



TRANSMITTAL

Mr. Brian Gasiorowski
Dir. of Land & Environment - Great Lakes Region
LafargeHolcim
20 Oak Hollow
Suite 260
Southfield, MI 48033

April 5, 2016

Re: Chelsea Plant – 2016 First Quarter Water Level Data

Project No. G06088B

- FOR REVIEW
- FOR YOUR USE
- AS REQUESTED

Sent By: Todd C. Campbell, CPG/lkj



COPIES	DATE	DESCRIPTION
1	04/04/2016	Surface Water (Clear Lake) Hydrograph (pdf® format)
1	04/04/2016	Monitoring Well and Surface Water Hydrograph (pdf® format)
1	04/04/2016	Table 1 – Groundwater and Surface Water Elevation Data (pdf® format)

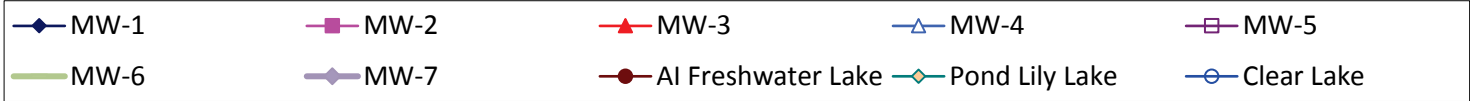
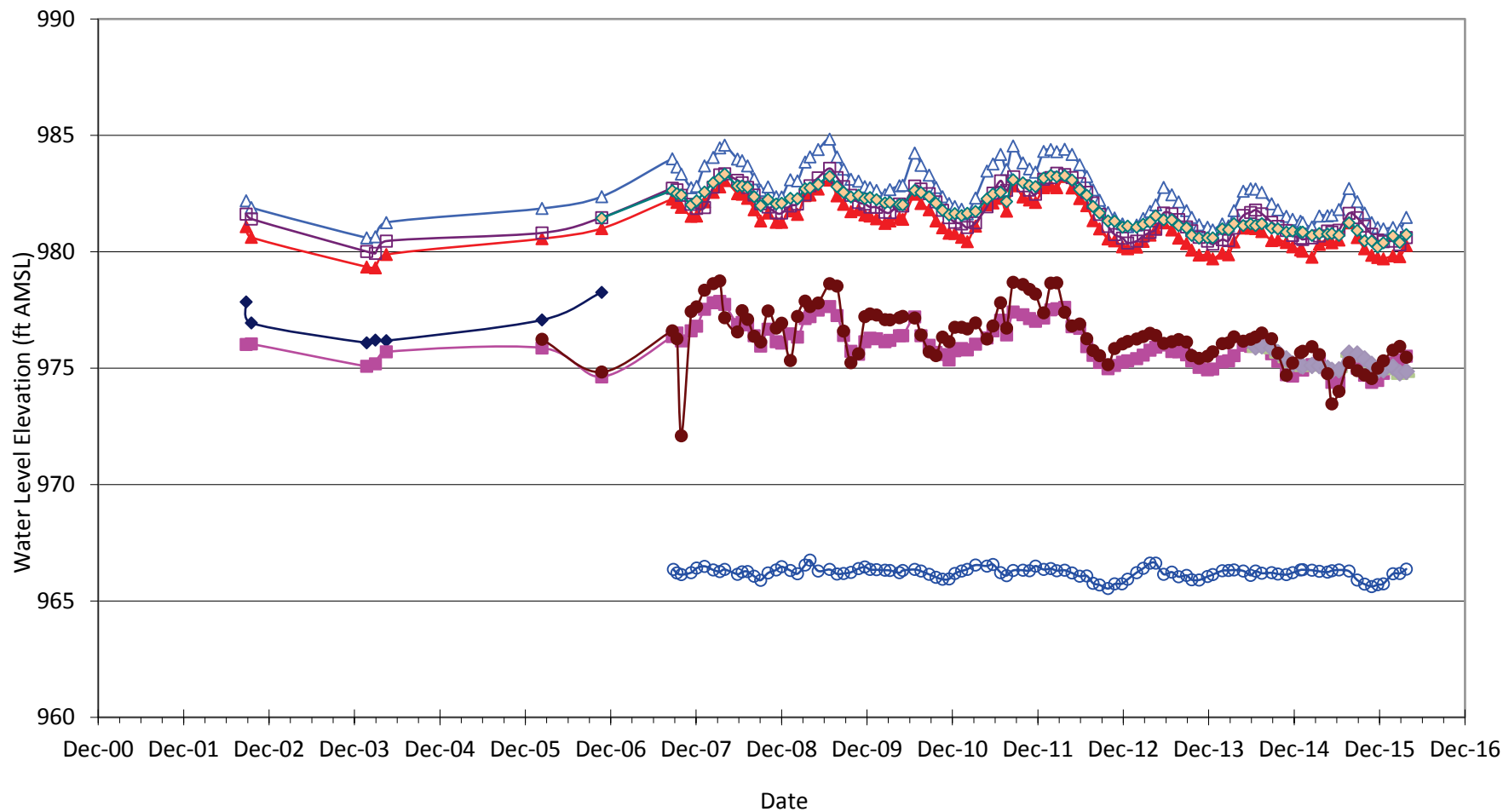
COMMENTS

