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NORTH BEACH WATER DISTRICT
CONSTRUCTION AND TESTING OF
THE WIEGARDT WELLFIELD

JUNE 2014

by

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Introduction

Robinson Noble, Inc. provided hydrogeologic services to the North Beach Water District (District) of Ocean Park, Washington for the design, construction, and testing of wells 2 and 3 in the District's Wiegardt wellfield. Wiegardt wells 2 and 3 are located on parcel number 1211331300 within the SW ¼, NE ¼ of Section 33, Township 12 North, Range 11 West, in Pacific County, Washington, 150 and 300 feet to the south of Wiegardt well 1, respectively. The locations of the three Wiegardt wells, as well as the District's other wells in the south wellfield, are indicated on Figure 1.

Wells 2 and 3 are the remainder of the wells that will augment or replace the District's existing source wells that have shown declining yields during their lifespan. These replacement wells were constructed and tested under Washington State Department of Ecology water right certificate number G2-00174C. The Pacific County Health Department (acting for Washington State Department of Health) conducted a well site evaluation and approved the District's application for the location of Wiegardt wells 2 and 3. The sites meet the requirements under WAC 246-290-135, Source Protection.

Based on the results of the drilling of Wiegardt well 1, the District retained Bison Well Drilling & Septic, LLC (Contractor) of Spanaway, Washington as the driller for wells 2 and 3. The sites were prepared and drilling was started as soon as the District completed the acquisition of the property. Narrative discussions for the drilling, design, and construction of both wells follow.

Well 2

The drilling of well 2 started on December 2, 2013 with the mobilization of Bison's Bucyrus Erie 22W drilling rig. A 12-inch casing was advanced to 20 feet below ground, then drilling continued with 8-inch casing until the total depth of 150 feet was reached on December 10. Per the District's wishes, Robinson Noble did not directly observe any of the drilling of well 2, but rather relied on the descriptions of the material and formation samples provided by the driller to assist with a well completion design.

On December 11, Bison dropped off the formation samples for our evaluation and mechanical analysis. Robinson Noble reviewed and evaluated the samples, selected appropriate samples within the desired completion zone, and completed a mechanical sieve analysis of these samples. Based on the results of the sieve analysis, Robinson Noble prepared a proposed screen design for well 2. As would be expected due to the nature of the sediments and the well's proximity to well 1, the design for well 2 was very similar to that used in well 1.

Well 2 was constructed according to the plan developed by Robinson Noble. A geologic log and construction diagram for the well are presented in Figure 2. After the well screen assembly was lowered into the cased hole, the annular space was partially filled with the Colorado Silica 10-20 filter pack material. As a thin-wall drilling shoe was used, no casing cut was required for the drilling. The 8-inch well casing was withdrawn with hydraulic jacks to expose the screen and filter pack to the formation. The screen assembly was exposed in stages, with the pack being replenished and settled as needed during the screen exposure process.

Once fully exposed to the formation, the screen was developed. In addition to the basic surge-and-bail techniques, mechanical surge development was supplemented through the use of a polymer dispersant to facilitate the removal of fine materials from the formation. This same approach proved to be effective during the development of well 1. Well 2 was considered to be developed and ready for testing on January 10.

Similar to well 1, testing of well 2 consisted of step-rate and constant-rate tests. Robinson Noble provided datalogging equipment for testing but did not directly observe the testing of well 2. Automated water-level monitoring equipment was installed in wells 1 and 2 for the duration of testing but not in the more distant wells of the District's south wellfield. Water levels and pumping rate information were monitored and recorded by the contractor with the District's oversight.

Testing of well 2 started on January 15 and was completed on January 17. During the step-rate test, the well was pumped at 100, 151, and 183 gallons per minute (gpm) for periods of 60 minutes. The constant-rate test was started at 8:00 AM on January 16 at a pumping rate of 151 gpm. A full suite of water samples were collected prior to the completion of the constant-rate test, extending the pumping period to 25 hours and 20 minutes. The step-rate testing data is presented in Figure 3. Drawdown and recovery plots for the constant-rate testing of well 2 are presented in Figures 4 and 5, respectively. Results and analysis of the testing are further discussed in the Analysis section.

