Appendix G
Summary of Groundwater Sampling Well Investigation
2004 - 2006
Beazer/INDSPEC Properties
Petrolia, Pennsylvania

Well Number Date	MW-61B 7/23/2004	MW-61A 7/23/2004	GM-4A 7/26/2004	GM-4B 7/26/2004	GM-4C 7/26/2004	GM-6A 7/27/2004	GM-6B 7/27/2004	GM-6C 7/27/2004	GM-1C 7/27/2004	GM-1B 7/27/2004	GM-1A 7/23/2004	MW-63B 7/26/2004	MW-63A 7/26/2004	GM-8A 7/26/2004	GM-8C 7/27/2004	GM-8B 7/27/2004	GM-10C 7/27/2004	GM-10B 7/27/2004	GM-9 7/27/2004	GM-11 7/27/2004	MW-62A 7/28/2004	MW-62B 7/28/2004	GM-12 7/28/2004	OW-2 7/28/2004	GM-4D 7/28/2004	MW-67B 8/3/2004	MW-60B 8/4/2004	SW-1 8/4/2004
Temperature (Deg. F)	80	80	78	78	78	75	75	75	75	75	80	78	78	78	75	75	75	75	75	75	78	78	78	78	78	78	73	73
Weather Conditions	Cloudy	Cloudy	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Sunny	Cloudy	Cloudy
PVC Casing Elevations (ft-TOC) (1)	1170.7	1171.23	1162.81	1163.03	1163.02	1170.2	1170.99	1170.22	1167.76	1167.24	1167.98	1176.96	1177.78	1165.53	1166.27	1166.87	1166.99	1166.85	1165.72	1162.87	1177.05	1174.47	1161.23	1163.8	1164.5	1278.21	1170.71	1197.40
Depth to Water (ft-bgs)	5.55	6.41	3.25	1.42	2	3.41	3.33	2.7	-2	1.72	3.17	13.5	3.37	3.37	4.16	3.46	2.86	4.58	6.02	5.83	15.8	1.01	2.02	4.87	15.31	35.31	28.49	29.8
Groundwater Elevation	1165.15	1164.82	1159.56	1161.61	1161.02	1166.79	1167.66	1167.52	1169.76	1165.52	1164.81	1163.46	1174.41	1162.16	1162.11	1163.41	1164.13	1162.27	1159.7	1157.04	1161.25	1173.46	1159.21	1158.93	1149.19	1242.9	1142.22	1167.6
PVC Casing Diameter (inches)	4	2	2	2	2	2	2	2	2	2	2	4	2	2	2	2	2	2	2	2	2	4	2	2	4	4	4	4
Depth to Product (ft -TOC)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Product Thickness (ft)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Screened Interval (ft)	15.5-30.5	1-16	4.8-9.8	25.4-36.4	51.5-61.5	8.5-23.5	30-40	54-64	55-65	28.5-38.5	5.1-20.1	31-46	5-25	7.5-17.5	47.3-57.3	24.4-34.4	55.2-65.2	30-40	5-15	5-15	5-20	18-33	5-15	5-15	N/A	35.1-50.1	N/A	184.5-199.5
Total Depth of Well (ft-bgs) (2)	30.13	18.68	11.68	39.39	63.34	24.79	42.85	65.41	67.44	39.48	22.45	46	25	18.81	59.1	36	66.9	41.74	16.28	16.87	23.02	34.4	16.52	17.2	99.03	52.53	102.73	199.5
Volume of Water in Well (gallons)	16.0	2.0	1.4	6.2	10.0	3.5	6.4	10.2	11.3	6.1	3.1	21.2	3.5	2.5	8.9	5.3	10.4	6.0	1.7	1.8	1.2	21.8	2.4	2.0	54.6	11.2	48.4	110.7
Total Groundwater to be Purged (gallons)	48.1	6.0	4.1	18.5	29.9	10.4	19.3	30.6	33.9	18.4	9.4	63.6	10.6	7.5	26.8	15.9	31.2	18.1	5.0	5.4	3.5	65.4	7.1	6.0	163.9	33.7	145.3	332.2
PRE PURGE DATA																												
Time Start	820	949	1237	1320	1415	905	930	1030	1215	1250	853	1040	1133	1236	833	923	1130	1110	1303	1340	910	1000	1100	1155	1315	1315	900	1035
Time Complete	925	955	1247	1340	1430	915	949	1110	1240	1305	905	1110	1138	1240	904	946	1158	1122	1350	1350	920	1025	1119	1205	1400	1330	930	1140
Method (pump or bail)	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Bailer	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump
Rate (gallons/minute)	3	2.25	0.75	1.5	1.75	1.2	1	0.95	1.25	1.3	1.2	2	1	2	2	1.25	1.25	1	0.75	1	0.75	2.5	1	0.75	3.5	2.25	5	5.5
Actual Volume Purged (gallons)	65.0	6.5	5.0	20.0	32.0	15.0	20.0	40.0	35.5	20.0	12.0	65.0	6.0	9.0	30.0	18.0	35.0	20.0	7.0	8.0	5.0	65.0	10.0	10.0	160	30	150	325
PID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	1.4	2.4	0.0	2.8	0.0	15.1	0.0	71.0	0	1.8	0	1.8
pH (std. units)	7.35	7.7	6.82	8.36	8.16	6.65	7.4	7.48	7.5	7.67	3.6	9.31	8.73	8.89	5.81	8.61	8.42	8.55	8.57	8.12	7.27	7.63	7.81	10.28	8.91	7.2	8.02	9.01
Specific Conductance (um/S)	45.7	42	85.1	47.9	42.9	79.1	72.1	62.9	67.7	55.8	89	49	0.1	97	92	0.12	42	95	0.19	42	0.883	58.2	36.3	0.368	43.8	0.127	0.099	69.4
Dissolved Oxygen (mg/L)	2.62	4.98	1.47	6.79	5.92	5.29	1.8	4.93	3.09	3.45	5.11	7.17	8.49	6.74	3.76	3.55	7.01	4.28	4.58	5.07	7.27	5.18	7.4	3.55	7.57	2.59	2.55	1.78
ORP (mV)	-107	-121	-175	-110	-150	3	-107	-76	-109	-135	-317	-62	-10	-58	189	-79	-66	-78	-145	-104	-74	-131	66	-97	-114	133	-167	-4
Temperature (Deg. C)	17.25	16.69	18.68	19.27	15.48	17.85	15.8	15.62	17.49	17.03	18.2	14.4	13.7	17.6	16.3	16.6	20.5	16.4	21.9	18.6	15.25	14.25	17.55	16.13	15.77	13.59	13.71	13.41
POST PURGE DATA																												
pH (std. units)	7.75	7.56	8.42	8.3	8.23	6.63	7.91	7.39	7.46	7.71	9.06	9.93	8.81	8.9	7.01	8.43	6.77	8.58	8.13	8.02	6.95	7.62	7.35	10.19	8.24	6.86	8.05	9.28
Specific Conductance (um/S)	42.20	40.7	54.6	50.3	61.1	69.7	56.3	63.2	66.6	56	76	43	65	96	83	0.12	42	42	0.22	52	0.791	42.5	37.7	0.386	42.4	0.109	0.099	73.9
Dissolved Oxygen (mg/L)	2.63	3.01	4.73	4.04	6.01	3.56	2.11	4.88	6.24	5.68	4.5	4.2	4.9	7.54	3.48	3.42	6.24	6.57	2.23	7.21	6.91	4.71	7.26	2.53	6.05	2.5	2.21	1.73
ORP (mV)	-126.00	-123	-139	-110	-131	7	-111	-88	-110	-132	29	-85	-20	-64	67	-70	-70	-99	-118	-95	-64	-128	-99	-91	-142	139	-192	-47
Temperature (Deg. C)	16.66	16.83	20.2	16.15	14.19	15.67	14.71	15.14	15.14	16.9	21.9	13.2	12.8	17.3	16	16.1	18	18.6	22.3	19.2	14.99	14.37	15.12	15.34	14.62	12.31	12.95	12.8
SAMPLING DATA																												
Sample Time	935	1000	1250	1350	1450	920	1000	1115	1245	1310	910	1120	1150	1250	915	1010	1205	1125	1315	1358	925	1028	1130	1212	1405	1340	940	1150
Method	944	1009	1301	1359	1505	928	1010	1127	1252	1323	918	1128	1202	1300	1920	1020	1212	1130	1320	1405	932	1036	1138	1220	1420	1353	952	1210
pH (std. units)	7.63	7.48	9.01	8.19	8.31	6.61	7.79	7.49	7.5	7.7	8.95	8.77	8.33	8.55	8.05	8.22	8.51	7.54	8.21	8.06	6.79	7.66	7.42	10.2	8.02	6.69	8.07	9.27
Specific Conductance (um/S)	40.4	41.5	69.1	48.5	49.1	79.7	81.2	53.7	66.5	55.9	76	42	0.13	89	82	0.12	42	42	0.22	56	0.688	41.5	47.3	0.38	42	0.098	0.099	74.8
Dissolved Oxygen (mg/L)	4.24	1.8	4.82	5.63	5.81	4.1	2.79	4.71	4.89	5.02	2.87	6.56	5.26	2.41	5.31	1.48	3.35	2.53	1.25	2.21	5.97	5.23	6.98	2.55	4.67	2.51	2.19	1.71
ORP (mV)	-53	-122	-117	-77	-111	2	-87	-42	-106	-136	-90	24	17	-48	-14	-89	-92	46	-134	-85	-41	-128	-109	-75	-132	151	-206	-75
Temperature (Deg. C)	16.06	16.13	19.1	17.41	15.01	15.22	14.99	15.05	16.3	16.87	21.04	13.9	14.1	20.9	15.8	16.4	18.7	17.9	22.4	18.2	15.11	14.56	15.09	15.61	14.53	12.17	12.44	12.87
Depth to Water (ft-TOC)	6.03	7.88	3.25	2.97	-2	3.4	3.79	4.71	-2	2.73	5.79	15.32	10.5	3.37	42.26	3.74	3.78	4.74	8.1	9.92	17.99	9.89	3.03	4.91	25.5	39.84	24.72	71.65

Notes:
ft-TOC - Feet below top of outer casing
ft bgs - Feet from below ground surface
(1) - Relative to mean sea level.
(2) - Measured prior to purging. Well volume calculations based on this measurement.
(3) - Sample Data collected using a YSI.
mg/L = Milligrams per Liter
mV = Milli volts
um/S = Micro Siemens
NM = Not Measured
^ = Recorded data after well recharged.
** = Well was damaged

Appendix G
Summary of Groundwater Sampling Well Investigation
2004 - 2006
Beazer/INDSPEC Properties
Petrolia, Pennsylvania