As requested, attached is your 2016 First Quarter water level data. If you have any questions or require additional information, please contact me at 269.544.6948 or tccampbell@ftch.com.

By email

cc/att: Mr. Randi Wille - Aggregate Industries US
Mr. David Baker - LafargeHolcim

Monitoring Well & Surface Water Hydrograph Aggregate Industries, Inc. - Chelsea Plant Part 301 Permit No. 12-38-0010-P



Monitoring Well & Surface Water Hydrograph
Aggregate Industries, Inc. - Chelsea Plant
Part 301 Permit No. 12-38-0010-P

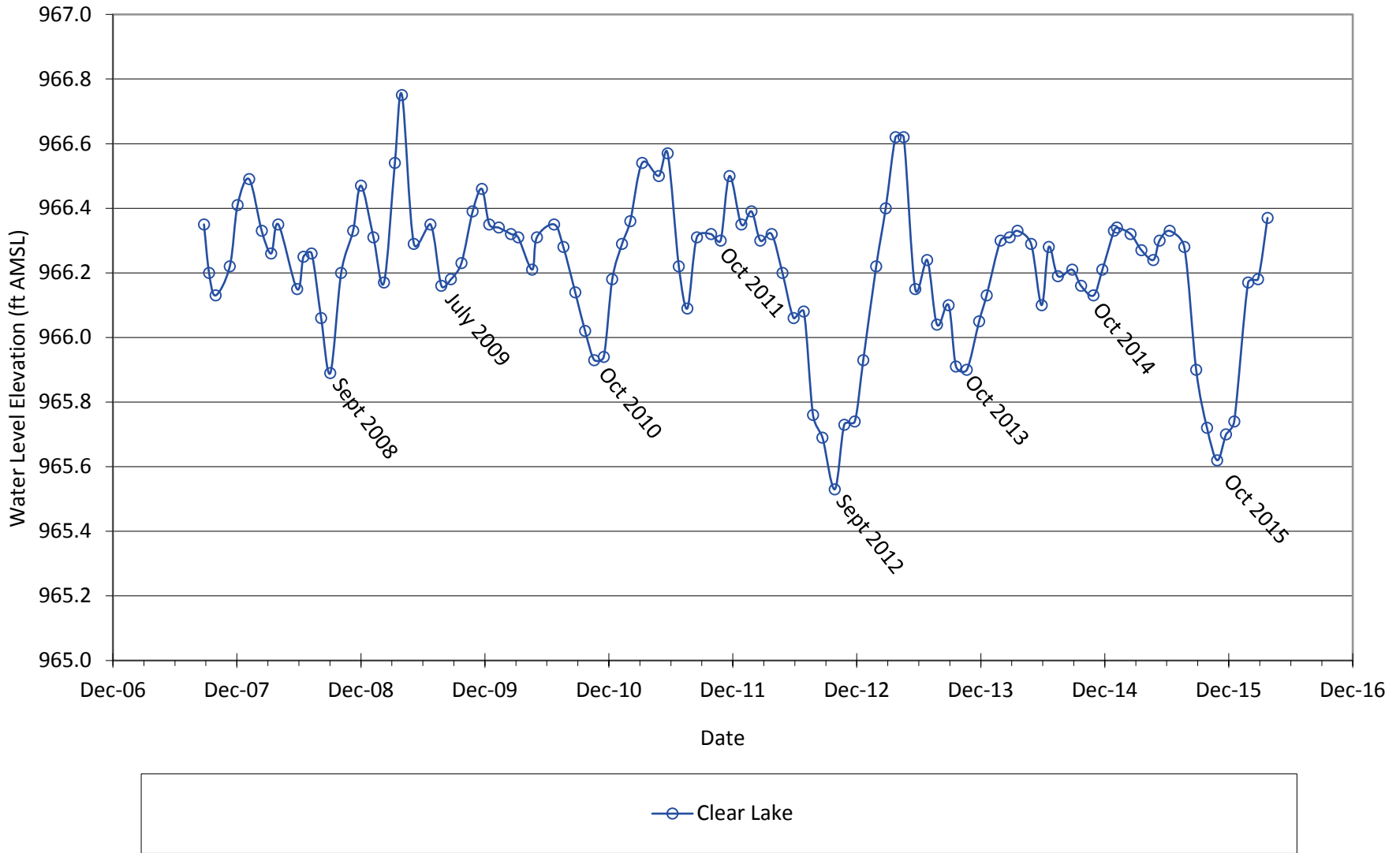


Table 1 - Groundwater and Surface Water Elevation Data - Part 301 Permit No. 12-38-0010-P

Aggregate Industries -- Chelsea Operations
 Waterloo Township, Jackson County, Michigan

Location	Coordinates		Well Depth (ft bgs)	Screen Depth (ft bgs)	Top of Casing (ft amsl)	Date	Surface Water Elevation (ft amsl)	Depth to Water (ft bgs)	Static Water Level Elevation (ft amsl)	Comments						
	Northing	Easting														
MW-1	N42.32649	W084.13039	25	15-25	987.90	08/29/02		10.06	977.84	ASTI						
						09/20/02		10.96	976.94	ASTI						
						01/26/04		11.81	976.09	ASTI						
						03/03/04		11.69	976.21	ASTI						
						04/19/04		11.72	976.18	ASTI						
						02/13/06		10.83	977.07	FTC&H Begins Monitoring						
						10/26/06		9.64	978.26							
						11/02/06				Well Abandoned						
						MW-2	N42.32887	W084.13489	30	20-30	990.10	08/29/02		14.08	976.02	ASTI
												09/20/02		14.06	976.04	ASTI
01/26/04		15.02	975.08	ASTI												
03/03/04		14.91	975.19	ASTI												
04/19/04		14.40	975.70	ASTI												
02/13/06		14.23	975.87	FTC&H Begins Monitoring												
10/26/06		15.47	974.63													
08/24/07		13.74	976.36													
09/13/07		13.59	976.51													
10/02/07		13.93	976.17													
11/13/07		13.50	976.60													
12/06/07		13.30	976.80													
01/09/08		12.57	977.53													
02/15/08		12.29	977.81													
03/14/08		12.23	977.87													
04/04/08		12.36	977.74													
05/29/08		13.23	976.87													
06/17/08		13.13	976.97													
07/11/08		13.24	976.86													
08/08/08		13.71	976.39													
09/04/08		14.15	975.95													
10/06/08		13.42	976.68	Large/many rain events in September 2008												
11/10/08		13.97	976.13													