Well 3

The drilling of well 3 started once the testing of well 2 was completed. Bison moved their Bucyrus Erie 22W drilling rig to the well 3 pad on January 22. As with the other wells, a 12-inch casing was advanced to 20 feet below ground, then drilling continued with 8-casing. A total depth of 172.5 feet was reached on January 31. At Robinson Noble's request, Well 3 was drilled to a total depth of 172.5 feet to verify the presence of the basal clay layer that was found at the bottom of well 1. A similar clay was encountered at a depth of 170 feet in well 3, suggesting the layer is continuous beneath the Wiegardt wellfield. This layer provides the wells some amount of protection from saltwater upconing.

As with the drilling of well 2, Robinson Noble did not directly observe any of the drilling of well 3, but rather relied on the descriptions of the material and formation samples provided by the Contractor. On February 3, Bison dropped off the formation samples for our evaluation and mechanical analysis. Robinson Noble reviewed and evaluated the samples, selected appropriate samples within the desired completion zone, and completed a mechanical sieve analysis of these samples. Based on the results of the sieve analysis, Robinson Noble prepared a proposed screen design for well 3. As would be expected due to their proximity, the design for well 3 was very similar to the previous designs.

Well 3 was constructed according to the proposed Robinson Noble design. A geologic log and construction diagram for the well are presented in Figure 6. As with well 2, the contractor used a thin-wall drilling shoe so no casing cut was required. As the 8-inch casing was withdrawn to 150 feet using hydraulic jacks, and the hole was backfilled and a firm bottom was established. The well screen assembly was lowered into the cased and partially backfilled hole, then the annular space was partially filled with Colorado Silica 10-20 filter pack material. The 8-inch well casing was further withdrawn to expose the screen and filter pack to the formation. The screen assembly was exposed in stages, with the pack being replenished and settled as needed during well construction.

Once fully exposed to the formation, the screen was developed using surge-and-bail techniques. In addition to the basic mechanical approach used, development was supplemented through the use the same polymer dispersant that was found to be effective in the development of wells 1 and 2. Well 3 was considered to be developed and ready for testing on February 20.

Similar to wells 1 and 2, the testing of well 3 consisted of step-rate and constant rate tests. Robinson Noble hydrogeologist was on site to direct and observe the testing of well 3 and the wellfield's response to testing. The duration of the constant-rate test was increased to 72 hours to serve as a wellfield test and better determine wellfield conditions.

Step-rate testing of well 3 was completed on February 24. Well 3 was pumped at 100, 151, and 170 gpm for periods of 30 minutes. Step-rate testing of well 3 is presented on Figure 7 and in Table 1. As with the other wells in the wellfield, the specific capacity remained relatively consistent, only dropping slightly as the pumping rate was increased.

Table 1: Well 3 Step Rate Testing

Pumping Rate	Drawdown after 30 Minutes	Specific Capacity (Discharge/Drawdown)
100	11.07	9.04
151	17.97	8.40
170	20.34	8.36

Constant-rate, wellfield testing was started on February 25 and continued until February 28. Recovery measurements were collected until the logging equipment was removed on March 3. Drawdown and recovery plots for the well 3 constant-rate testing are presented in Figures 8 and 9, respectively. As with the previous testing, observation well data are included on the plots and values are presented as drawdown from the static level as recorded prior to the start of the testing. Results and analysis of the testing are further discussed below.

Analysis

Well 1

The testing and analysis of well 1 in the Wiegardt wellfield was covered in Robinson Noble's report on the Wiegardt well 1[1]. Our testing indicated a specific capacity that ranged from 8.8 to 8.3 gallons per minute per foot of drawdown (gpm/ft) and an aquifer transmissivity of approximately 60,000 gallons per day per foot of aquifer width (gpd/ft). The effects of a positive boundary and tidal influences were noted in the later testing data.

Though it was odorless, colorless, sand free, and apparently clear, the water produced from well 1 was still slightly turbid at the end of the 24-hour pumping test with a measured turbidity of 0.8 NTU. The arsenic concentration was measured at 16 µg/liter (µg/l), which exceeds the state Maximum Contaminant Level (MCL) of 10 µg/l. No other analytes were detected at or above their respective MCL.

Well 2

The testing of well 2 indicated a specific capacity that ranged from 7.5 to 8.6 gpm/ft and an aquifer transmissivity of averaging 60,000 gpd/ft. Calculations were made using the Cooper-Jacob

[1] North Beach Water District Wiegardt Well 1 Construction and Testing Report, Robinson Noble, Inc., 2013

solution using data between 10 and 45 minutes. As with the other testing, the effects of a positive boundary and tidal influences were noted in the later testing data, while the early data was dominated by the effects of casing storage and well inefficiency due to partial penetration.