Well Number Date	SW-2 8/4/2004	PW-2 7/29/2004	VP-0 8/3/2004	FBRW 8/3/2004	MW-61B 10/19/2004	MW-61A 10/19/2004	GM-4A 10/27/2004	GM-4B 10/27/2004	GM-4C 10/28/2004	GM-6A 10/19/2004	GM-6B 10/19/2004	GM-6C 10/19/2004	GM-1C 10/20/2004	GM-1B 10/20/2004	GM-1A 10/20/2004	MW-63B 10/20/2004	MW-63A 10/20/2004	GM-8A 10/20/2004	GM-8C 10/20/2004	GM-8B 10/20/2004	GM-10C 10/21/2004	GM-10B 10/21/2004	GM-9 10/19/2004	GM-11 10/20/2004	MW-62A 10/19/2004	MW-62B 10/21/2004	GM-12 10/21/2004	OW-2 10/21/2004
Temperature (Deg. F)	73	80	78	78	50	50	50	50	58	50	50	55	60	60	60	60	60	60	60	60	55	55	50	60	50	55	55	55
Weather Conditions	Cloudy	Partly Cloudy	Sunny	Sunny	Cloudy/Lt Rain	Cloudy/Lt Rain	Partly Cloudy	Partly Cloudy	Cloudy	Cloudy/Lt Rain	Cloudy/Lt Rain	Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Cloudy	Cloudy	Cloudy/Lt Rain	Partly Cloudy	Cloudy/Lt Rain	Cloudy	Cloudy	Cloudy
PVC Casing Elevations (ft-TOC) (1)	1199.66	NM	1185.77	1176.2	1170.7	1171.23	1162.81	1163.03	1163.02	1170.2	1170.99	1170.22	1167.76	1167.24	1167.98	1176.96	1177.78	1165.53	1166.27	1166.87	1166.99	1166.85	1165.72	1162.87	1177.05	1174.47	1161.23	1163.8
Depth to Water (ft-bgs)	26.31	5.1	42.1	5.12	5.26	5.26	4.12	0.3	0	3.35	2.79	1.99	-2.5	1.86	3.03	12.64	10.5	3.74	3.6	3.37	0	4.36	6.19	5.23	16.83	0.35	2.15	4.9
Groundwater Elevation	1173.35	NM	1143.67	1171.08	1165.44	1165.97	1158.69	1162.73	1163.02	1166.85	1168.2	1168.23	1170.26	1165.38	1164.95	1164.32	1167.28	1161.79	1162.67	1163.5	1166.99	1162.49	1159.53	1157.64	1160.22	1174.12	1159.08	1158.9
PVC Casing Diameter (inches)	4	4	4	16	4	2	2	2	2	2	2	2	2	2	2	4	2	2	2	2	2	2	2	2	2	4	2	2
Depth to Product (ft -TOC)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Product Thickness (ft)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Screened Interval (ft)	N/A	2-17	N/A	11-21	15.5-30.5	1-16	4.8-9.8	25.4-36.4	51.5-61.5	8.5-23.5	30-40	41-51	55-65	28.5-38.5	5.1-20.1	31-46	5-25	7.5-17.5	47.3-57.3	24.4-34.4	55.2-65.2	30-40	5-15	5-15	5-20	18-33	5-15	5-15
Total Depth of Well (ft-bgs) (2)	124.51	18.38	110.9	17.45	30.13	18.68	11.68	39.39	63.34	24.79	42.85	98.61	67.44	39.48	22.45	47.61	22.36	18.81	59.1	36.03	66.9	41.74	16.28	16.87	23.02	34.4	16.52	17.2
Volume of Water in Well (gallons)	64.1	8.7	44.9	162.0	16.2	2.2	1.2	6.4	10.3	3.5	6.5	15.7	11.4	6.1	3.2	22.8	1.9	2.5	9.0	5.3	10.9	6.1	1.6	1.9	1.0	22.2	2.3	2.0
Total Groundwater to be Purged (gallons)	192.3	26.0	134.7	485.0	48.7	6.5	3.7	19.1	30.9	10.5	19.5	47.1	34.1	18.4	9.5	68.5	5.8	7.4	27.1	15.9	32.6	18.2	4.9	5.7	3.0	66.7	7.0	6.0
PRE PURGE DATA																												
Time Start	1225	1040	710	1135	855	950	1318	1245	1330	850	850	950	1325	1242	1210	1025	1000	825	810	915	1110	1116	1350	1355	1200	815	940	1025
Time Complete	1329	1046	738	1302	1035	1012	1323	1255	1345	900	900	1015	1350	1303	1221	1055	1010	905	930	1010	1140	1127	1355	1403	1213	855	950	1038
Method (pump or bail)	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Whale Pump	Centrifugal	Centrifugal	Grunfos Pump	Grunfos pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Centrifugal	Whale	Whale	Whale	Whale	Grunfos Pump	Grunfos Pump	Centrifugal	Whale	Grunfos Pump	Grunfos Pump
Rate (gallons/minute)	5	2	5	5.5	0.75	0.45	1	1.9	2	1.1	1.1	1.96	1.4	1.1	1.1	2	1.3	0.33	0.33	0.31	0.85	1.81	1	0.87	0.31	1.75	0.8	0.53
Actual Volume Purged (gallons)	320	12	135	485	75.0	10.0	5.0	20.0	30.0	11.0	11.0	49.0	35.0	21.0	10.0	70.0	7.5	10.0	40.0	25.0	35.0	20.0	5.0	7.0	4.0	70.0	8.0	7.5
PID	0	0	0	72	NM	NM	NM	NM	NM	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
pH (std. units)	7.74	8.32	8.62	8.65	6.96	7.21	7.05	7.12	8.2	4.87	6.3	6.86	7.32	7.21	7.14	7.62	8.08	6.96	7.03	7.15	7.39	7.44	7.26	9.09	6.41	7.51	7.03	10.28
Specific Conductance (um/S)	39.1	1.5	59	71	37	25	47.9	80.5	0.41	1.1	0.65	0.61	0.58	0.55	0.72	0.4	0.43	51	71	66	25	24	1.6	30.6	570	26	22	0.368
Dissolved Oxygen (mg/L)	2.69	1.6	6.54	6.05	3.11	3.93	11.45	11.68	3.94	8.83	9.96	3.46	7.34	3.95	9.65	2.38	5.49	3.03	2.77	2.82	2.83	3.42	9.64	11.62	2.27	3.08	8.31	3.55
ORP (mV)	0.24	-137	-147	-126	-40	-66	22	101	-116	115	-21	-70	-98	-113	-110	-101	-67	-10	75	-47	-116	-92	-202	-87	-53	-70	-43	-97
Temperature (Deg. C)	12.2	20.4	13.81	18.9	14.2	15.1	11.68	15.9	13.9	11.5	12.6	12.7	15.2	15.9	16.3	11	11.4	17.4	14	15.4	13	15.7	16.09	16.68	14.9	12.4	17.2	16.13
POST PURGE DATA																												
pH (std. units)	7.75	NM	8.46	7.79	7.32	7.3	7.32	7.41	8.15	5.26	6.51	6.74	7.17	7.44	7.1	7.62	7.81	6.83	6.77	7.23	7.59	7.51	8.55	7.12	6.44	7.58	7.08	10.19
Specific Conductance (um/S)	39.8	NM	63	74	26.00	22	58.7	42	0.39	0.81	0.63	0.61	0.59	0.52	0.72	0.39	0.4	50	51	72	26	25	1.3	31.2	460	25	22	0.386
Dissolved Oxygen (mg/L)	2.71	NM	8.36	6.74	3.42	3.02	11.75	10.83	3.82	3.81	2.49	0.66	2.27	2.03	4.5	1.99	3.63	4.01	2.71	3.28	3.29	3.31	5.93	6.01	2.22	3.53	7.2	2.53
ORP (mV)	0.21	NM	-128	-103	-48.00	-72	-1	-21	-145	87	-50	-58	-89	-119	-112	-108	-91	-21	12	-49	-114	-101	-185	-56	-67	-90	-78	-91
Temperature (Deg. C)	12.23	NM	14.4	15.5	14.90	15	18.7	16.2	12.3	12.3	12.6	12.5	15.1	16	16.9	11.2	11.3	18	14	15.3	13.3	14.2	19.3	16.6	15.1	12.5	17.2	15.34
SAMPLING DATA																												
Sample Time	1340	1410	745	1310	1110	1025	1330	1305	1355	910	1015	1033	1405	1306	1225	1100	1015	940	1000	1050	1220	1150	1412	1415	1225	920	1010	1212
Method	1353	1417	750	1325	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer
pH (std. units)	7.74	8.02	8.62	7.91	7.38	7.47	7.67	7.19	8.12	5.71	6.56	6.54	7.17	7.43	7.08	7.61	7.72	6.8	7.14	7.47	7.68	7.69	7.98	6.77	6.42	7.76	7.05	10.2
Specific Conductance (um/S)	38.9	1.5	71	97	25	21	36.7	32.3	0.4	0.77	0.63	0.62	0.59	0.51	0.72	0.39	0.41	50	69	67	25	25	1.4	32.2	420	25	22	0.38
Dissolved Oxygen (mg/L)	2.73	6.26	7.77	5.99	4.74	3.02	9.16	9.3	3.79	5.25	1.19	1.03	3.12	2.79	4.98	1.95	5.39	2.94	4.91	4.59	3.6	5.26	3.13	7.02	2.86	3.83	3.74	2.55
ORP (mV)	0.24	19.5	-68	-113	111	58	-30	-30	-145	41	69	-57	-88	-116	-112	-108	-93	-31	108	8	-112	67	-157	-17	540	-105	-92	-75
Temperature (Deg. C)	12.19	23.9	14.21	16	15.2	15.1	15	15	12.46	13.2	12.7	12.8	15.2	17.2	17.1	11.1	11.2	12	15.1	16.7	15	16	19.7	16.5	15.2	12.2	15.3	15.61
Depth to Water (ft-TOC)	26.64	16.21	62.3	7.91	6.71	6.4	4.48	2.42	0 (Flowing)	4.09	3.72	2.17	-2	1.9	3.09	13.33	11.2	3.64	46.73	3.48	Flowing	4.36	9.33	5.84	18.21	5.91	2.88	4.91

Notes:
ft-TOC - Feet below top of outer casing
ft bgs - Feet from below ground surface
(1) - Relative to mean sea level.
(2) - Measured prior to purging. Well volume calculations based on this measurement.
(3) - Sample Data collected using a YSI.
mg/L = Milligrams per Liter
mV = Milli volts
um/S = Micro Siemens
NM = Not Measured
^ = Recorded data after well recharged.
** = Well was damaged

Appendix G
Summary of Groundwater Sampling Well Investigation
2004 - 2006
Beazer/INDSPEC Properties
Petrolia, Pennsylvania

