (ml/min)	Depth to Water (ft)	Temp (ºC)	pH (su)	Cond (µS/cm)	D.O. (mg/L)	ORP (mv)	Turbidity (NTU)	Salinity (ppt)	TDS (mg/L)	Initials	Water Conditions/Comments
0837	250	3.72	20.25	6.27	798	1.80	265	163	0.4	515	ML	
0842	250	6.86	19.17	6.69	855	1.05	208	258	0.4	547	ML	
0847	200	7.47	19.44	6.80	864	1.08	195	259	0.4	553	ML	
0852	200	9.27	19.62	6.91	863	1.08	183	241	0.4	552	ML	
0857	200	11.24	19.58	7.01	827	0.83	161	129	0.4	528	ML	
0902	150	12.49	19.75	7.05	822	0.80	154	86.3	0.4	527	ML	
0907	150	13.79	19.91	7.10	813	0.80	147	76.5	0.4	520	ML	
0912	150	14.95	19.37	7.10	813	0.76	144	59.5	0.4	520	ML	
0917	150	17.85	18.82	7.16	795	0.63	132	34.4	0.4	509	ML	
0922	150	18.45	20.18	7.18	790	0.60	127	25.7	0.4	506	ML	
0927	150	19.29	20.28	7.19	789	0.62	126	25.7	0.4	505	ML	
0932	150	20.09	20.47	7.20	781	0.63	124	26.3	0.4	500	ML	
0938	150	23.82	18.73	7.36	775	0.95	166	25.4	0.4	495	ML	Post-sample parameters

Comments:

Sample Name: MW-27B-LF47.63

Analytical Parameters: VOCs including 1,4-Dioxane

Sample Start Time: 0932
Sample Finish Time: 0938

Weather Conditions: Sunny 75°F

Revised 10/14

(3) For values greater than 1.

NJDEP Certification No. 20043

Analytical Methods (EPA): Temp (SM 2550 B); pH (SM 4500-H B); Cond (120.1 and SM 2510 B); DO (SM 4500-O G); Salinity (SM 2520 B); Turbidity (EPA 180.1)

Note: Indicator parameters have stabilized when 3 consecutive readings are within criteria above.

PID lamp is 10.6 eV, unless otherwise noted.

Field Form - Low Flow Purging and Sampling
Ground Water Sampling Measurements and Calculations

Weather: Sunny 75°F

WELL NUMBER	WELL INFORMATION					
MW-27C	Well Diameter (inches)	Total (1) Depth (ft)	Depth to Water TOC (ft)	Depth to Product TOC (ft)	PID (ppm)	**Date: 8/19/2014**
PERMIT NUMBER						**TRC Personnel: Matt Levy, Chris Weinman**
						Site Name: Hoffmann La Roche
						Site Location: IA-10 GW Program
	2	79.85	4.72	NM	0.9	**TRC Job Number:** 198233

(1) Use a previously determined total depth. Confirm the total depth of well after sampling.
TOC = top of casing

PURGING INFORMATION							TRC METER NUMBERS		
Pump Type	Tubing Type	Pump (2) Intake Depth (ft)	Purge Start Time	Purge Stop Time	Flow Rate (ml/m)	Total Purge Vol. (gal)	**pH:**	**Cond:**	**DO:**
							Eh:	**Turbidity:**	**NJDEP Cert. No. 20043**
							Rental Meter Name: Horiba U-52		
Monsoon	Teflon	77.50	1000	1035	450	4.50	**Rental Meter Serial No.: 21246(Probe), 21910(Meter)**		

(2) Below TOC

PURGING PARAMETERS (measurements are to be taken approximately every 5 minutes)

Rental Meter Serial No.:		<0.3 ft	± 3%	± 0.1 su	± 3%	± 10%	± 10 mv	± 10%(3)	N/A	N/A		
Time	Flow Rate (ml/min)	Depth to Water (ft)	Temp (ºC)	pH (su)	Cond (µS/cm)	D.O. (mg/L)	ORP (mv)	Turbidity (NTU)	Salinity (ppt)	TDS (mg/L)	Initials	Water Conditions/Comments
1000	450	4.95	21.10	7.28	912	0.40	193	11.1	0.5	595	ML	
1005	450	4.98	17.93	7.44	960	0.85	131	4.8	0.5	612	ML	
1010	450	4.91	18.22	7.34	971	1.14	142	4.5	0.5	620	ML	
1015	450	4.96	17.95	7.38	965	0.89	132	3.3	0.5	618	ML	
1020	450	4.96	17.76	7.34	974	0.83	128	3.1	0.5	624	ML	
1025	450	4.98	17.55	7.33	977	0.77	124	3.4	0.5	625	ML	
1030	450	4.99	17.25	7.36	975	0.81	121	2.9	0.5	623	ML	
1035	450	4.99	17.51	7.35	979	0.79	122	2.1	0.5	626	ML	
1038	450	4.99	16.97	7.25	965	0.78	132	1.5	0.5	622	ML	Post-sample parameters

Comments:	**Sample Name: MW-27C-LF77.50**
Analytical Parameters: VOCs including 1,4-Dioxane	**Sample Start Time: 1035** **Sample Finish Time: 1038**
Weather Conditions: Sunny 75°F	

Revised 10/14

(3) For values greater than 1.

NJDEP Certification No. 20043

Analytical Methods (EPA): Temp (SM 2550 B); pH (SM 4500-H B); Cond (120.1 and SM 2510 B); DO (SM 4500-O G); Salinity (SM 2520 B); Turbidity (EPA 180.1)

Note: Indicator parameters have stabilized when 3 consecutive readings are within criteria above.

PID lamp is 10.6 eV, unless otherwise noted.

Field Form - Low Flow Purging and Sampling
Ground Water Sampling Measurements and Calculations

Weather: Cloudy, 67° F

WELL NUMBER	WELL INFORMATION					Date: 8/21/2014
MW-70C	Well Diameter (inches)	Total (1) Depth (ft)	Depth to Water TOC (ft)	Depth to Product TOC (ft)	PID (ppm)	TRC Personnel: Sanjay Sharma Site Name: Hoffmann La Roche
PERMIT NUMBER						Site Location: IA-10 GW Program
	2	84.17	8.51	NM	1.5	TRC Job Number: 198233

(1) Use a previously determined total depth. Confirm the total depth of well after sampling.
TOC = top of casing

PURGING INFORMATION							TRC METER NUMBERS		
Pump Type	Tubing Type	Pump (2) Intake Depth (ft)	Purge Start Time	Purge Stop Time	Flow Rate (ml/m)	Total Purge Vol. (gal)	pH:	Cond:	DO:
							Eh:	Turbidity:	NJDEP Cert. No. 20043
							Rental Meter Name: Horiba U-52		
Monsoon	Teflon	81.50	0805	0855	120	2.5	Rental Meter Serial No.: 24323(Probe), 25214(Meter)		