Water produced from well 2 was clear, odorless, colorless, and sand free at the end of the 24-hour pumping test. The arsenic concentration was measured at 15.5 µg/l, which exceeds the state MCL of 10 µg/l. No other analytes were detected at or above their respective MCL.

Well 3/Wellfield Testing

The constant-rate testing of well 3 started February 25 and also served as a 72-hour wellfield test. On February 24, prior to the start of testing, Robinson Noble installed automated data loggers in all three of the Wiegardt wellfield wells, as well as the District's wells 2 and 4 in their south wellfield. The constant-rate test was started at 9:00 AM on February 25 with a pumping rate of 151 gpm. During testing, temperature, pH, and specific conductivity were periodically monitored with a portable meter; the results of this monitoring are presented in Table 2a.

Table 2a: Aquifer Test Water Quality Measurements, Robinson Noble Meter

Date	Time	Temperature (°C)	pH	Specific Conductivity (µS/cm)
2/25/2014	13:00	10.92	8.32	208
	19:00	10.75	8.55	192
2/26/2014	10:00	10.70	8.66	189
	14:00	10.75	8.63	189
2/27/2014	10:07	10.75	8.63	187
	18:00	10.78	8.61	186
2/28/2014	9:00	10.67	8.66	185

Additionally, the District recorded several measurements with their water quality monitoring equipment, as presented in Table 2b.

Table 2b: Aquifer Test Water Quality Measurements, District Meter

Date	Time	Temperature (°F)	pH	Specific Conductivity (µS/cm)
2/25/2014	10:00	52.3	8.64	203
2/26/2014	20:05	52.3	8.22	203

Though units and calibrations were slightly different between the two instruments, neither data set indicates any evidence of a change in water quality due to saltwater intrusion. Temperature and pH remained within ranges of 2% and 4%, respectively, of their average value for the duration of testing. While specific conductivity had a slightly higher range of variation (12%), the values recorded show a decreasing trend as testing progressed. A full suite of water samples were collected prior to the completion of the constant-rate testing.

During the wellfield test, well 3 was pumped for three days at 151 gpm. Well 3 experienced 18.4 feet of drawdown at the end of the test, though tidal influence is evident in the later data. The drawdown curve presented in Figure 8 shows a clear positive boundary effect after more than 40 minutes of pumping, and the well's early response is affected by the effects of well efficiency and casing storage. These factors complicate the application of a typical pumping-test analysis. Similar issues are evident in the well 3 recovery plot. Applying the Cooper-Jacob method to the data falling between the efficiency impacts and the positive boundary results in a transmissivity of 72,000 gpd/ft.

During the wellfield testing, data was also collected at four nearby wells, located at varying distance from well 3. Each of the monitored wells showed a response to the pumping of Well 3. The magnitude of the observed responses decreased with increasing radial distance from the pumped well. A distance-drawdown plot for the 4,320-minute pumping condition is presented as Figure 10. Using a distance-drawdown solution, we calculated an aquifer transmissivity of 63,000 gpd/ft, which correlates well to the other testing, and a storage coefficient of 0.04, indicating unconfined conditions. This calculation is contrary to the calculations made after the testing of well 1, where lower storage coefficients were calculated indicating confined conditions. With the additional and closer monitoring points, the well 3 testing is likely a more valid result.

Similar to wells 1 and 2, the water produced from well 3 was clear, colorless, and sand free at the end of the 72-hour pumping test; however, the water produced had a hydrogen sulfide odor that persisted throughout the duration of testing. The arsenic concentration was measured at 15 µg/l, which exceeds the state MCL of 10 µg/l. Both diquat and paraquat were detected in the water sample from well 3, with paraquat exceeding the state trigger level at a concentration of 2.6 µg/l. Neither diquat nor paraquat exceeded their respective MCL. No other analytes were detected at or above their respective MCL.

Wellfield testing recorded drawdown in all wells monitored. The distance-drawdown graph shows the cone of influence extends about 1,250 feet from Wiegardt well 3. Observations from the 72-hour test indicate that the cone of influence remained above sea level outside of the well 3 casing. This means the water level in the aquifer nearer the coast also remains above sea level.

Water levels in the aquifer show a slight response to changes in tide, but do not appear to respond to changes in barometric pressure. The chemical analyses completed in all three wells indicate the presence of arsenic at an average level of 15.5 µg/l. The water from all wells is clear, colorless, and sand free. Though no odor was noted in wells 1 and 2, the water produced from well 3 had a hydrogen sulfide odor that persisted through testing. The water from all there wells meets drinking water standards for all water-quality parameters tested, with the exception of the regulated contaminant arsenic.