Well Number Date	GM-4D 10/28/2004	MW-67B 10/26/2004	MW-60B 10/27/2004	SW-1 10/19/2004	SW-2 10/20/2004	PW-2 10/20/2004	VP-0 10/27/2004	FBRW 10/21/2004	MW-45F 10/25/2004	GM-2A 6/30/2005	PZ-2 6/30/2005	PZ-3 6/30/2005	OW-5 6/30/2005	OW-1 6/30/2005	GM-3A 6/30/2005	GWP-7 6/30/2005	GWP-6 6/30/2005	MW-2 6/30/2005	GWP-15 6/30/2005	GC-2 6/30/2005	MW-61A 6/30/2005	GM-4A 6/30/2005	GM-6A 6/30/2005	GM-1A 6/30/2005	MW-63A 6/30/2005	GM-8A 6/30/2005	GM-9 6/30/2005	GM-11 6/30/2005
Temperature (Deg. F)	58	48	50	50	60	60	50	55	55	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F
Weather Conditions	Cloudy	Cloudy	Partly Cloudy	Cloudy/Lt Rain	Partly Cloudy	Partly Cloudy	Partly Cloudy	Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy
PVC Casing Elevations (ft-TOC) (1)	1164.5	1278.21	1170.71	1197.40	1199.66	NM	1185.77	1176.2	1157.86	12-Mar	11-Mar	11-Mar	8-Mar	14-Mar	8-Mar	8-Mar	9-Mar	9-Mar	5-Mar	11-Mar	16-Mar	7-Mar	15-Mar	13-Mar	23-Mar	11-Mar	11-Mar	8-Mar
Depth to Water (ft-bgs)	12.52	35.9	27.41	27.9	24.65	3.1	37.75	5.25	5.53	4.55	3.25	4.27	7.32	5.9	5.11	NM	Dry	6.75	2.12	5.42	7.14	6.21	4.25	3.1	10.7	4.11	6.5	6.01
Groundwater Elevation	1151.98	1242.31	1143.3	1169.5	1175.01	#VALUE!	1148.02	1170.95	1152.33	1162.53	1163.68	1161.85	1156.63	1163.45	1158.67	NM	NM	1158.01	1158.23	1161.14	1164.29	1156.72	1166.31	1165.38	1167.35	1161.91	1159.64	1157.46
PVC Casing Diameter (inches)	4	4	4	4	6	4	4	16	4	2	1	1	2	2	2	2	2	4	2	4	2	2	2	2	2	2	2	2
Depth to Product (ft -TOC)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Product Thickness (ft)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Screened Interval (ft)	N/A	35.1-50.1	N/A	184.5-199.5	N/A	2-17	N/A	11-21	N/A	6-16	NA	NA	5-15	6-16	8.5-18.5	NA	NA	NA	NA	11.2-21.2	1-16	4.8-9.8	8.5-23.5	5.1-20.1	5-25	7.5-17.5	5-15	5-15
Total Depth of Well (ft-bgs) (2)	99.03	52.53	102.73	199.5	124.51	18.38	110.9	17.45	173.5	17.61	7.95	8.17	16.85	18	19.95	7.55	6.44	10.9	20.6	27.52	18.52	11.68	24.79	22.19	22.36	18.81	16.09	16.68
Volume of Water in Well (gallons)	56.5	10.9	49.2	112.0	146.7	10.0	47.7	127.4	109.6	2.1	0.8	0.6	1.5	2.0	2.4	NM	NM	0.7	3.0	3.6	1.9	0.9	3.3	3.1	1.9	2.4	1.6	1.7
Total Groundwater to be Purged (gallons)	169.4	32.6	147.5	336.0	440.1	29.9	143.2	382.1	328.9	6.4	2.3	1.9	4.6	5.9	7.2	NM	NM	2.0	9.0	10.8	5.6	2.7	10.0	9.3	5.7	7.2	4.7	5.2
PRE PURGE DATA																												
Time Start	1330	830	950	1120	1040	1147	820	830	935	10:28	15:40	14:59	9:35	10:55	12:07	NM	Dry	9:15	13:05	14:45	9:41	10:25	8:42	9:17	12:55	14:52	11:44	12:29
Time Complete	1413	850	1026	1300	1300	1240	855	955	1145	10:33	15:41	15:01	9:42	10:58	12:19	NM	Dry	9:29	13:15	15:25	9:45	10:30	8:52	9:26	13:09	15:10	11:49	12:42
Method (pump or bail)	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Grunfos Pump	Centrifugal	Centrifugal	Grunfos Pump	Grunfos Pump	Grunfos Pump	Centrifugal	Centrifugal	Grunfos Pump	Centrifugal	Grunfos Pump	Centrifugal	Centrifugal	Grunfos Pump	Grunfos Pump	Grunfos Pump	Centrifugal	Grunfos Pump	Grunfos Pump
Rate (gallons/minute)	3.9	1.5	4.11	3.4	3.71	0.75	4	4.47	2.5	1.20	1.00	0.25	0.71	1.00	0.71	NA	NA	0.86	1.00	0.11	1.25	0.60	0.90	1.11	0.50	0.44	1.00	0.46
Actual Volume Purged (gallons)	170	30	148	340	520	40	140	380	330	6.00	1.00	0.50	5.00	3.00	8.50	NM	Dry	12.00	10.00	4.50	5.00	3.00	9.00	10.00	7.00	8.00	5.00	6.00
PID	NM	NM	NM	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH (std. units)	8.01	7.16	8.05	11.34	10.49	7.08	9.6	8.01	9.21	7.35	6.46	9.25	7.64	5.22	7.01	NM	Dry	6.59	8.33	5.24	6.91	8.19	6.43	6.73	7.56	6.57	6.47	7.08
Specific Conductance (um/S)	0.4	112	1	4.9	29.8	390	0.42	0.56	96	8537.00	2761.00	8998.00	829.00	2192.00	265.00	NM	Dry	1858.00	85.00	553.00	280.00	9148.00	467.00	452.00	250.00	603.00	1818.00	255.00
Dissolved Oxygen (mg/L)	2.99	4.81	1.01	12.84	8.5	2.37	1.51	8.49	7.17	2.28	5.22	1.35	4.3	2.71	3.9	NM	Dry	1.93	2.83	323	2.74	4.13	1.9	1.48	3.87	2.25	1.77	3.38
ORP (mV)	-127	84	-221	-125	-108	117	-274	-46	-90	-50	235	-271.14	-226.4	355	-95	NM	Dry	-37.4	255	-667	160	-166.4	280	110	-72.4	31.6	90.4	-62.5
Temperature (Deg. C)	13.6	8.1	11.8	10.9	11.4	18.3	11.2	14.4	11.6	17.33	28.49	33.48	14.79	19.6	17.88	NM	Dry	13.11	25.9	14.05	14.27	15.75	19.27	20.8	11.95	18.81	16.85	16.68
POST PURGE DATA																												
pH (std. units)	8	6.43	7.91	11.79	9.116	Well Went Dry	8.52	7.2	8.67	7.78	6.81	9.28	7.03	Dry	7.33	NM	Dry	6.81	7.75	5.87	6.73	8.28	5.95	6.77	7.4	6.77	6.57	7.34
Specific Conductance (um/S)	0.42	76.4	1.2	0.52	33	NM	10.44	0.47	92	4005	2976	18569	901	Dry	261	NM	Dry	1596	48000	966	273	7226	446	465	245	695	1629	246
Dissolved Oxygen (mg/L)	2.85	3.87	0.41	5.33	9.46	NM	1.54	7.94	4.83	3.92	7.42	0.37	5.86	Dry	3.99	NM	Dry	5.25	2.88	1.78	2.61	2.63	2.29	0.81	5.11	4.65	1.45	4.5
ORP (mV)	-124	179	-294	-147	-65	NM	-164	-87	-246	135	301	332	-103.1	Dry	-119	NM	Dry	-46.9	40.2	-69.1	100	-163.2	133	30.5	-88.8	20.2	-644	-87.7
Temperature (Deg. C)	12.7	8.7	12.2	11.7	12.3	NM	11.7	14.4	13.4	15.4	24.04	33.3	11.72	Dry	15.78	NM	Dry	14.05	23.14	15.15	13.5	16.44	15.84	22.07	11.01	21.88	14.27	15.02
SAMPLING DATA																												
Sample Time	1425	900	1040	1112	1320	1315	900	1005	1200	9:22	9:10	11:19	9:50	9:38	11:25	11:55	NA	9:40	NA	12:30	10:33	10:10	8:42	10:48	12:15	12:07	12:30	11:47
Method	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer
pH (std. units)	7.973	5.61	7.93	4.72	8.53	7.84	8.48	7.02	9.38	7.61	7.66	5.74	7.14	4.76	7.43	7.24	NM	6.92	NM	5.61	4.31	7.47	6.16	5.98	7.62	4.75	3.75	7.28
Specific Conductance (um/S)	0.41	73.7	1.2	0.49	17.6	350	0.44	0.46	90	4800	2343	17861	809	2287	273	15971	NM	1500	NM	523	270	443	439	459	279	1018	1529	262
Dissolved Oxygen (mg/L)	2.81	4.7	0.44	4.72	5.75	5.45	1.53	3.37	1.48	2.17	6.07	0.36	2.63	5.34	1.88	1.42	NM	1.84	NM	1.31	2.56	1.44	3.01	1.39	3.72	1.11	3.96	3.55
ORP (mV)	-126	253	-297	-137	100	77	-156	-78	-310	403.2	368	-400	-8.9	624.8	-117.9	-165	NM	-134.6	NM	208	676.9	-68.7	413	648	-87.9	389.8	-60.1	-77.8
Temperature (Deg. C)	12.51	9.2	11.9	11.2	12.6	19	11.07	14.6	12.3	21.19	21.16	23.25	14.88	22.77	19.54	21.91	NM	12.24	NM	18.8	13.81	17.74	16.74	21.73	21.78	21	18.85	18.21
Depth to Water (ft-TOC)	39.1	36.7	28.32	29.12	24.61	17.62	38.39	5.95	42.63	4.55	3.25	NM	7.29	5.87	5.12	4.25	NM	6.79	NM	5.35	7.25	6.28	4.24	3.1	10.72	3.99	NM	6.07

Notes:
ft-TOC - Feet below top of outer casing
ft bgs - Feet from below ground surface
(1) - Relative to mean sea level.
(2) - Measured prior to purging. Well volume calculations based on this measurement.
(3) - Sample Data collected using a YSI.
mg/L = Milligrams per Liter
mV = Milli volts
um/S = Micro Siemens
NM = Not Measured
^ = Recorded data after well recharged.
** = Well was damaged

Appendix G
Summary of Groundwater Sampling Well Investigation
2004 - 2006
Beazer/INDSPEC Properties
Petrolia, Pennsylvania