(2) Below TOC

PURGING PARAMETERS (measurements are to be taken approximately every 5 minutes)

Rental Meter Serial No.:		<0.3 ft	± 3%	± 0.1 su	± 3%	± 10%	± 10 mv	± 10%(3)	N/A	N/A		
Time	Flow Rate (ml/min)	Depth to Water (ft)	Temp (ºC)	pH (su)	Cond (µS/cm)	D.O. (mg/L)	ORP (mv)	Turbidity (NTU)	Salinity (ppt)	TDS (mg/L)	Initials	Water Conditions/Comments
0805	120	9.16	21.07	6.96	1190	2.57	179	12.7	0.6	763	SS	Clear, no odor, no sheen
0810	120	9.10	19.18	6.96	1202	2.38	178	8.1	0.6	764	SS	Clear, no odor, no sheen
0815	120	9.06	18.77	6.95	1210	2.11	176	3.4	0.6	768	SS	Clear, no odor, no sheen
0820	120	9.01	18.61	6.95	1210	1.95	174	0.8	0.6	768	SS	Clear, no odor, no sheen
0825	120	9.01	18.25	6.92	1220	1.35	163	0.9	0.6	778	SS	Clear, no odor, no sheen
0830	120	9.01	18.22	6.92	1210	1.23	159	2.2	0.6	776	SS	Clear, no odor, no sheen
0835	120	8.86	18.62	6.92	1210	1.01	150	8.3	0.6	774	SS	Clear, no odor, no sheen
0840	120	8.72	18.96	6.92	1210	0.92	145	8.0	0.6	772	SS	Clear, no odor, no sheen
0845	120	8.68	19.74	6.93	1210	0.88	141	7.0	0.6	774	SS	Clear, no odor, no sheen
0850	120	8.67	19.93	6.93	1210	0.83	144	7.2	0.6	773	SS	Clear, no odor, no sheen
0855	120	8.68	19.96	6.93	1210	0.83	141	7.1	0.6	774	SS	Clear, no odor, no sheen
0910	120	8.81	20.62	7.05	1180	1.68	145	11.8	0.6	757	SS	Post-sample parameters

Comments:

Sample Name: MW-70C-LF81.50

Analytical Parameters: VOCs including 1,4-Dioxane

Sample Start Time: 0855
Sample Finish Time: 0905

Weather Conditions: Cloudy 67° F

Revised 10/14

(3) For values greater than 1.

NJDEP Certification No. 20043

Analytical Methods (EPA): Temp (SM 2550 B); pH (SM 4500-H B); Cond (120.1 and SM 2510 B); DO (SM 4500-O G); Salinity (SM 2520 B); Turbidity (EPA 180.1)

Note: Indicator parameters have stabilized when 3 consecutive readings are within criteria above.

PID lamp is 10.6 eV, unless otherwise noted.

Field Form - Low Flow Purging and Sampling
Ground Water Sampling Measurements and Calculations

Weather: Sunny 75°F

WELL NUMBER	WELL INFORMATION					Date: 8/19/2014
MW-131C	Well Diameter (inches)	Total (1) Depth (ft)	Depth to Water TOC (ft)	Depth to Product TOC (ft)	PID (ppm)	TRC Personnel: Max Scott, Bryan MacDonald Site Name: Hoffmann La Roche
PERMIT NUMBER						Site Location: IA-14
	2	70.41	24.16	NM	141.0	**TRC Job Number:** 198233

(1) Use a previously determined total depth. Confirm the total depth of well after sampling.
TOC = top of casing

PURGING INFORMATION							TRC METER NUMBERS		
Pump Type	Tubing Type	Pump (2) Intake Depth (ft)	Purge Start Time	Purge Stop Time	Flow Rate (ml/m)	Total Purge Vol. (gal)	pH:	Cond:	DO:
							Eh:	Turbidity:	NJDEP Cert. No. 20043
							Rental Meter Name: Horiba U-52		
Monsoon	Teflon	67.91	0945	1100	240	6.50	Rental Meter Serial No.: 21156(Probe), 16867(Meter)		

(2) Below TOC

PURGING PARAMETERS (measurements are to be taken approximately every 5 minutes)

Rental Meter Serial No.:		<0.3 ft	± 3%	± 0.1 su	± 3%	± 10%	± 10 mv	± 10%(3)	N/A	N/A		
Time	Flow Rate (ml/min)	Depth to Water (ft)	Temp (ºC)	pH (su)	Cond (µS/cm)	D.O. (mg/L)	ORP (mv)	Turbidity (NTU)	Salinity (ppt)	TDS (mg/L)	Initials	Water Conditions/Comments
0955	240	24.23	20.21	7.30	958	6.35	197	25.6	0.5	NM	MPS	
1000	240	24.25	20.30	7.30	999	7.73	206	35.0	0.5	NM	MPS	
1005	240	24.28	19.06	7.33	987	7.44	212	19.0	0.5	NM	MPS	
1010	240	24.32	18.69	7.32	989	7.31	216	15.0	0.5	NM	MPS	
1015	240	24.35	18.74	7.33	993	7.13	217	14.0	0.5	NM	MPS	
1020	240	24.38	19.05	7.34	1000	7.00	219	12.4	0.5	NM	MPS	
1025	240	24.40	18.55	7.35	989	6.82	221	10.9	0.5	NM	MPS	
1030	240	24.41	18.92	7.33	999	6.52	221	12.9	0.5	NM	MPS	
1035	240	24.41	18.83	7.36	996	6.47	222	6.6	0.5	NM	MPS	
1040	240	24.41	17.96	7.38	1000	6.38	223	6.3	0.5	NM	MPS	
1045	240	24.40	17.87	7.38	1010	6.26	223	5.3	0.5	NM	MPS	
1050	240	24.40	17.95	7.38	1010	6.16	224	4.1	0.5	NM	MPS	
1055	240	24.39	17.90	7.38	1010	6.10	224	3.9	0.5	NM	MPS	
1100	240	24.38	17.81	7.37	1010	6.06	224	4.1	0.5	NM	MPS	
1105	240	24.38	17.81	7.37	1010	6.06	224	4.1	0.5	NM	MPS	Post-sample parameters

Comments:

Sample Name: MW-131C-LF67.9

Analytical Parameters: VOCs including 1,4-Dioxane

Sample Start Time: 1100
Sample Finish Time: 1105

Weather Conditions: Sunny 75°F

Revised 10/14

(3) For values greater than 1.

NJDEP Certification No. 20043

Analytical Methods (EPA): Temp (SM 2550 B); pH (SM 4500-H B); Cond (120.1 and SM 2510 B); DO (SM 4500-O G); Salinity (SM 2520 B); Turbidity (EPA 180.1)

Note: Indicator parameters have stabilized when 3 consecutive readings are within criteria above.