12/03/08		14.02	976.08													
01/09/09		13.62	976.48													
02/09/09		13.77	976.33													
03/13/09		12.97	977.13													
04/03/09		12.89	977.21													
05/08/09		12.60	977.50													
06/26/09		12.45	977.65													
07/28/09		12.84	977.26													
08/25/09		13.70	976.40													
09/25/09		14.37	975.73													
10/28/09		14.50	975.60													
11/24/09		13.96	976.14													
12/16/09		13.81	976.29													
01/13/10		13.83	976.27													
02/18/10		13.97	976.13													
03/11/10		13.91	976.19													
04/21/10		13.71	976.39													
05/05/10		13.71	976.39													
06/25/10		12.90	977.20	Large/many rain events in June 2010												
07/22/10		13.71	976.39													
08/26/10		14.12	975.98													
09/24/10		14.42	975.68													
10/21/10		14.52	975.58													
11/18/10		14.75	975.35													
12/13/10		14.35	975.75													
01/11/11		14.26	975.84													
02/04/11		14.31	975.79													
03/11/11		14.07	976.03													
04/29/11		13.80	976.30													
05/25/11		13.50	976.60													
06/27/11		13.04	977.06													
07/22/11		13.67	976.43													
08/19/11		12.69	977.41													
09/30/11		12.80	977.30													
10/28/11		12.97	977.13													
11/23/11		13.09	977.01													
12/28/11		12.95	977.15													
01/27/12		12.59	977.51													
02/22/12		12.55	977.55													
03/26/12		12.49	977.61													
04/27/12		13.32	976.78													
05/30/12		13.39	976.71													
06/29/12		14.18	975.92													
07/26/12		14.55	975.55													
08/23/12		14.85	975.25													
09/28/12		15.12	974.98													
10/26/12		14.98	975.12													
11/29/12		14.84	975.26													
12/21/12		14.79	975.31													
01/28/13		14.69	975.41													
02/25/13		14.54	975.56													
03/26/13		14.33	975.77													
04/19/13		14.20	975.90													
05/23/13		14.11	975.99													
06/27/13		14.39	975.71													
07/26/13		14.40	975.70													
08/29/13		14.53	975.57													
09/20/13		14.79	975.31													
10/22/13		15.07	975.03													
11/27/13		15.17	974.93													
12/19/13		15.14	974.96													
01/29/14		14.83	975.27													