Well Number	**MW-62A**	**GM-12**	**OW-2**	****OW-4**	**MW-64A**	**PW-2**	**PS-2**	**PS-3**	**PS-4**	**PS-5**	**PS-6**	**PS-7**	**PS-10**	**PS-11**	**GM-7**	**GWP-5**	**PW-1**	**WP-01**	**WP-02**	**MW-71A**	**MW-72A**	**MW-73A**	**MW-74A**	**MW-61A**	**MW-61B**	**GM-1B**
Date	**6/30/2005**	**6/30/2005**	**6/30/2005**	**6/30/2005**	**6/30/2005**	**6/30/2005**	**6/30/2005**	**6/30/2005**	**6/30/2005**	**6/30/2005**	**6/30/2005**	**6/30/2005**	**6/30/2005**	**6/30/2005**	**6/30/2005**	**6/30/2005**	**6/30/2005**	**8/24/2005**	**8/24/2005**	**8/24/2005**	**8/24/2005**	**8/24/2005**	**8/24/2005**	**8/24/2005**	**8/24/2005**	**8/24/2005**
Temperature (Deg. F)	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F	80°F
Weather Conditions	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy
PVC Casing Elevations (ft-TOC) (1)	22-Mar	6-Mar	9-Mar	6-Mar	9-Mar	No Pipe	10-Mar	6-Mar	9-Mar	6-Mar	5-Mar	5-Mar	5-Mar	9-Mar	14-Mar	12-Mar	7-Mar	1169.1	1168.7	1166.71	1167.08	1163.07	1165.25	1171.43	1171.06	1167.83
Depth to Water (ft-bgs)	11.05	3.92	5.52		9.49	5.9	0	7.3	9.91	2.49	4.01	3.97	7.49	0	3.75	3.47	1.47	9.3	8.1	5.75	3.57	3.05	4.4	11.59	11.15	8.44
Groundwater Elevation	1166.23	1157.53	1158.48	1161.42	1154.78	NM	1165.05	1154.21	1154.95	1159.02	1156.98	1156.33	1152.64	1164.46	1165.75	75	1161.49	1159.8	1160.6	1160.96	1163.51	1160.02	1160.85	1159.84	1159.91	1159.39
PVC Casing Diameter (inches)	2	2	2	2	2	4	15	15	15	15	15	15	15	15	2	2	4	1	1	2	2	2	2	2	4	2
Depth to Product (ft -TOC)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Product Thickness (ft)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Screened Interval (ft)	5-20	5-15	5-15	6-16	9.8-24.8	2-17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.5-15.5	6-16	4-19	5-15	4-14	5-15	1-16	15.5-30.5	28.5-38.5
Total Depth of Well (ft-bgs) (2)	23.02	16.52	17.2	17.68	24.85	18.43	10.88	11.1	11.78	11.59	8.63	8.91	15.84	7.91	11.18	4.78	8.92	14.3	14.25	18.1	14.55	12.9	14.48	18.75	33.15	39.79
Volume of Water in Well (gallons)	1.9	2.0	1.9	2.9	2.5	8.2	NA	2.5	1.2	5.9	3.0	3.2	5.4	5.2	4.8	0.9	4.9	0.8	1.0	2.0	1.8	1.6	1.6	1.2	3.6	5.1
Total Groundwater to be Purged (gallons)	5.8	6.1	5.7	8.6	7.5	24.5	NA	7.4	3.7	17.8	9.0	9.7	16.3	15.5	14.5	2.6	14.6	2.4	3.0	6.0	5.4	4.8	4.9	3.5	10.7	15.3
PRE PURGE DATA																										
Time Start	12:10	11:40	10:51	NA	8:45	10:12	NA	NA	NA	NA	NA	NA	NA	NA	10:05	15:28	10:03	8:41	8:48	9:01	NM	11:45	NM	9:35	9:35	10:35
Time Complete	12:55	11:51	11:02	NA	8:55	10:20	NA	NA	NA	NA	NA	NA	NA	NA	10:13	15:29	10:22	8:43	8:50	9:22	NM	NM	NM	9:48	10:00	10:55
Method (pump or bail)	Centrifugal	Grunfos Pump	Grunfos Pump	NA	Grunfos Pump	Grunfos Pump	NA	NA	NA	NA	NA	NA	NA	NA	Grunfos Pump	NA	Grunfos Pump	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Rate (gallons/minute)	0.09	0.59	0.55	NA	1.00	1.25	NA	NA	NA	NA	NA	NA	NA	NA	0.31	1.00	0.79	Dry	Dry	0.24	NA	NA	Dry	1.15	1.92	0.83
Actual Volume Purged (gallons)	4.00	6.50	6.00	NA	10.00	10.00	NA	NA	NA	NA	NA	NA	NA	NA	2.50	1.00	15.00	1.3	1.5	5.0	15.0	10.0	6.0	15.0	48.0	16.5
PID	NA	NA	NA		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	0.0	0.0	N/A	N/A	N/A	N/A	0.0	0.0	0.0
pH (std. units)	6.07	7.13	9.15	NA	9.73	6.09	NA	NA	NA	NA	NA	NA	NA	NA	9.23	4.75	7.32	7.32	7.04	6.67	6.78	9.66	9.77	8.48	8.0	7.5
Specific Conductance (um/S)	7297.00	227.00	4281.00	NA	63642.00	6987.00	NA	NA	NA	NA	NA	NA	NA	NA	6461	3413	873	1264	1487	579	1584	16995	12217	1801	352.0	415.0
Dissolved Oxygen (mg/L)	0.53	4.14	3.59	NA	2.11	1.87	NA	NA	NA	NA	NA	NA	NA	NA	2.54	3.51	4.16	3.17	6.2	1.69	0.95	4.5	1.42	2.82	3.2	2.9
ORP (mV)	-11.8	-11.7	-265.1	NA	-37.4	325.2	NA	NA	NA	NA	NA	NA	NA	NA	149.9	415.9	-137.28	-54.9	15.9	39.5	240.8	158.1	150.7	180.1	200.9	147.1
Temperature (Deg. C)	12.61	15.44	21.71	NA	13.43	21.14	NA	NA	NA	NA	NA	NA	NA	NA	21.49	22.09	15.73	19.5	23.6	21.4	25.75	23.33	28.5	18.57	18.21	20.31
POST PURGE DATA																										
pH (std. units)	3.04	6.99	8.96	NA	9.85	Well Went Dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.2	7.52	Dry	Dry	6.48	6.91	9.47	Dry	7.45	7.12	7.49
Specific Conductance (um/S)	7457	229	4693	NA	64770	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1972	821	Dry	Dry	599	2137	15940	Dry	773	474	438
Dissolved Oxygen (mg/L)	1.49	4	5.47	NA	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.85	4.17	Dry	Dry	1.3	1.72	0.34	Dry	1.75	1.38	5
ORP (mV)	333	-79.8	-261.1	NA	-316.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	160	-148.5	Dry	Dry	144.6	268.2	1690	Dry	151.4	119.1	246
Temperature (Deg. C)	12.82	12.21	12.66	NA	10.41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22.81	16.65	Dry	Dry	19.53	26.19	23.56	Dry	16.6	16.44	19.18
SAMPLING DATA																										
Sample Time	12:52	10:30	10:40	NA	NM	9:42	11:38	7:30	11:32	12:07	11:02	NM	NM	10:08	8:58	NM	10:05	9:33	10:00	10:15	11:20	12:05	12:35	9:50	10:10	11:00
Method	Bailer	Bailer	Bailer	NA	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer
pH (std. units)	4.13	6.52	8.8	NA	9.45	5.86	7.56	NM	NM	NM	9.35	7.57	9.35	5.87	9.53	NA	7.34	6.7	6.57	6.43	6.85	NM	9.39	7.31	7.06	7.3
Specific Conductance (um/S)	1226	236	54.88	NA	39677	5907	7986	NM	NM	NM	3377	14612	3377	11.7	6531	NA	682	950	1690	586	2043	NM	12908	749	474	441
Dissolved Oxygen (mg/L)	2.97	2.18	2.54	NA	2.2	7.75	4.37	NM	NM	NM	1.94	1.35	4.02	9.11	0.48	NA	2.32	0.69	0.51	1.49	0.98	NM	1.58	1.38	1.31	4
ORP (mV)	-2.1	-86.8	-41.1	NA	-242.7	560.9	-256	NM	NM	NM	-2782	2.3	102.4	614.2	-25	NA	118.9	12.5	-30.4	141.1	275.8	NM	241.9	128.1	110.3	242.1
Temperature (Deg. C)	16.63	12.15	19.56	NA	13.54	21.5	21.03	NM	NM	NM	18.77	16.04	21.96	24.21	21.56	NA	21.93	21.19	18.98	18.65	22.05	NM	24.83	16.51	16.43	19.05
Depth to Water (ft-TOC)	NM	3.99	6.83	NA	9.51	11.3	7.5	7.3	9.91	7.49	4.01	3.97	1.72	3.76	4.4	NA	1.09	11.43	8.55	5.97	4.42	NM	11.6	12.69	11.63	8.55

Notes:
ft-TOC - Feet below top of outer casing
ft bgs - Feet from below ground surface
(1) - Relative to mean sea level.
(2) - Measured prior to purging. Well volume calculations based on this measurement.
(3) - Sample Data collected using a YSI.
mg/L = Milligrams per Liter
mV = Milli volts
um/S = Micro Siemens
NM = Not Measured
^ = Recorded data after well recharged.
** = Well was damaged

Appendix G
Summary of Groundwater Sampling Well Investigation
2004 - 2006
Beazer/INDSPEC Properties
Petrolia, Pennsylvania