PID lamp is 10.6 eV, unless otherwise noted.

Field Form - Low Flow Purging and Sampling
Ground Water Sampling Measurements and Calculations

Weather: Sunny 75° F

WELL NUMBER	WELL INFORMATION					Date: 8/19/2014
MW-172-S3	Well Diameter (inches)	Total (1) Depth (ft)	Depth to Water TOC (ft)	Depth to Product TOC (ft)	PID (ppm)	TRC Personnel: Bryan MacDonald, Max Scott
PERMIT NUMBER						Site Name: Hoffmann La Roche
						Site Location: IA-11 1,4-Dioxane
	2	120.01	41.80	NM	0.3	TRC Job Number: 198233

(1) Use a previously determined total depth. Confirm the total depth of well after sampling.
TOC = top of casing

PURGING INFORMATION							TRC METER NUMBERS		
Pump Type	Tubing Type	Pump (2) Intake Depth (ft)	Purge Start Time	Purge Stop Time	Flow Rate (ml/m)	Total Purge Vol. (gal)	pH:	Cond:	DO:
							Eh:	Turbidity:	NJDEP Cert. No. 20043
							Rental Meter Name: Horiba U-52		
Grundfos	Teflon	117.51	1425	1600	400	14.0	Rental Meter Serial No.: 21156(Probe), 16867(Meter)		

(2) Below TOC

PURGING PARAMETERS (measurements are to be taken approximately every 5 minutes)

Rental Meter Serial No.:		<0.3 ft	± 3%	± 0.1 su	± 3%	± 10%	± 10 mv	± 10%(3)	N/A	N/A		
Time	Flow Rate (ml/min)	Depth to Water (ft)	Temp (ºC)	pH (su)	Cond (µS/cm)	D.O. (mg/L)	ORP (mv)	Turbidity (NTU)	Salinity (ppt)	TDS (mg/L)	Initials	Water Conditions/Comments
1435	400	41.83	14.44	10.08	1120	3.49	63	181	0.5	NM	BJM	
1440	400	41.84	14.45	8.94	1020	3.94	105	79.1	0.5	NM	BJM	
1445	400	41.84	14.43	8.78	1010	4.02	114	76.1	0.5	NM	BJM	
1450	400	41.84	14.42	8.55	1010	4.12	120	84.5	0.5	NM	BJM	
1455	400	41.83	14.50	8.34	1010	4.23	120	69.7	0.5	NM	BJM	
1500	400	41.83	14.46	8.07	1000	4.38	133	57.0	0.5	NM	BJM	
1505	400	41.81	14.40	7.91	1000	4.41	132	52.8	0.5	NM	BJM	
1510	400	41.81	14.41	7.93	1000	4.39	128	60.6	0.5	NM	BJM	
1515	400	41.81	14.34	8.01	1000	4.39	126	68.5	0.5	NM	BJM	
1520	400	41.81	14.51	8.11	1000	4.37	112	90.7	0.5	NM	BJM	
1525	400	41.82	14.99	8.19	1000	4.42	116	98.7	0.5	NM	BJM	
1530	400	41.82	14.84	8.12	1000	4.54	123	79.3	0.5	NM	BJM	
1535	400	41.82	14.81	7.99	998	4.60	126	70.5	0.5	NM	BJM	
1540	400	41.81	14.91	7.94	994	4.53	131	62.0	0.5	NM	BJM	
1545	400	41.81	14.26	7.97	996	4.59	128	114	0.5	NM	BJM	
1550	400	41.81	14.96	8.09	995	4.54	121	85.5	0.5	NM	BJM	
1555	400	41.81	14.87	8.10	995	4.56	117	88.4	0.5	NM	BJM	
1600	400	41.81	14.85	8.12	995	4.55	118	86.7	0.5	NM	MPS	
1605	400	41.81	14.85	8.12	995	4.55	118	86.7	0.5	NM	MPS	Post-sample parameters

Comments:

Sample Name: MW-172-S3-117.5

Analytical Parameters: VOCs including 1,4-Dioxane

Sample Start Time: 1600

Sample Finish Time: 1605

Weather Conditions: Sunny 75° F

Revised 10/14

(3) For values greater than 1.

NJDEP Certification No. 20043

Analytical Methods (EPA): Temp (SM 2550 B); pH (SM 4500-H B); Cond (120.1 and SM 2510 B); DO (SM 4500-O G); Salinity (SM 2520 B); Turbidity (EPA 180.1)

Note: Indicator parameters have stabilized when 3 consecutive readings are within criteria above.

PID lamp is 10.6 eV, unless otherwise noted.

Field Form - Low Flow Purging and Sampling
Ground Water Sampling Measurements and Calculations

Weather: Sunny 80s°F

WELL NUMBER	WELL INFORMATION					Date: 8/21/2014
MW-350A	Well Diameter (inches)	Total (1) Depth (ft)	Depth to Water TOC (ft)	Depth to Product TOC (ft)	PID (ppm)	TRC Personnel: Dan Zielke, Conner O'Brion Site Name: Hoffmann La Roche
PERMIT NUMBER						Site Location: IA-06 1,4-Dioxane
	2	15.80	7.30	NM	0.0	TRC Job Number: 198233

(1) Use a previously determined total depth. Confirm the total depth of well after sampling.
TOC = top of casing

PURGING INFORMATION							TRC METER NUMBERS		
Pump Type	Tubing Type	Pump (2) Intake Depth (ft)	Purge Start Time	Purge Stop Time	Flow Rate (ml/m)	Total Purge Vol. (gal)	pH:	Cond:	DO:
							Eh:	Turbidity:	NJDEP Cert. No. 20043
							Rental Meter Name: Horiba U-52		
Grundfos	Teflon	13.50	1130	1205	200	3.00	Rental Meter Serial No.: 21099(Probe), 19245(Meter)		

(2) Below TOC

PURGING PARAMETERS (measurements are to be taken approximately every 5 minutes)

Rental Meter Serial No.:		<0.3 ft	± 3%	± 0.1 su	± 3%	± 10%	± 10 mv	± 10%(3)	N/A	N/A		
Time	Flow Rate (ml/min)	Depth to Water (ft)	Temp (ºC)	pH (su)	Cond (µS/cm)	D.O. (mg/L)	ORP (mv)	Turbidity (NTU)	Salinity (ppt)	TDS (mg/L)	Initials	Water Conditions/Comments
1135	200	7.35	23.66	6.51	5860	1.25	95	109	3.2	3750	DZ	Clear
1140	200	7.40	23.60	6.52	5970	0.69	109	93.2	3.2	3760	DZ	Clear
1145	200	7.55	24.00	6.53	5730	0.60	58	34.5	3.1	3570	DZ	Clear
1150	200	7.60	24.14	6.47	5490	0.55	38	12.6	3.0	3450	DZ	Clear
1155	200	7.60	24.60	6.45	5470	0.54	38	8.7	3.0	3450	DZ	Clear
1200	200	7.60	24.73	6.46	5380	0.51	34	8.1	2.9	3390	DZ	Clear
1205	200	7.60	24.63	6.44	5390	0.47	32	6.8	2.9	3400	DZ	Clear
1210	200	7.59	24.33	6.45	5400	0.70	37	4.6	2.9	3390	DZ	Post-sample parameters: clear

Comments: Slight odor

Sample Name: MW-350A-LF13.5

Analytical Parameters: VOCs including 1,4-Dioxane

Sample Start Time: 1205

Sample Finish Time: 1210

Weather Conditions: Sunny 80s°F

Revised 10/14

(3) For values greater than 1.