Table 1 - Groundwater and Surface Water Elevation Data - Part 301 Permit No. 12-38-0010-P

Aggregate Industries -- Chelsea Operations
Waterloo Township, Jackson County, Michigan

Location	Coordinates		Well Depth (ft bgs)	Screen Depth (ft bgs)	Top of Casing (ft amsl)	Date	Surface Water Elevation (ft amsl)	Depth to Water (ft bgs)	Static Water Level Elevation (ft amsl)	Comments
	Northing	Easting								
						01/26/04	37.19	980.01	ASTI	
						03/03/04	37.27	979.93	ASTI	
						04/19/04	36.74	980.46	ASTI	
						02/13/06	36.39	980.81	FTC&H Begins Monitoring	
						10/26/06	35.73	981.47		
						08/24/07	34.47	982.73		
						09/13/07	34.54	982.66		
						10/02/07	34.78	982.42		
						11/13/07	35.16	982.04		
						12/06/07	35.34	981.86		
						01/09/08	35.30	981.90		
						02/15/08	34.42	982.78		
						03/14/08	33.90	983.30		
						04/04/08	33.85	983.35		
						05/29/08	34.13	983.07		
						06/17/08	34.23	982.97		
						07/11/08	34.44	982.76		
						08/08/08	34.76	982.44		
						09/04/08	35.14	982.06		
						10/06/08	35.28	981.92	Large/many rain events in September 2008	
						11/10/08	35.53	981.67		
						12/03/08	35.54	981.66		
						01/09/09	35.23	981.97		
						02/09/09	35.15	982.05		
						03/13/09	34.75	982.45		
						04/03/09	34.37	982.83		
						05/08/09	34.02	983.18		
						06/26/09	33.62	983.58		
						07/28/09	34.01	983.19		
						08/25/09	34.40	982.80		
						09/25/09	34.78	982.42		
						10/28/09	35.08	982.12		
						11/24/09	35.15	982.05		
						12/16/09	35.28	981.92		
						01/13/10	35.29	981.91		
						02/18/10	35.50	981.70		
						03/11/10	35.51	981.69		
						04/21/10	35.15	982.05		
						05/05/10	35.23	981.97		
						06/25/10	34.38	982.82	Large/many rain events in June 2010	
						07/22/10	34.50	982.70		
						08/26/10	34.71	982.49		
						09/24/10	35.06	982.14		
						10/21/10	35.42	981.78		
						11/18/10	35.73	981.47		
						12/13/10	35.93	981.27		
						01/11/11	36.00	981.20		
						02/04/11	36.16	981.04		
						03/11/11	35.96	981.24		
						04/29/11	35.27	981.93		
						05/25/11	34.68	982.52		
						06/27/11	34.15	983.05		
						07/22/11	34.56	982.64		
						08/22/11	33.98	983.22		
						09/30/11	34.37	982.83		
						10/28/11	34.55	982.65		
						11/23/11	34.73	982.47		
						12/28/11	34.08	983.12		
						01/27/12	34.01	983.19		
						02/22/12	33.83	983.37		
						03/26/12	33.89	983.31		
						04/27/12	34.01	983.19		
						05/30/12	34.27	982.93		
						06/29/12	34.64	982.56		
						07/26/12	35.10	982.10		
						08/23/12	35.59	981.61		
						09/28/12	36.11	981.09		
						10/26/12	36.46	980.74		
						11/29/12	36.61	980.59		
						12/21/12	36.82	980.38		
						01/28/13	36.74	980.46		
						02/25/13	36.52	980.68		
						03/26/13	36.37	980.83		
						04/19/13	36.23	980.97		
						05/23/13	35.54	981.66		
						06/27/13	35.57	981.63		
						07/26/13	35.82	981.38		
						08/29/13	36.13	981.07		
						09/20/13	36.30	980.90		
						10/22/13	36.58	980.62		
						11/27/13	36.74	980.46		
						12/19/13	36.87	980.33		
						01/29/14	36.68	980.52		
						02/25/14	36.72	980.48		
						03/20/14	36.18	981.02		
						04/29/14	35.64	981.56		
						05/30/14	35.51	981.69		
						06/20/14	35.41	981.79		
						07/17/14	35.57	981.63		
						08/28/14	35.93	981.27		
						09/23/14	36.11	981.09		
						10/30/14	36.28	980.92		
						11/25/14	36.50	980.70		
						12/29/14	36.61	980.59		

MW-5 (continued)



Table 1 - Groundwater and Surface Water Elevation Data - Part 301 Permit No. 12-38-0010-P

Aggregate Industries -- Chelsea Operations
Waterloo Township, Jackson County, Michigan