Well Number **Date**	**MW-62B** **8/24/2005**	**MW-62A** **8/24/2005**	**GWP-7** **8/24/2005**	**GM-3A** **8/24/2005**	**GM-10B** **8/24/2005**	**WP-06** **3/8/2006**	**WP-14^** **3/8/2006**	**WP-13** **3/8/2006**	**WP-12** **3/8/2006**	**WP-11^** **3/8/2006**	**WP-10** **3/9/2006**	**WP-09** **3/8/2006**	**WP-08** **3/8/2006**	**WP-07^** **3/9/2006**	**GM-4A** **4/5/2006**	**GM-11** **4/6/2006**	**GM-12** **4/5/2006**	**OW-2** **4/6/2006**	**OW-4**** **4/6/2006**	**OW-5** **4/6/2006**	**MW-1** **4/6/2006**	**MW-2** **4/6/2006**	**MW-64A** **4/6/2006**	**PZ-6** **4/6/2006**
Temperature (Deg. F)	80°F	80°F	80°F	80°F	80°F	40°F	40°F	40°F	40°F	40°F	40°F	40°F	40°F	40°F	45°F	60°F	45°F	60°F	60°F	60°F	60°F	60°F	60°F	60°F
Weather Conditions	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Partly Cloudy	Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy
PVC Casing Elevations (ft-TOC) (1)	1170.74	1177.28	1163.77	1163.78	1167.1	1166.88	1166.8	1166.78	1167.01	1166.99	1167	1166.8	1166.86	1166.78	1162.81	1162.87	1161.23	1163.8	1161.55	1163.96	1165.2	1164.76	1164.06	1161.26
Depth to Water (ft-bgs)	9.55	17.85	4.12	4.72	6.56	2.93	5.62	3.91	3.35	4.17	3.57	3.28	4.25	2.06	4.12	5.23	2.15	4.9		5.71	6.13	5.8	9.75	3.35
Groundwater Elevation	1161.19	1159.43	1159.65	1159.06	1160.54	1163.95	1161.18	1162.87	1163.66	1162.82	1163.43	1163.52	1162.61	1164.72	1158.69	1157.64	1159.08	1158.9	1161.55	1158.25	1159.07	1158.96	1154.31	1157.91
PVC Casing Diameter (inches)	4	2	2	2	2	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	4	4	2	1
Depth to Product (ft -TOC)	NA	NA	NA	N/A	N/A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Product Thickness (ft)	NA	NA	NA	N/A	N/A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Screened Interval (ft)	33-18	5-23.02	NA	8.5-18.5	30-40	2.3-10.3	6-16	4-19	5-15	1.6-8.6	2.2-7.2	3-13	12-Apr	6.5-11.5	4.8-9.8	5-15	5-15	5-15	6-16	5-15	NA	NA	9.8-24.8	NA
Total Depth of Well (ft-bgs) (2)	35.1	23.05	7.8	20.05	41.79	10.31	7.69	8.46	8.75	8.49	7.15	11.5	10.06	11.05	11.68	16.87	16.52	17.2	17.68	16.85	11.31	11.2	24.8	6.34
Volume of Water in Well (gallons)	4.2	0.8	0.6	2.5	5.7	0.3	0.1	0.2	0.2	0.2	0.1	0.3	0.2	0.4	1.2	1.9	2.3	2.0	2.9	1.8	3.4	3.5	2.4	0.1
Total Groundwater to be Purged (gallons)	12.5	2.5	1.8	7.5	17.2	0.9	0.3	0.6	0.7	0.5	0.4	1.0	0.7	1.1	3.7	5.7	7.0	6.0	8.6	5.4	10.1	10.6	7.3	0.4
PRE PURGE DATA																								
Time Start	11:20	11:47	12:40	13:00	NM	10:40	11:48	12:30	14:28	15:28	8:07	16:03	16:55	8:45	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00
Time Complete	12:13	12:00	12:55	13:12	NM	10:51	11:55	12:42	14:51	15:34	8:25	16:31	17:10	9:05	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00
Method (pump or bail)	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Whale Pump w/Flow Regulator	Whale Pump w/Flow Regulator	Whale Pump w/Flow Regulator	Whale Pump w/Flow Regulator	Bailer	Whale Pump w/Flow Regulator	Whale Pump w/Flow Regulator	Whale Pump w/Flow Regulator	Whale Pump w/Flow Regulator	Bailer
Rate (gallons/minute)	6.86	0.19	0.13	0.42	NA	0.14	Dry	0.08	0.07	Dry	0.04	0.06	0.08	Dry	0.60	0.40	0.60	0.40	NA	0.50	0.80	0.80	-	Hand Bailed
Actual Volume Purged (gallons)	48.0	2.5	2.0	5.0	NM	1.5	0.25	1.0	1.5	0.25	0.75	1.8	1.2	1.0	6.5	9.5	9.0	7.0	7.0	2.0	4.5	4.0	0.4	0.4
PID	0.0	0.0	0.0	0.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
pH (std. units)	7.13	6.18	8.33	6.3	4.46	11.74	12.16	12.08	12.02	12.25	9.79	9.36	8.4	8.1	8.3	7.8	8.1	9.4	10.8	8.6	7.5	6.4	5.6	7.9
Specific Conductance (um/S)	301	9027	11317	332	317	31812	6540	15688	11342	6956	5073	2464	1876	968.0	325	216	238	3630	14711	706	1353	1474	10850	7886
Dissolved Oxygen (mg/L)	6	1.55	1.5	3.18	3.21	14.94	22.5	5	11.23	6.85	3.14	3.72	3.6	5.5	2.6	2.0	4.2	NA	4.9	2.2	1.2	2.9	1.9	5.4
ORP (mV)	188.5	97.4	-160.1	3020	484	-324	-197.6	-277	-236.9	-191.8	10.1	-89	-45.7	-137.8	-114.9	-74.5	-155.4	-20.7	-102.7	-29.4	-291.4	-339.8	-360.6	-147.9
Temperature (Deg. C)	17.02	14.91	24.04	16.89	16.08	13.32	11.5	7.1	6.82	7.62	7.41	8.39	8.01	7.74	9.05	7.69	9.68	11.36	12.61	8.18	7.5	7.7	7.8	9.73
POST PURGE DATA																								
pH (std. units)	6.71	5.86	7.75	5.29	NM	12.02	Dry	12.35	12.76	Dry	9.65	8.92	8.38	Dry	8.52	7.78	7.65	9.35	NM	Dry	Dry	Dry	Obstruction in Well	NM
Specific Conductance (um/S)	291	8182	10744	328	NM	35662	Dry	14184	17533	Dry	6400	4578	2416	Dry	364	204	336	3662	NM	Dry	Dry	Dry	Obstruction in Well	NM
Dissolved Oxygen (mg/L)	3.22	1.64	3.26	0.59	NM	14.15	Dry	8.2	5.3	Dry	5.38	2.77	6.26	Dry	7.02	7.16	9.74	7.49	NM	Dry	Dry	Dry	Obstruction in Well	NM
ORP (mV)	47.3	56.1	207.5	1522	NM	-331.7	Dry	-257	-321.6	Dry	-67.8	-128.3	-61.6	Dry	-103.4	-15.6	-87.2	40.3	NM	Dry	Dry	Dry	Obstruction in Well	NM
Temperature (Deg. C)	16.08	14.82	24.07	18.26	NM	16.78	Dry	7.64	7.62	Dry	7.56	10.48	8.96	Dry	8.58	8.13	10.3	11.69	NM	Dry	Dry	Dry	Obstruction in Well	NM
SAMPLING DATA																								
Sample Time	12:15	12:05	12:57	13:20	NM	10:53	12:06	14:05	14:55	15:44	8:29	16:38	17:12	9:10	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00
Method	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer
pH (std. units)	6.49	5.68	7.84	5.37	NM	12.18	12.08	12.46	12.88	12.29	9.68	NM	8.38	7.6	8.64	7.68	7.4	9.53	10.77	7.78	7.33	7.06	8.9	6.73
Specific Conductance (um/S)	288	8092	10744	328	NM	38273	9467	16410	17992	7283	6696	NM	2489	1440	455	203	381	3677	16919	768	1746	750	20230	11042
Dissolved Oxygen (mg/L)	2.48	1.22	2.03	0.48	NM	14.61	18.79	7.05	1.76	4.55	1.47	NM	5.51	5.26	2.34	7.73	2.75	3.74	5.69	6.04	1.04	6.93	2.12	3.16
ORP (mV)	76.7	21.1	176.5	142.1	NM	-344.6	-246	-264.9	-348.8	-197.1	106.9	NM	-110.9	-60.3	-124.9	-20.4	-96.9	36.3	-147.8	-70.5	-330.9	-253.8	-365.8	-83.5
Temperature (Deg. C)	16.09	14.85	23.84	18.22	NM	16.85	11.68	7.98	7.51	8.68	8.16	NM	8.76	9.66	8.93	8.23	11.29	11.54	11.56	8.53	8.93	7.48	8.51	10.18
Depth to Water (ft-TOC)	9.6	19.02	5.79	5.75	NM	2.21	6.19	4.13	4.12	7.23	4.96	4.12	4.69	8.61	4.02	14.01	6.09	10.73	3.41	10.98	9.86	10.16	10.22	4.35

Notes:
ft-TOC - Feet below top of outer casing
ft bgs - Feet from below ground surface
(1) - Relative to mean sea level.
(2) - Measured prior to purging. Well volume calculations based on this measurement.
(3) - Sample Data collected using a YSI.
mg/L = Milligrams per Liter
mV = Milli volts
um/S = Micro Siemens
NM = Not Measured
^ = Recorded data after well recharged.
** = Well was damaged

Appendix G
Summary of Groundwater Sampling Well Investigation
2004 - 2006
Beazer/INDSPEC Properties
Petrolia, Pennsylvania