NJDEP Certification No. 20043

Analytical Methods (EPA): Temp (SM 2550 B); pH (SM 4500-H B); Cond (120.1 and SM 2510 B); DO (SM 4500-O G); Salinity (SM 2520 B); Turbidity (EPA 180.1)

Note: Indicator parameters have stabilized when 3 consecutive readings are within criteria above.

PID lamp is 10.6 eV, unless otherwise noted.

Field Form - Low Flow Purging and Sampling
Ground Water Sampling Measurements and Calculations

Weather: Overcast 70s°F

WELL NUMBER	WELL INFORMATION					Date: 8/21/2014
MW-350B	Well Diameter (inches)	Total (1) Depth (ft)	Depth to Water TOC (ft)	Depth to Product TOC (ft)	PID (ppm)	TRC Personnel: Dan Zielke, Conner O'Brion Site Name: Hoffmann La Roche
PERMIT NUMBER						Site Location: IA-06 1,4-Dioxane
	2	44.55	10.55	NM	2.3	TRC Job Number: 198233

(1) Use a previously determined total depth. Confirm the total depth of well after sampling.
TOC = top of casing

PURGING INFORMATION							TRC METER NUMBERS		
Pump Type	Tubing Type	Pump (2) Intake Depth (ft)	Purge Start Time	Purge Stop Time	Flow Rate (ml/m)	Total Purge Vol. (gal)	pH:	Cond:	DO:
							Eh:	Turbidity:	NJDEP Cert. No. 20043
							Rental Meter Name: Horiba U-52		
Grundfos	Teflon	42.50	1012	1055	250	3.00	Rental Meter Serial No.: 21321(Probe), R19186(Meter)		

(2) Below TOC

PURGING PARAMETERS (measurements are to be taken approximately every 5 minutes)

Rental Meter Serial No.:		<0.3 ft	± 3%	± 0.1 su	± 3%	± 10%	± 10 mv	± 10%(3)	N/A	N/A		
Time	Flow Rate (ml/min)	Depth to Water (ft)	Temp (ºC)	pH (su)	Cond (µS/cm)	D.O. (mg/L)	ORP (mv)	Turbidity (NTU)	Salinity (ppt)	TDS (mg/L)	Initials	Water Conditions/Comments
1015	300	12.18	21.04	8.39	5710	1.00	-188	68.7	3.0	3520	DZ	Clear
1020	300	12.06	21.25	8.02	5980	0.78	-188	55.9	3.3	3840	DZ	Clear
1025	150	11.95	21.70	7.60	6070	0.67	-193	44.4	3.2	3450	DZ	Clear
1030	200	11.85	21.50	7.56	6070	0.67	-199	30.5	3.3	3830	DZ	Clear
1035	300	11.80	21.52	7.54	6060	0.61	-200	23.7	3.3	3820	DZ	Clear
1040	300	11.97	21.04	7.43	6110	0.57	-198	15.7	3.3	3850	DZ	Clear
1045	200	12.08	20.94	7.30	6140	0.51	-196	14.7	3.3	3870	DZ	Clear
1050	200	12.15	20.93	7.22	6160	0.49	-195	12.2	3.4	3890	DZ	Clear
1055	200	12.25	20.78	7.17	6160	0.49	-195	10.8	3.4	3890	DZ	Clear
1100	300	12.80	21.36	7.18	6060	0.45	-197	15.3	3.3	3800	DZ	Post-sample parameters: clear

Comments: Slight odor

Sample Name: MW-350B-LF42.5

Analytical Parameters: VOCs including 1,4-Dioxane

Sample Start Time: 1055
Sample Finish Time: 1100

Weather Conditions: Sunny 70s°F

Revised 10/14

(3) For values greater than 1.

NJDEP Certification No. 20043

Analytical Methods (EPA): Temp (SM 2550 B); pH (SM 4500-H B); Cond (120.1 and SM 2510 B); DO (SM 4500-O G); Salinity (SM 2520 B); Turbidity (EPA 180.1)

Note: Indicator parameters have stabilized when 3 consecutive readings are within criteria above.

PID lamp is 10.6 eV, unless otherwise noted.

Field Form - Low Flow Purging and Sampling
Ground Water Sampling Measurements and Calculations

Weather: Overcast 70s°F

WELL NUMBER	WELL INFORMATION					Date: 8/21/2014
MW-350C	Well Diameter (inches)	Total (1) Depth (ft)	Depth to Water TOC (ft)	Depth to Product TOC (ft)	PID (ppm)	TRC Personnel: Dan Zielke, Conner O'Brion Site Name: Hoffmann La Roche
PERMIT NUMBER						Site Location: IA-06 1,4-Dioxane
	2	80.50	13.30	NM	1.2	TRC Job Number: 198233

(1) Use a previously determined total depth. Confirm the total depth of well after sampling.
TOC = top of casing

PURGING INFORMATION							TRC METER NUMBERS		
Pump Type	Tubing Type	Pump (2) Intake Depth (ft)	Purge Start Time	Purge Stop Time	Flow Rate (ml/m)	Total Purge Vol. (gal)	pH:	Cond:	DO:
							Eh:	Turbidity:	NJDEP Cert. No. 20043
							Rental Meter Name: Horiba U-52		
Grundfos	Teflon	77.50	0843	0930	300	4.00	Rental Meter Serial No.: 21321(Probe), R19186(Meter)		

(2) Below TOC

PURGING PARAMETERS (measurements are to be taken approximately every 5 minutes)