Location	Coordinates		Well Depth (ft bgs)	Screen Depth (ft bgs)	Top of Casing (ft amsl)	Date	Surface Water Elevation (ft amsl)	Depth to Water (ft bgs)	Static Water Level Elevation (ft amsl)	Comments
	Northing	Eastings								
Freshwater Lake*-W (cont.)						11/13/07	977.43			
						12/06/07	977.63			
						01/09/08	978.35			
						02/15/08	978.63			
						03/14/08	978.75			
						04/04/08	977.17			
						05/29/08	976.56			
						06/17/08	977.47			
						07/11/08	977.10			
						08/08/08	976.37			
						09/04/08	976.12			
						10/06/08	977.46			Large/many rain events in September 2008
						11/10/08	976.72			
						12/03/08	976.93			
						01/09/09	975.33			
						02/09/09	977.23			
						03/13/09	977.88			
						04/03/09	977.65			
						05/08/09	977.80			
						06/26/09	978.63			
						07/28/09	978.52			
						08/25/09	976.59			
						09/25/09	975.23			
						10/28/09	975.62			
						11/24/09	977.21			
						12/16/09	977.33			
						01/13/10	977.28			
						02/18/10	977.09			
						03/11/10	977.07			
						04/21/10	977.17			
						05/05/10	977.22			
						06/25/10	977.16			Large/many rain events in June 2010
						07/22/10	976.43			
						08/26/10	975.70			
						09/24/10	975.54			
						10/21/10	976.33			
						11/18/10	976.13			
						12/13/10	976.76			
						01/11/11	976.76			
						02/04/11	976.69			
						03/11/11	976.94			
						04/29/11	976.25			
						05/25/11	976.81			
						06/27/11	977.81			
						07/22/11	976.72			
						08/19/11	978.69			
						09/30/11	978.60			
						10/28/11	978.38			
						11/23/11	978.18			
						12/28/11	977.38			
					01/27/12	978.65				
					02/22/12	978.67				
					03/26/12	977.40			Pump on, but no water returning from sediment ponds	
					04/27/12	976.82				
					05/30/12	976.90				
					06/29/12	976.26				
					07/26/12	975.76				
					08/23/12	975.54				
					09/28/12	975.15				
					10/26/12	975.84				
					11/29/12	976.04				
					12/21/12	976.15				
					01/28/13	976.25				
					02/25/13	976.36				
					03/26/13	976.50				
					04/19/13	976.41				
					05/23/13	976.07				
					06/27/13	976.13				
					07/26/13	976.23				
					08/29/13	976.12				
					09/20/13	975.54				
					10/22/13	975.42				
					11/27/13	975.51				
					12/19/13	975.70				
					01/29/14	976.05				
					02/25/14	976.09				
					03/20/14	976.35				
					04/29/14	976.16				
					05/30/14	976.24				
					06/20/14	976.34				
					07/17/14	976.51				
					08/28/14	976.27				
					09/23/14	975.64				
					10/30/14	974.70				
					11/25/14	975.22				
					12/29/14	975.67				
					01/07/15	975.72				
					02/16/15	975.92				
					03/20/15	975.59				
					04/24/15	974.77				
					05/12/15	973.46				
					06/11/15	974.00				
					07/24/15	975.24				