Well Number Date	GM-3A 4/6/2006	GWP-15 4/6/2006	MW-77A 4/6/2006	MW-78A 4/6/2006	MW-79A 4/6/2006	MW-80A 4/6/2006	BH-06-27[3] 4/6/2006	BH-06-28[3] 4/6/2006	BH-06-30[3] 4/4/2006	BH-06-32[3] 4/6/2006	GM-4A 4/20/2006	GM-11 4/20/2006	GM-12 4/20/2006	OW-2 4/20/2006	OW-4** 4/20/2006	OW-5 4/20/2006	MW-1 4/20/2006	MW-2 4/20/2006	MW-64A 4/20/2006	PZ-6 4/20/2006	GM-3A 4/20/2006	GWP-15 4/20/2006	PW-1 4/20/2006	MW-56B 4/20/2006
Temperature (Deg. F)	60°F	60°F	60°F	60°F	60°F	60°F	43°F	43°F	43°F	43°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F
Weather Conditions	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Partly Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear
PVC Casing Elevations (ft-TOC) [1]	1163.53	1160.36	1160.88	1162.27	1162.88	1163.68	NA	NA	NA	NA	1162.81	1162.87	1161.23	1163.8	1161.55	1163.96	1165.2	1164.76	1164.06	1161.26	1163.53	1160.36	1162.37	1164.34
Depth to Water (ft-bgs)	3.29	1.15	2.56	4.19	5.59	5.03	NA	NA	NA	NA	3.32	3.9	2.85	4.3	2.75	5.35	6.05	5.61	9.85	3.45	3.37	1.3	1.55	5.45
Groundwater Elevation	1160.24	1159.21	1158.32	1158.08	1157.29	1158.65	NA	NA	NA	NA	1159.49	1158.97	1158.38	1159.5	1158.8	1158.61	1159.15	1159.15	1154.21	1157.81	1160.16	1159.06	1160.82	1158.89
PVC Casing Diameter (inches)	2	2	2	1	1	1	NA	NA	NA	NA	2	2	2	2	2	2	4	4	2	1	2	2	4*	2
Depth to Product (ft -TOC)	NP	NP	NP	NP	NP	NP	NA	NA	NA	NA	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Product Thickness (ft)	NP	NP	NP	NP	NP	NP	NA	NA	NA	NA	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Screened Interval (ft)	8.5-18.5	8.5-18.5	3-10	3-12	2-12	2-12	NA	NA	NA	NA	4.8-9.8	5-15	5-15	5-15	6-16	5-15	ND	ND	9.8-24.8	ND	8.5-18.5	8.5-18.5	3-Jan	3-Jan
Total Depth of Well (ft-bgs) [2]	20.1	6.34	10	12	12	11.7	NA	NA	NA	NA	11.68	16.87	16.52	17.2	17.68	16.85	11.31	11.2	24.8	6.34	20.1	6.34	18.5	11
Volume of Water in Well (gallons)	2.7	0.8	1.2	1.3	1.0	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Groundwater to be Purged (gallons)	8.2	2.5	3.6	3.8	3.1	3.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PRE PURGE DATA																								
Time Start	0:00	0:00	0:00	0:00	0:00	0:00	NA	NA	NA	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Time Complete	0:00	0:00	0:00	0:00	0:00	0:00	NA	NA	NA	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Method (pump or bail)	Whale Pump w/Flow Regulator	Bailer	Whale Pump w/Flow Regulator	Whale Pump w/Flow Regulator	Whale Pump w/Flow Regulator	Whale Pump w/Flow Regulator	Perastaltic Pump	Perastaltic Pump	Perastaltic Pump	Perastaltic Pump	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Rate (gallons/minute)	0.90	Hand Bail	0.50	0.80	0.20	1.00	NA	NA	NA	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Actual Volume Purged (gallons)	8.5	2.0	10.0	2.5	5.0	8.5	NA	NA	NA	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
PID	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
pH (std. units)	7.1	10.5	10.7	10.4	10.4	9.2	NA	NA	NA	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Specific Conductance (um/S)	322	12747	322	3846	3279	327	NA	NA	NA	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Dissolved Oxygen (mg/L)	1.9	7.6	3.2	3.8	3.0	3.7	NA	NA	NA	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ORP (mV)	-173.7	-299.1	-150.1	-146.3	-216.3	-121.4	NA	NA	NA	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Temperature (Deg. C)	13.27	7.84	16.23	9.67	9.5	15.37	NA	NA	NA	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
POST PURGE DATA																								
pH (std. units)	7.31	NM	10.65	10.6	10.46	9.43	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Specific Conductance (um/S)	421	NM	2879	4058	3583	1433	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Dissolved Oxygen (mg/L)	4.13	NM	3.16	0.8	3.39	6.73	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ORP (mV)	-117.9	NM	-195	-236.3	-229.6	-146.4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Temperature (Deg. C)	13.72	NM	16.08	9.99	10.09	16.06	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
SAMPLING DATA																								
Sample Time	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Method	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	ERR	Bailer	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Bailer	ERR	ERR	ERR	ERR
pH (std. units)	7.12	10.7	10.75	10.59	10.41	8.97	8.98	9.11	10.18	9.03	ERR	7.51	ERR	ERR	ERR	ERR	ERR	ERR	ERR	7.34	ERR	ERR	ERR	ERR
Specific Conductance (um/S)	312	12864	4678	4077	3583	425	4474	5820	3796	2865	ERR	248	ERR	ERR	ERR	ERR	ERR	ERR	ERR	1768	ERR	ERR	ERR	ERR
Dissolved Oxygen (mg/L)	0.63	5.6	4.05	1.44	2.79	4.04	1.23	5.9	3.9	1.03	ERR	6.06	ERR	ERR	ERR	ERR	ERR	ERR	ERR	9.11	ERR	ERR	ERR	ERR
ORP (mV)	-125.9	-393.5	-188.2	-218.7	-232	-129.1	-106.6	-283.1	-152.1	-283.1	ERR	-15.5	ERR	ERR	ERR	ERR	ERR	ERR	ERR	-18.4	ERR	ERR	ERR	ERR
Temperature (Deg. C)	13.09	8.2	15.69	10.43	10.75	16.42	10.27	12.78	11.92	11.64	ERR	11.63	ERR	ERR	ERR	ERR	ERR	ERR	ERR	10.63	ERR	ERR	ERR	ERR
Depth to Water (ft-TOC)	4.25	1.14	2.66	4.21	5.85	5.03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

Notes:
ft-TOC - Feet below top of outer casing
ft bgs - Feet from below ground surface
(1) - Relative to mean sea level.
(2) - Measured prior to purging. Well volume calculations based on this measurement.
(3) - Sample Data collected using a YSI.
mg/L = Milligrams per Liter
mV = Milli volts
um/S = Micro Siemens
NM = Not Measured
^ = Recorded data after well recharged.
** = Well was damaged

Appendix G
Summary of Groundwater Sampling Well Investigation
2004 - 2006
Beazer/INDSPEC Properties
Petrolia, Pennsylvania

Well Number **Date**	**MW-77A** **4/20/2006**	**MW-78A** **4/20/2006**	**MW-79A** **4/20/2006**	**MW-80A** **4/20/2006**	**PS-3** **4/20/2006**	**PS-4** **4/20/2006**	**PS-5** **4/20/2006**	**PS-6** **4/20/2006**	**PS-7** **4/20/2006**	**PS-8** **4/20/2006**	**PS-9** **4/20/2006**	**PS-10** **4/20/2006**	**GM-4A** **5/3/2006**	**GM-11** **5/3/2006**	**GM-12** **5/3/2006**	**OW-2** **5/3/2006**	**OW-4**** **5/3/2006**	**OW-5** **5/3/2006**	**MW-1** **5/3/2006**	**MW-2** **5/3/2006**	**MW-64A** **5/3/2006**	**PZ-6** **5/3/2006**	**GM-3A** **5/3/2006**	**GWP-15** **5/3/2006**
Temperature (Deg. F)	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	70°F	72°F	72°F	72°F	72°F	72°F	72°F	72°F	72°F	72°F	72°F	72°F	72°F
Weather Conditions	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear
PVC Casing Elevations (ft-TOC) (1)	1160.88	1162.27	1162.88	1163.68	1161.51	1164.86	1161.51	1160.99	1160.3	1163.68	1161.25	1160.13	1162.81	1162.87	1161.23	1163.8	1161.55	1163.96	1165.2	1164.76	1164.06	1161.26	1163.53	1160.36
Depth to Water (ft-bgs)	2.36	3.98	5.39	5.25	5.72	5.49	4.01	1.49	1.55	2.1	2.35	0.9	3.28	3.9	2.81	4.24	2.6	5.27	6.02	5.62	9.75	3.24	3.33	1.21
Groundwater Elevation	1158.52	1158.29	1157.49	1158.43	1155.79	1159.37	1157.5	1159.5	1158.75	1161.58	1158.9	1159.23	1159.53	1158.97	1158.42	1159.56	1158.95	1158.69	1159.18	1159.14	1154.31	1158.02	1160.2	1159.15
PVC Casing Diameter (inches)	2	1	1	1	15	15	15	15	15	15	15	15	2	2	2	2	2	2	4	4	2	1	2	2
Depth to Product (ft -TOC)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Product Thickness (ft)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Screened Interval (ft)	3-10	3-12	2-12	2-12	No Screen	No Screen	No Screen	No Screen	No Screen	No Screen	No Screen	No Screen	4.8-9.8	5-15	5-15	5-15	6-16	5-15	ND	ND	9.8-24.8	ND	8.5-18.5	8.5-18.5
Total Depth of Well (ft-bgs) (2)	10	12	12	ND	10.71	11.78	11.62	9.3	9.35	6.97	ND	15.89	11.68	16.87	16.52	17.2	17.68	16.85	11.31	11.2	24.8	6.34	20.1	6.34
Volume of Water in Well (gallons)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Total Groundwater to be Purged (gallons)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
PRE PURGE DATA																								
Time Start	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Time Complete	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Method (pump or bail)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Rate (gallons/minute)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Actual Volume Purged (gallons)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
PID	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
pH (std. units)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Specific Conductance (um/S)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Dissolved Oxygen (mg/L)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ORP (mV)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Temperature (Deg. C)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
POST PURGE DATA																								
pH (std. units)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Specific Conductance (um/S)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Dissolved Oxygen (mg/L)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ORP (mV)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Temperature (Deg. C)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
SAMPLING DATA																								
Sample Time	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Method	ERR	ERR	ERR	ERR	Bailer	Bailer	Bailer	ERR	ERR	ERR	ERR	ERR	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	N/A	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI
pH (std. units)	ERR	ERR	ERR	ERR	8.21	7.38	7.9	ERR	ERR	ERR	ERR	ERR	7.92	7.14	8.01	9.32	N/A	7.1	7.13	7.21	8.62	7.12	7.61	9.91
Specific Conductance (um/S)	ERR	ERR	ERR	ERR	3600	4316	1062	ERR	ERR	ERR	ERR	ERR	335	259	274	4059	N/A	576	1747	701	11051	6175	319	10991
Dissolved Oxygen (mg/L)	ERR	ERR	ERR	ERR	3.08	6.01	6.4	ERR	ERR	ERR	ERR	ERR	4.45	1.69	5.73	7.24	N/A	6.03	6.18	3.74	4.53	6.78	4.37	6.61
ORP (mV)	ERR	ERR	ERR	ERR	-233.1	-128.7	47.1	ERR	ERR	ERR	ERR	ERR	-59	-72.1	-167.2	-98.6	N/A	-71	-248.9	-44.8	-312.5	-9.2	-135.7	-189.2
Temperature (Deg. C)	ERR	ERR	ERR	ERR	12.34	12.64	12.51	ERR	ERR	ERR	ERR	ERR	12.47	12.5	13.66	13.89	N/A	11.11	9.82	9.35	8.97	13.68	15.25	12.5
Depth to Water (ft-TOC)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

Notes:
ft-TOC - Feet below top of outer casing
ft bgs - Feet from below ground surface
(1) - Relative to mean sea level.
(2) - Measured prior to purging. Well volume calculations based on this measurement.
(3) - Sample Data collected using a YSI.
mg/L = Milligrams per Liter
mV = Milli volts
um/S = Micro Siemens
NM = Not Measured
^ = Recorded data after well recharged.
** = Well was damaged

Appendix G
Summary of Groundwater Sampling Well Investigation
2004 - 2006
Beazer/INDSPEC Properties
Petrolia, Pennsylvania