Rental Meter Serial No.:		<0.3 ft	± 3%	± 0.1 su	± 3%	± 10%	± 10 mv	± 10%(3)	N/A	N/A		
Time	Flow Rate (ml/min)	Depth to Water (ft)	Temp (ºC)	pH (su)	Cond (µS/cm)	D.O. (mg/L)	ORP (mv)	Turbidity (NTU)	Salinity (ppt)	TDS (mg/L)	Initials	Water Conditions/Comments
0850	300	13.92	21.99	6.36	5870	2.88	-85	19.7	3.2	3750	DZ	Clear
0855	300	13.65	19.66	6.60	5990	1.39	-69	11.0	3.2	3770	DZ	Clear
0900	300	13.73	19.76	6.62	6040	1.07	-80	17.6	3.3	3800	DZ	Clear
0905	300	13.81	19.57	6.65	5950	1.08	-89	12.6	3.2	3750	DZ	Clear
0910	300	14.03	19.23	6.68	5890	0.86	-99	11.0	3.2	3710	DZ	Clear
0915	300	13.79	19.18	6.68	5920	0.81	-102	10.1	3.2	3730	DZ	Clear
0920	300	13.83	19.22	6.68	5900	0.70	-108	9.3	3.2	3700	DZ	Clear
0925	300	13.80	19.25	6.68	5890	0.65	-114	8.2	3.2	3700	DZ	Clear
0930	300	13.90	18.90	6.69	5840	0.62	-119	8.9	3.2	3680	DZ	Clear
0935	300	13.90	19.60	6.84	5700	0.76	-109	7.2	3.1	3600	DZ	Post-sample parameters: clear

Comments: Slight odor

Sample Name: MW-350C-LF77.5

Analytical Parameters: VOCs including 1,4-Dioxane

Sample Start Time: 0930

Sample Finish Time: 0935

Weather Conditions: Overcast 70s°F

Revised 10/14

(3) For values greater than 1.

NJDEP Certification No. 20043

Analytical Methods (EPA): Temp (SM 2550 B); pH (SM 4500-H B); Cond (120.1 and SM 2510 B); DO (SM 4500-O G); Salinity (SM 2520 B); Turbidity (EPA 180.1)

Note: Indicator parameters have stabilized when 3 consecutive readings are within criteria above.

PID lamp is 10.6 eV, unless otherwise noted.

Field Form - Low Flow Purging and Sampling
Ground Water Sampling Measurements and Calculations

Weather: Sunny 80s° F

WELL NUMBER	WELL INFORMATION					Date: 8/19/2014
MW-351B	Well Diameter (inches)	Total (1) Depth (ft)	Depth to Water TOC (ft)	Depth to Product TOC (ft)	PID (ppm)	TRC Personnel: Dave Santana, Molly Johnson Site Name: Hoffmann La Roche
PERMIT NUMBER						Site Location: IA-04 GW Program
	2	54.82	13.72	NM	0.0	**TRC Job Number:** 198233

(1) Use a previously determined total depth. Confirm the total depth of well after sampling.
TOC = top of casing

PURGING INFORMATION							TRC METER NUMBERS		
Pump Type	Tubing Type	Pump (2) Intake Depth (ft)	Purge Start Time	Purge Stop Time	Flow Rate (ml/m)	Total Purge Vol. (gal)	pH:	Cond:	DO:
							Eh:	Turbidity:	NJDEP Cert. No. 20043
							Rental Meter Name: Horiba U-52		
Monsoon	Teflon	52.32	1245	1345	200	3.2	Rental Meter Serial No.: 21141(Probe), 15476(Meter)		

(2) Below TOC

PURGING PARAMETERS (measurements are to be taken approximately every 5 minutes)

Rental Meter Serial No.:		<0.3 ft	± 3%	± 0.1 su	± 3%	± 10%	± 10 mv	± 10%(3)	N/A	N/A		
Time	Flow Rate (ml/min)	Depth to Water (ft)	Temp (ºC)	pH (su)	Cond (µS/cm)	D.O. (mg/L)	ORP (mv)	Turbidity (NTU)	Salinity (ppt)	TDS (mg/L)	Initials	Water Conditions/Comments
1245	250	13.88	21.14	7.17	2670	1.16	45	500	1.4	1710	MAJ	Silty
1250	250	13.93	19.38	7.31	2700	1.04	33	434	1.4	1730	MAJ	Silty
1255	250	13.98	21.63	7.25	2640	0.87	42	379	1.4	1690	MAJ	Silty
1300	150	14.07	21.72	7.32	2630	0.85	41	216	1.4	1680	MAJ	Silty
1305	150	14.15	20.34	7.42	2680	0.93	46	148	1.4	1710	MAJ	Silty
1310	200	14.20	19.28	7.42	2670	0.70	33	143	1.4	1710	MAJ	Silty
1315	200	14.17	19.65	7.37	2640	0.61	37	143	1.4	1690	MAJ	Silty
1320	200	14.13	19.90	7.35	2630	0.61	39	99.0	1.4	1690	MAJ	Silty
1325	200	14.10	19.27	7.36	2600	0.56	38	91.6	1.3	1660	MAJ	Silty
1330	200	14.10	20.10	7.36	2580	0.54	40	16.0	1.3	1650	MAJ	Clear
1335	200	14.09	20.22	7.44	2560	0.57	36	7.2	1.3	1640	MAJ	Clear
1340	200	14.08	20.03	7.46	2560	0.55	35	6.9	1.3	1640	MAJ	Clear
1345	200	14.05	20.14	7.47	2560	0.52	34	9.8	1.3	1640	MAJ	Clear
1348	200	14.05	20.14	7.47	2560	0.52	34	9.8	1.3	1640	MAJ	Clear
1358	200	14.12	19.08	7.96	2620	8.56	56	7.6	1.3	1670	MAJ	Post-sample parameters: clear

Comments:

Sample Name: MW-351B-LF52.32

Analytical Parameters: VOCs including 1,4-Dioxane

Sample Start Time: 1348
Sample Finish Time: 1357

Weather Conditions: Sunny 80s° F

Revised 10/14

(3) For values greater than 1.

NJDEP Certification No. 20043

Analytical Methods (EPA): Temp (SM 2550 B); pH (SM 4500-H B); Cond (120.1 and SM 2510 B); DO (SM 4500-O G); Salinity (SM 2520 B); Turbidity (EPA 180.1)

Note: Indicator parameters have stabilized when 3 consecutive readings are within criteria above.

PID lamp is 10.6 eV, unless otherwise noted.