					08/28/15	974.90				



Table 1 - Groundwater and Surface Water Elevation Data - Part 301 Permit No. 12-38-0010-P
 Aggregate Industries -- Chelsea Operations
 Waterloo Township, Jackson County, Michigan

Location	Coordinates		Well Depth (ft bgs)	Screen Depth (ft bgs)	Top of Casing (ft amsl)	Date	Surface Water Elevation (ft amsl)	Depth to Water (ft bgs)	Static Water Level Elevation (ft amsl)	Comments
	Northing	Easting								
						09/29/15	974.71			
						10/29/15	974.55			
						11/24/15	975.00			
						12/18/15	975.32			
						01/28/16	975.77			
						02/26/16	975.94			
						03/25/16	975.47			
Pond Lily Lake	N42.31729	W084.14114				10/26/06	981.44			Elevation Surveyed from MW-3, GPS accuracy 19 ft
						08/24/07	982.63			Elevation Surveyed from BM-2
						09/13/07	982.50			
						10/02/07	982.44			
						11/13/07	982.02			
						12/06/07	982.19			
						01/09/08	982.57			
						02/15/08	982.97			
						03/14/08	983.16			
						04/04/08	983.34			
						05/29/08	982.82			
						06/17/08	982.82			
						07/11/08	982.78			
						08/08/08	982.37			
						Pond Lily Lake (cont.)				
10/06/08	982.25			Large/many rain events in September 2008						
11/10/08	982.05									
12/03/08	982.08									
01/09/09	982.30									
02/09/09	982.28									
03/13/09	982.71									
04/03/09	982.74									
05/08/09	982.89									
06/26/09	983.25									
07/28/09	982.80									
08/25/09	982.56									
09/25/09	982.35									
10/28/09	982.43									
11/24/09	982.28									
12/16/09	982.33									
01/13/10	982.24									
02/18/10	982.10									
03/11/10	982.12									
04/21/10	982.03									
05/05/10	982.02									
06/25/10	982.64			Large/many rain events in June 2010						
07/22/10	982.54									
08/26/10	982.37									
09/24/10	982.08									
10/21/10	981.78									
11/18/10	981.58									
12/13/10	981.64									
01/11/11	981.56									
02/04/11	981.65									
03/11/11	981.73									
04/29/11	982.27									
05/25/11	982.48									
06/27/11	982.55									
07/22/11	982.16									
08/19/11	983.09									
09/30/11	982.96									
10/28/11	982.85									
11/23/11	982.80									
12/28/11	983.16									
01/27/12	983.28									
02/22/12	983.22									
03/26/12	983.27									
04/27/12	983.08									
05/30/12	982.67									
06/29/12	982.43									
07/26/12	981.95									
08/23/12	981.66									
09/28/12	981.32									
10/26/12	981.31									
11/29/12	981.06									
12/21/12	981.10									
01/28/13	981.06									
02/25/13	981.18									
03/26/13	981.28									
04/19/13	981.55									
05/23/13	981.37									
06/27/13	981.37									
07/26/13	981.12									
08/29/13	981.03									
09/20/13	980.70									
10/22/13	980.59									
11/27/13	980.60									