Well Number **Date**	**PW-1** **5/3/2006**	**MW-56B** **5/3/2006**	**MW-77A** **5/3/2006**	**MW-78A** **5/3/2006**	**MW-79A** **5/3/2006**	**MW-80A** **5/3/2006**	**PS-3** **5/3/2006**	**PS-4** **5/3/2006**	**PS-5** **5/3/2006**	**PS-6** **5/3/2006**	**PS-7** **5/3/2006**	**PS-8** **5/3/2006**	**PS-9** **5/3/2006**	**PS-10** **5/3/2006**	**Seep Near PS-7** **5/3/2006**	**GWP-15** **5/17/2006**	**MW-76A** **5/17/2006**	**Seep Near PS-7** **5/17/2006**	**GM-4A** **5/17/2006**	**GM-11** **5/17/2006**	**GM-12** **5/17/2006**	**OW-2** **5/17/2006**	**OW-4**** **5/17/2006**	**OW-5** **5/17/2006**
Temperature (Deg. F)	72°F	72°F	72°F	72°F	72°F	72°F	72°F	72°F	72°F	72°F	72°F	72°F	72°F	72°F	72°F	60°F	60°F	60°F	65	65	65	65	65	65
Weather Conditions	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain
PVC Casing Elevations (ft-TOC) (1)	1162.37	1164.34	1160.88	1162.27	1162.88	1163.68	1161.51	1164.86	1161.51	1160.99	1160.3	1163.68	1161.25	1160.13	NM	1160.36	1161.69	NA	1162.81	1162.87	1161.23	1163.8	1161.55	1163.96
Depth to Water (ft-bgs)	4.05	5.36	2.31	4	5.76	5.19	5.68	5.45	3.92	1.38	1.51	2.3	2.25	0.81	NM	1.1	0.99	NA	3.09	3.57	2.64	3.9	2.46	4.85
Groundwater Elevation	1158.32	1158.98	1158.57	1158.27	1157.12	1158.49	1155.83	1159.41	1157.59	1159.61	1158.79	1161.38	1159	1159.32	NM	1159.26	1160.7	NA	1159.72	1159.3	1158.59	1159.9	1159.09	1159.11
PVC Casing Diameter (inches)	4"	2	2	1	1	1	15	15	15	15	15	15	15	15	NM	2	2	NA	2	2	2	2	2	2
Depth to Product (ft -TOC)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NM	NP	NP	NA	NP	NP	NP	NP	NP	NP
Product Thickness (ft)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NM	NP	NP	NA	NP	NP	NP	NP	NP	NP
Screened Interval (ft)	3-Jan	3-Jan	3-10	3-12	2-12	2-12	No Screen	No Screen	No Screen	No Screen	No Screen	No Screen	No Screen	No Screen	NM	8.5-18.5	5-20	NA	4.8-9.8	5-15	5-15	5-15	6-16	5-15
Total Depth of Well (ft-bgs) (2)	18.5	11	10	12	12	ND	10.71	11.78	11.62	9.3	9.35	6.97	ND	15.89	NM	6.35	20.09	NA	11.68	16.87	16.52	17.2	17.68	16.85
Volume of Water in Well (gallons)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.9	3.1	NA	NM	NM	NM	NM	NM	NM
Total Groundwater to be Purged (gallons)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	2.6	9.3	NA	NM	NM	NM	NM	NM	NM
PRE PURGE DATA																								
Time Start	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	1035	1145	NA	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	N/A	Downhole via YSI
Time Complete	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	1042	1210	NA	7.91	7.25	8.19	9.08	N/A	6.81
Method (pump or bail)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	Whale Pump w/Flow Regulator	Whale Pump w/Flow Regulator	NA	432	254	2251	2757	N/A	689
Rate (gallons/minute)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.37	0.38	NA	5.12	1.38	7.9	2.27	N/A	2.97
Actual Volume Purged (gallons)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	2.6	9.5	NA	13.6	-1.9	-30.1	-34.6	N/A	-83.4
PID	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.0	0.0	NA	12.5	14.2	14.2	14.3	N/A	11.1
pH (std. units)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	9.81	9.1	NA	NM	NM	NM	NM	NM	NM
Specific Conductance (um/S)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	10546	2834	NA	NM	NM	NM	NM	NM	NM
Dissolved Oxygen (mg/L)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	3.97	2.04	NA	NM	NM	NM	NM	NM	NM
ORP (mV)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	-264.4	-176.2	NA	NM	NM	NM	NM	NM	NM
Temperature (Deg. C)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	13.22	15.93	NA	NM	NM	NM	NM	NM	NM
POST PURGE DATA																								
pH (std. units)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	9.84	9.07	NA	NM	NM	NM	NM	NM	NM
Specific Conductance (um/S)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	10869	2890	NA	NM	NM	NM	NM	NM	NM
Dissolved Oxygen (mg/L)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	4.09	4.23	NA	NM	NM	NM	NM	NM	NM
ORP (mV)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	-254.2	-35.6	NA	NM	NM	NM	NM	NM	NM
Temperature (Deg. C)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	13.2	15.86	NA	NM	NM	NM	NM	NM	NM
SAMPLING DATA																								
Sample Time	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	1050	1205	1130	NM	NM	NM	NM	NM	NM
Method	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Bailer	Bailer	Bailer	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	N/A	Downhole via YSI
pH (std. units)	8.91	9.87	9.46	10.02	9.82	8.98	8.8	8.64	9.73	8.14	9.68	8.04	9.82	8.26	9.91	9.87	9.1	9.55	7.91	7.25	8.19	9.08	N/A	6.81
Specific Conductance (um/S)	502	6104	9125	4454	3585	1853	3747	2341	3630	361	3342	1294	18061	336	3863	10876	2889	2977	432	254	2251	2757	N/A	689
Dissolved Oxygen (mg/L)	2.6	4.23	4.46	3.04	4.35	3.63	3.7	6.68	2.35	5.15	1.64	7.6	1.63	8.04	3.27	2.79	3.99	2.95	5.12	1.38	7.9	2.27	N/A	2.97
ORP (mV)	-39.1	-334.1	-213.1	-285	-210.1	-141	-303.1	-58	-188.3	-107	-299.3	-37.2	-46.8	-34.1	-314.2	-278	-36.7	-266.3	13.57	-1.9	-30.1	-34.6	N/A	-83.4
Temperature (Deg. C)	13.22	11.6	17.52	15.21	17.03	21.21	13.87	16.07	12.09	15.02	14.45	12.98	16.98	12.68	16.12	13.29	15.81	16.31	12.47	14.23	14.21	14.31	N/A	11.06
Depth to Water (ft-TOC)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	1.15	1.05	NA	NM	NM	NM	NM	NM	NM

Notes:
ft-TOC - Feet below top of outer casing
ft bgs - Feet from below ground surface
(1) - Relative to mean sea level.
(2) - Measured prior to purging. Well volume calculations based on this measurement.
(3) - Sample Data collected using a YSI.
mg/L = Milligrams per Liter
mV = Milli volts
um/S = Micro Siemens
NM = Not Measured
^ = Recorded data after well recharged.
** = Well was damaged

Appendix G
Summary of Groundwater Sampling Well Investigation
2004 - 2006
Beazer/INDSPEC Properties
Petrolia, Pennsylvania

Well Number **Date**	**MW-1** **5/17/2006**	**MW-2** **5/17/2006**	**MW-64A** **5/17/2006**	**PZ-6** **5/17/2006**	**GM-1A** **5/17/2006**	**GM-2A** **5/17/2006**	**GM-3A** **5/17/2006**	**GWP-15** **5/17/2006**	**PW-1** **5/17/2006**	**MW-56B** **5/17/2006**	**MW-77A** **5/17/2006**	**MW-78A** **5/17/2006**	**MW-79A** **5/17/2006**	**MW-80A** **5/17/2006**	**PS-1** **5/17/2006**	**PS-2** **5/17/2006**	**PS-3** **5/17/2006**	**PS-4** **5/17/2006**	**PS-5** **5/17/2006**	**PS-6** **5/17/2006**	**PS-7** **5/17/2006**	**PS-8** **5/17/2006**	**PS-9** **5/17/2006**
Temperature (Deg. F)	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Weather Conditions	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain
PVC Casing Elevations (ft-TOC) (1)	1165.2	1164.76	1164.06	1161.26	1168.48	1167.08	1163.53	1160.36	1162.37	1164.34	1160.88	1162.27	1162.88	1163.68	1168.35	1165.05	1161.51	1164.86	1161.51	1160.99	1160.3	1163.68	1161.25
Depth to Water (ft-bgs)	4.31	4.39	9.33	1.98	2.47	4.1	3.15	1.15	3.39	5.95	2.06	3.63	4.82	4.99	5.4	3.86	5.37	4.99	3.65	1.2	1.3	1.99	3.11
Groundwater Elevation	1160.89	1160.37	1154.73	1159.28	1166.01	1162.98	1160.38	1159.21	1158.98	1158.39	1158.82	1158.64	1158.06	1158.69	1162.95	1161.19	1156.14	1159.87	1157.86	1159.79	1159	1161.69	1158.14
PVC Casing Diameter (inches)	4	4	2	1	2	2	2	2	4*	2	2	1	1	1	15	15	15	15	15	15	15	15	15
Depth to Product (ft -TOC)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Product Thickness (ft)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Screened Interval (ft)	ND	ND	9.8-24.8	ND	5.1-20.1	6-16	8.5-18.5	8.5-18.5	3.00	3.00	3-10	3-12	2-12	2-12	No Screen	No Screen	No Screen	No Screen	No Screen	No Screen	No Screen	No Screen	No Screen
Total Depth of Well (ft-bgs) (2)	11.31	11.2	24.8	6.34	22.19	17.61	20.1	6.34	18.5	11	10	12	12	ND	10.55	10.88	10.71	11.78	11.62	9.3	9.35	6.97	ND
Volume of Water in Well (gallons)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Total Groundwater to be Purged (gallons)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
PRE PURGE DATA																							
Time Start	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI
Time Complete	6.91	6.37	8.64	7.35	7.12	7.69	7.05	9.87	7.82	9.62	10.43	9.72	9.85	9.04	7.65	8.61	8	8.45	7.58	8.15	9.61	9.61	8.12
Method (pump or bail)	540	160	9610	1335	409	10145	270	10876	321	4715	6306	1200	3111	1640	3113	6436	3290	1767	1062	188	2590	2590	2597
Rate (gallons/minute)	7.17	3.44	3.42	9.94	3.88	1.39	1.51	2.79	2.38	4.61	0.8	5.49	1.58	4.72	1.95	0.87	0.42	1.75	1.52	4.11	1.54	1.54	3.71
Actual Volume Purged (gallons)	19.2	28.5	-171.9	47.4	32.5	10145.0	-8.9	-278.0	-27.7	-111.0	-274.9	-140.4	-116.4	-81.4	-143.8	-233.6	-111.6	17.9	27.8	-15.6	-156.6	-156.6	41.9
PID	13.1	11.8	10.7	13.8	16.4	15.1	15.2	13.3	13.6	14.1	20.1	15.3	16.3	20.3	16.4	17.8	14.6	15.9	14.6	15.5	15.7	15.7	23.7
pH (std. units)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Specific Conductance (um/S)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Dissolved Oxygen (mg/L)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ORP (mV)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Temperature (Deg. C)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
POST PURGE DATA																							
pH (std. units)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Specific Conductance (um/S)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Dissolved Oxygen (mg/L)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ORP (mV)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Temperature (Deg. C)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
SAMPLING DATA																							
Sample Time	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Method	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI
pH (std. units)	6.91	6.37	8.64	7.35	7.12	7.69	7.05	9.87	7.82	9.62	10.43	9.72	9.85	9.04	7.65	8.61	8	8.45	7.58	8.15	9.61	9.61	8.12
Specific Conductance (um/S)	540	160	9610	1335	409	10145	270	10876	321	4715	6306	1200	3111	1640	3113	6436	3290	1767	1062	188	2590	2590	2597
Dissolved Oxygen (mg/L)	7.17	3.44	3.42	9.94	3.88	1.39	1.51	2.79	2.38	4.61	0.8	5.49	1.58	4.72	1.95	0.87	0.42	1.75	1.52	4.11	1.54	1.54	3.71
ORP (mV)	19.2	28.5	-171.9	47.4	32.5	10145	-8.9	-278	-27.7	-111	-274.9	-140.4	-116.4	-81.4	-143.8	-233.6	-111.6	17.9	27.8	-15.6	-156.6	-156.6	41.9
Temperature (Deg. C)	13.07	11.81	10.67	13.82	16.35	15.07	15.21	13.29	13.59	14.12	20.09	15.34	16.32	20.34	16.36	17.84	14.55	15.94	14.55	15.46	15.73	15.73	23.71
Depth to Water (ft-TOC)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