Field Form - Low Flow Purging and Sampling
Ground Water Sampling Measurements and Calculations

Weather: Sunny 80° F

WELL NUMBER	WELL INFORMATION					Date: 8/19/2014
MW-351C	Well Diameter (inches)	Total (1) Depth (ft)	Depth to Water TOC (ft)	Depth to Product TOC (ft)	PID (ppm)	TRC Personnel: Dave Santana, Molly Johnson
PERMIT NUMBER						Site Name: Hoffmann La Roche
						Site Location: IA-04 GW Program
	2	84.98	15.23	NM	0.0	**TRC Job Number:** 198233

(1) Use a previously determined total depth. Confirm the total depth of well after sampling.
TOC = top of casing

PURGING INFORMATION							TRC METER NUMBERS		
Pump Type	Tubing Type	Pump (2) Intake Depth (ft)	Purge Start Time	Purge Stop Time	Flow Rate (ml/m)	Total Purge Vol. (gal)	pH:	Cond:	DO:
							Eh:	Turbidity:	NJDEP Cert. No. 20043
							Rental Meter Name: Horiba U-52		
Monsoon	Teflon	82.5	1245	1345	150	2.4	Rental Meter Serial No.: 21284(Probe), 21536(Meter)		

(2) Below TOC

PURGING PARAMETERS (measurements are to be taken approximately every 5 minutes)

Rental Meter Serial No.:		<0.3 ft	± 3%	± 0.1 su	± 3%	± 10%	± 10 mv	± 10%(3)	N/A	N/A		
Time	Flow Rate (ml/min)	Depth to Water (ft)	Temp (ºC)	pH (su)	Cond (µS/cm)	D.O. (mg/L)	ORP (mv)	Turbidity (NTU)	Salinity (ppt)	TDS (mg/L)	Initials	Water Conditions/Comments
1245	150	15.65	20.26	6.70	2370	6.83	27	335	1.2	1520	MAJ	Silty
1250	150	16.39	22.26	6.77	2570	5.31	-10	241	1.3	1640	MAJ	Silty
1255	150	17.06	20.27	6.78	2630	4.55	-3	72.4	1.4	1680	MAJ	Clear
1300	150	17.31	20.48	6.74	2550	2.84	21	22.8	1.3	1630	MAJ	Clear
1305	150	17.57	20.85	6.75	2530	2.07	36	18.6	1.3	1620	MAJ	Clear
1310	150	17.83	20.40	6.76	2460	1.99	45	14.7	1.3	1570	MAJ	Clear
1315	150	18.48	20.01	6.77	2370	2.32	55	13.4	1.2	1510	MAJ	Clear
1320	150	19.02	20.05	6.76	2300	2.22	61	9.5	1.2	1470	MAJ	Clear
1325	150	19.78	20.23	6.75	2270	2.12	67	4.7	1.2	1450	MAJ	Clear
1330	150	20.09	19.66	6.75	2240	1.83	72	0.0	1.1	1430	MAJ	Clear
1335	150	20.70	19.74	6.75	2230	1.67	70	0.0	1.1	1430	MAJ	Clear
1340	150	21.01	19.77	6.77	2230	1.56	66	0.0	1.1	1430	MAJ	Clear
1345	150	20.98	20.11	6.78	2230	1.44	67	0.0	1.1	1430	MAJ	Clear
1358	150	20.96	19.69	6.80	2250	1.43	62	0.0	1.2	1440	MAJ	Post-sample parameters: clear

Comments:

Sample Name: MW-351C-LF82.5

Analytical Parameters: VOCs including 1,4-Dioxane

Sample Start Time: 1345

Sample Finish Time: 1355

Weather Conditions: Sunny 80° F

Revised 10/14

(3) For values greater than 1.

NJDEP Certification No. 20043

Analytical Methods (EPA): Temp (SM 2550 B); pH (SM 4500-H B); Cond (120.1 and SM 2510 B); DO (SM 4500-O G); Salinity (SM 2520 B); Turbidity (EPA 180.1)

Note: Indicator parameters have stabilized when 3 consecutive readings are within criteria above.

PID lamp is 10.6 eV, unless otherwise noted.

Field Form - Low Flow Purging and Sampling
Ground Water Sampling Measurements and Calculations

Weather: Partly cloudy 82°F

WELL NUMBER	WELL INFORMATION					Date: 8/19/2014
DW-3-D2	Well Diameter (inches)	Total (1) Depth (ft)	Depth to Water TOC (ft)	Depth to Product TOC (ft)	PID (ppm)	TRC Personnel: Dan Zielke, Conner O'Brion
PERMIT NUMBER						Site Name: Hoffmann La Roche
						Site Location: IA-07
	2	299.70	81.67	ND	0.0	TRC Job Number: 198233

(1) Use a previously determined total depth. Confirm the total depth of well after sampling.
TOC = top of casing

PURGING INFORMATION							TRC METER NUMBERS		
Pump Type	Tubing Type	Pump (2) Intake Depth (ft)	Purge Start Time	Purge Stop Time	Flow Rate (ml/m)	Total Purge Vol. (gal)	pH:	Cond:	DO:
							Eh:	Turbidity:	NJDEP Cert. No. 20043
							Rental Meter Name: Horiba U-52		
Grundfos	Teflon	297.50	1310	1632	200	11.00	Rental Meter Serial No.: 24323(Probe), 25214(Meter)		

(2) Below TOC

PURGING PARAMETERS (measurements are to be taken approximately every 5 minutes)

Rental Meter Serial No.:		<0.3 ft	± 3%	± 0.1 su	± 3%	± 10%	± 10 mv	± 10%(3)	N/A	N/A		
Time	Flow Rate (ml/min)	Depth to Water (ft)	Temp (ºC)	pH (su)	Cond (µS/cm)	D.O. (mg/L)	ORP (mv)	Turbidity (NTU)	Salinity (ppt)	TDS (mg/L)	Initials	Water Conditions/Comments
1315	200	88.45	18.75	12.29	5650	2.92	-36	845	3.1	NM	DZ	Slight brown, yellow tint
1320	200	89.00	18.82	12.39	5740	1.71	-88	200	3.1	3620	DZ	Slight brown, yellow tint
1325	200	89.90	18.79	12.39	5820	1.58	-94	261	3.1	3660	DZ	Slight brown, yellow tint
1330	200	90.80	19.03	12.38	5760	1.47	-89	702	3.1	3640	DZ	Slight brown, yellow tint
1335	200	91.68	18.50	12.38	5700	1.46	-86	613	3.1	3580	DZ	Slight brown, yellow tint
1340	200	93.35	17.59	12.40	5460	1.20	-83	101	3.0	3460	DZ	Slight brown, yellow tint
1345	200	94.00	18.03	12.40	5550	0.98	-88	16.2	3.0	3500	DZ	Slight brown, yellow tint
1350	300	94.45	18.45	12.39	5600	0.89	-90	14.0	3.0	3540	DZ	Slight brown, yellow tint
1355	300	94.75	19.19	12.38	5690	0.80	-90	68.0	3.0	3590	DZ	Slight brown, yellow tint
1400	300	95.56	19.16	12.38	5730	0.78	-90	69.4	3.1	3610	DZ	Slight brown, yellow tint
1405	200	98.15	17.29	12.43	5670	0.81	-88	62.8	3.1	3570	DZ	Slight brown, yellow tint
1410	200	99.92	17.13	12.41	5410	0.65	-91	39.5	2.9	3360	DZ	Slight brown, yellow tint
1415	300	100.95	17.65	12.37	5340	0.59	-93	11.8	2.9	3360	DZ	Slight brown, yellow tint
1420	200	101.80	17.82	12.37	5140	0.60	-95	39.9	2.7	3230	DZ	Slight brown, yellow tint
1425	200	102.72	17.52	12.38	5030	0.58	-97	17.4	2.7	3170	DZ	Slight brown, yellow tint
1430	200	103.18	17.87	12.36	5050	0.60	-98	17.7	2.7	3190	DZ	Slight brown, yellow tint
1435	200	103.55	18.53	12.34	5030	0.61	-99	6.2	2.7	3160	DZ	Slight brown, yellow tint
1440	200	105.00	18.87	12.31	4990	0.64	-100	91.9	2.6	3080	DZ	Slight brown, yellow tint
1445	200	106.15	17.51	12.36	4730	0.65	-98	31.6	2.5	3030	DZ	Slight brown, yellow tint
1450	200	106.47	17.66	12.34	4700	0.65	-98	49.9	2.5	3000	DZ	Slight brown, yellow tint
1455	200	108.60	17.03	12.36	4550	0.66	-99	32.6	2.4	2910	DZ	Slight brown, yellow tint

