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Canoe Place Inn

Site Characterization Report

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EXECUTIVE SUMMARY

This Report presents groundwater characterization of the Canoe Place Inn site and design of the site's Permeable Reactive Barrier (PRB) based upon the site specific data collected to date as described herein.

The CPI site specific data began in August 2015 and continued through March 2016 to enable an enhanced understanding of site groundwater conditions with seasonal changes. Sufficient data has been gathered from nearby US Geological Survey wells to enable projections on seasonal influences. Given that rainfall amounts for the past years has been less than long term averages and groundwater levels in August would be at the lowest levels expected during a year, it is our opinion that the PRB design and projections on nitrogen removal levels are conservative.

Based upon the eight (8) wells installed at the CPI site and periodic and continuous groundwater elevation measurements, groundwater at the CPI site generally flows in an east to southeast direction. Tidal influence has been measured and at 0.2 feet influence is considered to have an inconsequential impact on groundwater flow patterns and PRB system design.

For each of the eight wells, groundwater nitrogen quality was measured at up to 5 elevations every three feet to 15 feet into the water table – which is approximately 10 feet below the surface at the CPI property boundary.

The results of laboratory sieve analysis of site soils at the 5 different elevations in the groundwater for 4 wells were used to estimate groundwater hydraulic conductivity with along with measured groundwater slopes were used to estimate groundwater velocities. It is our opinion that groundwater slopes are lowest during the August 2015 time period due to seasonal and lower than normal rainfall amounts. Consequently estimated groundwater velocities are believed to be conservative.

Based upon groundwater flow paths, estimated velocities and proposed locations of CPI site drainfields, a PRB is proposed to be installed at the CPI site along the NE boundary of the CPI site. A 200 foot long PRB is proposed to capture the drainfield plume and groundwater traversing the site in that area. Groundwater flow computer simulations have been performed using the site characterization data as part of the PRB final design process to properly locate the PRB.

Nitrogen removal estimates associated with the PRB layout have been made based upon the site characterization data collected to date. Based upon the PRB design, the PRB will remove significantly more than the Master Plan obligation to remove 94% of wastewater nitrogen discharges. At an annual average wastewater flow of 5,000 gpd, 138% of wastewater nitrogen is projected to be removed.

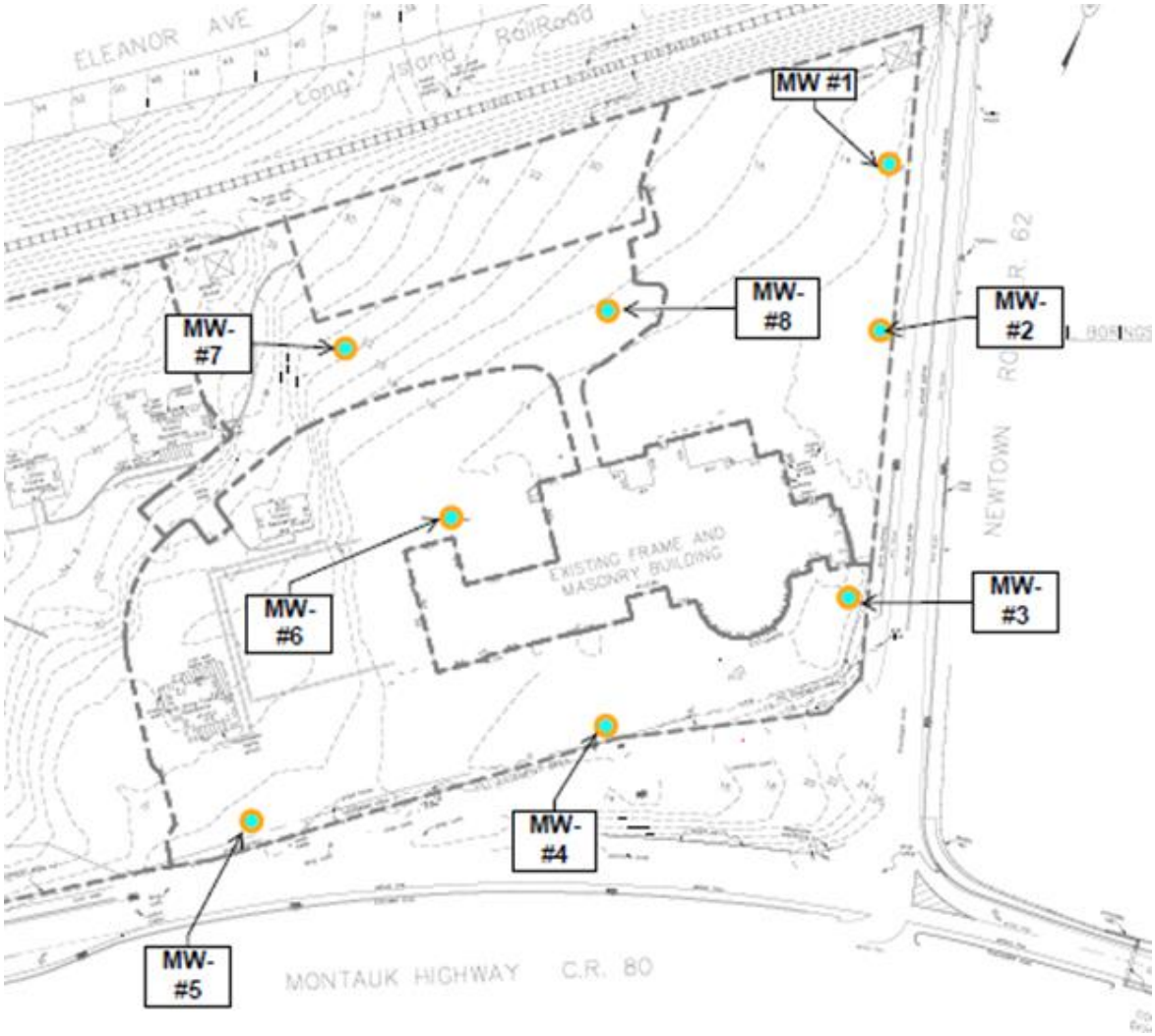
1 PROJECT OVERVIEW

The purpose of this Report is to provide groundwater and aquifer characterization of the Canoe Place Inn (CPI) property to support the engineering of the CPI wastewater and nitrogen management system in which a permeable reactive barrier (PRB) will be used to remove wastewater and groundwater nitrogen. Data will also establish baseline conditions for determination of beneficial impact of the permeable reactive barrier (PRB) being engineered for nitrogen removal. Site characterization consists primarily of determining groundwater flow direction, rate and quality. That information will be used for locating and sizing of the permeable reactive barrier that will be removing nitrogen from the property's wastewater discharge and some of the groundwater traversing the site that contains nitrogen from upgradient properties.

CPI site maps and location of the eight (8) monitoring wells that have been installed on the CPI property are presented on Figures 1-1 and 1-2.

Figure 1-1 Groundwater Monitoring Well Locations on Aerial Photograph

Figure 1-2 Groundwater Monitoring Well Locations on Topographic Map



A summary of the CPI site characterization study data collection program performed on August 21, 2015 is presented on Table 1-1. Additional groundwater elevations were measured on September 18, 2015. A second round of limited groundwater quality sampling was performed on September 29, 2015.

Table 1-1 CPI Groundwater & Soils Monitoring Program

Table 1-1 Groundwater & Soils Monitoring Program										
Groundwater & Soils Sampling Location						a	b	c	d	e
Sampling Location Depth Below GW Elevation (feet)						2	5	8	11	14
Monitoring Well #	Est. Surface Elevation + Sampling Riser (msl)	Est. Surface Elevation (msl)	Depth to GW (ft) (8-21-15)	GW Elevation (ft above msl) (8-21-15)	Transducer Locations	Approximate Sampling Location Depth (ft above/below msl)				
MW-1	14.5	11.9	13.03	1.47		-0.53	-3.53	-6.53	-9.53	-12.53
MW-2	13.9	11	12.5	1.4	✓	-0.60	-3.60	-6.60	-9.60	-12.60
MW-3	14.7	11.8	13.5	1.2		-0.80	-3.80	-6.80	-9.80	-12.80
MW-4	16.3	13.1	14.78	1.52	✓	-0.48	-3.48	-6.48	-9.48	-12.48
MW-5	20.6	17.7	18.88	1.72		-0.28	-3.28	-6.28	-9.28	-12.28
MW-6	17.1	13.9	15.5	1.6		-0.40	-3.40	-6.40	-9.40	-12.40
MW-7	24.2	21.3	22.5	1.7	✓	-0.30	-3.30	-6.30	-9.30	-12.30
MW-8	17.2	13.8	15.49	1.71	✓	-0.29	-3.29	-6.29	-9.29	-12.29

Groundwater Quality & Soils Sampling/Analysis Program - 1st Round							
1st Round of Sampling Locations							
Soils Sampling Location			✓	✓	✓	✓	✓
Solis Analysis Locations [1]			✓		✓		✓
Water Quality Sampling & Analysis Locations (all wells except MW-2)			✓		✓		✓
Water Quality Sampling & Analysis Locations (Well MW-2 only)			✓	✓	✓	✓	✓
(1) Soils samples not analyzd are to be stored for potential future analysis							
Water Quality Monitoring Constituents							
US EPA/NYSDEC Certified Laboratory Analysis (all wells except MW-2)	3 elevations / well		✓		✓		✓
TKN			✓		✓		✓
Ammonia-N			✓		✓		✓
NO_2 - N			✓		✓		✓
NO_3 -N			✓		✓		✓
US EPA/NYSDEC Certified Laboratory Analysis (MW-2 only)	5 elevations		✓	✓	✓	✓	✓
TKN			✓	✓	✓	✓	✓
Ammonia-N			✓	✓	✓	✓	✓
NO_2 - N			✓	✓	✓	✓	✓
NO_3 -N			✓	✓	✓	✓	✓
PO_4 - P			✓	✓	✓	✓	✓
Total Phosphorus			✓	✓	✓	✓	✓
Sulfate			✓	✓	✓	✓	✓
Chloride			✓	✓	✓	✓	✓
Total Dissolved Solids			✓	✓	✓	✓	✓

2 GROUNDWATER MONITORING

2.1 GROUNDWATER MONITORING WELLS INSTALLATION

On August 12 -14, 2015, eight groundwater monitoring wells were installed, with their locations surveyed, at the CPI property in the general locations as illustrated on the aerial photo of Figure 1-1 and topographic map of Figure 1-2. Depth of well, surface elevation, top of casing and groundwater depth/elevation data are presented on Table 2-1. Each monitoring well was installed with five sampling points at distinct depths into the water table, every 3 feet starting at 2 feet into the water table, as listed on Table 2-2. Well Boring logs are presented in Appendix B.

Table 2-1 Groundwater Well Depths & Locations

				Aug. 21, 2015				
Monitoring Well No.	Ground Surface Elevation	Casing Height	Top of Casing Elev.	Depth to GW from TOC	GW Elevation	Well Depth	Latitude	Longitude
MW-1	11.90	2.66	14.56	13.03	1.53	30.16	2°30'13.56"\	40°53'07.65"N
MW-2	11.00	2.90	13.90	12.47	1.43	29.20	2°30'09.82"\	40°53'09.81"N
MW-3	11.80	2.89	14.69	13.50	1.19	27.97	2°30'09.26"\	40°53'07.28"N
MW-4	13.10	2.93	16.03	14.78	1.25	28.65	2°30'10.51"\	40°53'06.13"N
MW-5	17.70	2.69	20.39	18.88	1.51	33.72	2°30'13.15"\	40°53'04.66"N
MW-6	13.90	3.19	17.09	15.50	1.59	30.00	2°30'12.36"\	40°53'06.89"N
MW-7	21.30	2.96	24.26	22.50	1.76	37.88	2°30'13.56"\	40°53'07.65"N
MW-8	13.80	3.32	17.12	15.49	1.63	30.50	2°30'11.75"\	40°53'07.93"N

Table 2-2 CPI Groundwater Sampling Depths/Elevations by Well

Canoe Place Inn Groundwater Sampling Locations - Depths / Elevations										
MW #	Sampling Location Depth Below Grade					Sampling Location - GW Elevation ft. above/below msl				
	5th Deepest	4th Deepest	3rd Deepest	2nd Deeper	1st Shallowest	5th Deepest	4th Deepest	3rd Deepest	2nd Deeper	1st Shallowest
	e	d	c	b	a	e	d	c	b	a
MW-1	29.16	26.16	23.16	20.16	17.16	-12.47	-9.47	-6.47	-3.47	-0.47
MW-2	28.2	25.2	22.2	19.2	16.2	-12.57	-9.57	-6.57	-3.57	-0.57
MW-3	26.97	23.97	20.97	17.97	14.97	-12.81	-9.81	-6.81	-3.81	-0.81
MW-4	27.65	24.65	21.65	18.65	15.65	-12.75	-9.75	-6.75	-3.75	-0.75
MW-5	32.72	29.72	26.72	23.72	20.72	-12.49	-9.49	-6.49	-3.49	-0.49
MW-6	29.0	26.0	23.0	20.0	17.0	-12.41	-9.41	-6.41	-3.41	-0.41
MW-7	36.88	33.88	30.88	27.88	24.88	-12.24	-9.24	-6.24	-3.24	-0.24
MW-8	29.5	26.5	23.5	20.5	17.5	-12.37	-9.37	-6.37	-3.37	-0.37

2.2 GROUNDWATER ELEVATIONS

2.2.1 Groundwater Elevations – Discrete Monitoring & GW Contours

Groundwater elevations have been measured at all of the wells on August 21, 2015, September 18, 2015 and September 29, 2015 with the results presented on Table 2-3 and illustrated on Figure 2-1. Table 2-4 presents the distance between the upgradient and downgradient wells and groundwater slope. Figure 2-2 shows the CPI adjacent areas and surface waters.

Table 2-3 CPI Groundwater Elevations by Well

	21-Aug-15	18-Sep-15	29-Sep-15	21-Dec-15	11-Mar-16
Well No.	GW Elevation - Aug. 21, 2015	GW Elevation - Sept. 18, 2015	GW Elevation - Sept. 29, 2015 noon	GW Elevation - Dec. 21, 2015	GW Elevation - March 11, 2016
MW-1	1.53	1.33	1.40	1.16	1.63
MW-2	1.43	1.10	1.23	1.18	1.53
MW-3	1.19	0.93	1.17	0.89	1.37
MW-4	1.25	1.05	1.32	0.96	1.46
MW-5	1.51	1.25	1.33	1.27	1.72
MW-6	1.59	1.17	1.29	2.00	1.79
MW-7	1.76	1.61	1.67	1.60	1.95
MW-8	1.63	1.37	1.49	1.39	1.78
All measurements are in feet.					

Figure 2-1 Groundwater Elevations and Contour Map

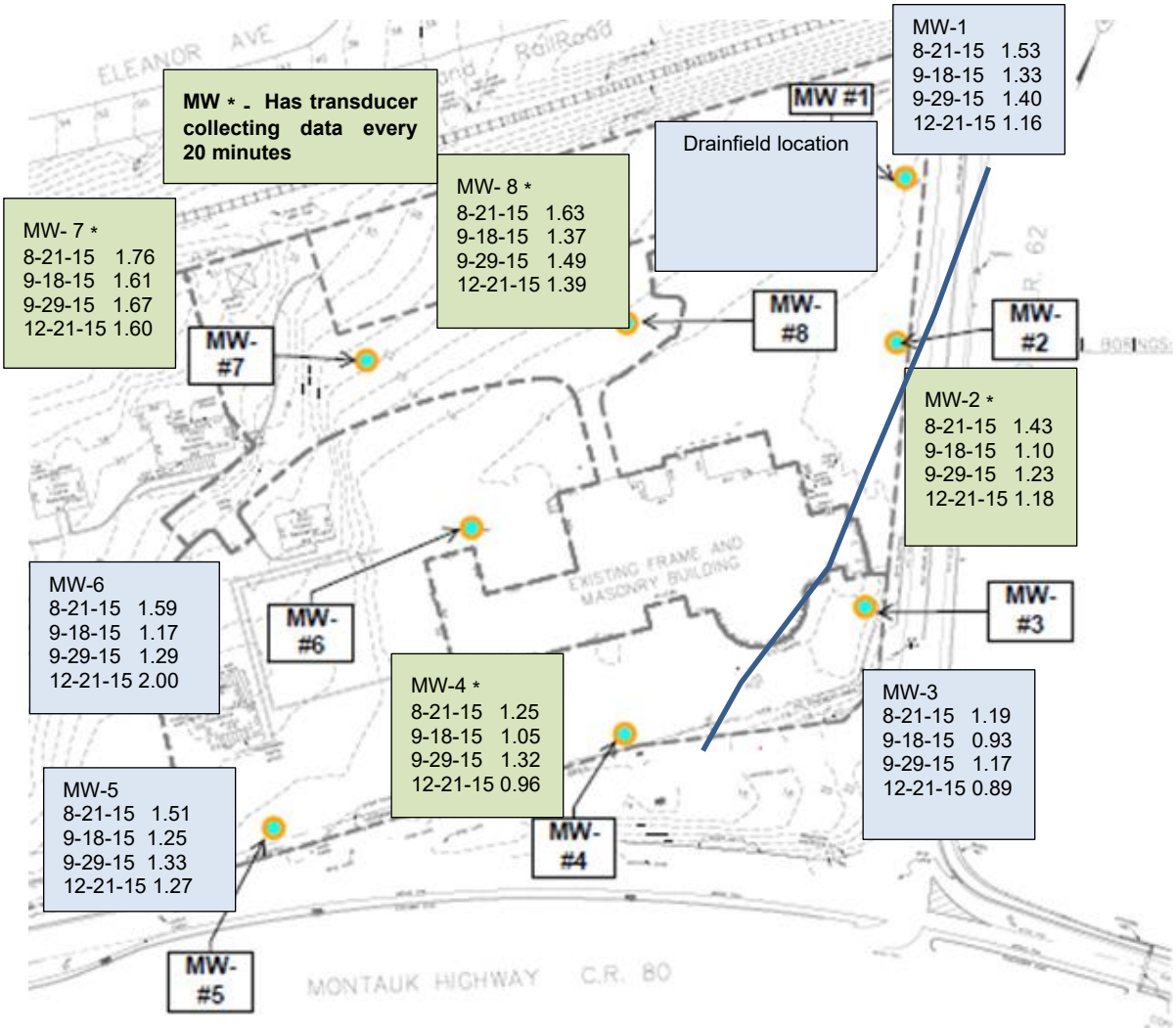


Table 2-4 CPI Groundwater Slope Estimates

Wells		Distance between wells (ft.)	21-Aug-15		18-Sep-15	
			Elev. Diff. (ft.)	Slope	Elev. Diff. (ft.)	Slope
MW-8 to	MW-2	174	0.29	0.0017	0.35	0.0020
MW-8 to	MW-3	214	0.51	0.0024	0.51	0.0024
MW-6 to	MW-3	243	0.4	0.0016	0.24	0.0010
MW-5 to	MW-3	340	0.32	0.0009	0.32	0.0009
MW-4 to	MW-3	140	0.06	0.0004	0.12	0.0009
MW-2 to	MW-3	174	0.24	0.0014	0.17	0.0010
MW-1 to	MW-3	262	0.34	0.0013	0.4	0.0015

Figure 2-2 Aerial Photographs of CPI Property & Nearby Areas / Waterbodies

2.2.2 Groundwater Elevations – Continuous Monitoring

Continuous groundwater elevation monitors were installed in MW-2, 4, 7 and 8 and became operational on September 18, 2015. Figure 2-3 presents the data collected every 20 minutes and illustrates the impact of tidal influences on groundwater elevations, which fluctuate approximately 0.2 feet over the tidal cycle. Due to the similarities between MW-7 and MW-8, the continuous groundwater elevation monitor in MW-7 was moved to MW-3 on September 29, 2015. NOAA Shinnecock Inlet Tide Predictions are presented on Figure 2-4 for reference purposes.

Based upon the continuous groundwater elevations, groundwater slope between MW-8 and MW-2 are summarized on Table 2-5.

Table 2-5 Groundwater Slopes MW-8 to MW-2

	MW-8 to MW-2	
	Elev diff. (ft)	GW Slope
Max	0.302	0.00174
Min	0.169	0.00097
Average	0.229	0.00132

Schubert (1999) referenced studies which examined long term water level records and found that on the South Fork, groundwater elevations generally decline from May through October and then generally rise from October through the end of April when recharge is greatest and water use lowest. Consequently, it is expected that August – Sept. 2015 groundwater levels at the CPI site are at the lower end of their annual range.

2.2.3 Groundwater Elevations – Areawide Data + Long-Term

Appendix C and Table 2-5 contain USGS groundwater elevation data for locations near the CPI property. In general the data shows that the groundwater fluctuations are 2-3+/- feet over a year and up to 4 +/- feet over the periods of record. Figure 2-5 illustrates the area groundwater elevation and groundwater divide between Peconic Bay and Shinnecock Bay (Shubert, 1999).

2.2.4 Shinnecock - Peconic Bays Locks &Tidal Information

The Peconic Bay tide cycles are the opposite of Shinnecock Bay and can be three feet higher. High water in Peconic Bay occurs nearly at the time of low tide at the Shinnecock Inlet with the average difference in elevation of 2.5 feet, which produces a strong flow across Shinnecock Bay and out the Inlet. The Shinnecock Locks operate such that there is slack water for about half the time and southward flow for the remainder of the time. The locks are operated so that water only flows from Peconic Bay to Shinnecock Bay and the ocean, thereby enhancing that the Shinnecock inlet will stay open, (Weber, 1964).

Appendix D contains tidal information for Shinnecock and Peconic Bays and the operation of the Canal Locks. The tidal range is 2 +/- feet and naturally varies throughout the year. As shown on Figure 2-3, the impact of tides on groundwater elevations is 0.2 +/- feet. This impact is inconsequential on groundwater flow dynamics as it tidal influence on all CPI wells is similar.

According to the Southampton Town documents, the canal was finished in 1892, http://www.southamptontownny.gov/DocumentCenter/Home/View/1280. At that time, it

measured 4,000 feet long, 40 feet wide on the bottom, 58 feet wide at the surface and 4 1/2 feet deep at low tide. The 1964 plan view sketch of the Shinnecock Canal is presented on Figure 2-6 along with an aerial photograph of the Canal on Figure 2-7. Based upon discussions with SC DPW and review of DPW provided design drawings, the western side of the Canal has concrete sheeting to depths between -22' to -31' along the western section of the Canal (i.e. to the east of the CPI site. The sheeting depths are not expected to have an effect on CPI groundwater flow patterns.

2.2.5 Rainfall & Groundwater Recharge

Area rainfall data is presented on Tables 2-6 and Figure 2-8. The long-term precipitation average for the Riverhead-Bridgehampton area is 45.0 inches (Schubert, 1999). Schubert references studies that state estimates of annual precipitation that become recharge are approximately 50% or alternately 75% - 90% of precipitation from Oct. 15 to May 15. Average annual recharge estimates are 22.7 inches for the Riverhead-Bridgehampton area.

Figure 2-5 Ground Elevations in the Area of the Shinnecock Canal

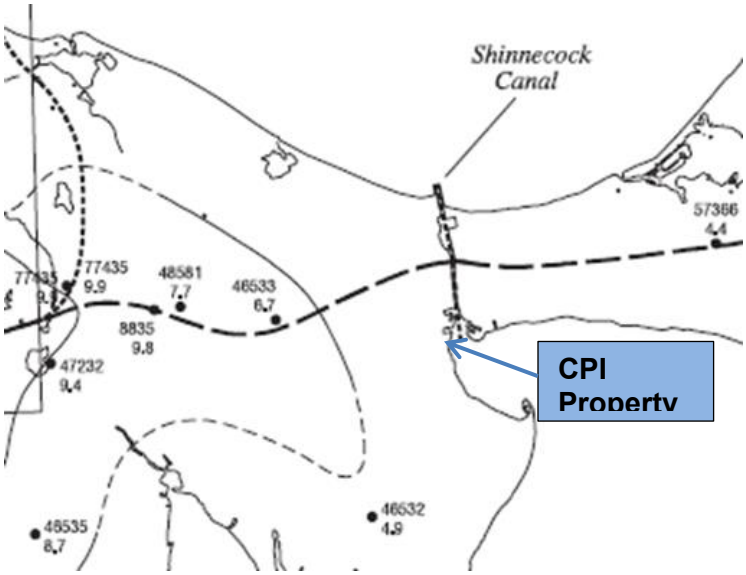
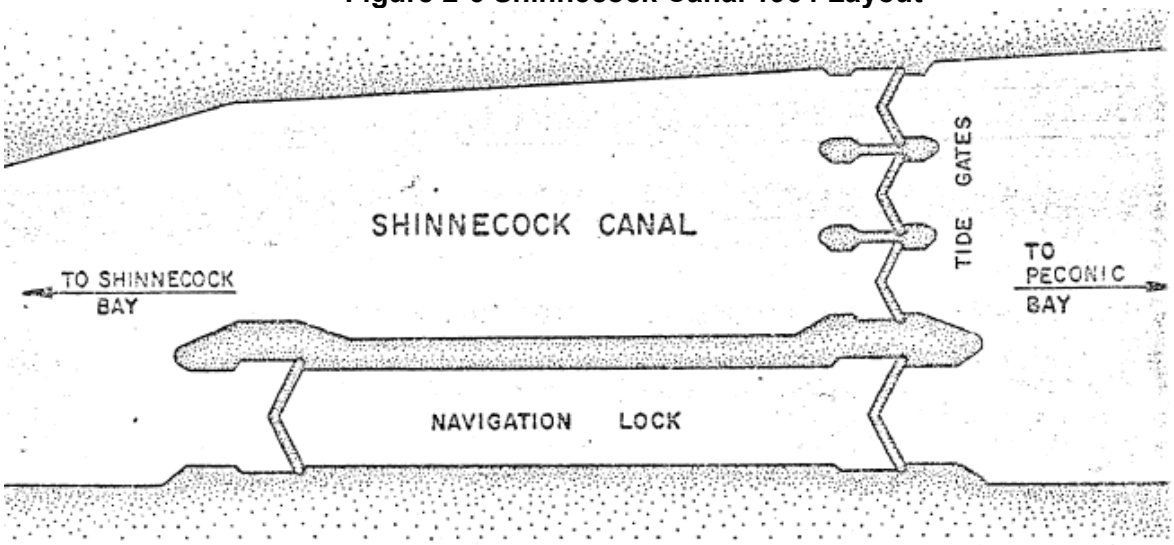


Figure 2-6 Shinnecock Canal 1964 Layout



From Weber, 1964

Figure 2-3a Groundwater Elevations Continuous Measurements – Sept. 2015 MW-2, 4, 7+ 8