Table 1 - Groundwater and Surface Water Elevation Data - Part 301 Permit No. 12-38-0010-P

Aggregate Industries - Chelsea Operations
 Waterloo Township, Jackson County, Michigan

Location	Coordinates		Well Depth (ft bgs)	Screen Depth (ft bgs)	Top of Casing (ft amsl)	Date	Surface Water Elevation (ft amsl)	Depth to Water (ft bgs)	Static Water Level Elevation (ft amsl)	Comments
	Northing	Easting								
						12/19/13	980.60			
						01/29/14	980.99			
						02/25/14	980.95			
						03/20/14	981.21			
						04/29/14	981.12			
						05/30/14	981.20			
						06/20/14	981.13			
						07/17/14	981.21			
						08/28/14	981.02			
						09/23/14	980.99			
						10/30/14	980.85			
						11/25/14	980.89			
						12/29/14	980.84			
						01/07/15	980.84			
						02/16/15	980.70			
						03/20/15	980.78			
						04/24/15	980.76			
						05/12/15	980.79			
						06/11/15	980.70			
						07/24/15	981.24			
						08/28/15	980.91			
						09/29/15	980.47			
						10/29/15	980.46			
						11/24/15	980.20			
						12/18/15	980.39			
						01/28/16	980.68			
						02/26/16	980.40			
03/25/16	980.74									
Clear Lake	N42.33242	W084.15166				08/29/07	966.35		Elevation Surveyed from BM-3	
						09/13/07	966.20	Note: USGS Topo shows lake elevation at 968 ft amsl		
						10/02/07	966.13			
						11/13/07	966.22			
						12/06/07	966.41			
						01/09/08	966.49			
						02/15/08	966.33			
						03/14/08	966.26			
						04/04/08	966.35			
						05/29/08	966.15	Elevation Surveyed from BM-4		
						06/17/08	966.25			
						07/11/08	966.26			
						08/08/08	966.06			
	09/04/08	965.89								
	10/06/08	966.20				Large/many rain events in September 2008				
	11/10/08	966.33								
	12/03/08	966.47								
	01/09/09	966.31								
	02/09/09	966.17								
	03/13/09	966.54								
	04/03/09	966.75								
	05/08/09	966.29								
	06/26/09	966.35								
	07/28/09	966.16								
	08/25/09	966.18								
	09/25/09	966.23								
	10/28/09	966.39								
11/24/09	966.46									
12/16/09	966.35									
01/13/10	966.34									
02/18/10	966.32									
03/11/10	966.31									
04/21/10	966.21									
05/05/10	966.31	Large/many rain events in June 2010								
Clear Lake (cont.)						06/25/10	966.35			
						07/22/10	966.28			
						08/26/10	966.14			
						09/24/10	966.02			
						10/21/10	965.93			
						11/18/10	965.94			
						12/13/10	966.18			
						01/11/11	966.29			
						02/04/11	966.36			
						03/11/11	966.54			
						04/29/11	966.50			
						05/25/11	966.57			
						06/27/11	966.22			
						07/22/11	966.09			
08/19/11	966.31									
09/30/11	966.32									
10/28/11	966.30									
11/23/11	966.50									
12/28/11	966.35									
01/27/12	966.39									
02/22/12	966.30									