Comments:

Sample Name: DW-3-D2-LF297.5

Analytical Parameters: VOCs including 1,4-Dioxane

Sample Start Time: 1632

Sample Finish Time: 1642

Weather Conditions: Partly cloudy 82°F

Revised 10/14

(3) For values greater than 1.

NJDEP Certification No. 20043

Analytical Methods (EPA): Temp (SM 2550 B); pH (SM 4500-H B); Cond (120.1 and SM 2510 B); DO (SM 4500-O G); Salinity (SM 2520 B); Turbidity (EPA 180.1)

Note: Indicator parameters have stabilized when 3 consecutive readings are within criteria above.

PID lamp is 10.6 eV, unless otherwise noted.

Field Form - Low Flow Purging and Sampling
Ground Water Sampling Measurements and Calculations

Weather: Partly cloudy 82°F

WELL NUMBER	WELL INFORMATION					Date: 8/19/2014
DW-3-D2	Well Diameter (inches)	Total (1) Depth (ft)	Depth to Water TOC (ft)	Depth to Product TOC (ft)	PID (ppm)	TRC Personnel: Dan Zielke, Conner O'Brion
PERMIT NUMBER						Site Name: Hoffmann La Roche
						Site Location: IA-07
	2	299.70	81.67	ND	0.0	TRC Job Number: 198233

(1) Use a previously determined total depth. Confirm the total depth of well after sampling.
TOC = top of casing

PURGING INFORMATION							TRC METER NUMBERS		
Pump Type	Tubing Type	Pump (2) Intake Depth (ft)	Purge Start Time	Purge Stop Time	Flow Rate (ml/m)	Total Purge Vol. (gal)	pH:	Cond:	DO:
							Eh:	Turbidity:	NJDEP Cert. No. 20043
							Rental Meter Name: Horiba U-52		
Grundfos	Teflon	297.50	1310	1632	200	11.00	Rental Meter Serial No.: 24323(Probe), 25214(Meter)		

(2) Below TOC

PURGING PARAMETERS (measurements are to be taken approximately every 5 minutes)

Rental Meter Serial No.:		<0.3 ft	± 3%	± 0.1 su	± 3%	± 10%	± 10 mv	± 10%(3)	N/A	N/A		
Time	Flow Rate (ml/min)	Depth to Water (ft)	Temp (ºC)	pH (su)	Cond (µS/cm)	D.O. (mg/L)	ORP (mv)	Turbidity (NTU)	Salinity (ppt)	TDS (mg/L)	Initials	Water Conditions/Comments
1500	200	109.35	17.51	12.34	4520	0.67	-100	9	2.4	2900	CO	
1505	200	110.00	17.89	12.32	4520	0.68	-101	7	2.4	2890	CO	
1520	200	113.71	18.57	12.33	4710	0.64	-111	33	2.5	3000	CO	
1525	200	113.75	19.09	12.31	4690	0.63	-111	23	2.5	3000	CO	
1535	200	119.20	15.58	12.38	4740	0.51	-102	64	2.5	3010	CO	
1540	200	120.30	16.33	12.35	4630	0.52	-117	66	2.5	2960	CO	
1545	200	120.61	17.16	12.33	4600	0.70	-122	22.0	2.4	2940	CO	
1550	200	121.20	18.15	12.30	4610	0.64	-123	20.1	2.5	2950	CO	
1615	200	126.50	16.07	12.32	4320	0.64	-109	115.0	2.3	2950	CO	
1620	250	127.20	18.19	12.30	4250	0.66	-113	34.7	2.3	2750	CO	
1625	200	127.80	18.83	12.32	4250	0.63	-113	23.0	2.3	2750	CO	
1628	200	127.80	18.15	12.27	4250	0.48	-113	25.5	2.3	2740	CO	
1632	200	128.00	18.21	12.27	4270	0.46	-112	24.6	2.3	2730	CO	
1642	200	129.50	16.78	12.28	4070	0.46	-111	35.0	2.1	2600	CO	Post-sample parameters

Comments:

Sample Name: DW-3-D2-LF297.5

Analytical Parameters: VOCs including 1,4-Dioxane

Sample Start Time: 1632

Sample Finish Time: 1642

Weather Conditions: Partly cloudy 82°F

Revised 10/14

(3) For values greater than 1.

NJDEP Certification No. 20043

Analytical Methods (EPA): Temp (SM 2550 B); pH (SM 4500-H B); Cond (120.1 and SM 2510 B); DO (SM 4500-O G); Salinity (SM 2520 B); Turbidity (EPA 180.1)

Note: Indicator parameters have stabilized when 3 consecutive readings are within criteria above.

PID lamp is 10.6 eV, unless otherwise noted.

Field Form - Low Flow Purging and Sampling
Ground Water Sampling Measurements and Calculations

Weather: Sunny 80s°F

WELL NUMBER	WELL INFORMATION					Date: 8/19/2014
DW-21A	Well Diameter (inches)	Total (1) Depth (ft)	Depth to Water TOC (ft)	Depth to Product TOC (ft)	PID (ppm)	TRC Personnel: Zach Oliver, Jen Crapella
PERMIT NUMBER						Site Name: Hoffmann La Roche
						Site Location: IA-04 GW program
	2	134.62	18.20	NM	0.9	**TRC Job Number:** 198233

(1) Use a previously determined total depth. Confirm the total depth of well after sampling.
TOC = top of casing

PURGING INFORMATION							TRC METER NUMBERS		
Pump Type	Tubing Type	Pump (2) Intake Depth (ft)	Purge Start Time	Purge Stop Time	Flow Rate (ml/m)	Total Purge Vol. (gal)	pH:	Cond:	DO:
							Eh:	Turbidity:	NJDEP Cert. No. 20043
							Rental Meter Name: Horiba U-52		
Grundfos	Teflon	132.10	1500	1600	275	4.00	Rental Meter Serial No.: 21423(Probe), 19529(Meter)		