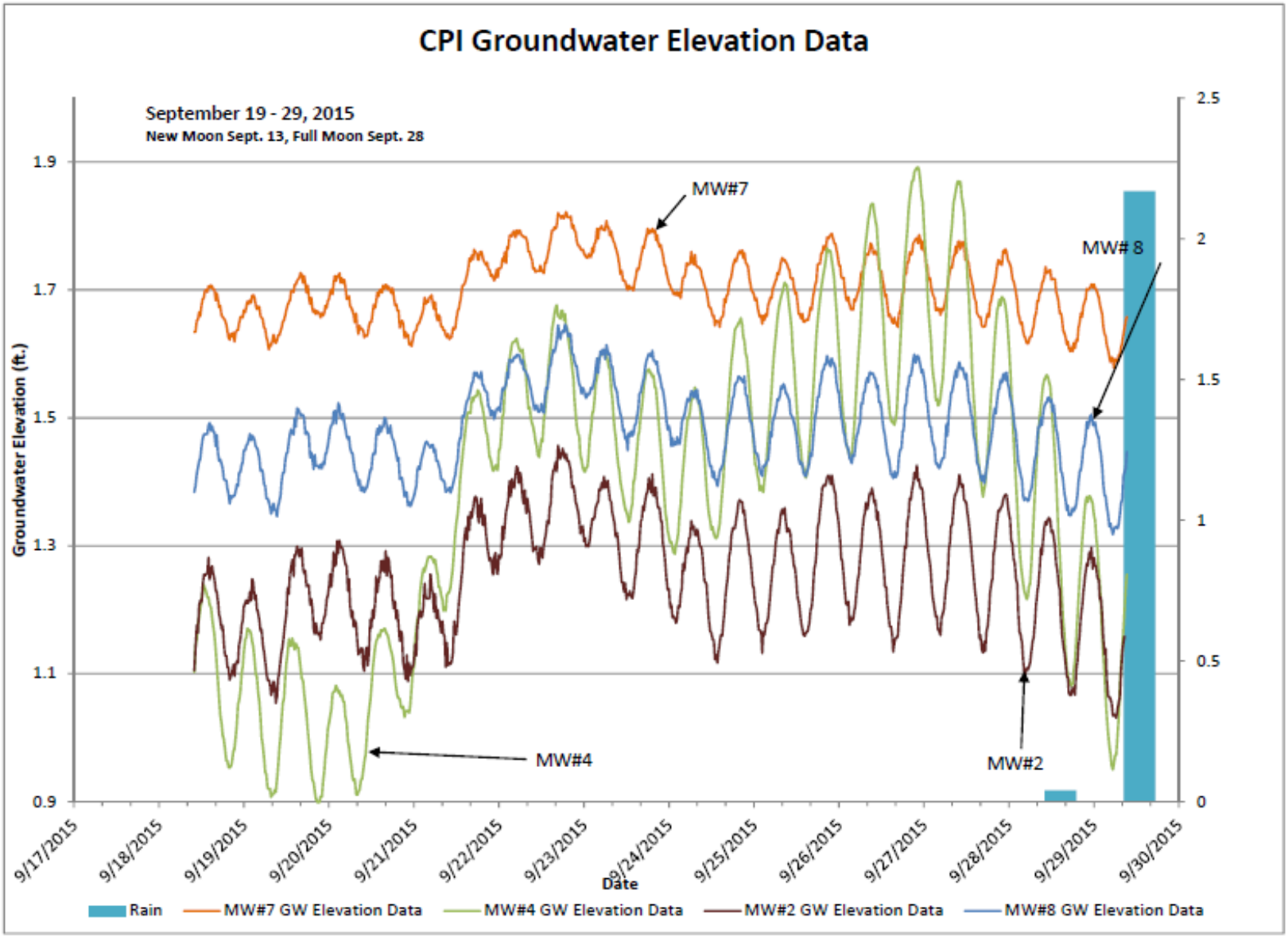


Figure 2-3b Groundwater Elevations Continuous Measurements – Oct. 2015 MW-2, 3, 4, & 8

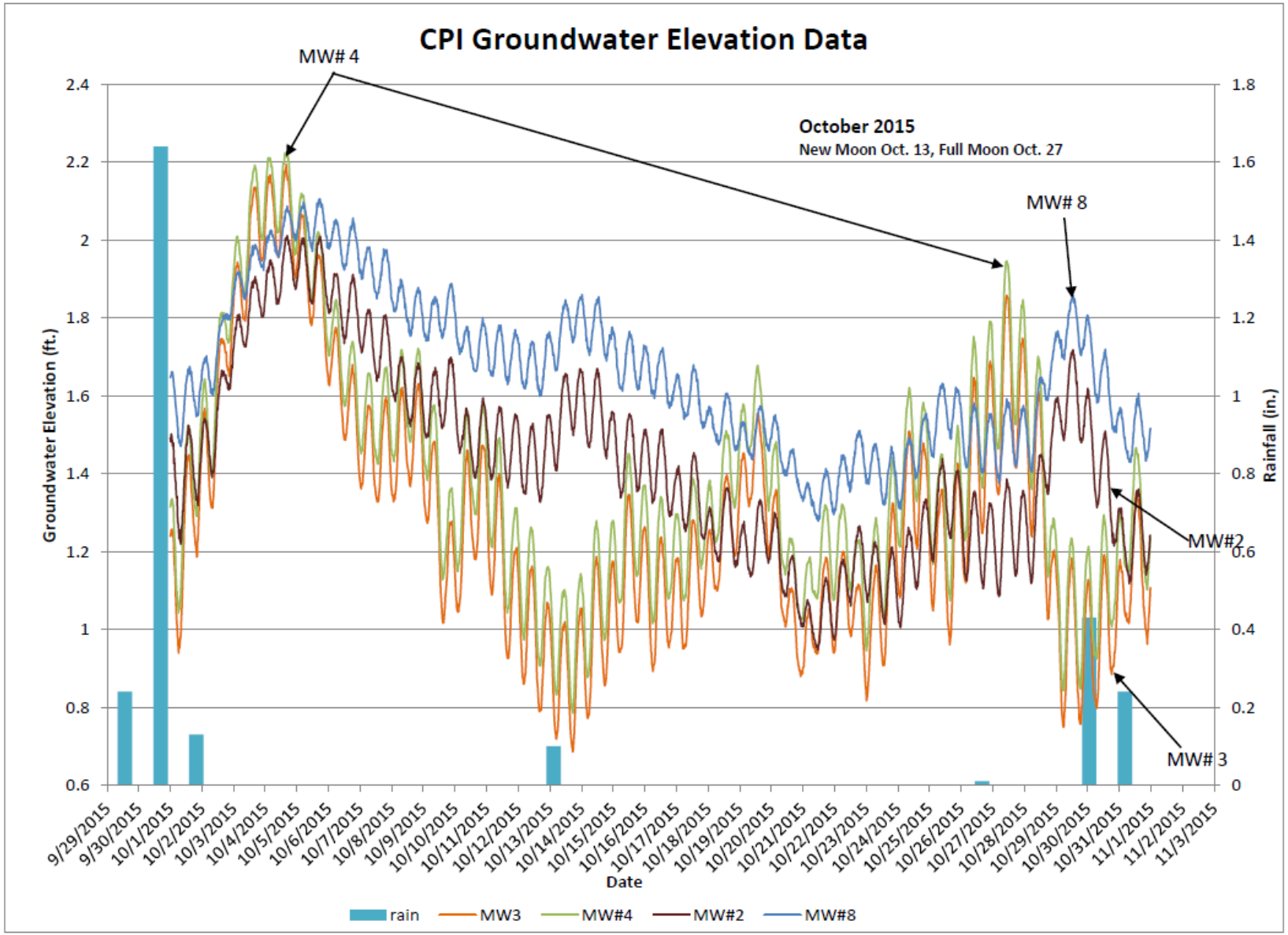


Figure 2-3c Groundwater Elevations Continuous Measurements – Nov. 2015 MW-2, 3, 4, & 8

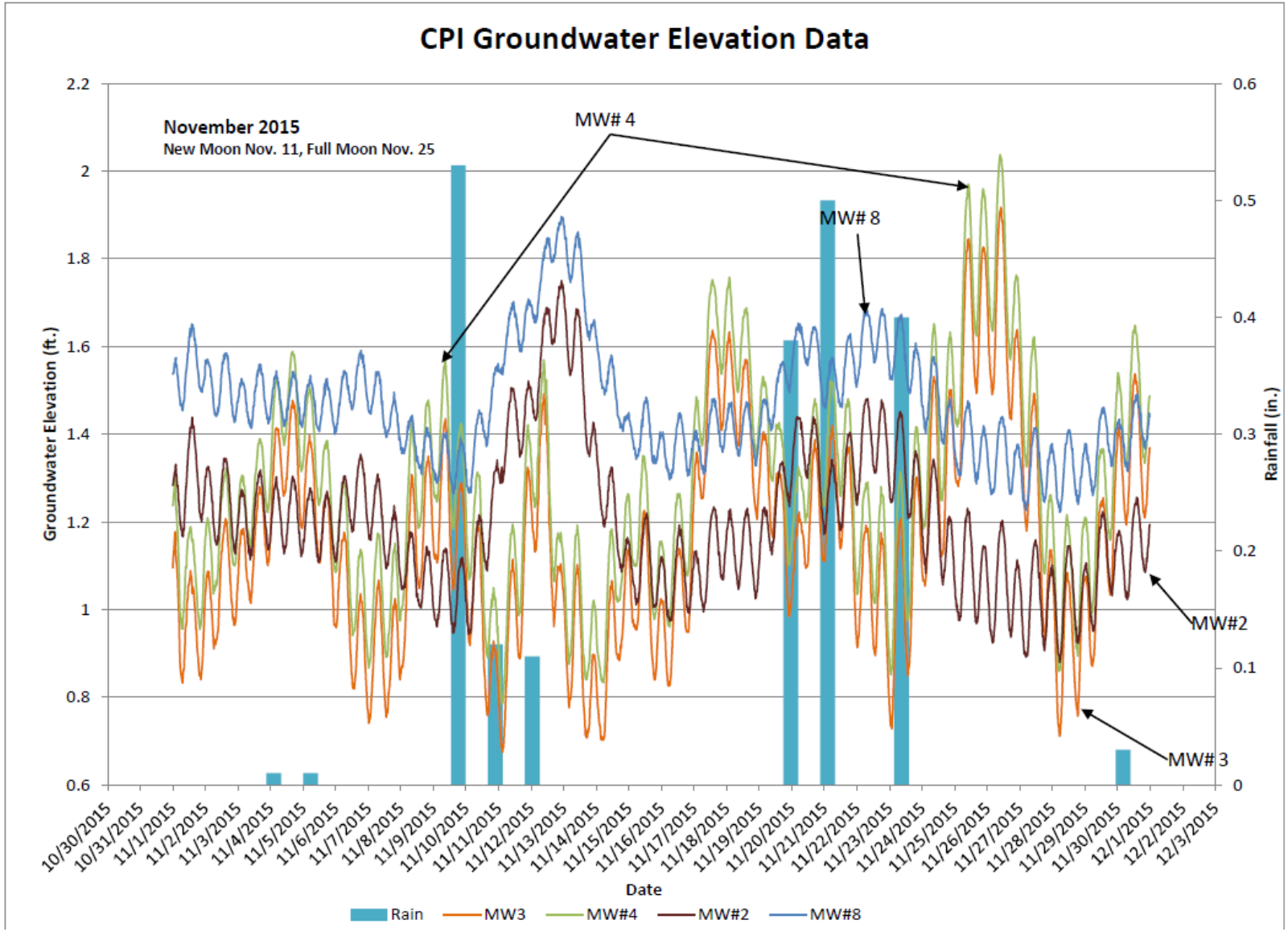


Figure 2-3d Groundwater Elevations Continuous Measurements – Dec. 2015 MW-2, 3, 4, & 8

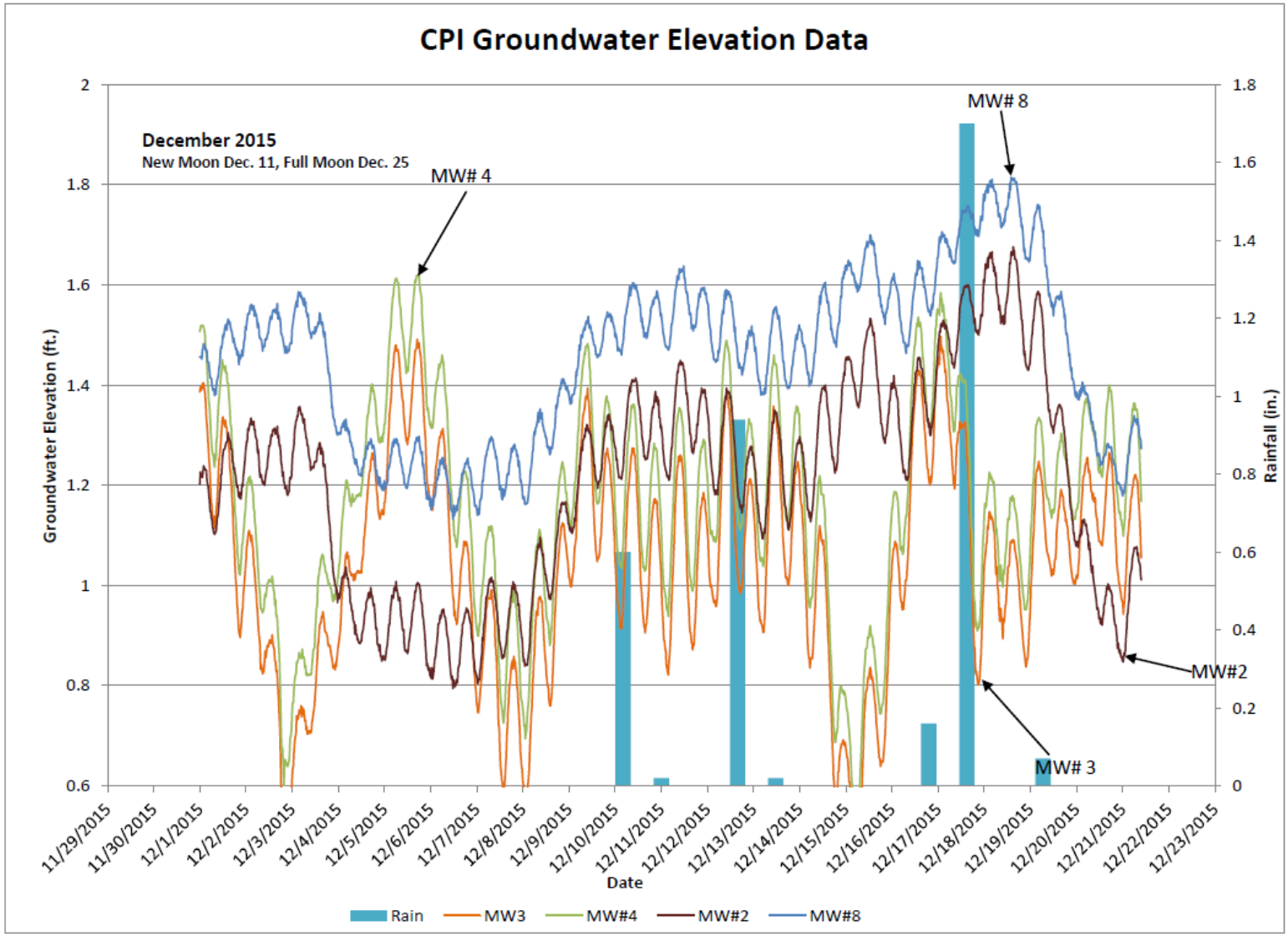


Figure 2-3e Groundwater Elevations Continuous Measurements – Sept. - Dec. 2015 MW-2, 3, 4, & 8

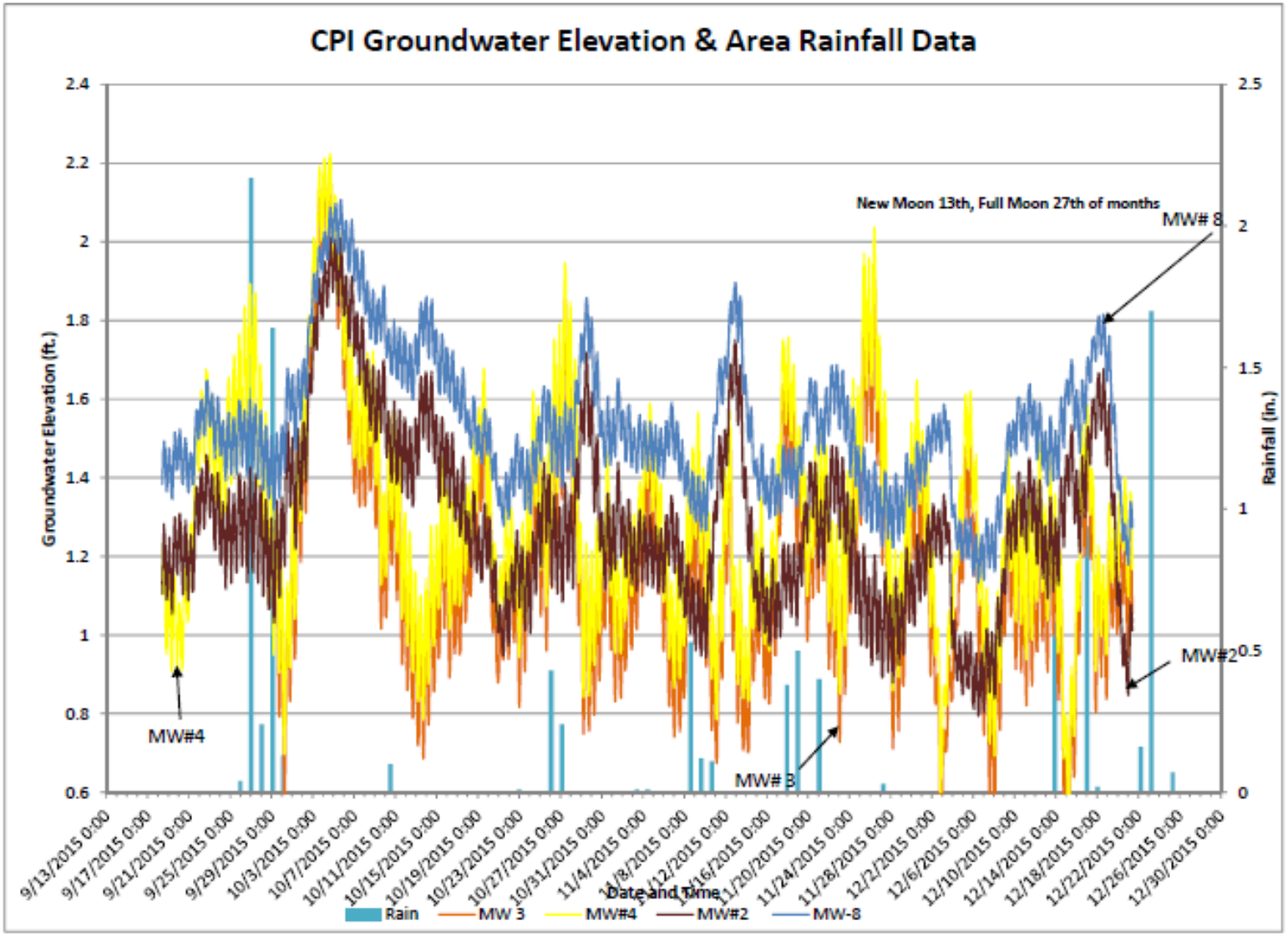


Figure 2-3f Groundwater Elevations Continuous Measurements – Jan. - March 2016 MW-2, 4, 7 & 8

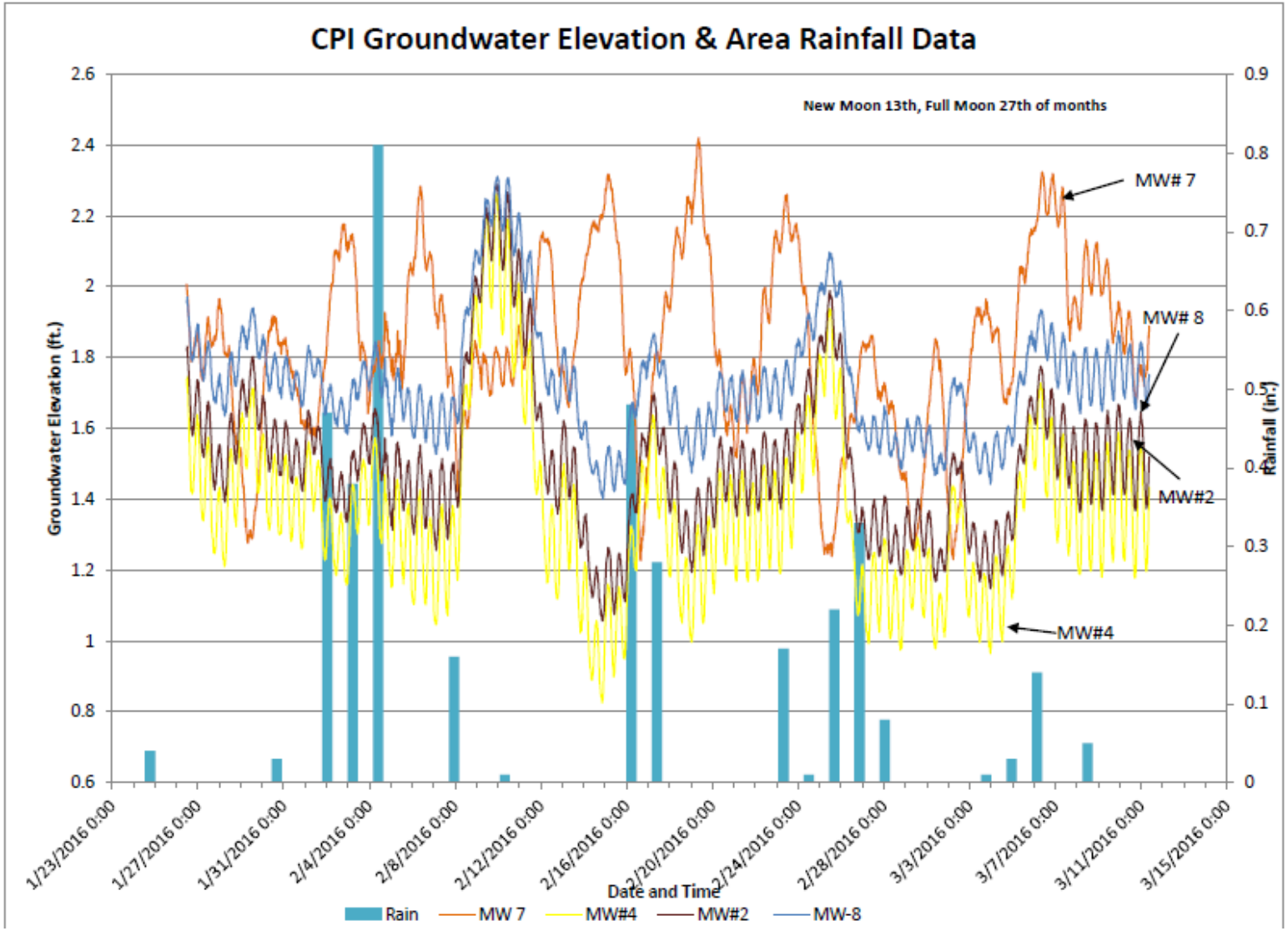
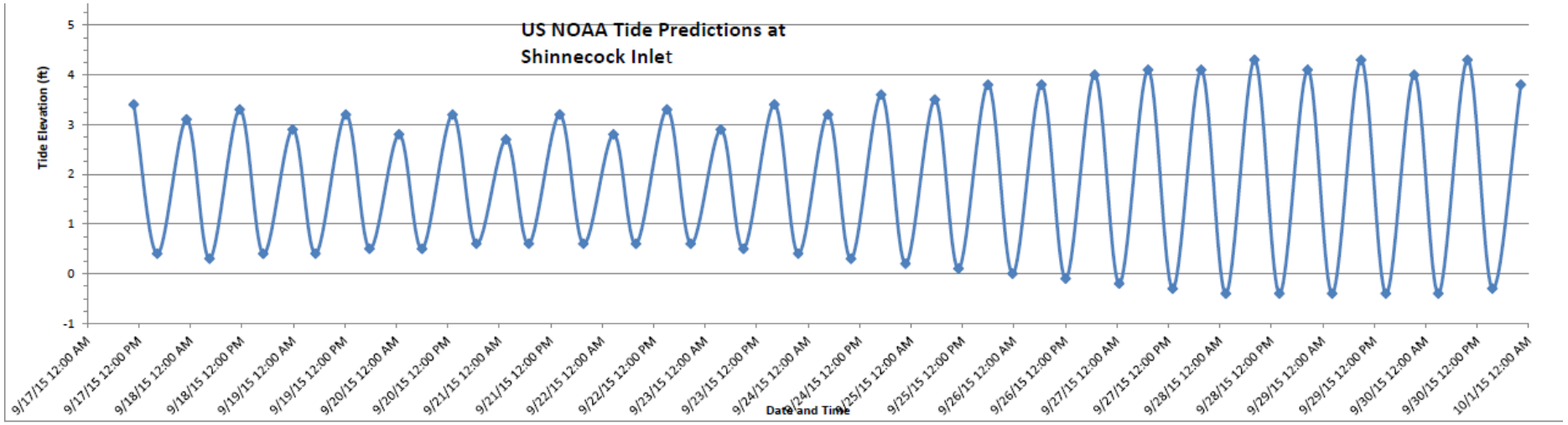


Figure 2-4 NOAA Tide Predictions at Shinnecock Inlet



9/17/15 10:48 AM	3.4	H	9/20/15 6:40 PM	0.6	L	9/24/15 4:40 AM	3.2	H	9/27/15 1:01 PM	-0.3	L
9/17/15 4:16 PM	0.4	L	9/21/15 1:37 AM	2.7	H	9/24/15 10:02 AM	0.3	L	9/27/15 7:40 PM	4.1	H
9/17/15 11:08 PM	3.1	H	9/21/15 6:54 AM	0.6	L	9/24/15 5:05 PM	3.6	H	9/28/15 1:24 AM	-0.4	L
9/18/15 4:29 AM	0.3	L	9/21/15 2:06 PM	3.2	H	9/24/15 10:43 PM	0.2	L	9/28/15 8:06 AM	4.3	H
9/18/15 11:30 AM	3.3	H	9/21/15 7:38 PM	0.6	L	9/25/15 5:35 AM	3.5	H	9/28/15 1:54 PM	-0.4	L
9/18/15 5:00 PM	0.4	L	9/22/15 2:40 AM	2.8	H	9/25/15 11:05 AM	0.1	L	9/28/15 8:30 PM	4.1	H
9/18/15 11:52 PM	2.9	H	9/22/15 7:54 AM	0.6	L	9/25/15 5:59 PM	3.8	H	9/29/15 2:12 AM	-0.4	L
9/19/15 5:12 AM	0.4	L	9/22/15 3:09 PM	3.3	H	9/25/15 11:41 PM	0	L	9/29/15 8:55 AM	4.3	H
9/19/15 12:15 PM	3.2	H	9/22/15 8:40 PM	0.6	L	9/26/15 6:27 AM	3.8	H	9/29/15 2:44 PM	-0.4	L
9/19/15 5:47 PM	0.5	L	9/23/15 3:42 AM	2.9	H	9/26/15 12:05 PM	-0.1	L	9/29/15 9:20 PM	4	H
9/20/15 12:40 AM	2.8	H	9/23/15 8:58 AM	0.5	L	9/26/15 6:50 PM	4	H	9/30/15 2:58 AM	-0.4	L
9/20/15 6:00 AM	0.5	L	9/23/15 4:09 PM	3.4	H	9/27/15 12:34 AM	-0.2	L	9/30/15 9:45 AM	4.3	H
9/20/15 1:07 PM	3.2	H	9/23/15 9:43 PM	0.4	L	9/27/15 7:17 AM	4.1	H	9/30/15 3:33 PM	-0.3	L
									9/30/15 10:11 PM	3.8	H