Notes:
ft-TOC - Feet below top of outer casing
ft bgs - Feet from below ground surface
(1) - Relative to mean sea level.
(2) - Measured prior to purging. Well volume calculations based on this measurement.
(3) - Sample Data collected using a YSI.
mg/L = Milligrams per Liter
mV = Milli volts
um/S = Micro Siemens
NM = Not Measured
^ = Recorded data after well recharged.
** = Well was damaged

Appendix G
Summary of Groundwater Sampling Well Investigation
2004 - 2006
Beazer/INDSPEC Properties
Petrolia, Pennsylvania

Well Number **Date**	**PS-10** **5/17/2006**	**PS-11** **5/17/2006**	**Seep Near PS-7** **5/17/2006**	**GWP-5** **5/17/2006**	**GWP-6** **5/17/2006**	**GWP-7** **5/17/2006**	**MW-61A** **5/17/2006**	**MW-71A** **5/17/2006**	**MW-72A** **5/17/2006**	**MW-73A** **5/17/2006**	**MW-74A** **5/17/2006**	**PZ-2** **5/17/2006**	**WP-01** **5/17/2006**	**WP-02** **5/17/2006**
Temperature (Deg. F)	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Weather Conditions	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain
PVC Casing Elevations (ft-TOC) (1)	1160.13	1164.46	NA	1167.27	1164.89	1163.77	1171.23	1166.38	1166.81	1162.66	1164.9	1166.93	1169.1	1168.7
Depth to Water (ft-bgs)	0.8	3.66	NA	4.22	3.77	2.71	6.86	Artesian	4.21	1.56	3.27	2.28	3.85	3.7
Groundwater Elevation	1159.33	1160.8	NA	1163.05	NM	1161.06	1164.37	#VALUE!	1162.6	1161.1	1161.63	1164.65	1165.25	1165
PVC Casing Diameter (inches)	15	15	NA	2	2	2	2	2	2	2	2	1	1	1
Depth to Product (ft -TOC)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NA	NA
Product Thickness (ft)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NA	NA
Screened Interval (ft)	No Screen	No Screen	NA	NA	NA	NA	1 to 16	4 to 19	5 to 15	4 to 14	5 to 15	NA	5.5 to 15.5	6 to 16
Total Depth of Well (ft-bgs) (2)	15.89	7.91	NA	4.78	6.44	NA	16	19	15	14	15	7.95	15.5	16
Volume of Water in Well (gallons)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Total Groundwater to be Purged (gallons)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
PRE PURGE DATA														
Time Start	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Surface via YSI	Surface via YSI	Surface via YSI
Time Complete	8.18	6.53	9.87	7.15	9.67	9.42	7.22	6.63	7.19	9.57	9.87	8.03	7.01	7.11
Method (pump or bail)	321	4649	10876	3051	17923	9284	297	554	744	15453	10414	1482	423	517
Rate (gallons/minute)	7.64	-0.53	2.95	0.74	0.81	1.16	0.49	0.52	1.28	1.65	0.25	6.66	4.23	2.67
Actual Volume Purged (gallons)	-5.6	-302.1	-266.3	-111.9	-405.4	-263.3	-151.8	-94.6	-128.4	-209.9	-264.9	-24.3	-63.7	-108.9
PID	13.6	21.8	16.3	16.9	16.4	16.2	13.5	15.8	16.3	17.1	22.6	14.9	13.0	13.3
pH (std. units)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Specific Conductance (um/S)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Dissolved Oxygen (mg/L)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ORP (mV)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Temperature (Deg. C)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
POST PURGE DATA														
pH (std. units)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Specific Conductance (um/S)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Dissolved Oxygen (mg/L)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ORP (mV)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Temperature (Deg. C)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
SAMPLING DATA														
Sample Time	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Method	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Downhole via YSI	Surface via YSI	Surface via YSI	Surface via YSI
pH (std. units)	8.18	6.53	9.87	7.15	9.67	9.42	7.22	6.63	7.19	9.57	9.87	8.03	7.01	7.11
Specific Conductance (um/S)	321	4649	10876	3051	17923	9284	297	554	744	15453	10414	1482	423	517
Dissolved Oxygen (mg/L)	7.64	-0.53	2.95	0.74	0.81	1.16	0.49	0.52	1.28	1.65	0.25	6.66	4.23	2.67
ORP (mV)	-5.6	-302.1	-266.3	-111.9	-405.4	-263.3	-151.8	-94.6	-128.4	-209.9	-264.9	-24.3	-63.7	-108.9
Temperature (Deg. C)	13.56	21.78	16.31	16.89	16.37	16.24	13.46	15.8	16.34	17.07	22.62	14.92	13	13.27
Depth to Water (ft-TOC)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

Well Number **Date**	**WP-04** **5/17/2006**	**WP-05** **5/17/2006**	**WP-06** **5/17/2006**	**WP-07** **5/17/2006**	**WP-08** **5/17/2006**	**WP-09** **5/17/2006**	**WP-10** **5/17/2006**	**WP-11** **5/17/2006**	**WP-12** **5/17/2006**	**WP-13** **5/17/2006**	**WP-14** **5/17/2006**
Temperature (Deg. F)	65	65	65	65	65	65	65	65	65	65	65
Weather Conditions	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain	Cloudy/Rain
PVC Casing Elevations (ft-TOC) (1)	1167.1	1166.88	1166.88	1166.78	1166.86	1166.8	1167	1166.99	1167.01	1166.78	1166.8
Depth to Water (ft-bgs)	1.09	4.36	4.33	3.2	4.55	3.92	4.6	5.55	4.51	5.29	5.08
Groundwater Elevation	1166.01	1162.52	1162.55	1163.58	1162.31	1162.88	1162.4	1161.44	1162.5	1161.49	1161.72
PVC Casing Diameter (inches)	1	1	1	1	1	1	1	1	1	1	1
Depth to Product (ft -TOC)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Product Thickness (ft)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Screened Interval (ft)	3 to 18	2.6 to 9.6	2.3 to 10.3	6.5-11.5	38819.00	3-13	2.2-7.2	1.6-8.6	5-15	4-19	6-16
Total Depth of Well (ft-bgs) (2)	18	9.6	10.3	11.5	10.06	11.5	7.15	8.49	8.75	8.46	7.69
Volume of Water in Well (gallons)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Total Groundwater to be Purged (gallons)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
PRE PURGE DATA											
Time Start	Surface via YSI	Surface via YSI	Surface via YSI	Surface via YSI	Surface via YSI	Surface via YSI	Surface via YSI	Surface via YSI	Surface via YSI	Surface via YSI	Surface via YSI
Time Complete	9.87	12.08	11.65	7.35	7.82	8.84	9.31	12.22	11.57	12.16	10.45
Method (pump or bail)	15447	40026	40458	995	1634	2140	8916	33472	7266	26937	4276
Rate (gallons/minute)	1.53	1.2	2.28	3.34	3.62	4.7	4.61	0.94	3.46	2.55	2.74
Actual Volume Purged (gallons)	-367.3	-441.8	-460.7	-150.1	-162.8	-211.3	8916.0	-483.8	-278.6	-413.5	-229.4
PID	20.5	21.0	22.7	16.1	14.9	14.2	14.6	15.1	15.1	14.9	18.1
pH (std. units)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Specific Conductance (um/S)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Dissolved Oxygen (mg/L)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ORP (mV)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Temperature (Deg. C)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
POST PURGE DATA											
pH (std. units)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Specific Conductance (um/S)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Dissolved Oxygen (mg/L)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ORP (mV)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Temperature (Deg. C)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
SAMPLING DATA											
Sample Time	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Method	Surface via YSI	Surface via YSI	Surface via YSI	Surface via YSI	Surface via YSI	Surface via YSI	Surface via YSI	Surface via YSI	Surface via YSI	Surface via YSI	Surface via YSI
pH (std. units)	9.87	12.08	11.65	7.35	7.82	8.84	9.31	12.22	11.57	12.16	10.45
Specific Conductance (um/S)	15447	40026	40458	995	1634	2140	8916	33472	7266	26937	4276
Dissolved Oxygen (mg/L)	1.53	1.2	2.28	3.34	3.62	4.7	4.61	0.94	3.46	2.55	2.74
ORP (mV)	-367.3	-441.8	-460.7	-150.1	-162.8	-211.3	8916	-483.8	-278.6	-413.5	-229.4
Temperature (Deg. C)	20.45	21.03	22.74	16.08	14.85	14.2	14.64	15.11	15.13	14.88	18.06
Depth to Water (ft-TOC)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

Notes:
ft-TOC - Feet below top of outer casing
ft bgs - Feet from below ground surface
(1) - Relative to mean sea level.
(2) - Measured prior to purging. Well volume calculations based on this measurement.
(3) - Sample Data collected using a YSI.
mg/L = Milligrams per Liter
mV = Milli volts
um/S = Micro Siemens
NM = Not Measured
^ = Recorded data after well recharged.
** = Well was damaged