(2) Below TOC

PURGING PARAMETERS (measurements are to be taken approximately every 5 minutes)

Rental Meter Serial No.:		<0.3 ft	± 3%	± 0.1 su	± 3%	± 10%	± 10 mv	± 10%(3)	N/A	N/A		
Time	Flow Rate (ml/min)	Depth to Water (ft)	Temp (ºC)	pH (su)	Cond (µS/cm)	D.O. (mg/L)	ORP (mv)	Turbidity (NTU)	Salinity (ppt)	TDS (mg/L)	Initials	Water Conditions/Comments
1505	275	18.20	20.68	7.11	2040	8.45	-145	187	1.0	1300	JC	Clear
1510	275	18.90	20.77	7.21	2030	6.56	-162	160	1.0	1300	JC	Clear
1515	275	18.90	20.29	7.23	2030	5.72	-162	131	1.0	1300	JC	Clear
1520	275	19.40	20.25	7.24	2030	4.97	-162	115	1.0	1300	JC	Clear
1525	275	19.60	20.05	7.25	2020	4.25	-164	98.7	1.0	1290	JC	Clear
1530	275	19.89	19.84	7.27	2020	3.91	-166	91.3	1.0	1300	JC	Clear
1535	275	19.90	20.02	7.29	2020	3.38	-171	79.2	1.0	1290	JC	Clear
1540	275	19.91	19.95	7.32	2020	3.10	-173	72.3	1.0	1290	JC	Clear
1545	275	19.91	19.96	7.32	2020	2.82	-174	62.9	1.0	1290	JC	Clear
1550	275	19.91	19.83	7.32	2020	2.61	-173	53.3	1.0	1290	JC	Clear
1555	275	19.91	19.81	7.32	2020	2.59	-173	47.0	1.0	1290	ZO	Clear
1600	275	19.91	19.81	7.32	2020	2.56	-173	41.0	1.0	1290	ZO	Clear
1610	275	19.81	20.13	7.32	2020	2.74	-181	39.0	1.0	1290	ZO	Post-sample parameters: clear

Comments:

Sample Name: DW-21A-LF132.1

Analytical Parameters: VOCs including 1,4-Dioxane

Sample Start Time: 1600
Sample Finish Time: 1610

Weather Conditions: Sunny 80s°F

Revised 10/14

(3) For values greater than 1.

NJDEP Certification No. 20043

Analytical Methods (EPA): Temp (SM 2550 B); pH (SM 4500-H B); Cond (120.1 and SM 2510 B); DO (SM 4500-O G); Salinity (SM 2520 B); Turbidity (EPA 180.1)

Note: Indicator parameters have stabilized when 3 consecutive readings are within criteria above.

PID lamp is 10.6 eV, unless otherwise noted.

Field Form - Low Flow Purging and Sampling
Ground Water Sampling Measurements and Calculations

Weather: Overcast 70s°F

WELL NUMBER	WELL INFORMATION					Date: 8/20/2014
DW-45A	Well Diameter (inches)	Total (1) Depth (ft)	Depth to Water TOC (ft)	Depth to Product TOC (ft)	PID (ppm)	TRC Personnel: Dan Zielke, Conner O'Brion Site Name: Hoffmann La Roche
PERMIT NUMBER						Site Location: GW program
	2	145.90	16.00	NM	45.5	TRC Job Number: 198233

(1) Use a previously determined total depth. Confirm the total depth of well after sampling.
TOC = top of casing

PURGING INFORMATION							TRC METER NUMBERS		
Pump Type	Tubing Type	Pump (2) Intake Depth (ft)	Purge Start Time	Purge Stop Time	Flow Rate (ml/m)	Total Purge Vol. (gal)	pH:	Cond:	DO:
							Eh:	Turbidity:	NJDEP Cert. No. 20043
							Rental Meter Name: Horiba U-52		
Grundfos	Teflon	143.50	0945	1040	300	5.00	Rental Meter Serial No.: 25326(Probe), 27011(Meter)		

(2) Below TOC

PURGING PARAMETERS (measurements are to be taken approximately every 5 minutes)

Rental Meter Serial No.:		<0.3 ft	± 3%	± 0.1 su	± 3%	± 10%	± 10 mv	± 10%(3)	N/A	N/A		
Time	Flow Rate (ml/min)	Depth to Water (ft)	Temp (ºC)	pH (su)	Cond (µS/cm)	D.O. (mg/L)	ORP (mv)	Turbidity (NTU)	Salinity (ppt)	TDS (mg/L)	Initials	Water Conditions/Comments
0945	300	16.40	23.12	6.47	1590	3.20	-26	41.6	0.8	1020	DZ	Clear, slightly silty
0950	300	16.15	22.93	6.70	1610	2.50	-70	46.5	0.8	1030	DZ	Clear, slightly silty
0955	300	16.15	22.16	6.86	1640	1.90	-120	42.5	0.8	1050	DZ	Clear, slightly silty
1000	300	16.16	22.34	6.93	1660	1.75	-133	50.1	0.8	1020	DZ	Clear, slightly silty
1005	300	16.16	22.46	6.93	1740	1.41	-145	78.9	0.9	1120	DZ	Film present
1010	300	16.17	22.43	6.97	1760	1.25	-149	82.2	0.9	1130	DZ	Clear, slightly silty
1015	300	16.17	22.41	6.98	1770	1.18	-149	80.9	0.9	1130	DZ	Clear, slightly silty
1020	300	16.17	22.43	6.99	1770	1.14	-149	79.0	0.9	1130	DZ	Clear, slightly silty
1025	300	16.17	22.48	6.99	1770	1.12	-150	72.5	0.9	1130	DZ	Clear, slightly silty
1030	300	16.17	22.46	6.99	1770	1.09	-151	69.0	0.9	1130	DZ	Clear, slightly silty
1035	300	16.23	22.22	6.99	1770	1.02	-154	66.4	0.9	1130	DZ	Clear, slightly silty
1040	300	16.27	21.71	7.00	1760	0.98	-156	61.9	0.9	1130	DZ	Clear, slightly silty
1050	300	16.25	21.02	6.97	1750	0.95	-167	57.0	0.9	1120	DZ	Post-sample parameters

Comments: Slight sulfur odor

Sample Name: DW-45A-LF143.5

Analytical Parameters: VOCs including 1,4-Dioxane

Sample Start Time: 1040

Sample Finish Time: 1050

Weather Conditions: Sunny 70s°F

Revised 10/14

(3) For values greater than 1.

NJDEP Certification No. 20043

Analytical Methods (EPA): Temp (SM 2550 B); pH (SM 4500-H B); Cond (120.1 and SM 2510 B); DO (SM 4500-O G); Salinity (SM 2520 B); Turbidity (EPA 180.1)

Note: Indicator parameters have stabilized when 3 consecutive readings are within criteria above.

PID lamp is 10.6 eV, unless otherwise noted.