Figure 2-7 Aerial Photograph of Shinnecock Canal

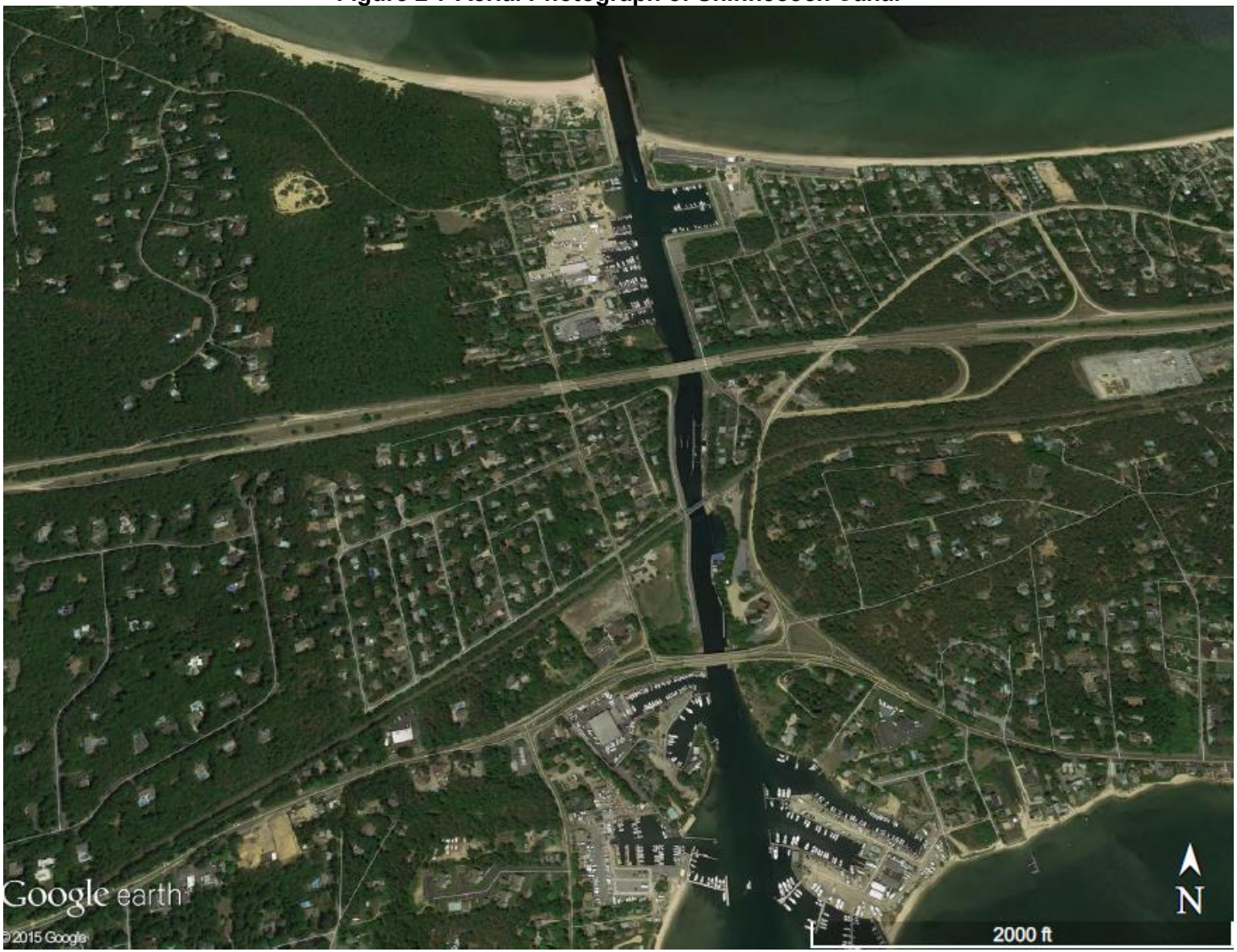


Table 2-6 Rainfall – Bridgehampton & Riverhead, NY 2015 & Long-Term

Bridgehampton NY Rain (in/month)				
	2012	**2013**	**2014**	**2015**
Jan	3.21	1.73	3.69	3.66
Feb	1.12	4.05	5.57	2.31
Mar	1.27	3.6	5.52	5.61
Apr	2.83	2.31	3.43	1.82
May	4.93	2.02	4.52	0.46
June	3.91	7.21	1.98	3.65
July	1.56	0.97	2.75	1.24
August	1.77	2.21	2.08	2.68
September	1.46	4.97	1.4	4.22
October	2.36	0.16	5.69	4.86
November	1.28	2.42	4.83	2.91
December	6.28	5.57	6.65	5.55
Annual	**31.98**	**37.22**	**48.11**	**38.97**
Annual Average (in.)	**45.4**			
Excess / Deficit (in.)	-13.42	-8.18	2.71	-6.43
% of Average	70%	82%	106%	86%
Oct - Sept		38.99	39.09	42.82
% of Average		86%	86%	94%

Table 2. Annual and long-term mean precipitation amounts at Bridgehampton, Greenport, and Riverhead, eastern Suffolk County, N.Y.

[Station locations are shown in fig. 2. Data from Kathryn Vreeland, Northeast Regional Climate Center, written commun., 1995, 1996]

	Precipitation (inches)			
	Calendar year		October 15 to May 15	
Period	Total	50 percent of total	75 percent	90 percent
BRIDGEHAMPTON				
1993	45.5	22.7	22.9	27.5
1994	48.0	24.0	26.6	31.9
1995	40.5	20.3	18.1	21.8
1931-95	[1]45.4	[1]22.7	[1]21.4	[1]25.6
GREENPORT				
1993	42.3	21.2	20.5	24.6
1994	33.1	[2]16.5	18.1	21.7
1995	35.8	17.9	16.3	19.6
1959-95	[1]44.5	[1]22.3	[1]19.6	[1]23.6
RIVERHEAD				
1993	45.6	22.8	21.6	26.0
1994	42.5	21.3	23.6	28.3
1995	37.7	18.8	16.2	19.5
1949-95	[1]45.4	[1]22.7	20.6	24.8

From Schubert 1998

2.3 GROUNDWATER QUALITY

2.3.1 August 21, 2015 Data

Groundwater samples were collected on August 21, 2015, September 28, 2015 and December 21, 2015 and analyzed at a NYSDOH certified laboratory, with the chain of custody and laboratory reports presented in Appendix E and the results presented on Tables 2-7 and 2-8, respectively. Figure 2-9 presents a cross section of the August 21, 2015 groundwater quality at the site.

Figure 2-8 Long Term Rainfall – Bridgehampton, Greenport & Riverhead, NY

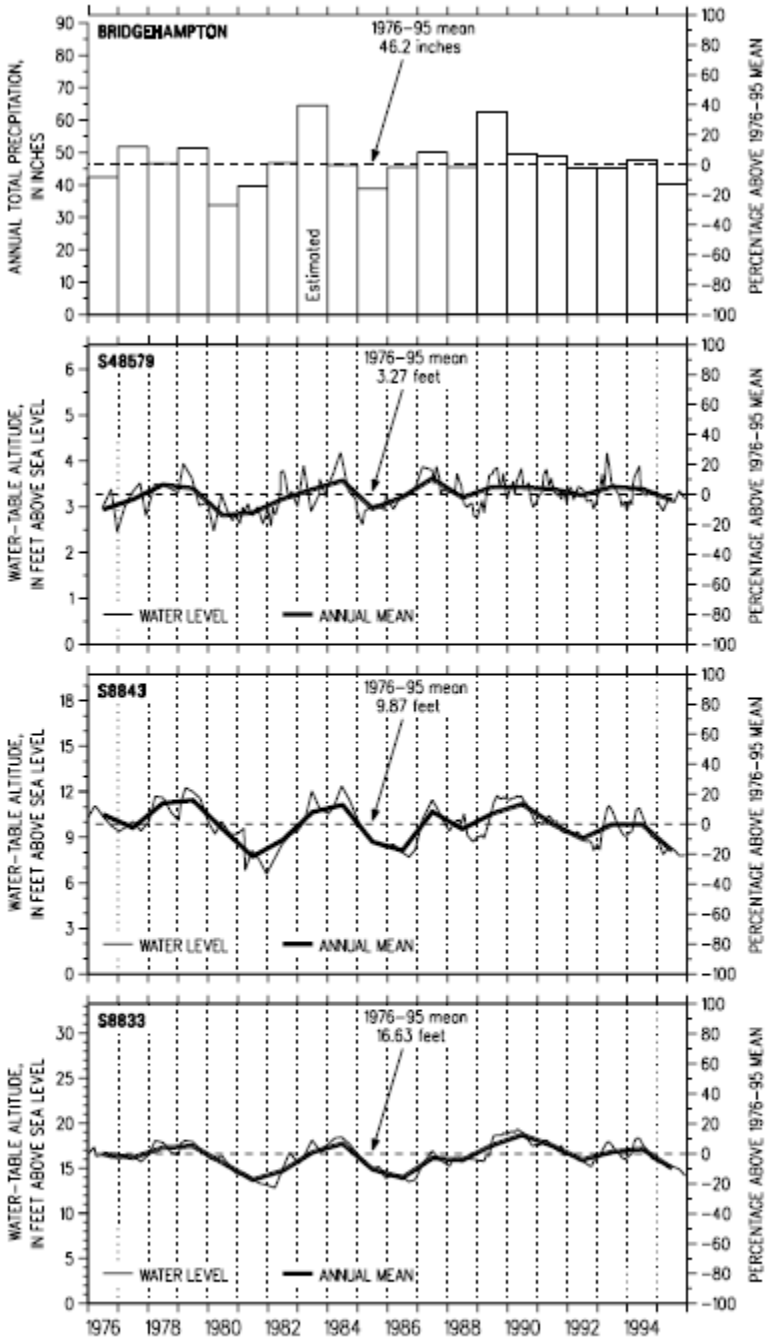


Figure 10. Annual total precipitation at Bridgehampton and water-table altitudes in selected observation wells on the South Fork, calendar years 1976-95, eastern Suffolk County, N.Y. (Precipitation data from Kathryn Vreeland, Northeast Regional Climate Center, written commun., 1995, 1996. Precipitation-measurement station location is shown in fig. 2. Estimated values reflect unavailable data for an individual month, and were calculated from data for corresponding month from Greenport station. Well locations are shown on pl. 1.)

From Schubert 1998

Table 2-7 Groundwater Quality - Laboratory Data - August 21, 2015

						Lab Data - Sampling August 21, 2015							
MW #	Elev #	Sampling Point				Nitrogen (ppm)				Phosphorus (ppm)		Salts	
		Surface Elev	GW Elev	Elevation	Depth into WT	Ammonia-N	Nitrite-N	Nitrate-N	TN	PO_4-P	TP	Sulfate	Chloride
1	a	11.90	1.47	-0.53	2	<.22	<0.1	2.19	2.19				
	b			-3.53	5	<.22	<0.1	3	3				
	c			-6.53	8								
	d			-9.53	11								
	e			-12.53	14	<.22	<0.1	4	4				
					Average	**<.22**	**<0.1**	**3.19**	**3.19**				
2	a	11.00	1.43	-0.57	2	<.22	<0.1	1.32	1.32	<0.1	<0.1	9.96	4.19
	b			-3.57	5	<.22	<0.1	1.37	1.37	<0.1	<0.1	34.90	36.60
	c			-6.57	8	<.22	<0.1	4.26	4.26	<0.1	<0.1	8.44	86.20
	d			-9.57	11	<.22	<0.1	6.94	6.94	<0.1	<0.1	17.20	48.80
	e			-12.57	14	<.22	<0.1	8.22	8.22	<0.1	<.1	19.3	53.8
					Average	**<.22**	**<0.1**	**4.42**	**4.42**	**<0.1**	**<0.1**	**17.96**	**45.92**
3	a	11.80	1.20	-0.8	2	<.22	<0.1	0.05	0.05				
	b			-3.8	5								
	c			-6.8	8								
	d			-9.8	11	<.22	<0.1	0.05	0.05				
	e			-12.8	14	<.22	<0.1	4.22	4.22				
					Average	**<.22**	**<0.1**	**1.44**	**1.44**				
4	a	13.10	1.52	-0.48	2								
	b			-3.48	5	<.22	<0.1	1.82	1.82				
	c			-6.48	8	<.22	<0.1	4.41	4.41				
	d			-9.48	11	<.22	<0.1	7.06	7.06				
	e			-12.48	14								
					Average	**<.22**	**<0.1**	**4.43**	**4.43**				
5	a	17.70	1.72	-0.28	2								
	b			-3.28	5								
	c			-6.28	8	<.22	<0.1	0.13	0.13				
	d			-9.28	11	<.22	<0.1	1.23	1.23				
	e			-12.28	14	<.22	<0.1	0.72	0.72				
					Average	**<.22**	**<0.1**	**0.69**	**0.69**				
6	a	13.90	1.60	-0.4	2								
	b			-3.4	5								
	c			-6.4	8	<.22	<0.1	0.72	0.72				
	d			-9.4	11	<.22	<0.1	6.68	6.68				
	e			-12.4	14	<.22	<0.1	10.80	10.80				
					Average	**<.22**	**<0.1**	**6.07**	**6.07**				
7	a	21.30	1.70	-0.3	2								
	b			-3.3	5	<.22	<0.1	3.12	3.12				
	c			-6.3	8	<.22	<0.1	9.84	9.84				
	d			-9.3	11	<.22	<0.1	12.10	12.10				
	e			-12.3	14								
					Average	**<.22**	**<0.1**	**8.35**	**8.35**				
8	a	13.80	1.71	-0.29	2.00								
	b			-3.29	5.00								
	c			-6.29	8.00	<.22	<0.1	0.27	0.27				
	d			-9.29	11.00	<.22	<0.1	2.97	2.97				
	e			-12.29	14.00	<.22	<0.1	9.81	9.81				
					Average	**<.22**	**<0.1**	**4.35**	**4.35**				

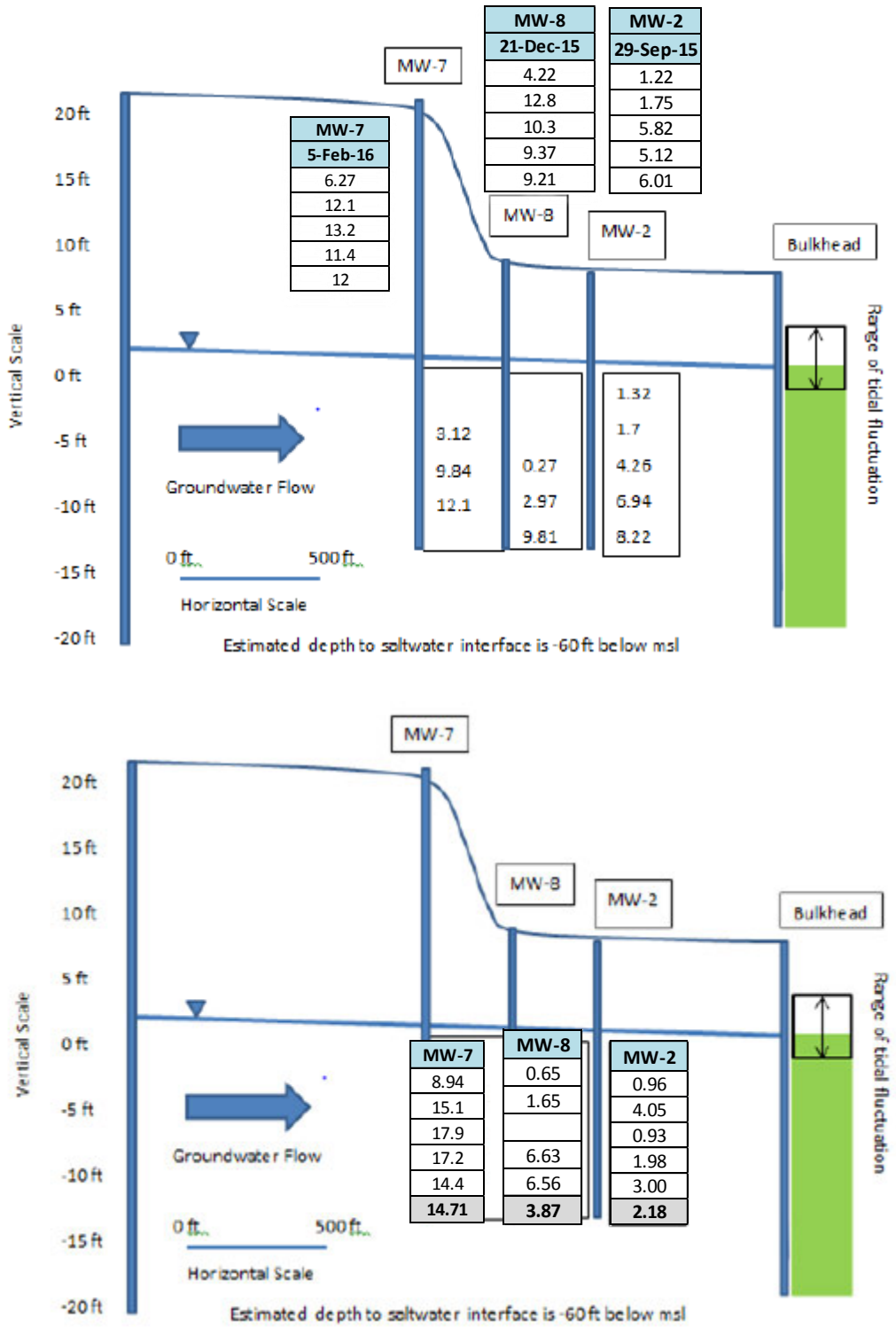
	Ammonia-N	Nitrite-N	Nitrate-N	TN	Phosphate-P	TP	Sulfate	Chloride	Sample Elev.	~Sample Depth (Ft into Water Table)	Nitrate-N	TN	Average TN for entire depth
mm													
MW-1	<.22	<0.1	3.19	3.19					a	2	1.2	1.2	1.2
MW-2	<.22	<0.1	4.42	4.42	<0.1	<0.1	17.96	45.92	b	5	2.3	2.3	1.8
MW-3	<.22	<0.1	1.44	1.44					c	8	3.3	3.3	2.3
MW-4	<.22	<0.1	4.43	4.43					d	11	5.3	5.3	3.0
MW-5	<.22	<0.1	0.69	0.69					e	14	6.4	6.4	3.7
MW-6	<.22	<0.1	6.07	6.07									
MW-7	<.22	<0.1	8.35	8.35									
MW-8	<.22	<0.1	4.35	4.35									

Table 2-8 Groundwater Quality - Laboratory Data - September 29 & Dec. 21, 2015

21-Aug-15							Lab Data - Sampling September 29, 2015			Lab Data - Sampling December 21, 2015		
MW #	Elev #	GW Tube Mark	Surface Elev	GW Elev	Sampling Point Elevation	Sampling Point Depth into WT		Nitrate - Nitrogen (ppm)	Chloride (ppm)		Nitrate - Nitrogen (ppm)	
1	a	11	11.98	1.53	-0.47	2					5.86	
	b	14			-3.47	5					7.7	
	c	17			-6.47	8						
	d	20			-9.47	11					7.15	
	e	23			-12.47	14					6.86	
											6.89	
2	a	11	11.38	1.43	-0.57	2		1.22				
	b	14			-3.57	5		1.75				
	c	17			-6.57	8		5.82				
	d	20			-9.57	11		5.12				
	e	23			-12.57	14		6.01	56.8			
								3.98				
3	a	11	11.88	1.19	-0.81	2		0.1			0.12	
	b	14			-3.81	5		2.17			1.23	
	c	17			-6.81	8		0.1			0.12	
	d	20			-9.81	11		4.27			2.6	
	e	23			-12.81	14		5.25	59.6		4.24	
								2.38			**1.66**	
4	a	11	12.96	1.25	-0.75	2		1.79			0.9	
	b	14			-3.75	5		2.5			1.23	
	c	17			-6.75	8		3.6			1.34	
	d	20			-9.75	11		6.03			4.74	
	e	23			-12.75	14		7.69	83.4		5.2	
								4.32			**2.68**	
8	a	11	13.88	1.63	-0.37	2					4.22	
	b	14			-3.37	5					12.8	
	c	17			-6.37	8	16'				10.3	
	d	20			-9.37	11	19'				9.37	
	e	23			-12.37	14	28'				9.21	
											9.18	

	Average of well at all elevations - August 21, 2015					Nitrate-N Sept. 29, 2015				Nitrate-N Dec. 21, 2015			
	Ammonia N	Nitrite-N	Nitrate-N	TN	Phosphate-P								
MW-1	<.22	<0.1	3.19	3.19				a	1.04	**MW-1**	6.89	a	2.78
MW-2	<.22	<0.1	4.42	4.42	<0.1	**MW-2**	3.98	b	2.14			b	5.74
MW-3	<.22	<0.1	1.44	1.44		**MW-3**	2.38	c	3.17	**MW-3**	1.66	c	3.92
MW-4	<.22	<0.1	4.43	4.43		**MW-4**	4.32	d	5.14	**MW-4**	2.68	d	5.97
MW-5	<.22	<0.1	0.69	0.69				e	6.32	**MW-8**	9.18	e	6.38
MW-6	<.22	<0.1	6.07	6.07		**Average**	3.56		3.56	**Average**	5.10		4.96
MW-7	<.22	<0.1	8.35	8.35									
MW-8	<.22	<0.1	4.35	4.35									
Avg			4.12	4.12									

Figure 2-9 West to East Cross Section - CPI Groundwater Nitrate-N (ppm) Quality (8-21-15)



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3 SOIL SAMPLING & RESULTS

3.1 SIEVE ANALYSIS

To characterize the hydraulic properties of site soils, sieve analysis was performed on soils samples obtained during the August 18-21, 2015 wells installation and submitted to a NYSDOH certified laboratory.

Soil samples from the five (5) sampling elevations of monitoring wells 1, 3, 5 and 8 had sieve analysis performed with the results presented in Appendix F and summarized on Tables 3-1 and 3-2.

Table 3-1 Soils Sieve Analysis

				Sieve Analysis Sieve Analysis - % Retained Sieve # + size in mm August 18, 2015														
MW #	Elev #	Sampling Point		2 inch	3/4 inch	1/2 inch	1/4 inch	#10	#30	#50	#100	#140	#200	<200				
		Elevatio	Depth into WT	51	19.05	12.7	6.4	2.01	0.59	0.2972	0.1499	0.1041	0.0737	<0.074	D_{10}	D_{30}	D_{60}	C_c	C_u
1	a	-0.53	2	0%	0%	0.0%	0.5%	1.5%	17.7%	35.0%	32.2%	7.1%	3.5%	2.5%	0.22	0.34	0.56	2.55	0.94
	b	-3.53	5	0%	0%	0.0%	0.0%	1.7%	25.9%	36.8%	25.0%	6.6%	4.1%	0.0%	0.25	0.38	0.66	2.64	0.88
	c	-6.53	8	0%	0%	3.7%	2.6%	3.2%	24.0%	34.5%	21.9%	4.2%	2.7%	3.2%	0.25	0.42	0.70	2.80	1.01
	d	-9.53	11	0%	0%	0.0%	1.1%	1.5%	25.1%	41.8%	23.1%	3.9%	1.7%	1.7%	0.29	0.42	0.68	2.34	0.89
	e	-12.53	14	0%	0%	0.0%	0.7%	1.5%	22.5%	41.1%	23.6%	5.0%	2.6%	2.9%	0.26	0.40	0.63	2.42	0.98
			Average	**0%**	**0%**	**0.8%**	**1.0%**	**1.9%**	**23.1%**	**37.9%**	**25.1%**	**5.3%**	**2.9%**	**2.1%**	**0.27**	**0.39**	**0.66**	**2.44**	**0.85**
3	a	-0.8	2	0%	0%	0.0%	0.6%	0.5%	25.8%	35.6%	31.3%	3.9%	1.6%	0.8%	0.28	0.38	0.62	2.21	0.83
	b	-3.8	5	0%	0%	0.0%	0.0%	0.7%	26.2%	47.2%	22.3%	2.5%	0.8%	0.4%	0.32	0.47	0.68	2.13	1.02
	c	-6.8	8	0%	0%	0.0%	0.0%	0.2%	22.1%	47.8%	23.8%	3.4%	1.4%	1.2%	0.30	0.43	0.64	2.13	0.96
	d	-9.8	11	0%	0%	0.0%	0.0%	0.3%	15.2%	53.6%	27.3%	2.6%	0.6%	0.3%	0.31	0.42	0.60	1.94	0.95
	e	-12.8	14	0%	0%	0.0%	0.0%	0.3%	25.1%	45.7%	24.3%	3.1%	1.0%	0.6%	0.31	0.42	0.67	2.16	0.85
			Average	**0%**	**0%**	**0%**	**0%**	**0%**	**23%**	**46%**	**26%**	**3%**	**1%**	**1%**	**0.30**	**0.42**	**0.63**	**2.10**	**0.93**
5	a	-0.28	2	0.0%	0.0%	0.0%	0.0%	0.3%	21.0%	47.4%	25.2%	3.6%	1.4%	1.0%	0.30	0.42	0.67	2.23	0.88
	b	-3.28	5	0.0%	0.0%	0.0%	0.0%	0.1%	21.2%	45.3%	26.0%	2.6%	1.8%	3.0%	0.28	0.40	0.62	2.21	0.92
	c	-6.28	8	0.0%	0.0%	0.0%	0.0%	1.5%	17.3%	49.6%	27.6%	2.5%	0.8%	0.6%	0.30	0.43	0.54	1.80	1.14
	d	-9.28	11	0.0%	0.0%	0.0%	0.3%	0.9%	13.2%	50.5%	30.8%	3.1%	0.7%	0.3%	0.30	0.40	0.61	2.03	0.87
	e	-12.28	14	0.0%	0.0%	0.0%	0.7%	2.5%	16.4%	49.3%	27.3%	2.5%	0.7%	0.6%	0.30	0.41	0.60	2.00	0.93
			Average	**0.0%**	**0.0%**	**0.0%**	**0.2%**	**1.1%**	**17.8%**	**48.4%**	**27.4%**	**2.9%**	**1.1%**	**1.1%**	**0.30**	**0.40**	**0.60**	**2.00**	**0.89**
8	a	-0.29	2.00	0.0%	0.0%	0.0%	0.5%	5.0%	25.6%	38.9%	23.4%	3.1%	1.5%	2.0%	0.29	0.42	0.70	2.41	0.87
	b	-3.29	5.00	0.0%	0.0%	0.0%	3.2%	6.7%	37.5%	36.6%	13.2%	1.0%	0.6%	1.1%	0.37	0.58	1.00	2.70	0.91
	c	-6.29	8.00	0.0%	0.0%	0.0%	3.2%	2.3%	31.5%	34.6%	19.0%	4.0%	2.6%	2.8%	0.27	0.43	0.80	2.96	0.86
	d	-9.29	11.00	0.0%	0.0%	0.0%	0.2%	3.3%	26.0%	39.6%	20.1%	4.2%	2.8%	3.8%	0.25	0.42	0.70	2.80	1.01
	e	-12.29	14.00	0.0%	0.0%	0.0%	1.3%	3.5%	32.3%	35.3%	17.4%	4.1%	2.9%	3.2%	0.27	0.44	0.80	2.96	0.90
			Average	**0.0%**	**0.0%**	**0.0%**	**1.7%**	**4.1%**	**30.6%**	**37.0%**	**18.6%**	**3.3%**	**2.1%**	**2.6%**	**0.29**	**0.43**	**0.80**	**2.76**	**0.80**

Table 3-2 Soils Effective Size & Uniformity Coefficients

	Effective Size			Gradation Coeff	Uniform Coeff
Sample Elev.	D_{10}	D_{30}	D_{60}	C_C	C_u
a	0.27	0.39	0.64	2.35	0.88
b	0.31	0.46	0.74	2.42	0.93
c	0.28	0.43	0.67	2.42	0.99
d	0.29	0.42	0.65	2.28	0.93
e	0.29	0.42	0.68	2.39	0.91
AVG	0.29	0.41	0.67	2.33	0.87

4 AQUIFER CHARACTERIZATION

4.1 HYDRAULIC FLOW VELOCITY

Groundwater flow is determined using Darcy's law

Velocity = K * I

Where
V = Groundwater velocity (same units as K)
K = Hydraulic conductivity (cm/sec or ft/day)
i = groundwater gradient (slope)

Hydraulic conductivity is estimated based upon the soils sieve analysis using the Hazen equation

$K = C * (D_{10})^2$

Where

K = Hydraulic conductivity (cm/sec)
D_{10} = 10^{th} percentile grain size by weight in mm
C = dimensionless coefficient associated

Using

C = 1, for K in cm/sec and D_{10} in mm

For D_{10} = 0.29, **K = 0.0841 cm/sec = 238 feet/day**

This estimate of hydraulic conductivity is comparable to values for Suffolk County as summarized by Schubert (1999) in the U.S. Geological Survey Water-Resources Investigations Report 98-4181. He states that horizontal hydraulic conductivity of the upper glacial aquifer has been estimated to average on the South Fork from 200 to 750 feet/day and averages 350 feet/day. He also referenced studies that estimated anisotropy of the upper glacial aquifer on Long Island to average about 10:1.

Therefore for the CPI site and looking at flow from MW-8 to MW-3, with

Darcy's Velocity (V) = K * I = flux

i = 0.00238 (see Tables 2-4 & 2-5)

V = 0.567 feet/day

Average Linear Velocity = V / porosity

Porosity = 0.3 (see Schubert 1999), therefore

Average Linear Velocity = 1.89 feet /day

4.2 DEPTH TO SALTWATER INTERFACE

An estimate of the depth to the freshwater-saltwater interface at the CPI site is made using the following equation (Schubert (1999) regarding the freshwater equivalent head necessary to balance static saltwater at a specific depth:

$h_{fe} = z/40 + h_{msl}$

where

h_{fe} = freshwater equivalent head, in feet above NGVD of 1929,

z = depth of the fresh-salt water interface below local mean sea level, in feet, and

h_{msl} = elevation of local mean sea level datum above NGVD of 1929, in feet.

The difference (msl minus 1929 NGVD) between the local mean sea level datum and NGVD of 1929 was estimated by Schubert (1999) as 0.48 feet. To convert NAVD88 elevations to NGVD29 elevations one adds 0.922 feet.

NGVD29 = NAVD88 + 0.922

So the depth of the saltwater interface at MW-3, z, can be estimated as:

$Z = 40 * (h_{fe} - h_{msl})$

With

h_{msl} = 0.48 feet
h_{fe} = .94 + 0.922 = 1.862 feet (9-18-15) and 2.122 (8-21-15)

z = 40 * (0.94 + 0.922 – 0.48) = ~ 55 feet below msl (Sept. 18, 2015)
z = 40 * (1.20 + 0.922 – 0.48) = ~ 66 feet below msl (August 21, 2015)

5 PRB DESIGN

Per the CPI project Wastewater Management Master Plan, the PRB design objective is to remove 94% of CPI wastewater nitrogen. With the use of the PRB, nitrogen in groundwater will also be removed.

Drainfield wastewater nitrogen removal will be achieved by placing the PRB in a location to intercept the drainfield plume, which has been determined to be along the NE property boundary based upon groundwater contours (see Section 2) and groundwater elevations computer simulations, see Figure 5-1, using the widely respected USGS computer model MODFLOW and particle tracking.

5.1 DRAINFIELD LAYOUT & PRB DESIGN

The best area for the CPI wastewater drainfield is the northeast boundaries of the CPI site. The proposed layout is shown on the below Figure 5-1 where design/code wastewater flows are 10,175 gpd. The CPI wastewater system will include continuous wastewater flow meter so that flows are documented along with periodic monitoring of wastewater nitrogen concentrations.

The CPI PRB is illustrated on Figure 5-2 and consists of a 200 foot long PRB along the NE property boundary. Table 5-2 presents PRB design and flow through PRB calculations.

Table 5-1 presents the depth/elevation of the PRB. The bottom of the PRB is proposed to be installed to elevation -9.0 feet msl, which is approximately 20 feet below grade and 10 feet into the groundwater at its expected to be lowest annual level. As the width of the PRB at the NE property boundary is estimated to be 10 feet wide, the influence of the that PRB is estimated as an additional 5 feet, as documented in the Cape Cod installation as illustrated on Figure 5-3, and as described in Robertson et al (2005)

Table 5-1 PRB Design

PRB Location	NE
PRB Length	200
PRB Surface elevation (msl)	11
Approx. Elevation of PRB bottom (msl)	-9.0
Installed Depth into GW - Low water (ft)	10
Depth influence in addition to PRB depth (ft)	5.0
Effective PRB depth (ft)	15.0

Figures 5-4 and 5-5 present particle tracking of the drainfield at full design flow of 10,000 gpd.

Figure 5-1 MODFLOW Simulated Groundwater Elevations Steady State, August 2015

Table 5-2 PRB & Groundwater Design Conditions

CPI NE PRB					
PRB Geometry, Linear, Flux & Volumetric Flow					
PRB Length (ft)	200	200	200	200	200
PRB Depth in GW (ft)	10	10	10	10	10
PRB Area (ft^2)	2,000	2,000	2,000	2,000	2,000
Provided Width (ft)	10.0	10.0	10.0	10.0	10.0
Provided HRT (days)	3.3	3.3	3.3	3.3	3.3
Porosity	0.60	0.60	0.60	0.60	0.60
GW Velocity (ft/day)	3.0	3.0	3.0	3.0	3.0
Total Flow Through PRB (gpd)	26,900	26,900	26,900	26,900	26,900
Provided HRT (days)	3.3	3.3	3.3	3.3	3.3
Flux Rate (gpd/sf)	13	13	13	13	13
Wastewater Discharge Flow (gpd)	10,000	7,500	5,000	2,500	0
PRB WW Capture	85%	95%	100%	100%	100%
WW as % of Total	32%	26%	19%	9%	0%
Groundwater Flow (gpd)	18,400	19,775	21,900	24,400	26,900

Figure 5-2 CPI Drainfield and PRB Layout

Figure 5-3 PRB Influence on Groundwater Flow Below PRB

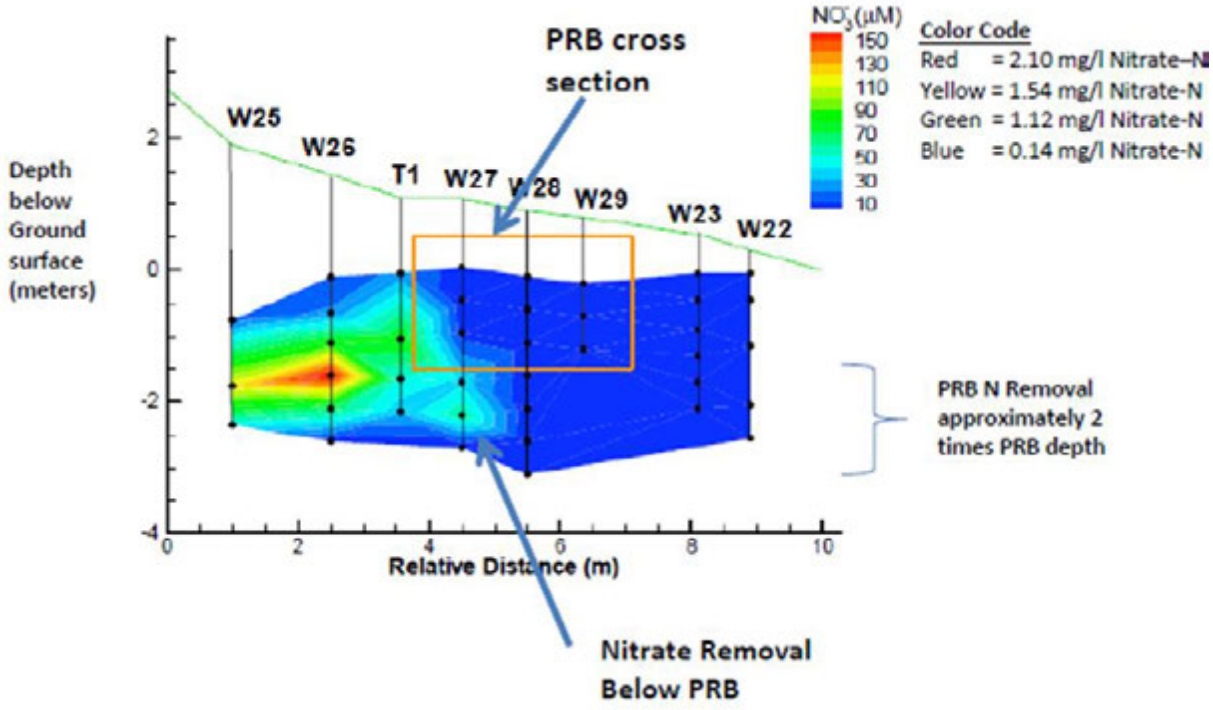


Figure 5-4 Wastewater PRB Particle Tracking at 10,000 gpd – Plan View

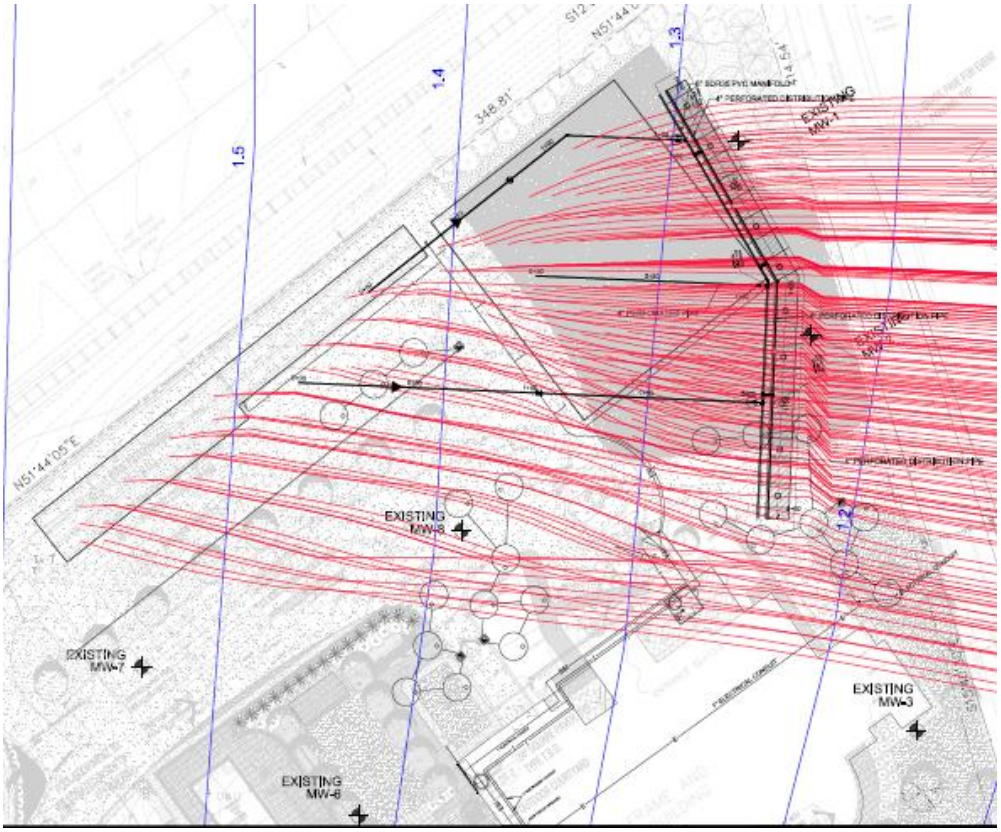
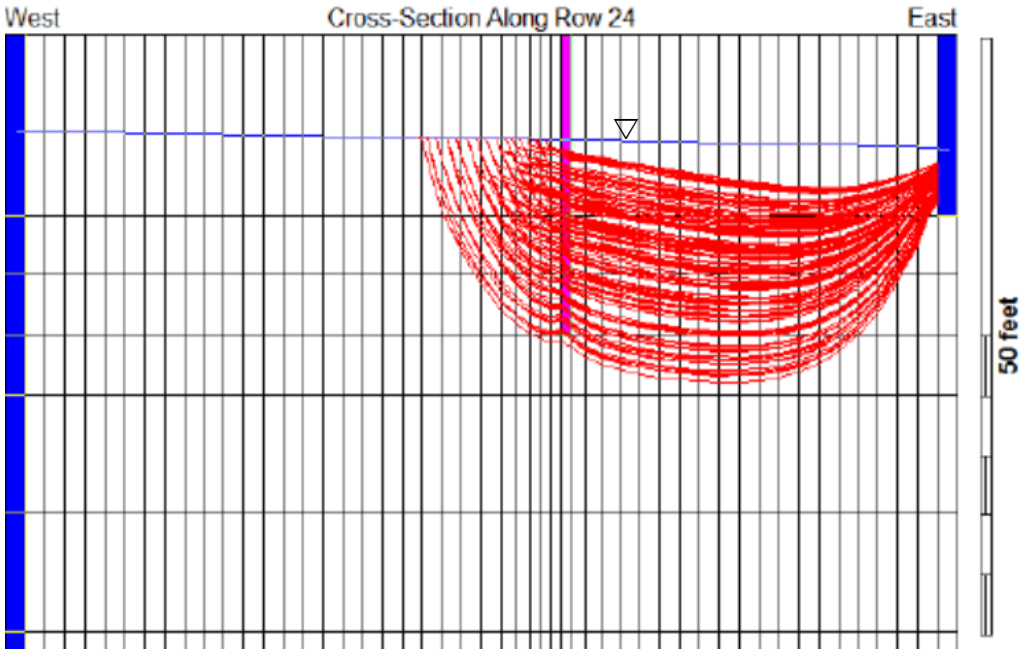


Figure 5-5 Wastewater PRB Particle Tracking at 10,000 gpd – Section View



5.2 NITROGEN LOADING & REMOVAL ESTIMATES

Table 5-3 presents the estimated wastewater and site nitrogen loadings. Table 5-4 presents the PRB nitrogen removals.

Table 5-3 Wastewater and Site Nitrogen Loadings

CPI Wastewater & Site TN Loadings					
Wastewater Discharge Flow (gpd)	**10,000**	**7,500**	**5,000**	**2,500**	**0**
Influent TN (mg/L)	70	70	70	70	70
Influent TN (lbs/day)	5.8	4.4	2.9	1.5	0.0
Drainfield Leachate TN (mg/L)	40	40	40	40	40
Drainfield Leachate TN Removal (lbs/day)	2.5	1.9	1.3	0.6	0.0
Drainfield Leachate TN (lbs/day)	3.3	2.5	1.7	0.8	0.0
CPI Non-Wastewater Load (lbs/day)	0.06	0.06	0.06	0.06	
Total Site TN Load (lbs/day)	3.4	2.6	1.7	0.9	

Table 5-4 presents the net loadings onto the PRB and PRB nitrogen removal estimates.

Table 5-4 PRB TN Loadings and TN Mass Removal

GW Quality TN					
Background TN (mg/L)	6	6	6	6	6
WW TN Conc. (mg/L)	40	40	40	40	40
GW entering PRB (mg/L)	16.7	15.0	12.3	9.2	6.0
PRB TN Removal (lbs/day)	3.8	3.4	2.8	2.1	1.3

Please note that Table 5-4 assumes an 85% WW nitrogen capture as during 10,000 gpd conditions up to 15% of wastewater TN may not be processed by the PRB. Table 5-5 presents the CPI Wastewater & Site Nitrogen Mass Removal & As % of WW + Site Loadings and shows that the 94% wastewater TN removal is achieved along with no net nitrogen discharge for the CPI property.

Table 5-5 CPI Wastewater & Site Nitrogen Mass Removal & % of WW + Site Loadings

CPI Wastewater & PRB TN Removals					
Wastewater Discharge Flow (gpd)	10,000	7,500	5,000	2,500	0
PRB WW Removal (lbs/day)	2.8	2.4	1.7	0.8	0.0
PRB GW TN Removal (lbs/day)	0.9	1.0	1.1	1.2	1.3
PRB TN Removal (lbs/day)	3.8	3.4	2.8	2.1	1.3
Total TN Removal by Drainfield & PRB (lbs/day)	6.3	5.2	4.0	2.7	1.3
Total TN Removal as % of WW	107%	120%	138%	184%	
Removal as % of 94% Removal Requirement	114%	127%	146%	195%	
CPI Non-Wastewater Load (lbs/day)	0.06	0.06	0.06	0.06	
Total Site TN Load (lbs/day)	5.9	4.4	3.0	1.5	
Total TN Removal as % of All Site TN Loadings	106%	118%	135%	176%	

5.3 Performance Monitoring Program

Wastewater nitrogen discharges to groundwater and nitrogen removal by the PRB will be measured to document the percent of wastewater nitrogen removed by the PRB system.

5.3.1 Wastewater / Groundwater Water Quality Monitoring Locations

Wastewater flow and nitrogen content to and under the drainfields will be documented to document the mass of wastewater nitrogen being discharged to groundwater. A flow meter is part of the CPI wastewater system design so continual wastewater flow information will be collected. Water use will be measured based upon water meter readings taken by the system

operator and correlations with wastewater flow performed. Wastewater nitrogen content measurements will be made by periodic sampling of the drainfield pump station and is part of the CPI wastewater system design. Drainfield leachate nitrogen content will be measured with shallow groundwater monitoring wells under the drainfields, which will be installed as part of the CPI wastewater system design.

Existing monitoring wells (MW) MW-7 and MW-8 will serve as the pre PRB wells. MW-1 and MW-2 will serve as the post PRB wells. The other four (4) existing MWs will be capped and made accessible for future monitoring as needed.

5.3.2 WASTEWATER / WATER QUALITY MONITORING PROGRAM

Table 5-6 presents the wastewater / water quality sampling data that will be collected to quantify the wastewater nitrogen mass discharge and PRB nitrogen removal, summarized as follows:

1st Year of Operation	Monthly sampling
Year 2 – 5 of Operation	Monthly sampling April 15 – October 15 Quarterly sampling Oct 16 – April 14
Year 5+ of Operation	Quarterly sampling

The numbers in the various cells on Table 5-6 refer to the number of samples that would be collected from various elevations in the groundwater wells. An annual report will be submitted to the Town providing documentation on wastewater nitrogen discharges and nitrogen removal of the wastewater and PRB system.

Table 5-6 CPI Wastewater / Groundwater Sampling Program

Year 1 - 1st 3 months					
Constituent	**Septic Tank Effluent**	**Drainfield Effluent / GW**	**PRB Influent**	**PRB Effluent**	**Sampling Frequency**
Alkalinity	1	3			Monthly for 3 months
pH		3			
TKN	1	3	6	4	
NH_4-N		3	6	4	
NO_3-N & NO_2-N		3	6	4	

Year 1 - months 4 - 12					
Constituent	**Septic Tank Effluent**	**Drainfield Effluent / GW**	**PRB Influent**	**PRB Effluent**	**Sampling Frequency**
Alkalinity	1	3			Monthly for 9 months
TKN	1	3			
NH_4-N		3			
NO_3-N & NO_2-N		3	6	4	

Years 2 - 5					
Constituent	**Septic Tank Effluent**	**Drainfield Effluent / GW**	**PRB Influent**	**PRB Effluent**	**Sampling Frequency**
Alkalinity					Monthly sampling & analysis April 15 – October 15 Quarterly sampling & analysis Oct 16 – April 14
TKN	1	3			
NH_4-N		3			
NO_3-N & NO_2-N		3	6	4	

Years 6 +					
Constituent	**Septic Tank Effluent**	**Drainfield Effluent / GW**	**PRB Influent**	**PRB Effluent**	**Sampling Frequency**
Alkalinity					Quarterly sampling & analysis
TKN	1	3			
NH_4-N		3			
NO_3-N & NO_2-N		3	6	4	

APPENDIX A – REFERENCES

1. Monti, Jr., Jack, Michael Como and Ronald Busciolano, 2012, Water-Table and Potentiometric-Surface Altitudes in the Upper Glacial, Magothy, and Lloyd Aquifers beneath Long Island, New York, April–May 2010, USGS.

2. Robertson WD, Yeung N, VanDriel PW, Lombardo PS. 2005 High-permeability layers for remediation of ground water; go wide, not deep, Ground Water Jul-Aug;43(4):574-81.

3. Schubert, C., 1998, Areas Contributing Ground Water to the Peconic Estuary, and Ground-Water Budgets for the North and South Forks and Shelter Island, Eastern Suffolk County, New York, U.S. Geological Survey Water Resources Investigations Report 97-4136, Coram, NY.

4. Schubert, C., 1999, Ground-Water Flow Paths and Travel time to Three Small Embayments within the Peconic Estuary, Eastern Suffolk County, New York, U.S. Geological Survey Water-Resources Investigations Report 98-4181, Coram, NY.

5. Weber, H., 1964, “Preliminary Surveys, Plans and Estimate of Cost for the Construction of New Locks on the Shinnecock Canal, near Hampton Bays, New York.

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APPENDIX B – WELL BORING LOGS & SURVEY INFORMATION

Project: Canoe Place Inn		Client: Rechler Equity Construction, Ltd	Boring No. MW-1
Address, City, State: Hampton Bays, NY	Newtown Rd & Monatuck Highway	Drilling Contractor: NPV	Drill Rig Type: PowerProbe 9600 Pro
Logged By: Lombardo Associates, Inc	Started: 8/12/2015 Completed: 8/12/2015	Method: HAS/Direct Push	Diameter: 4.25"
Sampling Method: Split Spoon	Groundwater Depth (bgs): 10.34		Total Depth of Boring (bgs): 28.38

Depth (feet)	Sample Type	Sample Number	Graphic Log	Soil Group Name: modifier, color, moisture, density/consistency, grain size, other descriptors Rock Description: modifierm color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.	Dry Density (pcf)	Moisture Content (%)	Additional Test
				gray med to coarse sands, some asphalt, some fill			
				light tan fine to med sands			
		Top of WT		top of water table encountered at 10.34 ft bgs			
10				light tan fine to med sands			
				light tan fine to med sands			
20				light tan fine to med sands			
				light tan fine to med sands			
30							

Boring Log: Sheet 1 of 1

Project: Canoe Place Inn		Client: Rechler Equity Construction, Ltd.	Boring No. MW-3
Address, City, State: Hampton Bays, NY	Newtown Rd & Monatuck Highway	Drilling Contractor: NPV	Drill Rig Type: PowerProbe 9600 Pro
Logged By: Lombardo Associates, Inc.	Started: 8/13/2015 Completed: 8/13/2015	Method: HAS/Direct Push	Diameter: 4.25"
Sampling Method: Split Spoon	Groundwater Depth (bgs): 11.42		Total Depth of Boring: 26.34

Depth (feet)	Sample Type	Sample Number	Graphic Log	Soil Group Name: modifier, color, moisture, density/consistency, grain size, other descriptors Rock Description: modifierm color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.	Dry Density (pcf)	Moisture Content (%)	Additional Test
				brown med to coarse sands, some gravel, little fill			
				light tan fine to med sands			
10		Top of WT		light tan fine to med sands top of water table encountered 11.42 ft			
				light tan fine to med sands			
20				light tan fine to med sands			
				light tan fine to med sands			
30							

Boring Log: Sheet 1 of 1

Project: Canoe Place Inn		Client: Rechler Equity Construction, Ltd	Boring No. MW-5
Address, City, State: Hampton Bays, NY	Newtown Rd & Monatuck Highway	Drilling Contractor: NPV	Drill Rig Type: PowerProbe 9600 Pro
Logged By: Lombardo Associates, Inc.	Started: 8/14/2015 Completed: 8/14/2015	Method: HAS/ Direct Push	Diameter: 4.25"
Sampling Method: Split Spoon	17 ft	Elevation:	Total Depth of Boring (bgs): 31.83

Depth (feet)	Sample Type	Sample Number	Graphic Log	Soil Group Name: modifier, color, moisture, density/consistency, grain size, other descriptors Rock Description: modifierm color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.	Dry Density (pcf)	Moisture Content (%)	Additional Test
				gray and tan med to coarse sands, some gravel			
				light tan fine to med sands			
10				light tan fine to med sands			
				light tan fine to med sands			
		Top of WT		top of water table encountered at 17' bgs			
20				light tan fine to med sands			
				light tan fine to med sands			
30				light tan fine to med sands			

Boring Log: Sheet 1 of 1

Project: Canoe Place Inn		Client:Rechler Equity Constuction Ltd.	Boring No. MW-7
Address, City, State: Hampton Bays, NY	Newtown Rd & Monatuck Highway	Drilling Contractor: NPV	Drill Rig Type: PowerProbe 9600 Pro
Logged By: Lombardo Associates, Inc.	Started: 8/13/2015 Completed: 8/13/2015	Method: Hollow Stem Auger/ Direct Push	Diameter: 4.25"
Sampling Method: Split Spoon	Groundwater Depth (bgs): 17		Total Depth of Boring (bgs): 36.04

Depth (feet)	Sample Type	Sample Number	Graphic Log	Soil Group Name: modifier, color, moisture, density/consistency, grain size, other descriptors Rock Description: modifierm color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.	Dry Density (pcf)	Moisture Content (%)	Additional Test
				gray and tan med to coarse sands, some gravel			
				light tan fine to med sands			
10				light tan fine to med sands			
				light tan fine to med sands			
		Top of WT		top of water table encountered 17' bgs			
20				light tan fine to med sands			
				light tan fine to med sands			
30				light tan fine to med sands			
				light tan fine to med sands			

Boring Log: Sheet 1 of 1

BOWNE AE&T GROUP
Where Experience Empowers Vision

Sidney B. Bowne & Son, LLP
235 East Jericho Turnpike
PO Box 109
Mineola, NY 11501
Phone: 516-746-2350
Fax: 516-747-1396
www.bownegroup.com

Monitoring Well Locations at Canoe Place Inn, Hamptons Bay, New York

ID	Latitude	Longitude	Ground at Well	Top of Well
MW1	40° 53' 09.69564"	72° 30' 10.21253"	11.9	14.5
MW2	40° 53' 08.85831"	72° 30' 09.82647"	11.0	13.9
MW3	40° 53' 07.16295"	72° 30' 09.27114"	11.8	14.7
MW4	40° 53' 06.07255"	72° 30' 10.42889"	13.1	16.3
MW5	40° 53' 04.56819"	72° 30' 13.01782"	17.7	20.6
MW6	40° 53' 06.84008"	72° 30' 12.41307"	13.9	17.1
MW7	40° 53' 07.49173"	72° 30' 13.62285"	21.3	24.2
MW8	40° 53' 08.04932"	72° 30' 11.80735"	13.8	17.2

- Latitudes and Longitudes are referenced to the North American Datum of 1983 (NAD83)
- Elevations are referenced to the North American Vertical Datum of 1988 (NAVD88)
- Well caps were locked at the time of survey making the casing inaccessible. Top of Well elevations refer to the top of the well cap.

Questions concerning the VERTCON process may be mailed to NGS

Latitude: 40 53 07.34

Longitude: 072 30 11.33

NAVD 88 height: 0.00 ft

Datum shift(NAVD 88 minus NGVD 29): -0.922 feet

Converted to NGVD 29 height: 0.922 feet

APPENDIX C – USGS NEARBY MONITORING WELLS

Following are descriptions of nearby active and inactive groundwater elevation monitoring wells operated by the U.S. Geological Survey with information available from http://maps.waterdata.usgs.gov/mapper/index.html

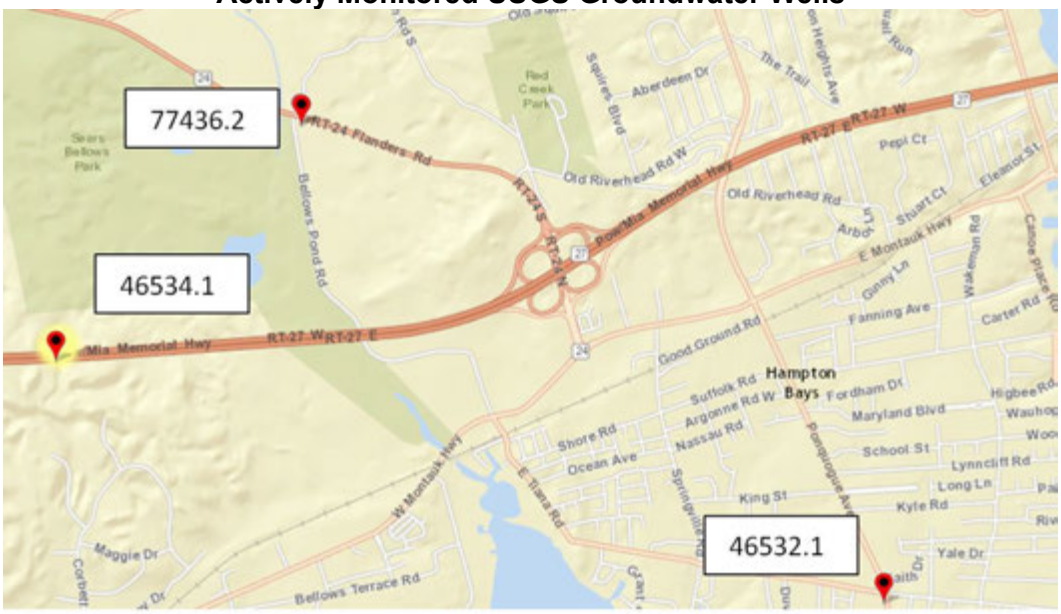
(Active Monitored Sites)

Site Number	Site Name
405147072305001	46532.1
405230072341901	46534.1
405317072331903	77436.2

(Inactively Monitored)

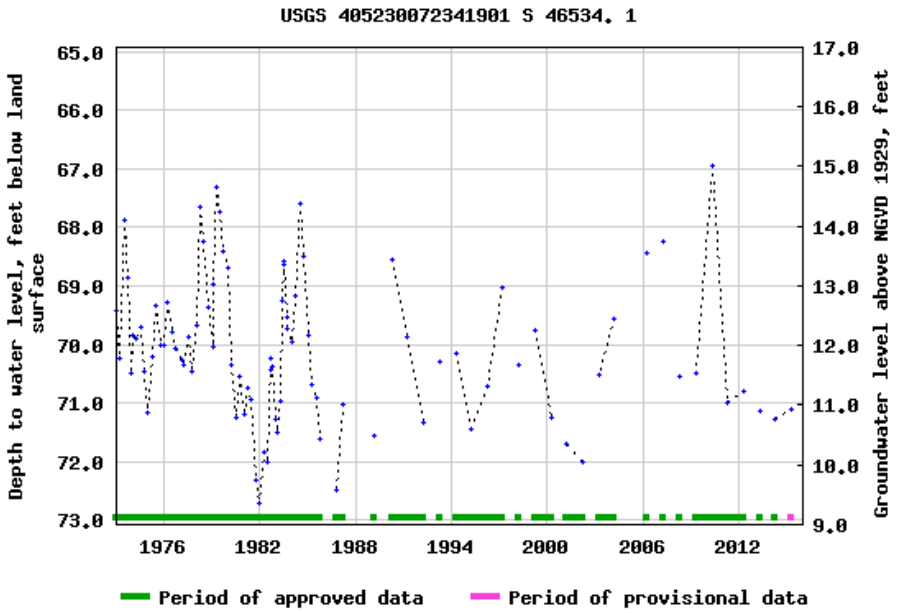
Site Number	Site Name
405302072313501	46533.1
405300072292901	52646.1
405339072291801	52647.1

Actively Monitored USGS Groundwater Wells



USGS 405230072341901 S 46534. 1

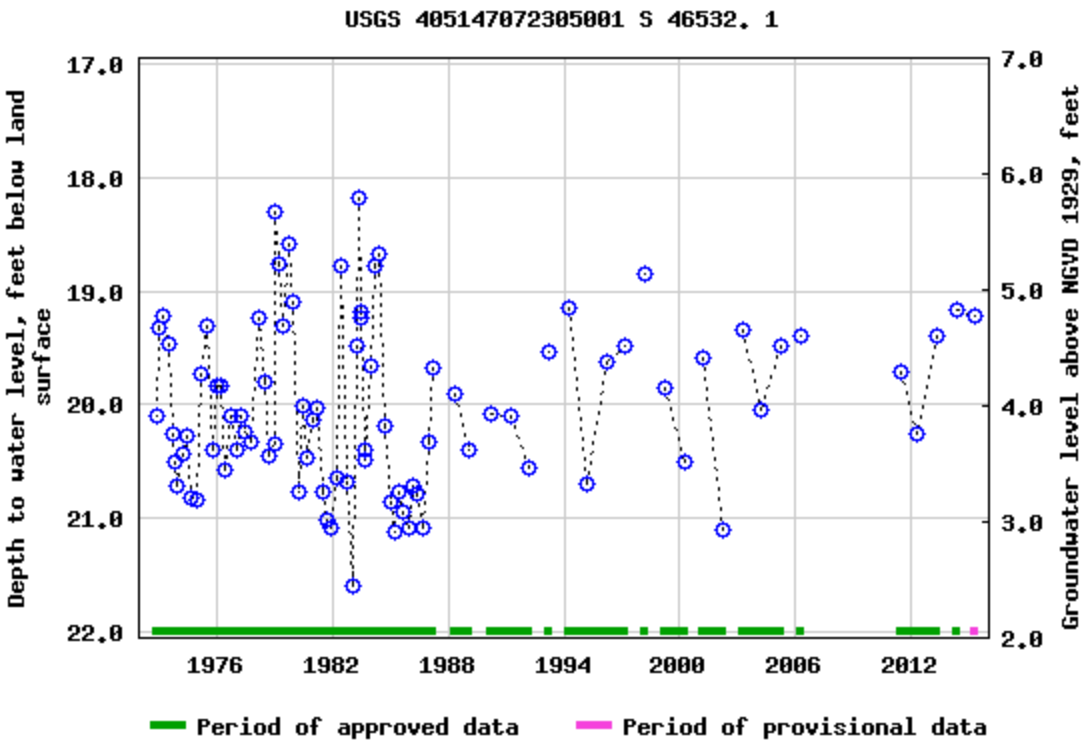
Suffolk County, New York, Hydrologic Unit Code 02030202
Latitude 40°52'32.5", Longitude 72°34'18.2" NAD83 Land-surface elevation 82.0 feet above NGVD29
The depth of the well is 84 feet below land surface. This well is completed in the Northern Atlantic Coastal Plain aquifer system (S100NATLCP) national aquifer. This well is completed in the Glacial Aquifer, Upper (112GLCLU) local aquifer.



http://nwis.waterdata.usgs.gov/usa/nwis/gwlevels/?site_no=405230072341901

USGS 405147072305001 S 46532. 1

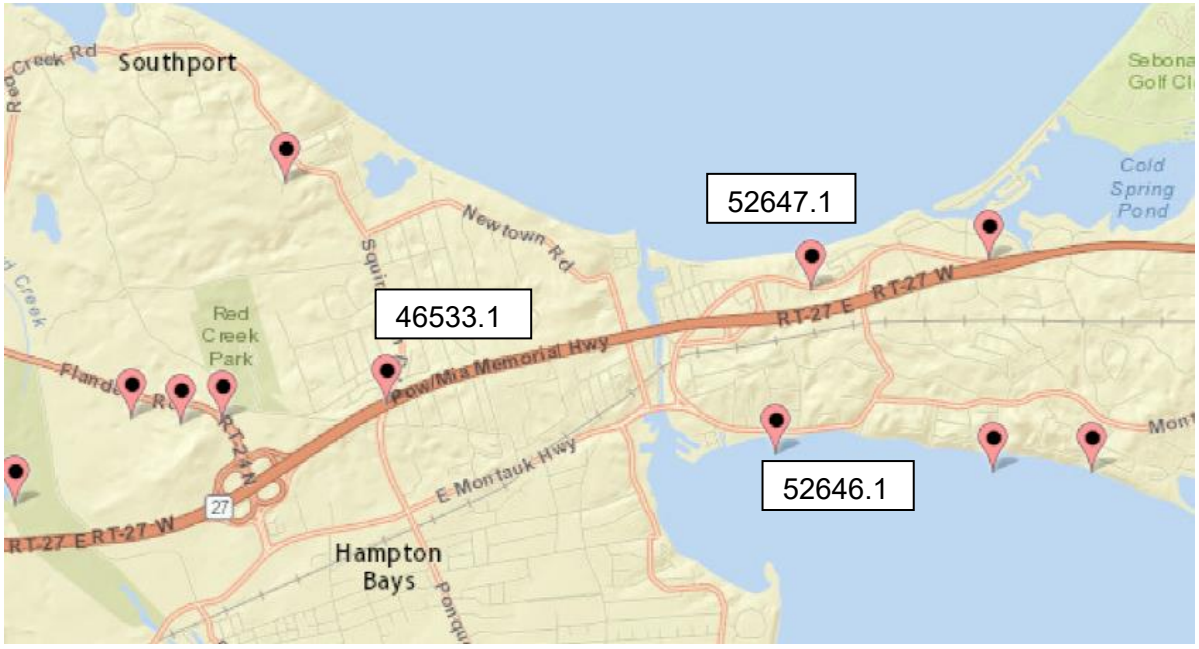
Suffolk County, New York, Hydrologic Unit Code 02030202
Latitude 40°51'46.5", Longitude 72°30'49.8" NAD83
Land-surface elevation 24.0 feet above NGVD29
The depth of the well is 25.5 feet below land surface. This well is completed in the Northern Atlantic Coastal Plain aquifer system (S100NATLCP) national aquifer. This well is completed in the Glacial Aquifer, Upper (112GLCLU) local aquifer.



USGS 405317072331903 S 77436. 2 (NO GRAPH AVAILABLE)

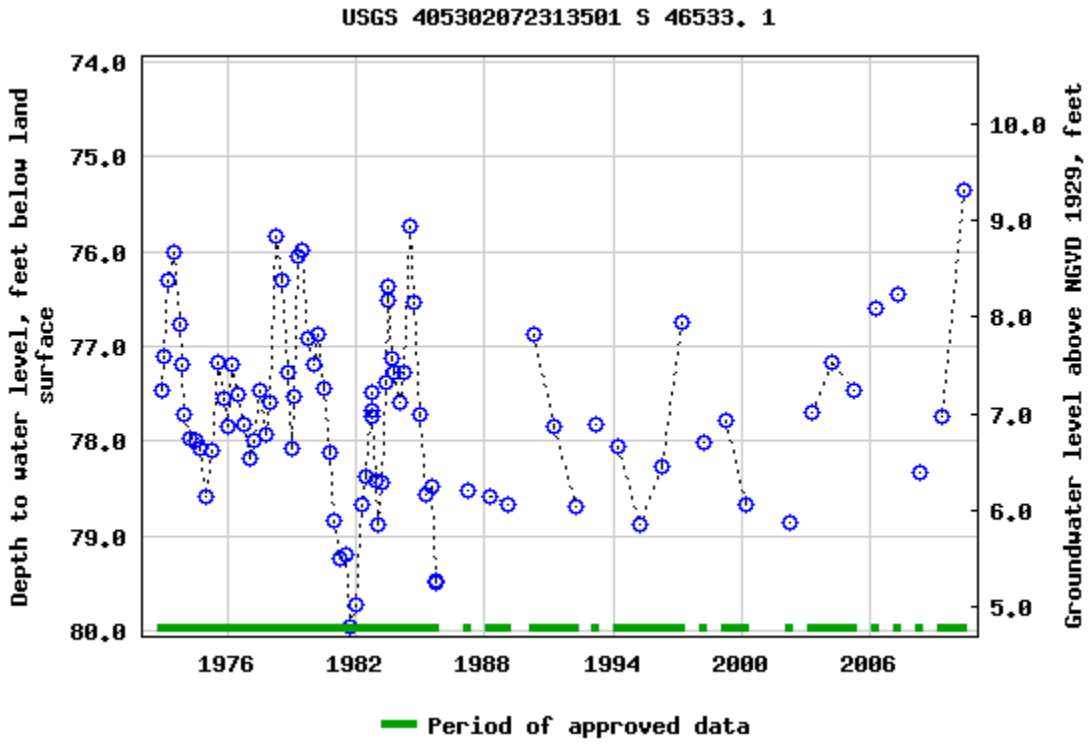
Suffolk County, New York, Hydrologic Unit Code 02030202
Latitude 40°53'17", Longitude 72°33'18" NAD27
Land-surface elevation 18.7 feet above NGVD29
The depth of the well is 508 feet below land surface. This well is completed in the Northern Atlantic Coastal Plain aquifer system (S100NATLCP) national aquifer. This well is completed in the Magothy Aquifer (211MAGT) local aquifer.

Inactively Monitored USGS Groundwater Wells



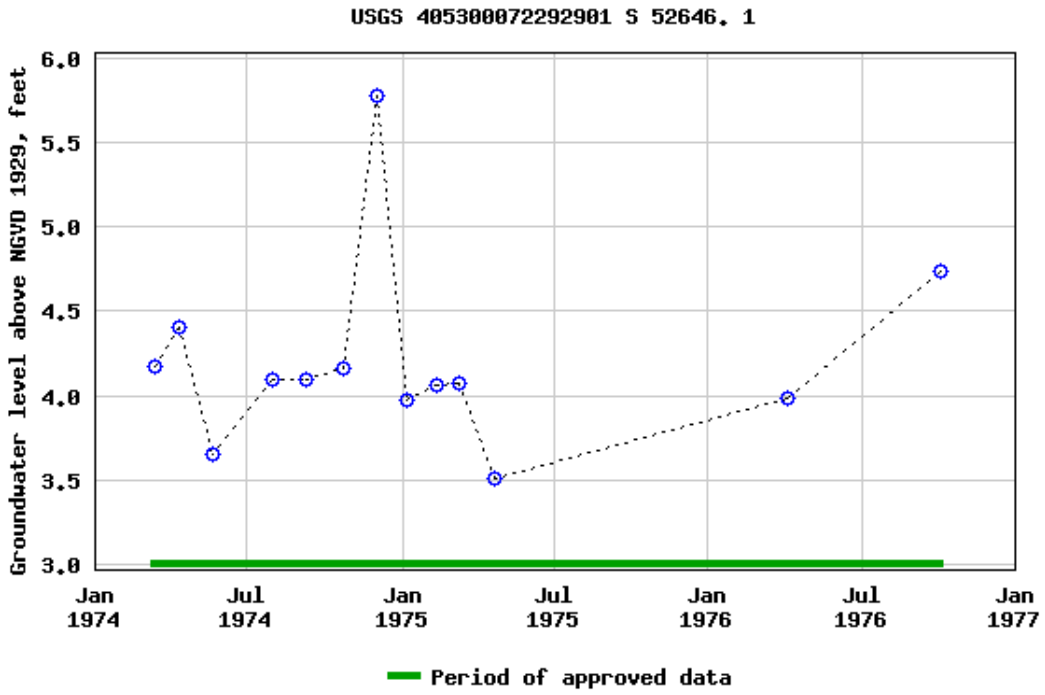
USGS 405302072313501 S 46533. 1

Suffolk County, New York, Hydrologic Unit Code 02030202
Latitude 40°53'12.1", Longitude 72°31'28.9" NAD83
Land-surface elevation 84.7 feet above NGVD29
The depth of the well is 81.6 feet below land surface. This well is completed in the Northern Atlantic Coastal Plain aquifer system (S100NATLCP) national aquifer. This well is completed in the Glacial Aquifer, Upper (112GLCLU) local aquifer



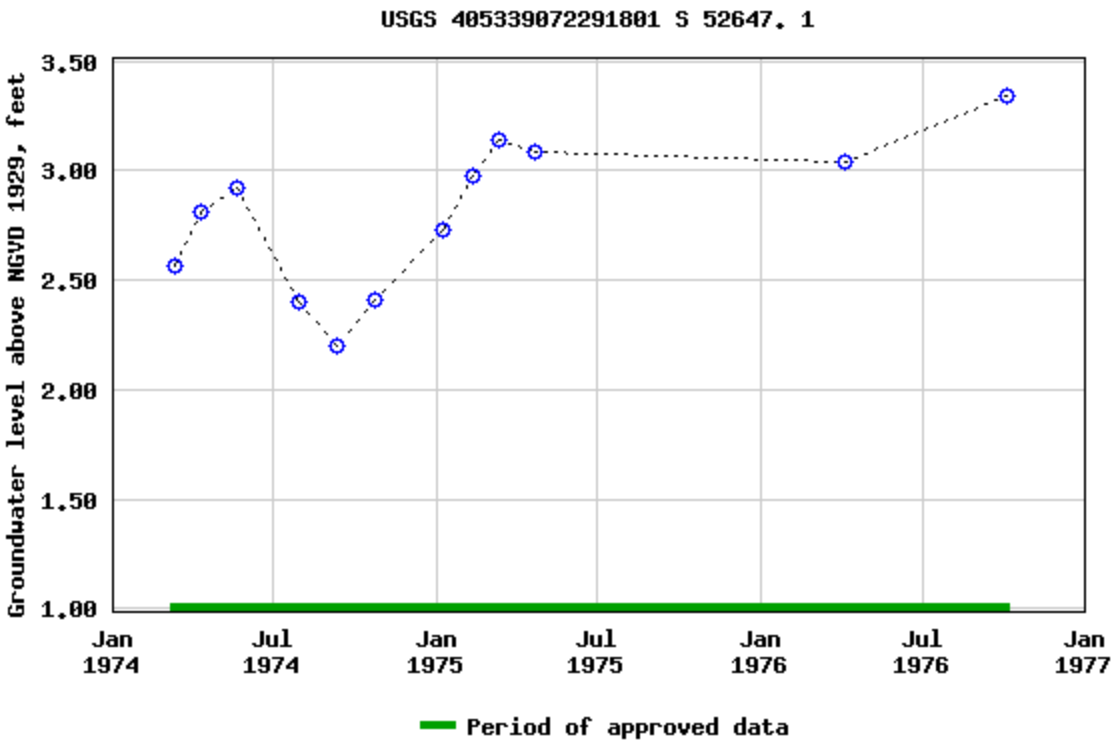
USGS 405300072292901 S 52646. 1

Suffolk County, New York
Hydrologic Unit Code 02030202
Latitude 40°53'00", Longitude 72°29'29" NAD27
The depth of the well is 49 feet below land surface.



USGS 405339072291801 S 52647. 1

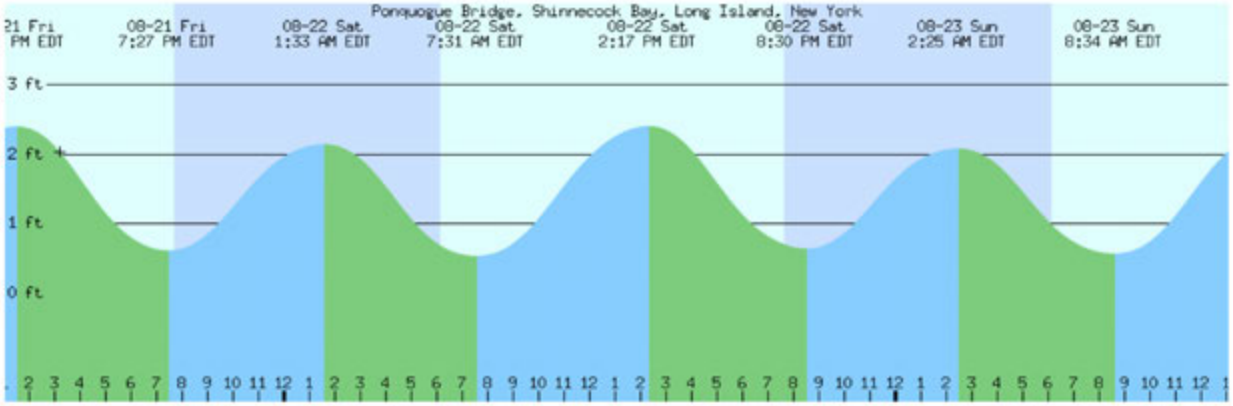
Suffolk County, New York
Hydrologic Unit Code 02030202
Latitude 40°53'39", Longitude 72°29'18" NAD27
The depth of the well is 70 feet below land surface.


USGS 405339072291801 S 52647. 1
Groundwater level above NGVD 1929, feet
3.50
3.00
2.50
2.00
1.50
1.00
Jan 1974
Jul 1974
Jan 1975
Jul 1975
Jan 1976
Jul 1976
Jan 1977
Period of approved data

APPENDIX D PECONIC & SHINNECOCK BAY TIDES + CANAL OPERATING PROCEDURES

Tidal information for Shinnecock and Peconic Bays are presented below. As can be deduced from a review of the tidal information, the tidal range is 2 +/- feet and naturally varies throughout the year.

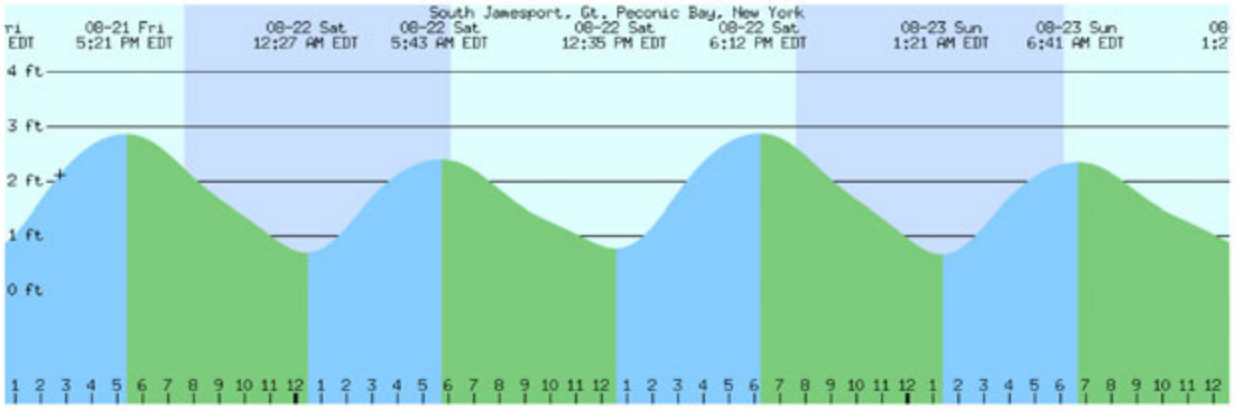
Shinnecock Bay



Ponquogue Bridge, Shinnecock Bay, Long Island, New York
40.8500° N, 72.5000° W

2015-08-21 Fri	7:27 PM EDT	0.6 feet	Low Tide
2015-08-21 Fri	7:39 PM EDT	Sunset	
2015-08-22 Sat	1:33 AM EDT	2.1 feet	High Tide
2015-08-22 Sat	6:06 AM EDT	Sunrise	
2015-08-22 Sat	7:31 AM EDT	0.5 feet	Low Tide
2015-08-22 Sat	2:17 PM EDT	2.4 feet	High Tide
2015-08-22 Sat	3:32 PM EDT	First Quarter	
2015-08-22 Sat	7:38 PM EDT	Sunset	
2015-08-22 Sat	8:30 PM EDT	0.6 feet	Low Tide
2015-08-23 Sun	2:25 AM EDT	2.1 feet	High Tide
2015-08-23 Sun	6:07 AM EDT	Sunrise	
2015-08-23 Sun	8:34 AM EDT	0.6 feet	Low Tide
2015-08-23 Sun	3:12 PM EDT	2.4 feet	High Tide
2015-08-23 Sun	7:36 PM EDT	Sunset	
2015-08-23 Sun	9:38 PM EDT	0.6 feet	Low Tide
2015-08-24 Mon	3:29 AM EDT	2.1 feet	High Tide
2015-08-24 Mon	6:08 AM EDT	Sunrise	
2015-08-24 Mon	9:44 AM EDT	0.5 feet	Low Tide
2015-08-24 Mon	4:15 PM EDT	2.5 feet	High Tide
2015-08-24 Mon	7:35 PM EDT	Sunset	
2015-08-24 Mon	10:40 PM EDT	0.5 feet	Low Tide
2015-08-25 Tue	4:41 AM EDT	2.1 feet	High Tide
2015-08-25 Tue	6:09 AM EDT	Sunrise	
2015-08-25 Tue	10:48 AM EDT	0.4 feet	Low Tide
2015-08-25 Tue	5:19 PM EDT	2.6 feet	High Tide

Peconic Bay



South Jamesport, Gt. Peconic Bay, New York
40.9350° N, 72.5767° W

2015-08-21 Fri	5:21 PM EDT	2.8 feet	High Tide
2015-08-21 Fri	7:40 PM EDT	Sunset	
2015-08-22 Sat	12:27 AM EDT	0.7 feet	Low Tide
2015-08-22 Sat	5:43 AM EDT	2.4 feet	High Tide
2015-08-22 Sat	6:06 AM EDT	Sunrise	
2015-08-22 Sat	12:35 PM EDT	0.8 feet	Low Tide
2015-08-22 Sat	3:32 PM EDT	First Quarter	
2015-08-22 Sat	6:12 PM EDT	2.9 feet	High Tide
2015-08-22 Sat	7:38 PM EDT	Sunset	
2015-08-23 Sun	1:21 AM EDT	0.7 feet	Low Tide
2015-08-23 Sun	6:07 AM EDT	Sunrise	
2015-08-23 Sun	6:41 AM EDT	2.3 feet	High Tide
2015-08-23 Sun	1:27 PM EDT	0.8 feet	Low Tide
2015-08-23 Sun	7:07 PM EDT	2.9 feet	High Tide
2015-08-23 Sun	7:37 PM EDT	Sunset	
2015-08-24 Mon	2:15 AM EDT	0.6 feet	Low Tide
2015-08-24 Mon	6:08 AM EDT	Sunrise	
2015-08-24 Mon	7:41 AM EDT	2.4 feet	High Tide
2015-08-24 Mon	2:20 PM EDT	0.7 feet	Low Tide
2015-08-24 Mon	7:35 PM EDT	Sunset	
2015-08-24 Mon	8:03 PM EDT	3.0 feet	High Tide
2015-08-25 Tue	3:06 AM EDT	0.4 feet	Low Tide
2015-08-25 Tue	6:09 AM EDT	Sunrise	
2015-08-25 Tue	8:38 AM EDT	2.5 feet	High Tide
2015-08-25 Tue	3:11 PM EDT	0.6 feet	Low Tide

Shinnecock Canal Lock Operating Procedures

Following is a description of the Shinnecock Canal Locks operating procedures obtained from:
http://www.strongsmarine.com/sitecontent.cfm?contentID=39

The Shinnecock Canal Locks are designed to raise and lower boats from one water level to another, allowing vessels to travel upstream and downstream. The locks are open 24 hours a day. However, based on prevailing tide conditions, the locks may be closed in either direction for intervals of 10-15 minutes at a time.

The lock operator controls all movement of boats through the lock by light signals or horn devices. Operator is **reached at 631-852-8299.** The following are tips and suggestions for a safe and pleasurable trip through the locks; locking through is easy!

Approaching The Locks. When approaching the lock, boaters should stop at a safe distance and follow specified signals. Boaters must give three (3) distinct blasts on the horn, whistle, or other signaling devices. Lock operators will replay with lights in the following manner:

§ GREEN - Lock is ready, craft may advance.

§ RED - Craft must wait.

§ NO LIGHT - Craft must wait or tie up to approach wall.

§ 6 FLASHES OF RED OR GREEN - Remain stopped and wait for further instructions.

Keep the channel near the lock gates clear and allow boats departing or entering the lock a safe and easy passage. Be patient if lock staff are not ready to lock you through immediately since they often have other water management duties.

Entering The Lock. On entering the lock chamber, vessels must proceed under control at a safe reduced speed. All boats must be equipped with adequate mooring lines and fenders. Lock operators are not required to handle or furnish lines. As you near the walls of the lock chamber, have your crew members ready to loop their lines around the snubbing posts, lock wall ladders, and tie lines; be sure to loop, do not tie your lines or your boat may be left hanging or damaged as the water level changes. Be alert to other boats entering behind you and move forward if necessary. Serious injury can result from using your hands or feet to fend off a wall. Use a boat hook, oar or paddle. Line handlers should wear PDFs. Passengers who are not involved should remain seated.

In The Lock Chamber. Follow directions of the lock operator and when safely positioned against the chamber walls with lines looped, turn off your engine (but leave the bilge blower on) and do not smoke or operate open flame appliances. Never leave your boat unattended in the lock.

Exiting The Lock. As soon as the water in the lock chamber reaches the proper level, the gates will be opened, boaters should cast off all lines and proceed at a reduced speed to exit the chamber in station order. Remember to observe posted speed limits and stay clear of dams in lock areas.

APPENDIX E – GROUNDWATER SAMPLES LABORATORY REPORTS

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"

Laboratory Report

NYSDOH ELAP# 11693
USEPA# NY01273
CTDOH# PH-0284
AIHA# 164456
NJDEP# NY012
PADEP# 68-2943

LIAL# 5082115

September 01, 2015

Nelson, Pope & Voorhis
Eric Arnesen
572 Walt Whitman Road
Melville, NY 11747

Re: CPI

Dear Eric Arnesen,

Enclosed please find the laboratory Analysis Report(s) for sample(s) received on August 21, 2015. Long Island Analytical laboratories analyzed the samples on September 01, 2015 for the following:

SAMPLE ID	ANALYSIS
MW-2 24'	Ammonia (as N) Analysis, Chloride, Nitrate, Nitrite and TKN Analysis, Orthophosphate (as P), Phosphorus, Total, Sulfate, Total Nitrogen
MW-2 21'	Ammonia (as N) Analysis, Chloride, Nitrate, Nitrite and TKN Analysis, Orthophosphate (as P), Phosphorus, Total, Sulfate, Total Nitrogen
MW-2 18'	Ammonia (as N) Analysis, Chloride, Nitrate, Nitrite and TKN Analysis, Orthophosphate (as P), Phosphorus, Total, Sulfate, Total Nitrogen
MW-2 15'	Ammonia (as N) Analysis, Chloride, Nitrate, Nitrite and TKN Analysis, Orthophosphate (as P), Phosphorus, Total, Sulfate, Total Nitrogen
MW-2 12'	Ammonia (as N) Analysis, Chloride, Nitrate, Nitrite and TKN Analysis, Orthophosphate (as P), Phosphorus, Total, Sulfate, Total Nitrogen
MW-1 24'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen
MW-1 15'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen
MW-1 12'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen
MW-8 28'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen
MW-8 19'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen

MW-8 16'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen
MW-7 20'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen
MW-7 17'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen
MW-7 14'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen
MW-6 29'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen
MW-6 23'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen
MW-6 17'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen
MW-4 23'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen
MW-4 17'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen
MW-4 11'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen
MW-3 24'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen
MW-3 18'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen
MW-3 12'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen
MW-5 35'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen
MW-5 28'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen
MW-5 23'	Ammonia (as N) Analysis, Nitrate, Nitrite and TKN Analysis, Total Nitrogen

Samples received at 1.2 ° C

If you have any questions or require further information, please call at your convenience. Long Island Analytical Laboratories Inc. is a NELAP accredited laboratory. All reported results meet the requirements of the NELAP standards unless noted. Report shall not be reproduced except in full without the written approval of the laboratory. Results related only to items tested. Long Island Analytical Laboratories would like to thank you for the opportunity to be of service to you.

Best Regards,

Long Island Analytical Laboratories, Inc.

Michael Veraldi - Laboratory Director

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 08:30	Sample ID: MW-2 24'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-01
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	08/28/2015 13:00	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/27/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	08/28/2015 13:00	Calculation	0.41	2.10	8.22	mg/L	

Date Prepared: 08/27/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Chloride	08/22/2015 00:14	EPA 300.0 Rev. 2.1	1.35	5.00	53.8	mg/L	3.E
Nitrate as N	08/22/2015 00:14	EPA 300.0 Rev. 2.1	0.06	1.00	8.22	mg/L	3.E
Nitrite as N	08/21/2015 19:26	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	
Orthophosphate as P	08/21/2015 19:26	EPA 300.0 Rev. 2.1	0.0170	0.100	<0.100	mg/L	
Sulfate as SO4	08/22/2015 00:14	EPA 300.0 Rev. 2.1	0.190	1.00	19.3	mg/L	3.E

Date Prepared: 08/22/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/25/2015 18:14	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/24/2015 Preparation Method: SM4500-NH3 B-97,-11

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Phosphorus-Total	09/01/2015 17:42	SM 4500-P E-99,-11	0.0190	0.100	<0.100	mg/L	

Date Prepared: 09/01/2015 Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 08:42	Sample ID: MW-2 21'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-02
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	08/28/2015 13:00	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/27/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	08/28/2015 13:00	Calculation	0.41	2.10	6.94	mg/L	

Date Prepared: 08/27/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Chloride	08/22/2015 00:28	EPA 300.0 Rev. 2.1	1.35	5.00	48.8	mg/L	3.E
Nitrate as N	08/22/2015 00:28	EPA 300.0 Rev. 2.1	0.06	1.00	6.94	mg/L	3.E
Nitrite as N	08/21/2015 19:40	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	
Orthophosphate as P	08/21/2015 19:40	EPA 300.0 Rev. 2.1	0.0170	0.100	<0.100	mg/L	
Sulfate as SO4	08/22/2015 00:28	EPA 300.0 Rev. 2.1	0.190	1.00	17.2	mg/L	3.E

Date Prepared: 08/22/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/25/2015 18:14	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/24/2015 Preparation Method: SM4500-NH3 B-97,-11

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Phosphorus-Total	09/01/2015 17:42	SM 4500-P E-99,-11	0.0190	0.100	<0.100	mg/L	

Date Prepared: 09/01/2015 Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 08:52	Sample ID: MW-2 18'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-03
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	08/28/2015 13:00	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/27/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	08/28/2015 13:00	Calculation	0.41	2.10	4.26	mg/L	

Date Prepared: 08/27/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Chloride	08/22/2015 00:43	EPA 300.0 Rev. 2.1	1.35	5.00	86.2	mg/L	3.E
Nitrate as N	08/22/2015 00:43	EPA 300.0 Rev. 2.1	0.06	1.00	4.26	mg/L	3.E
Nitrite as N	08/21/2015 19:55	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	
Orthophosphate as P	08/21/2015 19:55	EPA 300.0 Rev. 2.1	0.0170	0.100	<0.100	mg/L	
Sulfate as SO4	08/22/2015 00:43	EPA 300.0 Rev. 2.1	0.190	1.00	8.44	mg/L	3.E

Date Prepared: 08/22/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/25/2015 18:14	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/24/2015 Preparation Method: SM4500-NH3 B-97,-11

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Phosphorus-Total	09/01/2015 17:42	SM 4500-P E-99,-11	0.0190	0.100	<0.100	mg/L	

Date Prepared: 09/01/2015 Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 09:02	Sample ID: MW-2 15'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-04
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	08/28/2015 13:00	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/27/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	08/28/2015 13:00	Calculation	0.36	1.20	1.37	mg/L	

Date Prepared: 08/27/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Chloride	08/22/2015 00:57	EPA 300.0 Rev. 2.1	1.35	5.00	36.6	mg/L	3.E
Nitrate as N	08/21/2015 20:38	EPA 300.0 Rev. 2.1	0.006	0.10	1.37	mg/L	
Nitrite as N	08/21/2015 20:38	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	
Orthophosphate as P	08/21/2015 20:38	EPA 300.0 Rev. 2.1	0.0170	0.100	<0.100	mg/L	
Sulfate as SO4	08/22/2015 00:57	EPA 300.0 Rev. 2.1	0.190	1.00	34.9	mg/L	3.E

Date Prepared: 08/22/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Phosphorus-Total	09/01/2015 17:42	SM 4500-P E-99,-11	0.0190	0.100	<0.100	mg/L	

Date Prepared: 09/01/2015 Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 09:13	Sample ID: MW-2 12'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-05
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	08/28/2015 13:00	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/27/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	08/28/2015 13:00	Calculation	0.36	1.20	1.32	mg/L	

Date Prepared: 08/27/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Chloride	08/21/2015 20:52	EPA 300.0 Rev. 2.1	0.135	0.500	4.19	mg/L	
Nitrate as N	08/21/2015 20:52	EPA 300.0 Rev. 2.1	0.006	0.10	1.32	mg/L	
Nitrite as N	08/21/2015 20:52	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	
Orthophosphate as P	08/21/2015 20:52	EPA 300.0 Rev. 2.1	0.0170	0.100	<0.100	mg/L	
Sulfate as SO4	08/21/2015 20:52	EPA 300.0 Rev. 2.1	0.0190	0.100	9.96	mg/L	

Date Prepared: 08/21/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Phosphorus-Total	09/01/2015 17:42	SM 4500-P E-99,-11	0.0190	0.100	<0.100	mg/L	

Date Prepared: 09/01/2015 Preparation Method: No Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 09:35	Sample ID: MW-1 24'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-06
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	08/28/2015 13:00	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/27/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	08/28/2015 13:00	Calculation	0.41	2.10	4.43	mg/L	

Date Prepared: 08/27/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/22/2015 01:26	EPA 300.0 Rev. 2.1	0.06	1.00	4.43	mg/L	3.E
Nitrite as N	08/21/2015 21:07	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	

Date Prepared: 08/21/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 09:45	Sample ID: MW-1 15'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-07
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	08/28/2015 13:00	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/27/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	08/28/2015 13:00	Calculation	0.41	2.10	2.96	mg/L	

Date Prepared: 08/27/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/22/2015 01:41	EPA 300.0 Rev. 2.1	0.06	1.00	2.96	mg/L	3.E
Nitrite as N	08/21/2015 21:21	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	

Date Prepared: 08/21/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 09:53	Sample ID: MW-1 12'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-08
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	08/28/2015 13:00	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/27/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	08/28/2015 13:00	Calculation	0.41	2.10	2.19	mg/L	

Date Prepared: 08/27/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/22/2015 02:24	EPA 300.0 Rev. 2.1	0.06	1.00	2.19	mg/L	3.E
Nitrite as N	08/21/2015 21:35	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	

Date Prepared: 08/21/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 10:12	Sample ID: MW-8 28'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-09
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	08/28/2015 13:00	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/27/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	08/28/2015 13:00	Calculation	0.41	2.10	9.81	mg/L	

Date Prepared: 08/27/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/22/2015 02:38	EPA 300.0 Rev. 2.1	0.06	1.00	9.81	mg/L	3.E
Nitrite as N	08/21/2015 21:50	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	

Date Prepared: 08/21/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 10:25	Sample ID: MW-8 19'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-10
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	08/28/2015 13:00	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/27/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	08/28/2015 13:00	Calculation	0.41	2.10	2.97	mg/L	

Date Prepared: 08/27/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/22/2015 02:53	EPA 300.0 Rev. 2.1	0.06	1.00	2.97	mg/L	3.E
Nitrite as N	08/21/2015 22:04	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	

Date Prepared: 08/21/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 10:33	Sample ID: MW-8 16'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-11
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	08/28/2015 13:00	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/27/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	08/28/2015 13:00	Calculation	0.36	1.20	<1.20	mg/L	

Date Prepared: 08/27/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/21/2015 22:19	EPA 300.0 Rev. 2.1	0.006	0.10	0.27	mg/L	
Nitrite as N	08/21/2015 22:19	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	

Date Prepared: 08/21/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 11:06	Sample ID: MW-7 20'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-12
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	08/28/2015 13:00	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/27/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	08/28/2015 13:00	Calculation	0.41	2.10	12.1	mg/L	

Date Prepared: 08/27/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/22/2015 03:21	EPA 300.0 Rev. 2.1	0.06	1.00	12.1	mg/L	3.E
Nitrite as N	08/21/2015 22:33	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	

Date Prepared: 08/21/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 11:21	Sample ID: MW-7 17'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-13
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	08/28/2015 13:00	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/27/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	08/28/2015 13:00	Calculation	0.41	2.10	9.84	mg/L	

Date Prepared: 08/27/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/22/2015 03:36	EPA 300.0 Rev. 2.1	0.06	1.00	9.84	mg/L	3.E
Nitrite as N	08/21/2015 22:48	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	

Date Prepared: 08/21/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 11:33	Sample ID: MW-7 14'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-14
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	08/28/2015 13:00	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/27/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	08/28/2015 13:00	Calculation	0.41	2.10	3.12	mg/L	

Date Prepared: 08/27/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/22/2015 03:50	EPA 300.0 Rev. 2.1	0.06	1.00	3.12	mg/L	3.E
Nitrite as N	08/21/2015 23:31	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	4.G

Date Prepared: 08/21/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 11:53	Sample ID: MW-6 29'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-15
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	08/28/2015 13:00	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/27/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	08/28/2015 13:00	Calculation	0.41	2.10	10.8	mg/L	

Date Prepared: 08/27/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/22/2015 22:36	EPA 300.0 Rev. 2.1	0.06	1.00	10.8	mg/L	3.E
Nitrite as N	08/22/2015 18:17	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	

Date Prepared: 08/22/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 12:08	Sample ID: MW-6 23'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-16
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	08/28/2015 13:00	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/27/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	08/28/2015 13:00	Calculation	0.41	2.10	6.68	mg/L	

Date Prepared: 08/27/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/22/2015 22:50	EPA 300.0 Rev. 2.1	0.06	1.00	6.68	mg/L	3.E
Nitrite as N	08/22/2015 18:31	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	

Date Prepared: 08/22/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 12:23	Sample ID: MW-6 17'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-17
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	09/01/2015 10:51	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	09/01/2015 10:51	Calculation	0.36	1.20	<1.20	mg/L	

Date Prepared: 08/28/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/22/2015 18:45	EPA 300.0 Rev. 2.1	0.006	0.10	0.72	mg/L	
Nitrite as N	08/22/2015 18:45	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	

Date Prepared: 08/22/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 12:57	Sample ID: MW-4 23'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-18
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	09/01/2015 10:51	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	09/01/2015 10:51	Calculation	0.41	2.10	7.06	mg/L	

Date Prepared: 08/28/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/22/2015 23:48	EPA 300.0 Rev. 2.1	0.06	1.00	7.06	mg/L	3.E
Nitrite as N	08/22/2015 19:00	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	

Date Prepared: 08/22/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 13:07	Sample ID: MW-4 17'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-19
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	09/01/2015 10:51	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	09/01/2015 10:51	Calculation	0.41	2.10	4.41	mg/L	

Date Prepared: 08/28/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/23/2015 00:03	EPA 300.0 Rev. 2.1	0.06	1.00	4.41	mg/L	3.E
Nitrite as N	08/22/2015 19:14	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	

Date Prepared: 08/22/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 13:19	Sample ID: MW-4 11'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-20
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	09/01/2015 10:51	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	09/01/2015 10:51	Calculation	0.36	1.20	1.82	mg/L	

Date Prepared: 08/28/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/22/2015 19:29	EPA 300.0 Rev. 2.1	0.006	0.10	1.82	mg/L	
Nitrite as N	08/22/2015 19:29	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	

Date Prepared: 08/22/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 13:40	Sample ID: MW-3 24'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-21
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	09/01/2015 10:51	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	09/01/2015 10:51	Calculation	0.41	2.10	4.22	mg/L	

Date Prepared: 08/28/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/23/2015 00:31	EPA 300.0 Rev. 2.1	0.06	1.00	4.22	mg/L	3.E
Nitrite as N	08/22/2015 19:43	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	

Date Prepared: 08/22/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 13:50	Sample ID: MW-3 18'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-22
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	09/01/2015 10:51	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	09/01/2015 10:51	Calculation	0.36	1.20	<1.20	mg/L	

Date Prepared: 08/28/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/22/2015 19:58	EPA 300.0 Rev. 2.1	0.006	0.10	<0.10	mg/L	
Nitrite as N	08/22/2015 19:58	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	

Date Prepared: 08/22/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 14:12	Sample ID: MW-3 12'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-23
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	09/01/2015 10:51	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	09/01/2015 10:51	Calculation	0.36	1.20	<1.20	mg/L	

Date Prepared: 08/28/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/22/2015 20:41	EPA 300.0 Rev. 2.1	0.006	0.10	<0.10	mg/L	
Nitrite as N	08/22/2015 20:41	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	

Date Prepared: 08/22/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	08/28/2015 17:48	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 14:44	Sample ID: MW-5 35'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-24
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	09/01/2015 10:51	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	09/01/2015 10:51	Calculation	0.36	1.20	<1.20	mg/L	

Date Prepared: 08/28/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/22/2015 20:55	EPA 300.0 Rev. 2.1	0.006	0.10	0.72	mg/L	
Nitrite as N	08/22/2015 20:55	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	

Date Prepared: 08/22/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	09/01/2015 14:17	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 09/01/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 15:00	Sample ID: MW-5 28'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-25
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	09/01/2015 10:51	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	09/01/2015 10:51	Calculation	0.36	1.20	1.23	mg/L	

Date Prepared: 08/28/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/22/2015 21:10	EPA 300.0 Rev. 2.1	0.006	0.10	1.23	mg/L	4.G
Nitrite as N	08/22/2015 21:10	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	4.G, 4.T

Date Prepared: 08/22/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	09/01/2015 14:17	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 09/01/2015 Preparation Method: SM4500-NH3 B-97,-11

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/21/2015 15:09	Sample ID: MW-5 23'
Date (Time) Received: 08/21/2015 16:43	Laboratory ID: 5082115-26
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Kjeldahl Nitrogen	09/01/2015 10:51	ASTM D3590-02(06) (A)	0.350	1.00	<1.00	mg/L	

Date Prepared: 08/28/2015 Preparation Method: SM4500-Norg B

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Total Nitrogen	09/01/2015 10:51	Calculation	0.36	1.20	<1.20	mg/L	

Date Prepared: 08/28/2015 Preparation Method: [CALC]

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Nitrate as N	08/22/2015 21:24	EPA 300.0 Rev. 2.1	0.006	0.10	0.13	mg/L	4.G, 4.T
Nitrite as N	08/22/2015 21:24	EPA 300.0 Rev. 2.1	0.003	0.10	<0.10	mg/L	4.G, 4.T

Date Prepared: 08/22/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Ammonia as N	09/01/2015 14:17	SM 4500 NH3 C-97,-11	0.220	1.00	<1.00	mg/L	

Date Prepared: 09/01/2015 Preparation Method: SM4500-NH3 B-97,-11

Data Qualifiers Key Reference:

3.E Compound reported at a dilution factor.
4.G Spike recovery out of range due to matrix interference.
4.T Sample Matrix Spike/Spike Dup RPD is above acceptable range.
MDL Minimum Detection Limit
LOQ Limit of Quantitation

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CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

(27)

CLIENT NAME/ADDRESS: NPV, 572 WEST WINDSOR RD, MELVILLE, NY 11747	CONTACT: Eric Adler	SAMPLER (SIGNATURE)	SAMPLE(S) SEALED: YES / NO
	PHONE: 427-5626	SAMPLER NAME (PRINT): Eric Adler	CORRECT CONTAINER(S): YES / NO
PROJECT LOCATION: CPI	FAX:		5082115
	EMAIL:	SAMPLES RECEIVED AT: 1.2 °C	

TERMS & CONDITIONS: Accounts are payable in full within thirty days, outstanding balances accrue service charges of 1.5% per month. Tendering of samples to LIAL for analytical testing constitutes agreement by buyer/sampler to LIAL's Standard terms

LABORATORY ID # (For Laboratory Use Only)	MATRIX	TYPE	pH	RES. CHLORINE	PRES	DATE	TIME	SAMPLE # LOCATION	ANALYSIS REQUIRED: TKN	Ammonia	NO2	NO3	POH	Total Phosphorus	Sulfate	Chloride				# OF CONTAINERS
1. 5082115-01	L	G	—	—	Ice	8/21/15	8:30	MW-2 24'	x	x	x	x	x	x	x	x				4
2. 02							8:42	MW-2 21'	x	x	x	x	x	x	x	x				4
3. 03							8:52	MW-2 18'	x	x	x	x	x	x	x	x				4
4. 04							9:02	MW-2 15'	x	x	x	x	x	x	x	x				4
5. 05							9:13	MW-2 12'	x	x	x	x	x	x	x	x				4
6. 06							9:35	MW-1 24'	x	x	x	x								2
7. 07							9:45	MW-1 15'	x	x	x	x								2
8. 08							9:53	MW-1 12'	x	x	x	x								2
9. 09							10:12	MW-8 28'	x	x	x	x								2
10. 10							10:25	MW-8 19'	x	x	x	x								2
11. 11							10:33	MW-8 16'	x	x	x	x								2
12. 12							11:02	MW-7 20'	x	x	x	x								2
13. 13							11:21	MW-7 17'	x	x	x	x								2
14. 14	V	V	V	V	V	V	11:33	MW-7 14'	x	x	x	x								2

MATRIX: S=SOIL; SL=SLUDGE; DW=DRINKING WATER; A=AIR; W=WIPE; PC=PAINT CHIPS; BM= BULK MATERIAL, O=OIL, WW=WASTE WATER
TYPE: G=GRAB; C=COMPOSITE; SS=SPLIT SPOON
PRES: (1) ICE; (2) HCL; (3) H_2SO_4; (4) NAOH; (5) $NA_2S_2O_3$; (6) HNO_3; (7) OTHER

TURNAROUND REQUIRED: X NORMAL ☐ STAT BY / /

COMMENTS / INSTRUCTIONS: Sample Preserved w/H2SO4 By: CLIENT LL

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY (SIGNATURE)	DATE / TIME	PRINTED NAME
Eric	8/21/15 3:25	Eric Adler		8/21/15 3:25	Jonathan McGinn
RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY SAMPLE CUSTODIAN	DATE / TIME	PRINTED NAME
	8/21/15 4:15	Jonathan McGinn		8-21-15 4:15PM	Ben Lamb Oxson

WHITE - OFFICE / CANARY - SAMPLE CUSTODIAN / PINK - CLIENT

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CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

5082115

CLIENT NAME/ADDRESS: NPV, 572 Walt Whitman Rd. Melville NY 11747

PROJECT LOCATION: CPI

CONTACT: Eric Aresta
PHONE: 427-5165
FAX:
EMAIL:

SAMPLER (SIGNATURE): Eric A
SAMPLER NAME (PRINT): Eric Aresta

SAMPLE(S) SEALED: YES / NO (YES circled)
CORRECT CONTAINER(S): YES / NO (YES circled)

SAMPLES RECEIVED AT: 1.2°C

TERMS & CONDITIONS: Accounts are payable in full within thirty days, outstanding balances accrue service charges of 1.5% per month. Tendering of samples to LIAL for analytical testing constitutes agreement by buyer/sampler to LIAL's Standard terms

ANALYSIS REQUIRED: TKN, Ammonia, NO2, NO3

	LABORATORY ID # (For Laboratory Use Only)	MATRIX	TYPE	pH	RES. CHLORINE	PRES.	DATE	TIME	SAMPLE # LOCATION	TKN	Ammonia	NO2	NO3	# OF CONTAINERS
1.	5082115-15	L	G	—	—	ICE	8/21/15	11:53	MW-6 29'	X	X	X	X	2
2.	16							12:08	MW-6 23'	X	X	X	X	2
3.	17							12:23	MW-6 17'	X	X	X	X	2
4.	18							12:57	MW-4 23'	X	X	X	X	2
5.	19							1:07	MW-4 17'	X	X	X	X	2
6.	20							1:19	MW-4 11'	X	X	X	X	2
7.	21							1:40	MW-3 24'	X	X	X	X	2
8.	22							1:50	MW-3 18'	X	X	X	X	2
9.	23							2:12	MW-3 12'	X	X	X	X	2
10.	24							2:44	MW-5 35'	X	X	X	X	2
11.	25							3:00	MW-5 28'	X	X	X	X	2
12.	26	↓	↓	↓	↓	↓	↓	3:09	MW-5 23'	X	X	X	X	2
13.														
14.														

MATRIX: S=SOIL; SL=SLUDGE; DW=DRINKING WATER; A=AIR; W=WIPE; PC=PAINT CHIPS; BM= BULK MATERIAL, O=OIL, WW=WASTE WATER
TYPE: G=GRAB; C=COMPOSITE; SS=SPLIT SPOON
PRES: (1) ICE; (2) HCL; (3) H_2SO_4; (4) NAOH; (5) $NA_2S_2O_3$; (6) HNO_3; (7) OTHER

TURNAROUND REQUIRED: ☒ NORMAL ☐ STAT
BY / /

COMMENTS / INSTRUCTIONS:
Sample Preserved w/H2SO4 By: Client CL

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY (SIGNATURE)	DATE / TIME	PRINTED NAME
Eric A	DATE 8/21/15 TIME 3:25	Eric Aresta	[signature]	DATE 8/21/15 TIME 3:25	Jonathan McGin
RELINQUISHED BY (SIGNATURE): [signature]	DATE 8/21/15 TIME 4:15	Jonathan McGin	RECEIVED BY SAMPLE CUSTODIAN: [signature]	DATE 8-21-15 TIME 4:15P	Ben Lamberson

LONG ISLAND ANALYTICAL LABORATORIES INC.
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Laboratory Report

NYSDOH ELAP# 11693
USEPA# NY01273
CTDOH# PH-0284
AIHA# 164456
NJDEP# NY012
PADEP# 68-2943

LIAL# 5092907

October 01, 2015

Nelson, Pope & Voorhis
Eric Arnesen
572 Walt Whitman Road
Melville, NY 11747

Re: CPI

Dear Eric Arnesen,

Enclosed please find the laboratory Analysis Report(s) for sample(s) received on September 29, 2015. Long Island Analytical laboratories analyzed the samples on September 30, 2015 for the following:

SAMPLE ID	ANALYSIS
MW-2 24'	Chloride, Nitrate (as N), pH
MW-2 21'	Nitrate (as N), pH
MW-2 18'	Nitrate (as N), pH
MW-2 15'	Nitrate (as N), pH
MW-2 12'	Nitrate (as N), pH
MW-4 23'	Chloride, Nitrate (as N), pH
MW-4 20'	Nitrate (as N), pH
MW-4 17'	Nitrate (as N), pH
MW-4 14'	Nitrate (as N), pH
MW-4 11'	Nitrate (as N), pH
MW-3 24'	Chloride, Nitrate (as N), pH
MW-3 21'	Nitrate (as N), pH
MW-3 18'	Nitrate (as N), pH
MW-3 15'	Nitrate (as N), pH
MW-3 12'	Nitrate (as N), pH

Samples received at 1.7 ◦ C

1.C Holding time exceeded, analyze immediate parameter.

If you have any questions or require further information, please call at your convenience. Long Island Analytical Laboratories Inc. is a NELAP accredited laboratory. All reported results meet the requirements of the NELAP standards unless noted. Report shall not be reproduced except in full without the written approval of the laboratory. Results related only to items tested. Long Island Analytical Laboratories would like to thank you for the opportunity to be of service to you.

Best Regards,

Long Island Analytical Laboratories, Inc.

Michael Veraldi - Laboratory Director

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 09/29/2015 10:38	Sample ID: MW-2 24'
Date (Time) Received: 09/29/2015 14:30	Laboratory ID: 5092907-01
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Chloride	09/30/2015 00:08	EPA 300.0 Rev. 2.1	5.00	56.8	mg/L	3.E
Nitrate as N	09/30/2015 00:08	EPA 300.0 Rev. 2.1	1.00	6.01	mg/L	3.E

Date Prepared: 09/30/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
pH	09/30/2015 12:20	SM 18-21 4500-H B (00)	NA	6.03	units	1.C, 2.B
Temperature @ pH in C	09/30/2015 12:20	SM 18-21 4500-H B (00)	NA	25.50	units	1.C, 2.B

Date Prepared: 09/30/2015 Preparation Method: pH- No Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 09/29/2015 10:46	Sample ID: MW-2 21'
Date (Time) Received: 09/29/2015 14:30	Laboratory ID: 5092907-02
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	09/30/2015 00:23	EPA 300.0 Rev. 2.1	1.00	5.12	mg/L	3.E

Date Prepared: 09/30/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
pH	09/30/2015 12:24	SM 18-21 4500-H B (00)	NA	5.95	units	1.C, 2.B
Temperature @ pH in C	09/30/2015 12:24	SM 18-21 4500-H B (00)	NA	25.20	units	1.C, 2.B

Date Prepared: 09/30/2015 Preparation Method: pH- No Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 09/29/2015 10:51	Sample ID: MW-2 18'
Date (Time) Received: 09/29/2015 14:30	Laboratory ID: 5092907-03
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	09/30/2015 01:06	EPA 300.0 Rev. 2.1	1.00	5.82	mg/L	3.E

Date Prepared: 09/30/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
pH	09/30/2015 12:26	SM 18-21 4500-H B (00)	NA	6.36	units	1.C, 2.B
Temperature @ pH in C	09/30/2015 12:26	SM 18-21 4500-H B (00)	NA	25.20	units	1.C, 2.B

Date Prepared: 09/30/2015 Preparation Method: pH- No Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 09/29/2015 10:56	Sample ID: MW-2 15'
Date (Time) Received: 09/29/2015 14:30	Laboratory ID: 5092907-04
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	09/29/2015 19:49	EPA 300.0 Rev. 2.1	0.10	1.75	mg/L	

Date Prepared: 09/29/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
pH	09/30/2015 12:28	SM 18-21 4500-H B (00)	NA	6.54	units	1.C, 2.B
Temperature @ pH in C	09/30/2015 12:28	SM 18-21 4500-H B (00)	NA	25.30	units	1.C, 2.B

Date Prepared: 09/30/2015 Preparation Method: pH- No Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 09/29/2015 10:59	Sample ID: MW-2 12'
Date (Time) Received: 09/29/2015 14:30	Laboratory ID: 5092907-05
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	09/29/2015 20:03	EPA 300.0 Rev. 2.1	0.10	1.22	mg/L	

Date Prepared: 09/29/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
pH	09/30/2015 12:30	SM 18-21 4500-H B (00)	NA	6.71	units	1.C, 2.B
Temperature @ pH in C	09/30/2015 12:30	SM 18-21 4500-H B (00)	NA	25.10	units	1.C, 2.B

Date Prepared: 09/30/2015 Preparation Method: pH- No Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 09/29/2015 11:07	Sample ID: MW-4 23'
Date (Time) Received: 09/29/2015 14:30	Laboratory ID: 5092907-06
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Chloride	09/30/2015 01:49	EPA 300.0 Rev. 2.1	5.00	83.4	mg/L	3.E
Nitrate as N	09/30/2015 01:49	EPA 300.0 Rev. 2.1	1.00	7.69	mg/L	3.E

Date Prepared: 09/30/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
pH	09/30/2015 12:32	SM 18-21 4500-H B (00)	NA	5.78	units	1.C, 2.B
Temperature @ pH in C	09/30/2015 12:32	SM 18-21 4500-H B (00)	NA	25.20	units	1.C, 2.B

Date Prepared: 09/30/2015 Preparation Method: pH- No Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 09/29/2015 11:16	Sample ID: MW-4 20'
Date (Time) Received: 09/29/2015 14:30	Laboratory ID: 5092907-07
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	09/30/2015 02:04	EPA 300.0 Rev. 2.1	1.00	6.03	mg/L	3.E

Date Prepared: 09/30/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
pH	09/30/2015 12:35	SM 18-21 4500-H B (00)	NA	5.57	units	1.C, 2.B
Temperature @ pH in C	09/30/2015 12:35	SM 18-21 4500-H B (00)	NA	25.10	units	1.C, 2.B

Date Prepared: 09/30/2015 Preparation Method: pH- No Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 09/29/2015 11:20	Sample ID: MW-4 17'
Date (Time) Received: 09/29/2015 14:30	Laboratory ID: 5092907-08
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	09/30/2015 02:18	EPA 300.0 Rev. 2.1	1.00	3.60	mg/L	3.E

Date Prepared: 09/30/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
pH	09/30/2015 12:38	SM 18-21 4500-H B (00)	NA	6.49	units	1.C, 2.B
Temperature @ pH in C	09/30/2015 12:38	SM 18-21 4500-H B (00)	NA	24.50	units	1.C, 2.B

Date Prepared: 09/30/2015 Preparation Method: pH- No Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 09/29/2015 11:25	Sample ID: MW-4 14'
Date (Time) Received: 09/29/2015 14:30	Laboratory ID: 5092907-09
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	09/30/2015 02:32	EPA 300.0 Rev. 2.1	1.00	2.50	mg/L	3.E

Date Prepared: 09/30/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
pH	09/30/2015 12:50	SM 18-21 4500-H B (00)	NA	6.56	units	1.C, 2.B
Temperature @ pH in C	09/30/2015 12:50	SM 18-21 4500-H B (00)	NA	24.50	units	1.C, 2.B

Date Prepared: 09/30/2015 Preparation Method: pH- No Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 09/29/2015 11:28	Sample ID: MW-4 11'
Date (Time) Received: 09/29/2015 14:30	Laboratory ID: 5092907-10
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	09/30/2015 02:47	EPA 300.0 Rev. 2.1	1.00	1.79	mg/L	3.E

Date Prepared: 09/30/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
pH	09/30/2015 12:54	SM 18-21 4500-H B (00)	NA	7.57	units	1.C, 2.B
Temperature @ pH in C	09/30/2015 12:54	SM 18-21 4500-H B (00)	NA	24.80	units	1.C, 2.B

Date Prepared: 09/30/2015 Preparation Method: pH- No Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 09/29/2015 11:36	Sample ID: MW-3 24'
Date (Time) Received: 09/29/2015 14:30	Laboratory ID: 5092907-11
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Chloride	09/30/2015 03:01	EPA 300.0 Rev. 2.1	5.00	59.6	mg/L	3.E
Nitrate as N	09/30/2015 03:01	EPA 300.0 Rev. 2.1	1.00	5.25	mg/L	3.E

Date Prepared: 09/30/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
pH	09/30/2015 12:57	SM 18-21 4500-H B (00)	NA	5.96	units	1.C, 2.B
Temperature @ pH in C	09/30/2015 12:57	SM 18-21 4500-H B (00)	NA	25.20	units	1.C, 2.B

Date Prepared: 09/30/2015 Preparation Method: pH- No Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 09/29/2015 11:42	Sample ID: MW-3 21'
Date (Time) Received: 09/29/2015 14:30	Laboratory ID: 5092907-12
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	09/30/2015 03:16	EPA 300.0 Rev. 2.1	1.00	4.27	mg/L	3.E

Date Prepared: 09/30/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
pH	09/30/2015 12:59	SM 18-21 4500-H B (00)	NA	5.88	units	1.C, 2.B
Temperature @ pH in C	09/30/2015 12:59	SM 18-21 4500-H B (00)	NA	25.50	units	1.C, 2.B

Date Prepared: 09/30/2015 Preparation Method: pH- No Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 09/29/2015 11:45	Sample ID: MW-3 18'
Date (Time) Received: 09/29/2015 14:30	Laboratory ID: 5092907-13
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	09/29/2015 22:27	EPA 300.0 Rev. 2.1	0.10	<0.10	mg/L	

Date Prepared: 09/29/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
pH	09/30/2015 13:01	SM 18-21 4500-H B (00)	NA	6.73	units	1.C, 2.B
Temperature @ pH in C	09/30/2015 13:01	SM 18-21 4500-H B (00)	NA	25.90	units	1.C, 2.B

Date Prepared: 09/30/2015 Preparation Method: pH- No Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 09/29/2015 11:51	Sample ID: MW-3 15'
Date (Time) Received: 09/29/2015 14:30	Laboratory ID: 5092907-14
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	09/30/2015 04:13	EPA 300.0 Rev. 2.1	1.00	2.17	mg/L	3.E

Date Prepared: 09/30/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
pH	09/30/2015 13:03	SM 18-21 4500-H B (00)	NA	6.85	units	1.C, 2.B
Temperature @ pH in C	09/30/2015 13:03	SM 18-21 4500-H B (00)	NA	25.90	units	1.C, 2.B

Date Prepared: 09/30/2015 Preparation Method: pH- No Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 09/29/2015 11:59	Sample ID: MW-3 12'
Date (Time) Received: 09/29/2015 14:30	Laboratory ID: 5092907-15
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	09/29/2015 22:56	EPA 300.0 Rev. 2.1	0.10	<0.10	mg/L	

Date Prepared: 09/29/2015 Preparation Method: IC Preparation

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
pH	09/30/2015 13:05	SM 18-21 4500-H B (00)	NA	6.91	units	1.C, 2.B
Temperature @ pH in C	09/30/2015 13:05	SM 18-21 4500-H B (00)	NA	25.30	units	1.C, 2.B

Date Prepared: 09/30/2015 Preparation Method: pH- No Preparation

Data Qualifiers Key Reference:

1.C Holding time exceeded, analyze immediate parameter.
2.B Parameter not certifiable by ELAP.
3.E Compound reported at a dilution factor.
MDL Minimum Detection Limit
LOQ Limit of Quantitation

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CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

CLIENT NAME/ADDRESS: NPV, 572 WALT WHITMAN RD, MELVILLE NY 11747	CONTACT: Eric Arsch	SAMPLER (SIGNATURE): Eric C	SAMPLE(S) SEALED: YES / NO
	PHONE: 427-5165	SAMPLER NAME (PRINT): Eric Arsch	CORRECT CONTAINER(S): YES / NO
PROJECT LOCATION: CPI	FAX:		5092907
	EMAIL:	SAMPLES RECEIVED AT: 1.7 °C	

TERMS & CONDITIONS: Accounts are payable in full within thirty days, outstanding balances accrue service charges of 1.5% per month. Tendering of samples to LIAL for analytical testing constitutes agreement by buyer/sampler to LIAL's Standard terms

LABORATORY ID # (For Laboratory Use Only)	MATRIX	TYPE	pH	RES. CHLORINE	PRES.	DATE	TIME	SAMPLE # LOCATION	ANALYSIS REQUIRED: Nitrate	pH	Cyanide	# OF CONTAINERS
1. 15907-01	L	G	–	–	ICE	9/29/15	10:38	MW-2 24'	X	X	X	1
2. 02							10:46	MW-2 21'	X	X		1
3. 03							10:51	MW-2 18'	X	X		1
4. 04							10:56	MW-2 15'	X	X		1
5. 05							10:59	MW-2 12'	X	X		1
6. 06							11:07	MW-4 23'	X	X	X	1
7. 07							11:16	MW-4 20'	X	X		1
8. 08							11:20	MW-4 17'	X	X		1
9. 09							11:25	MW-4 14'	X	X		1
10. 10							11:28	MW-4 11'	X	X		1
11. 11							11:36	MW-3 24'	X	X	X	1
12. 12							11:42	MW-3 21'	X	X		1
13. 13							11:45	MW-3 18'	X	X		1
14. 14							11:51	MW-3 15'	X	X		1

MATRIX: S=SOIL; SL=SLUDGE; DW=DRINKING WATER; A=AIR; W=WIPE; PC=PAINT CHIPS; BM= BULK MATERIAL; O=OIL; WW=WASTE WATER
TYPE: G=GRAB; C=COMPOSITE; SS=SPLIT SPOON
PRES: (1) ICE; (2) HCL; (3) H_2SO_4; (4) NAOH; (5) $NA_2S_2O_3$; (6) HNO_3; (7) OTHER

TURNAROUND REQUIRED: X NORMAL ☐ STAT
BY / /

COMMENTS / INSTRUCTIONS

RELINQUISHED BY (SIGNATURE): Eric C	DATE 9/29/15 TIME 1:36	PRINTED NAME: Eric Arsch	RECEIVED BY (SIGNATURE):	DATE 9-29-15 TIME 136PM	PRINTED NAME: Ben Lamberson
RELINQUISHED BY (SIGNATURE):	DATE TIME	PRINTED NAME:	RECEIVED BY SAMPLE CUSTODIAN:	DATE 9-29-15 TIME 2:49pm	PRINTED NAME: Ben Lamberson

WHITE - OFFICE / CANARY - SAMPLE CUSTODIAN / PINK - CLIENT

LONG ISLAND ANALYTICAL LABORATORIES INC.
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CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

CLIENT NAME/ADDRESS: NPV, 572 WALT WHITMAN RD. MELVILLE NY 11747
CONTACT: ERIC ARSEN
PHONE: 427-5665
FAX:
EMAIL:
PROJECT LOCATION: CPI
SAMPLER (SIGNATURE): Eric A
SAMPLER NAME (PRINT): ERIC ARSEN
SAMPLE(S) SEALED: (YES) / NO
CORRECT CONTAINER(S): (YES) / NO
5092907
IN
.Y)
SAMPLES RECEIVED AT: 1.7 °C

TERMS & CONDITIONS: Accounts are payable in full within thirty days, outstanding balances accrue service charges of 1.5% per month. Tendering of samples to LIAL for analytical testing constitutes agreement by buyer/sampler to LIAL's Standard terms

LABORATORY ID # (For Laboratory Use Only)	MATRIX	TYPE	pH	RES. CHLORINE	PRES.	DATE	TIME	SAMPLE # LOCATION	ANALYSIS REQUIRED: NITRATE	PH	# OF CONTAINERS
1. 5092907	L	G	—	—	ICE	9/29/15	11:59	MW-3 12'	X	X	1
2.											
3.											
4.											
5.											
6.											
7.											
8.								FCA6 1C=PH			
9.											
10.											
11.											
12.											
13.											
14.											

MATRIX: S=SOIL; SL=SLUDGE; DW=DRINKING WATER; A=AIR; W=WIPE; PC=PAINT CHIPS; BM= BULK MATERIAL, O=OIL, WW=WASTE WATER
TYPE: G=GRAB; C=COMPOSITE; SS=SPLIT SPOON
PRES: (1) ICE; (2) HCL; (3) H_2SO_4; (4) NAOH; (5) $NA_2S_3O_3$; (6) HNO_3; (7) OTHER

TURNAROUND REQUIRED: X NORMAL ☐ STAT
BY / /

COMMENTS / INSTRUCTIONS

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY (SIGNATURE)	DATE / TIME	PRINTED NAME
Eric A	9/29/15 1:31	ERIC ARSEN		9-29-15 1:30PM	BEN LAMBERSON
RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY SAMPLE CUSTODIAN	DATE / TIME	PRINTED NAME
				9-29-15 2:29PM	Ben Lamberson

WHITE - OFFICE / CANARY - SAMPLE CUSTODIAN / PINK - CLIENT

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"

Laboratory Report

NYSDOH ELAP# 11693
USEPA# NY01273
CTDOH# PH-0284
AIHA# 164456
NJDEP# NY012
PADEP# 68-2943

LIAL# 5122108

December 29, 2015

Nelson, Pope & Voorhis
Eric Arnesen
572 Walt Whitman Road
Melville, NY 11747

Re: CPI

Dear Eric Arnesen,

Enclosed please find the laboratory Analysis Report(s) for sample(s) received on December 21, 2015. Long Island Analytical laboratories analyzed the samples on December 22, 2015 for the following:

SAMPLE ID	ANALYSIS
MW-1 24'	Nitrate (as N)
MW-1 21'	Nitrate (as N)
MW-1 15'	Nitrate (as N)
MW-1 12'	Nitrate (as N)
MW-7 26'	Nitrate (as N)
MW-7 23'	Nitrate (as N)
MW-7 20'	Nitrate (as N)
MW-7 17'	Nitrate (as N)
MW-7 14'	Nitrate (as N)
MW-4 23'	Nitrate (as N)
MW-4 20'	Nitrate (as N)
MW-4 17'	Nitrate (as N)
MW-4 14'	Nitrate (as N)
MW-4 11'	Nitrate (as N)
MW-3 24'	Nitrate (as N)
MW-3 21'	Nitrate (as N)
MW-3 18'	Nitrate (as N)
MW-3 15'	Nitrate (as N)
MW-3 12'	Nitrate (as N)

Samples received at 1.1 ° C

If you have any questions or require further information, please call at your convenience. Long Island Analytical Laboratories Inc. is a NELAP accredited laboratory. All reported results meet the requirements of the NELAP standards unless noted. Report shall not be reproduced except in full without the written approval of the laboratory. Results related only to items tested. Long Island Analytical Laboratories would like to thank you for the opportunity to be of service to you.

Best Regards,

Long Island Analytical Laboratories, Inc.

Michael Veraldi - Laboratory Director

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 12/21/2015 10:50	Sample ID: MW-1 24'
Date (Time) Received: 12/21/2015 14:27	Laboratory ID: 5122108-01
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	12/21/2015 21:43	EPA 300.0 Rev. 2.1	0.10	6.86	mg/L	

Date Prepared: 12/21/2015

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 12/21/2015 10:55	Sample ID: MW-1 21'
Date (Time) Received: 12/21/2015 14:27	Laboratory ID: 5122108-02
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	12/21/2015 21:58	EPA 300.0 Rev. 2.1	0.10	7.15	mg/L	

Date Prepared: 12/21/2015

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 12/21/2015 11:07	Sample ID: MW-1 15'
Date (Time) Received: 12/21/2015 14:27	Laboratory ID: 5122108-03
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	12/21/2015 22:13	EPA 300.0 Rev. 2.1	0.10	7.70	mg/L	

Date Prepared: 12/21/2015

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 12/21/2015 11:12	Sample ID: MW-1 12'
Date (Time) Received: 12/21/2015 14:27	Laboratory ID: 5122108-04
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	12/21/2015 22:28	EPA 300.0 Rev. 2.1	0.10	5.86	mg/L	

Date Prepared: 12/21/2015

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 12/21/2015 11:25	Sample ID: MW-7 26'
Date (Time) Received: 12/21/2015 14:27	Laboratory ID: 5122108-05
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	12/21/2015 22:43	EPA 300.0 Rev. 2.1	0.10	9.21	mg/L	

Date Prepared: 12/21/2015

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 12/21/2015 11:28	Sample ID: MW-7 23'
Date (Time) Received: 12/21/2015 14:27	Laboratory ID: 5122108-06
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	12/21/2015 23:28	EPA 300.0 Rev. 2.1	0.10	9.37	mg/L	

Date Prepared: 12/21/2015

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 12/21/2015 11:30	Sample ID: MW-7 20'
Date (Time) Received: 12/21/2015 14:27	Laboratory ID: 5122108-07
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	12/21/2015 23:43	EPA 300.0 Rev. 2.1	0.10	10.3	mg/L	

Date Prepared: 12/21/2015

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 12/21/2015 11:35	Sample ID: MW-7 17'
Date (Time) Received: 12/21/2015 14:27	Laboratory ID: 5122108-08
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	12/21/2015 23:58	EPA 300.0 Rev. 2.1	0.10	12.8	mg/L	

Date Prepared: 12/21/2015

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 12/21/2015 11:37	Sample ID: MW-7 14'
Date (Time) Received: 12/21/2015 14:27	Laboratory ID: 5122108-09
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	12/22/2015 00:13	EPA 300.0 Rev. 2.1	0.10	4.22	mg/L	

Date Prepared: 12/22/2015

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 12/21/2015 11:43	Sample ID: MW-4 23'
Date (Time) Received: 12/21/2015 14:27	Laboratory ID: 5122108-10
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	12/22/2015 00:27	EPA 300.0 Rev. 2.1	0.10	5.20	mg/L	

Date Prepared: 12/22/2015

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 12/21/2015 11:47	Sample ID: MW-4 20'
Date (Time) Received: 12/21/2015 14:27	Laboratory ID: 5122108-11
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	12/22/2015 00:42	EPA 300.0 Rev. 2.1	0.10	4.74	mg/L	

Date Prepared: 12/22/2015

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 12/21/2015 11:50	Sample ID: MW-4 17'
Date (Time) Received: 12/21/2015 14:27	Laboratory ID: 5122108-12
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	12/22/2015 00:57	EPA 300.0 Rev. 2.1	0.10	1.34	mg/L	

Date Prepared: 12/22/2015

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 12/21/2015 11:52	Sample ID: MW-4 14'
Date (Time) Received: 12/21/2015 14:27	Laboratory ID: 5122108-13
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	12/22/2015 01:12	EPA 300.0 Rev. 2.1	0.10	1.23	mg/L	

Date Prepared: 12/22/2015

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 12/21/2015 11:56	Sample ID: MW-4 11'
Date (Time) Received: 12/21/2015 14:27	Laboratory ID: 5122108-14
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	12/22/2015 01:27	EPA 300.0 Rev. 2.1	0.10	0.90	mg/L	

Date Prepared: 12/22/2015

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 12/21/2015 11:59	Sample ID: MW-3 24'
Date (Time) Received: 12/21/2015 14:27	Laboratory ID: 5122108-15
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	12/22/2015 01:42	EPA 300.0 Rev. 2.1	0.10	4.24	mg/L	

Date Prepared: 12/22/2015

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 12/21/2015 12:03	Sample ID: MW-3 21'
Date (Time) Received: 12/21/2015 14:27	Laboratory ID: 5122108-16
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	12/22/2015 02:27	EPA 300.0 Rev. 2.1	0.10	2.60	mg/L	

Date Prepared: 12/22/2015

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 12/21/2015 12:05	Sample ID: MW-3 18'
Date (Time) Received: 12/21/2015 14:27	Laboratory ID: 5122108-17
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	12/22/2015 02:42	EPA 300.0 Rev. 2.1	0.10	0.12	mg/L	

Date Prepared: 12/22/2015

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 12/21/2015 12:09	Sample ID: MW-3 15'
Date (Time) Received: 12/21/2015 14:27	Laboratory ID: 5122108-18
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	12/22/2015 02:57	EPA 300.0 Rev. 2.1	0.10	1.23	mg/L	

Date Prepared: 12/22/2015

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 12/21/2015 12:11	Sample ID: MW-3 12'
Date (Time) Received: 12/21/2015 14:27	Laboratory ID: 5122108-19
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	12/22/2015 03:12	EPA 300.0 Rev. 2.1	0.10	0.12	mg/L	

Date Prepared: 12/22/2015

Preparation Method: IC Preparation

Data Qualifiers Key Reference:

MDL Minimum Detection Limit

LOQ Limit of Quantitation

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CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

5122108

CLIENT NAME/ADDRESS: NPV 572 Walt Whitman Rd. Melville NY 11747

CONTACT: Eric Arazza
PHONE: 427-5665
FAX:
EMAIL:

PROJECT LOCATION: CPI

SAMPLER (SIGNATURE): [signature]
SAMPLER NAME (PRINT): Eric Arazza
SAMPLE(S) SEALED: YES / NO (YES circled)
CORRECT CONTAINER(S): YES / NO (YES circled)
SAMPLES RECEIVED AT: 1.1 °C

TERMS & CONDITIONS: Accounts are payable in full within thirty days, outstanding balances accrue service charges of 1.5% per month. Tendering of samples to LIAL for analytical testing constitutes agreement by buyer/sampler to LIAL's Standard terms

LABORATORY ID # (For Laboratory Use Only)	MATRIX	TYPE	pH	RES. CHLORINE	PRES.	DATE	TIME	SAMPLE # LOCATION	ANALYSIS REQUIRED: Nitrate	# OF CONTAINERS
1. 5122108-01	W	G	—	—	ice	12/21/15	10:50	MW-1 24'	X	1
2. 02							10:55	MW-1 21'		
3. 03							11:07	MW-1 15'		
4. 04							11:12	MW-1 12'		
5. 05							11:25	MW-7 26'		
6. 06							11:28	MW-7 23'		
7. 07							11:30	MW-7 20'		
8. 08							11:35	MW-7 17'		
9. 09							11:37	MW-7 14'		
10. 10							11:43	MW-4 23'		
11. 11							11:47	MW-4 20'		
12. 12							11:50	MW-4 17'		
13. 13							11:52	MW-4 14'		
14. 14							11:56	MW-4 11'		

MATRIX: S=SOIL; SL=SLUDGE; DW=DRINKING WATER; A=AIR; W=WIPE; PC=PAINT CHIPS; BM= BULK MATERIAL, O=OIL, WW=WASTE WATER
TYPE: G=GRAB; C=COMPOSITE; SS=SPLIT SPOON
PRES: (1) ICE; (2) HCL; (3) H_2SO_4; (4) NAOH; (5) $NA_2S_2O_3$; (6) HNO_3; (7) OTHER

TURNAROUND REQUIRED: ☒ NORMAL ☐ STAT
BY / /

COMMENTS / INSTRUCTIONS:

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY (SIGNATURE)	DATE / TIME	PRINTED NAME
[signature]	DATE 12/21/15 TIME 2:07	Eric Arazza	[signature]	DATE 12-21-15 TIME 2018 hr	Ben Lamberson

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY SAMPLE CUSTODIAN	DATE / TIME	PRINTED NAME
	DATE TIME		[signature]	DATE 12-21-15 TIME 2027 hr	Ben Lamberson

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CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

CLIENT NAME/ADDRESS: NPV 572 WALT WHITMAN RD. MELVILLE NY 11747	CONTACT: Eric Arsen	SAMPLER (SIGNATURE)	SAMPLE(S) SEALED: YES / NO — 5122108
PROJECT LOCATION: CPI	PHONE: 427-5765	SAMPLER NAME (PRINT): Eric Arsen	CORRECT CONTAINER(S): YES / NO
	FAX:		
	EMAIL:	SAMPLES RECEIVED AT: 1.1 °C	

TERMS & CONDITIONS: Accounts are payable in full within thirty days, outstanding balances accrue service charges of 1.5% per month. Tendering of samples to LIAL for analytical testing constitutes agreement by buyer/sampler to LIAL's Standard terms

LABORATORY ID # (For Laboratory Use Only)	MATRIX	TYPE	pH	RES. CHLORINE	PRES.	DATE	TIME	SAMPLE # / LOCATION	ANALYSIS REQUIRED: NETPLATE	# OF CONTAINERS
1. 5122108-15	W	G	—	—	Ice	12/21/15	11:59	MW-3 24'	X	1
2. 16							12:03	MW-3 21'		1
3. 17							12:05	MW-3 18'		1
4. 18							12:09	MW-3 15'		1
5. 19							12:11	MW-3 12'		1
6.										
7.										
8.										
9.										
10.										
11.										
12.										
13.										
14.										

MATRIX: S=SOIL; SL=SLUDGE; DW=DRINKING WATER; A=AIR; W=WIPE; PC=PAINT CHIPS; BM= BULK MATERIAL, O=OIL, WW=WASTE WATER
TYPE: G=GRAB; C=COMPOSITE; SS=SPLIT SPOON
PRES: (1) ICE; (2) HCL; (3) H_2SO_4; (4) NAOH; (5) $NA_2S_3O_3$; (6) HNO_3; (7) OTHER

TURNAROUND REQUIRED: ☒ NORMAL ☐ STAT
BY / /

COMMENTS / INSTRUCTIONS

RELINQUISHED BY (SIGNATURE)	DATE 12/21/15 TIME 2:07	PRINTED NAME Eric Arsen	RECEIVED BY (SIGNATURE)	DATE 12-21-15 TIME 2:07PM	PRINTED NAME Ben Lamberson
RELINQUISHED BY (SIGNATURE)	DATE TIME	PRINTED NAME	RECEIVED BY SAMPLE CUSTODIAN	DATE 12-21-15 TIME 22?R	PRINTED NAME Ben Lamberson

WHITE - OFFICE / CANARY - SAMPLE CUSTODIAN / PINK - CLIENT

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"

Laboratory Report

NYSDOH ELAP# 11693
USEPA# NY01273
CTDOH# PH-0284
AIHA# 164456
NJDEP# NY012
PADEP# 68-2943

LIAL# 6020418

February 09, 2016

Nelson, Pope & Voorhis
Eric Arnesen
572 Walt Whitman Road
Melville, NY 11747

Re: CPI

Dear Eric Arnesen,

Enclosed please find the laboratory Analysis Report(s) for sample(s) received on February 04, 2016. Long Island Analytical laboratories analyzed the samples on February 05, 2016 for the following:

SAMPLE ID	ANALYSIS
MW-7 14'	Nitrate (as N)
MW-7 17'	Nitrate (as N)
MW-7 20'	Nitrate (as N)
MW-7 23'	Nitrate (as N)
MW-7 26'	Nitrate (as N)

Samples received at 2.0 ° C

If you have any questions or require further information, please call at your convenience. Long Island Analytical Laboratories Inc. is a NELAP accredited laboratory. All reported results meet the requirements of the NELAP standards unless noted. Report shall not be reproduced except in full without the written approval of the laboratory. Results related only to items tested. Long Island Analytical Laboratories would like to thank you for the opportunity to be of service to you.

Best Regards,

Michael Veraldi

Long Island Analytical Laboratories, Inc.

Michael Veraldi - Laboratory Director

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 02/04/2016 13:29	Sample ID: MW-7 14'
Date (Time) Received: 02/04/2016 15:50	Laboratory ID: 6020418-01
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	02/04/2016 17:35	EPA 300.0 Rev. 2.1	0.10	6.27	mg/L	

Date Prepared: 02/04/2016

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 02/04/2016 13:37	Sample ID: MW-7 23'
Date (Time) Received: 02/04/2016 15:50	Laboratory ID: 6020418-04
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	02/05/2016 11:48	EPA 300.0 Rev. 2.1	0.20	11.4	mg/L	3.E

Date Prepared: 02/05/2016

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 02/04/2016 13:39	Sample ID: MW-7 26'
Date (Time) Received: 02/04/2016 15:50	Laboratory ID: 6020418-05
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	02/05/2016 12:03	EPA 300.0 Rev. 2.1	0.20	12.0	mg/L	3.E

Date Prepared: 02/05/2016

Preparation Method: IC Preparation

Data Qualifiers Key Reference:

3.E	Compound reported at a dilution factor.
MDL	Minimum Detection Limit
LOQ	Limit of Quantitation

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CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

(10)

6020418

CLIENT NAME/ADDRESS: NPV, 572 Walt Whitman Rd., Melville NY 11747

CONTACT: Eric Arseca

PHONE: 427-5665

FAX:

SAMPLER (SIGNATURE): [signature] DATE: 2/4/16 TIME:

SAMPLER NAME (PRINT): Eric Arseca DATE: TIME:

SAMPLE(S) SEALED: (YES) / NO

CORRECT CONTAINER(S): (YES) / NO

PROJECT LOCATION: CPI

SAMPLES RECEIVED AT 2.0 °C

TERMS & CONDITIONS: Accounts are payable in full within thirty days, outstanding balances accrue service charges of 1.5% per month. Tendering of samples to LIAL for analytical testing constitutes agreement by buyer/sampler to LIAL's Standard terms

ANALYSIS REQUIRED: Nitrate

LABORATORY ID # (For Laboratory Use Only)	MATRIX	TYPE	pH	RES. CHLORINE	PRES.	DATE	TIME	SAMPLE # LOCATION	Nitrate	# OF CONTAINERS
6020418-01	L	G	–	–	ICE	2/4/16	1:29	MW-7 14'	X	1
2. 02	↓	↓	↓	↓	↓	↓	1:32	MW-7 17'	X	↓
3. 03	↓	↓	↓	↓	↓	↓	1:34	MW-7 20'	X	↓
4. 04	↓	↓	↓	↓	↓	↓	1:37	MW-7 23'	X	↓
5. 05	↓	↓	↓	↓	↓	↓	1:39	MW-7 26'	X	↓
6.										
7.										
8.										
9.										
10.										
11.										
12.										
13.										
14.										

MATRIX: S=SOIL; SL=SLUDGE; DW=DRINKING WATER; A=AIR; W=WIPE; PC=PAINT CHIPS; BM= BULK MATERIAL, O=OIL, WW=WASTE WATER
TYPE: G=GRAB; C=COMPOSITE; SS=SPLIT SPOON
PRES: (1) ICE; (2) HCL; (3) H_2SO_4; (4) NAOH; (5) $NA_2S_2O_3$; (6) HNO_3; (7) OTHER

TURNAROUND REQUIRED: ☒ NORMAL ☐ STAT
BY / /

COMMENTS / INSTRUCTIONS

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY (SIGNATURE)	DATE / TIME	PRINTED NAME
[signature]	DATE 2/4/16 TIME 3:05	Eric Arseca	[signature]	DATE 2-4-16 TIME 3:05pm	Ben Lamberson
RELINQUISHED BY (SIGNATURE)	DATE TIME	PRINTED NAME	RECEIVED BY SAMPLE CUSTODIAN: [signature]	DATE 2-4-16 TIME 3:15pm	Ben Lamberson

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 02/04/2016 13:32	Sample ID: MW-7 17'
Date (Time) Received: 02/04/2016 15:50	Laboratory ID: 6020418-02
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	02/05/2016 11:18	EPA 300.0 Rev. 2.1	0.20	12.1	mg/L	3.E

Date Prepared: 02/05/2016

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 02/04/2016 13:34	Sample ID: MW-7 20'
Date (Time) Received: 02/04/2016 15:50	Laboratory ID: 6020418-03
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	02/05/2016 11:33	EPA 300.0 Rev. 2.1	0.20	13.2	mg/L	3.E

Date Prepared: 02/05/2016

Preparation Method: IC Preparation

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"

Laboratory Report

NYSDOH ELAP# 11693
USEPA# NY01273
CTDOH# PH-0284
AIHA# 164456
NJDEP# NY012
PADEP# 68-2943

LIAL# 6031115

March 16, 2016

Nelson, Pope & Voorhis
Eric Arnesen
572 Walt Whitman Road
Melville, NY 11747

Re: CPI

Dear Eric Arnesen,

Enclosed please find the laboratory Analysis Report(s) for sample(s) received on March 11, 2016. Long Island Analytical laboratories analyzed the samples on March 12, 2016 for the following:

SAMPLE ID	ANALYSIS
MW-2 12'	Nitrate (as N)
MW-2 15'	Nitrate (as N)
MW-2 18'	Nitrate (as N)
MW-2 21'	Nitrate (as N)
MW-2 24'	Nitrate (as N)
MW-7 14'	Nitrate (as N)
MW-7 17'	Nitrate (as N)
MW-7 20'	Nitrate (as N)
MW-7 23'	Nitrate (as N)
MW-7 26'	Nitrate (as N)
MW-8 16'	Nitrate (as N)
MW-8 19'	Nitrate (as N)
MW-8 26'	Nitrate (as N)
MW-8 28'	Nitrate (as N)

Samples received at 2.4 ° C

If you have any questions or require further information, please call at your convenience. Long Island Analytical Laboratories Inc. is a NELAP accredited laboratory. All reported results meet the requirements of the NELAP standards unless noted. Report shall not be reproduced except in full without the written approval of the laboratory. Results related only to items tested. Long Island Analytical Laboratories would like to thank you for the opportunity to be of service to you.

Best Regards,

Long Island Analytical Laboratories, Inc.

Michael Veraldi - Laboratory Director

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 03/11/2016 10:00	Sample ID: MW-2 12'
Date (Time) Received: 03/11/2016 12:17	Laboratory ID: 6031115-01
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	03/11/2016 19:33	EPA 300.0 Rev. 2.1	0.10	0.96	mg/L	

Date Prepared: 03/11/2016

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 03/11/2016 10:01	Sample ID: MW-2 15'
Date (Time) Received: 03/11/2016 12:17	Laboratory ID: 6031115-02
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	03/11/2016 20:18	EPA 300.0 Rev. 2.1	0.10	4.05	mg/L	

Date Prepared: 03/11/2016

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 03/11/2016 10:03	Sample ID: MW-2 18'
Date (Time) Received: 03/11/2016 12:17	Laboratory ID: 6031115-03
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	03/11/2016 20:33	EPA 300.0 Rev. 2.1	0.10	0.93	mg/L	

Date Prepared: 03/11/2016

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 03/11/2016 10:05	Sample ID: MW-2 21'
Date (Time) Received: 03/11/2016 12:17	Laboratory ID: 6031115-04
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	03/11/2016 20:48	EPA 300.0 Rev. 2.1	0.10	1.98	mg/L	

Date Prepared: 03/11/2016

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 03/11/2016 10:06	Sample ID: MW-2 24'
Date (Time) Received: 03/11/2016 12:17	Laboratory ID: 6031115-05
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	03/11/2016 21:03	EPA 300.0 Rev. 2.1	0.10	3.00	mg/L	

Date Prepared: 03/11/2016

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 03/11/2016 10:39	Sample ID: MW-7 14'
Date (Time) Received: 03/11/2016 12:17	Laboratory ID: 6031115-06
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	03/11/2016 21:18	EPA 300.0 Rev. 2.1	0.10	8.94	mg/L	

Date Prepared: 03/11/2016

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 03/11/2016 10:41	Sample ID: MW-7 17'
Date (Time) Received: 03/11/2016 12:17	Laboratory ID: 6031115-07
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	03/12/2016 12:53	EPA 300.0 Rev. 2.1	0.50	15.1	mg/L	3.E

Date Prepared: 03/12/2016

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 03/11/2016 10:43	Sample ID: MW-7 20'
Date (Time) Received: 03/11/2016 12:17	Laboratory ID: 6031115-08
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	03/12/2016 13:08	EPA 300.0 Rev. 2.1	0.50	17.9	mg/L	3.E

Date Prepared: 03/12/2016

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 03/11/2016 10:46	Sample ID: MW-7 23'
Date (Time) Received: 03/11/2016 12:17	Laboratory ID: 6031115-09
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	03/12/2016 13:23	EPA 300.0 Rev. 2.1	0.50	17.2	mg/L	3.E

Date Prepared: 03/12/2016

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 03/11/2016 10:49	Sample ID: MW-7 26'
Date (Time) Received: 03/11/2016 12:17	Laboratory ID: 6031115-10
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	03/12/2016 13:38	EPA 300.0 Rev. 2.1	0.50	14.4	mg/L	3.E

Date Prepared: 03/12/2016

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 03/11/2016 10:14	Sample ID: MW-8 16'
Date (Time) Received: 03/11/2016 12:17	Laboratory ID: 6031115-11
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	03/11/2016 22:32	EPA 300.0 Rev. 2.1	0.10	0.65	mg/L	

Date Prepared: 03/11/2016

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 03/11/2016 10:15	Sample ID: MW-8 19'
Date (Time) Received: 03/11/2016 12:17	Laboratory ID: 6031115-12
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	03/11/2016 23:17	EPA 300.0 Rev. 2.1	0.10	1.65	mg/L	

Date Prepared: 03/11/2016

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 03/11/2016 10:28	Sample ID: MW-8 26'
Date (Time) Received: 03/11/2016 12:17	Laboratory ID: 6031115-13
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	03/11/2016 23:32	EPA 300.0 Rev. 2.1	0.10	6.63	mg/L	

Date Prepared: 03/11/2016

Preparation Method: IC Preparation

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 03/11/2016 10:30	Sample ID: MW-8 28'
Date (Time) Received: 03/11/2016 12:17	Laboratory ID: 6031115-14
Matrix: Non-Potable Water	ELAP: #11693

General Chemistry Parameters

Parameter	Date Analyzed	Method	LOQ	Result	Units	Flag
Nitrate as N	03/11/2016 23:47	EPA 300.0 Rev. 2.1	0.10	6.56	mg/L	

Date Prepared: 03/11/2016

Preparation Method: IC Preparation

Data Qualifiers Key Reference:

3.E Compound reported at a dilution factor.
MDL Minimum Detection Limit
LOQ Limit of Quantitation

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"
110 Colin Drive • Holbrook, New York 11741 • Phone (631) 472-3400 • Fax (631) 472-8505 • Email: LIAL@lialinc.com

CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

(17)

CLIENT NAME/ADDRESS: NPV 572 Old Willets Rd. Merrick NY 11747	CONTACT: Eric Arden	SAMPLER (SIGNATURE): Eric A	DATE: 3/11/16	TIME:
	PHONE: 427-3615	SAMPLER NAME (PRINT): Eric Arden	DATE:	TIME:
	FAX:	SAMPLE(S) SEALED: YES / NO	CORRECT CONTAINER(S): YES / NO	6031115

PROJECT LOCATION: CPI

SAMPLES RECEIVED AT: 2.4 °C

TERMS & CONDITIONS: Accounts are payable in full within thirty days, outstanding balances accrue service charges of 1.5% per month. Tendering of samples to LIAL for analytical testing constitutes agreement by buyer/sampler to LIAL's Standard terms.

LABORATORY ID # (For Laboratory Use Only)	MATRIX	TYPE	pH	RES. CHLORINE	PRES.	DATE	TIME	SAMPLE # / LOCATION	ANALYSIS REQUIRED: NITRATE	# OF CONTAINERS
1 6031115-01	WW	G	-	-	EB	3/11/16	1000	MW-2 12'	X	1
2. 02							1001	MW-2 15'		
3. 03							1003	MW-2 18'		
4. 04							1005	MW-2 21'		
5. 05							1006	MW-2 24'		
6. 06							1039	MW-7 14'		
7. 07							1041	MW-7 17'		
8. 08							1043	MW-7 20'		
9. 09							1046	MW-7 23'		
10. 10							1049	MW-7 26'		
11. 11							1014	MW-8 16'		
12. 12							1015	MW-8 19'		
13. 13							1018	MW-8 26'		
14. 14							1020	MW-8 28'		

MATRIX: S=SOIL; SL=SLUDGE; DW=DRINKING WATER; A=AIR; W=WIPE; PC=PAINT CHIPS; BM= BULK MATERIAL; O=OIL; WW=WASTE WATER

TYPE: G=GRAB; C=COMPOSITE; SS=SPLIT SPOON

PRES: (1) ICE; (2) HCL; (3) H_2SO_4; (4) NACH; (5) $NA_2S_3O_3$; (6) HNO_3; (7) OTHER

TURNAROUND REQUIRED: X NORMAL ☐ STAT BY / /

COMMENTS / INSTRUCTIONS

RELINQUISHED BY (SIGNATURE): Eric A	DATE: 3/11/16 TIME: 12:06	PRINTED NAME: Eric Arden	RECEIVED BY (SIGNATURE):	DATE: 3-11-16 TIME: 1206Pm	PRINTED NAME: Ben Lamberson
RELINQUISHED BY (SIGNATURE):	DATE: TIME:	PRINTED NAME:	RECEIVED BY SAMPLE CUSTODIAN:	DATE: 3-11-16 TIME: 147Pm	PRINTED NAME: Ben Lamberson

APPENDIX F – SOILS LABORATORY REPORTS

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"

Laboratory Report

NYSDOH ELAP# 11693
USEPA# NY01273
CTDOH# PH-0284
AIHA# 164456
NJDEP# NY012
PADEP# 68-2943

LIAL# 5081901

September 01, 2015

Nelson, Pope & Voorhis
Eric Arnesen
572 Walt Whitman Road
Melville, NY 11747

Re: CPI

Dear Eric Arnesen,

Enclosed please find the laboratory Analysis Report(s) for sample(s) received on August 18, 2015. Long Island Analytical laboratories analyzed the samples on September 01, 2015 for the following:

SAMPLE ID	ANALYSIS
MW-1 8'10'	Sieve Size
MW-1 12'-15'	Sieve Size
MW-1 15'-17'	Sieve Size
MW-1 19'-21'	Sieve Size
MW-1 26'-28	Sieve Size
MW-3 13'-15'	Sieve Size
MW-3 16'-17	Sieve Size
MW-3 19'-20'	Sieve Size
MW-3 21'-22'	Sieve Size
MW-3 22'-23'	Sieve Size
MW-5 19'-20'	Sieve Size
MW-5 22'-23'	Sieve Size
MW-5 25'-26'	Sieve Size
MW-5 28'-29'	Sieve Size
MW-5 31'-32'	Sieve Size
MW-8 19'-21'	Sieve Size
MW-8 22'-23'	Sieve Size
MW-8 25'-26'	Sieve Size
MW-8 28'-29'	Sieve Size

MW-8 31'-32'	Sieve Size

Samples received at 2.5 ° C

If you have any questions or require further information, please call at your convenience. Long Island Analytical Laboratories Inc. is a NELAP accredited laboratory. All reported results meet the requirements of the NELAP standards unless noted. Report shall not be reproduced except in full without the written approval of the laboratory. Results related only to items tested. Long Island Analytical Laboratories would like to thank you for the opportunity to be of service to you.

Best Regards,

Long Island Analytical Laboratories, Inc.

Michael Veraldi - Laboratory Director

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-1 8'10'
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-01 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.45	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	1.39	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	16.03	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	31.71	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	29.13	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	6.40	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	3.18	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	2.28	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-1 12'-15'
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-02 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	1.63	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	24.34	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	34.60	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	23.48	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	6.18	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	3.83	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-1 15'-17'
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-03 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	3.68	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	2.55	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	3.19	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	23.69	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	34.13	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	21.68	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	4.12	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	2.70	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	3.14	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-1 19'-21'
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-04 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	1.06	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	1.50	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	24.48	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	40.74	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	22.50	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	3.77	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	1.69	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	1.64	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-1 26'-28
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-05 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.63	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	1.40	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	20.88	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	38.09	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	21.85	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	4.64	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	2.42	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	2.71	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-3 13'-15'
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-06 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	0.42	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	20.23	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	27.87	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	24.54	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	3.04	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	1.22	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	0.61	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-3 16'-17
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-07 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	0.67	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	25.11	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	45.27	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	21.36	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	2.40	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	0.72	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	0.43	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-3 19'-20'
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-08 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	0.15	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	21.96	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	47.42	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	23.63	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	3.40	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	1.43	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	1.18	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-3 21'-22'
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-09 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	0.25	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	15.09	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	53.02	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	27.03	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	2.60	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	0.64	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	0.34	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-3 22'-23'
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-10 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	0.28	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	23.62	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	43.05	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	22.91	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	2.88	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	0.90	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	0.57	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-5 19'-20'
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-11 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	0.30	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	20.83	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	47.02	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	25.00	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	3.57	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	1.39	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	0.99	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-5 22'-23'
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-12 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	0.10	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	20.57	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	44.01	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	25.28	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	2.52	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	1.70	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	2.91	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-5 25'-26'
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-13 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	1.50	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	17.17	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	49.20	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	27.43	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	2.47	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	0.82	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	0.63	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-5 28'-29'
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-14 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.34	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	0.93	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	13.12	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	50.17	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	30.62	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	3.12	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	0.73	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	0.34	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-5 31'-32'
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-15 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.69	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	2.45	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	16.26	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	48.87	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	27.08	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	2.50	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	0.69	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	0.59	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-8 19'-21'
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-16 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	3.35	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	4.57	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	23.46	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	35.60	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	21.42	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	2.82	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	1.41	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	1.80	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-8 22'-23'
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-17 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	3.02	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	6.29	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	35.24	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	34.33	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	12.39	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	0.96	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	0.58	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	1.06	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-8 25'-26'
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-18 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	3.08	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	2.18	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	30.47	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	33.51	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	18.37	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	3.89	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	2.56	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	2.75	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-8 28'-29'
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-19 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.20	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	3.22	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	25.62	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	39.00	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	19.82	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	4.16	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	2.73	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	3.77	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Client: Nelson, Pope & Voorhis	Client ID: CPI
Date (Time) Collected: 08/13/2015 00:00	Sample ID: MW-8 31'-32'
Date (Time) Received: 08/18/2015 17:10	Laboratory ID: 5081901-20 % Solid:0.00
Matrix: Soil	ELAP: #11693

Sieve Analysis

Parameter	Date Analyzed	Method	MDL	LOQ	Result	Units	Flag
Sieve Size 2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 3/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/2 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	0.00	% Retained	
Sieve Size 1/4 inch	09/01/2015 14:02	ASTM D422-63	NA	NA	1.33	% Retained	
Sieve Size #10	09/01/2015 14:02	ASTM D422-63	NA	NA	3.45	% Retained	
Sieve Size #30	09/01/2015 14:02	ASTM D422-63	NA	NA	32.07	% Retained	
Sieve Size #50	09/01/2015 14:02	ASTM D422-63	NA	NA	35.13	% Retained	
Sieve Size #100	09/01/2015 14:02	ASTM D422-63	NA	NA	17.32	% Retained	
Sieve Size #140	09/01/2015 14:02	ASTM D422-63	NA	NA	4.09	% Retained	
Sieve Size #200	09/01/2015 14:02	ASTM D422-63	NA	NA	2.86	% Retained	
Sieve Size <200	09/01/2015 14:02	ASTM D422-63	NA	NA	3.16	% Retained	

Date Prepared: 08/19/2015

Preparation Method: Bake & Shake

Data Qualifiers Key Reference:

MDL Minimum Detection Limit

LOQ Limit of Quantitation

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"
110 Colin Drive • Holbrook, New York 11741 • Phone (631) 472-3400 • Fax (631) 472-8505 • Email: LIAL@lialinc.com

CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

CLIENT NAME/ADDRESS: NPV, 572 WEST WHITMAN RD., MELVILLE, NY 11747	CONTACT: Brad Arsen	SAMPLER (SIGNATURE): Eric C	SAMPLE(S) SEALED: YES / NO
PROJECT LOCATION: CPE	PHONE: 427-5665	SAMPLER NAME (PRINT): Brad Arsen	CORRECT CONTAINER(S): YES / NO
	FAX:		5081901
	EMAIL:	SAMPLES RECEIVED AT: 2.5 °C	

TERMS & CONDITIONS: Accounts are payable in full within thirty days, outstanding balances accrue service charges of 1.5% per month. Tendering of samples to LIAL for analytical testing constitutes agreement by buyer/sampler to LIAL's Standard terms

LABORATORY ID # (For Laboratory Use Only)	MATRIX	TYPE	pH	RES. CHLORINE	PRES.	DATE	TIME	SAMPLE # / LOCATION	ANALYSIS REQUIRED: Sewer Analysis	# OF CONTAINERS
1. 5081901-01	S	G	—	—	—	8-13-15		MW-1 8'-10'	X	1
2. 02								MW-1 12'-15'		
3. 03								MW-1 15'-17'		
4. 04								MW-1 19'-21'		
5. 05								MW-1 26'-28'		
6. 06								MW-3 13'-15'		
7. 07								MW-3 16'-17'		
8. 08								MW-3 19'-20'		
9. 09								MW-3 21'-22'		
10. 10								MW-3 22'-23'		
11. 11								MW-5 19'-20'		
12. 12								MW-5 22'-23'		
13. 13								MW-5 25'-26'		
14. 14								MW-5 28'-29'		

MATRIX: S=SOIL; SL=SLUDGE; DW=DRINKING WATER; A=AIR; W=WIPE; PC=PAINT CHIPS; BM= BULK MATERIAL, O=OIL, WW=WASTE WATER
TYPE: G=GRAB; C=COMPOSITE; SS=SPLIT SPOON
PRES: (1) ICE; (2) HCL; (3) H_2SO_4; (4) NAOH; (5) $NA_2S_3O_3$; (6) HNO_3; (7) OTHER

TURNAROUND REQUIRED: ☒ NORMAL ☐ STAT BY / /

COMMENTS / INSTRUCTIONS

RELINQUISHED BY (SIGNATURE): Eric C	DATE 8/18/15 TIME 5:10	PRINTED NAME: Brad Arsen	RECEIVED BY (SIGNATURE):	DATE 8-18-15 TIME 5:10 P	PRINTED NAME: Ben LAMBERSON
RELINQUISHED BY (SIGNATURE):	DATE TIME	PRINTED NAME:	RECEIVED BY SAMPLE CUSTODIAN	DATE 8-19-15 TIME 9:18 AM	PRINTED NAME: Ben Lamberson

WHITE - OFFICE / CANARY - SAMPLE CUSTODIAN / PINK - CLIENT

NYSDOH ELAP# 11693 USEPA# NY01273 CTDOH# PH-0284 NJDEP# NY012 PADEP# 68-2943

ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROW'S ANALYTICAL SOLUTIONS TODAY"

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CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

CLIENT NAME/ADDRESS: NOV, 572 West Whitman Rd., Melville, NY 11747
PROJECT LOCATION: CPI

CONTACT: Eric Arnesen
PHONE: 427-5665
FAX:
EMAIL:

SAMPLER (SIGNATURE): Eric [signature]
SAMPLER NAME (PRINT): Eric Arnesen
SAMPLES RECEIVED AT: 2.5 °C

SAMPLES SEALED: YES / NO (YES circled)
CORRECT CONTAINER(S): YES / NO (YES circled)

5081901

TERMS & CONDITIONS: Accounts are payable in full within thirty days, outstanding balances accrue service charges of 1.5% per month. Tendering of samples to LIAL for analytical testing constitutes agreement by buyer/sampler to LIAL's Standard terms

ANALYSIS REQUIRED: Sieve Analysis

LABORATORY ID # (For Laboratory Use Only)	MATRIX	TYPE	pH	RES. CHLORINE	PRES.	DATE	TIME	SAMPLE # LOCATION	Sieve Analysis	# OF CONTAINERS
1. 5081901-15	S	G	–	–	–	8-13-15		MW-5 31'-32'	X	1
2. 16	S	G	–	–	–	8-13-15		MW-8 19'-21'	X	1
3. 17	S	G	–	–	–	8-13-15		MW-8 22'-23'	X	1
4. 18	S	G	–	–	–	8-13-15		MW-8 25'-26'	X	1
5. 19	S	G	–	–	–	8-13-15		MW-8 28'-29'	X	1
6. 20	S	G	–	–	–	8-13-15		MW-8 31'-32'	X	1
7.										
8.										
9.										
10.										
11.										
12.										
13.										
14.										

MATRIX: S=SOIL; SL=SLUDGE; DW=DRINKING WATER; A=AIR; W=WIPE; PC=PAINT CHIPS; BM= BULK MATERIAL, O=OIL, WW=WASTE WATER
TYPE: G=GRAB; C=COMPOSITE; SS=SPLIT SPOON
PRES: (1) ICE; (2) HCL; (3) H_2SO_4; (4) NAOH; (5) $NA_2S_2O_3$; (6) HNO_3; (7) OTHER

TURNAROUND REQUIRED: ☒ NORMAL ☐ STAT
BY / /

COMMENTS / INSTRUCTIONS:

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY (SIGNATURE)	DATE / TIME	PRINTED NAME
Eric [signature]	DATE 8/18/15 TIME 5:10	Eric Arnesen	[signature]	DATE 8-18-15 TIME 5:10P	Ben Lamberson
RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY SAMPLE CUSTODIAN	DATE 8-19-15 TIME 9:18A	Ben Lamberson