Hydrogeology

The geology of the Ocean Park area is primarily recent beach sand deposits. Wells (1989)[2] mapped the entire area as recent beach deposits, which is consistent with our observations. Drilling penetrated sands typical of a beach deposit until the gray clay, at approximately 170 feet below ground, was encountered. Undoubtedly, the sand deposits comprising the aquifer extend to the east, below Willapa Bay, and west, well out past the beach. This puts the Pacific Ocean in direct contact with the aquifer material, providing an infinite source of water for recharge should aquifer stresses be too high.

The eastern portion of the aquifer present below Willapa Bay is likely capped with the finer-grained bay sediments that provide an impediment to flow, but no such layer of fine sediments is expected to the west. The impacts of these boundaries are evident in the testing of the Wiegardt wells. There is a strong positive boundary evident in the later well testing data in all cases. This boundary effect is more evident after 30 minutes of pumping. As discussed above,

[2] Wells, R. E., 1989, Geologic map of the Cape Disappointment-Naselle River area, Pacific and Wahkiakum Counties, Washington, United States Geological Survey Miscellaneous Investigations Series Map I-1832, 1:62,500

this is likely a result of the continuity between the aquifer and the saltwater surrounding the Long Beach peninsula.

The geology observed in wells 1 and 3 suggests that upconing is not a likely mechanism of saltwater intrusion as a low-permeability clay unit is present below the aquifer. Still, there is saltwater present on both sides of the Long Beach Peninsula, so this aquifer has a relatively high susceptibility for saltwater intrusion via lateral encroachment, and as such, we strongly recommend the installation and regular monitoring for any changes in water quality of sentinel wells near the beaches to the east and west of the wellfield as a fundamental component of resource management.

The aquifer is of limited areal extent and is predominantly recharged by the precipitation falling on the aquifer area, though there are also some contributions from the percolation of irrigation water as well as leakage from irrigation ditches and streams. Groundwater discharges as subsurface flow to saltwater, flow to streams and springs, and as withdrawals from wells.

Over the course of one year of continuous operation at their design rate, the three wells would produce a volume of 236 million gallons. With an assumed effective recharge of 36 inches (of the 79 inches of rain that fall on the area per year), approximately 242 acres worth of recharge area is required to meet this demand. For this analysis, a reasonable estimate of the zone of contribution for these wells is a circle with a radius of 3,750 feet. The area of such a circle is 1,014 acres, approximately four times larger than the recharge area required. This basic analysis suggests that the proposed level of groundwater production is sustainable.

Summary and Recommendations

In summary, the Wiegardt wellfield produces from a water-table aquifer formed in fine beach-sand deposits that comprise the Long Beach peninsula. Wellhead elevations in the Wiegardt wellfield average 21.4 feet above sea level, the groundwater elevation averages 15.2 feet above sea level. The wells in the Wiegardt wellfield have an average specific capacity of 8 gpm/ft-dd and the average aquifer transmissivity is approximately 60,000 gpd/ft. This suggests that the wells may be less than 20% efficient, which is most likely a result of the fact that each well only has 20 feet of screen placed in what is essentially a 130-foot thick aquifer. Regardless of the well efficiency, the results of the testing indicate that each of the wells is more than capable of long-term production at the design rate of 150 gpm up to the applicable water rights limits.

We anticipate pumping water levels approximately 30 feet below land surface (9 feet below sea level) for any of the wells operating at the design rate of 150 gpm after 100 days. Much of this drawdown is due to well inefficiency. The results of the wellfield testing indicate that aquifer drawdown will be considerably less outside the wells, with water levels generally remaining above sea level.

Additionally, the wells in this wellfield will interfere with each other if more than one of the wells is operated concurrently. Allowing for five feet of mutual interference due to worst-case concurrent operation, as well as several feet of seasonal water level fluctuations, a maximum pumping water level of approximately 40 feet below surface is expected. Given these parameters, we suggest placing the pump motors within the 8-inch well casings above the top of the 6-inch riser assemblies. This will provide adequate head over the pumps to reduce the chance of cavitation. Generally speaking, four joints of standard 21-foot pipe would place the bottoms of the pump motors appropriately in all of the wells. If the pumps are set with pitless adapters, ensure that the bottoms of the pump motors are set no deeper than 95 feet below surface.

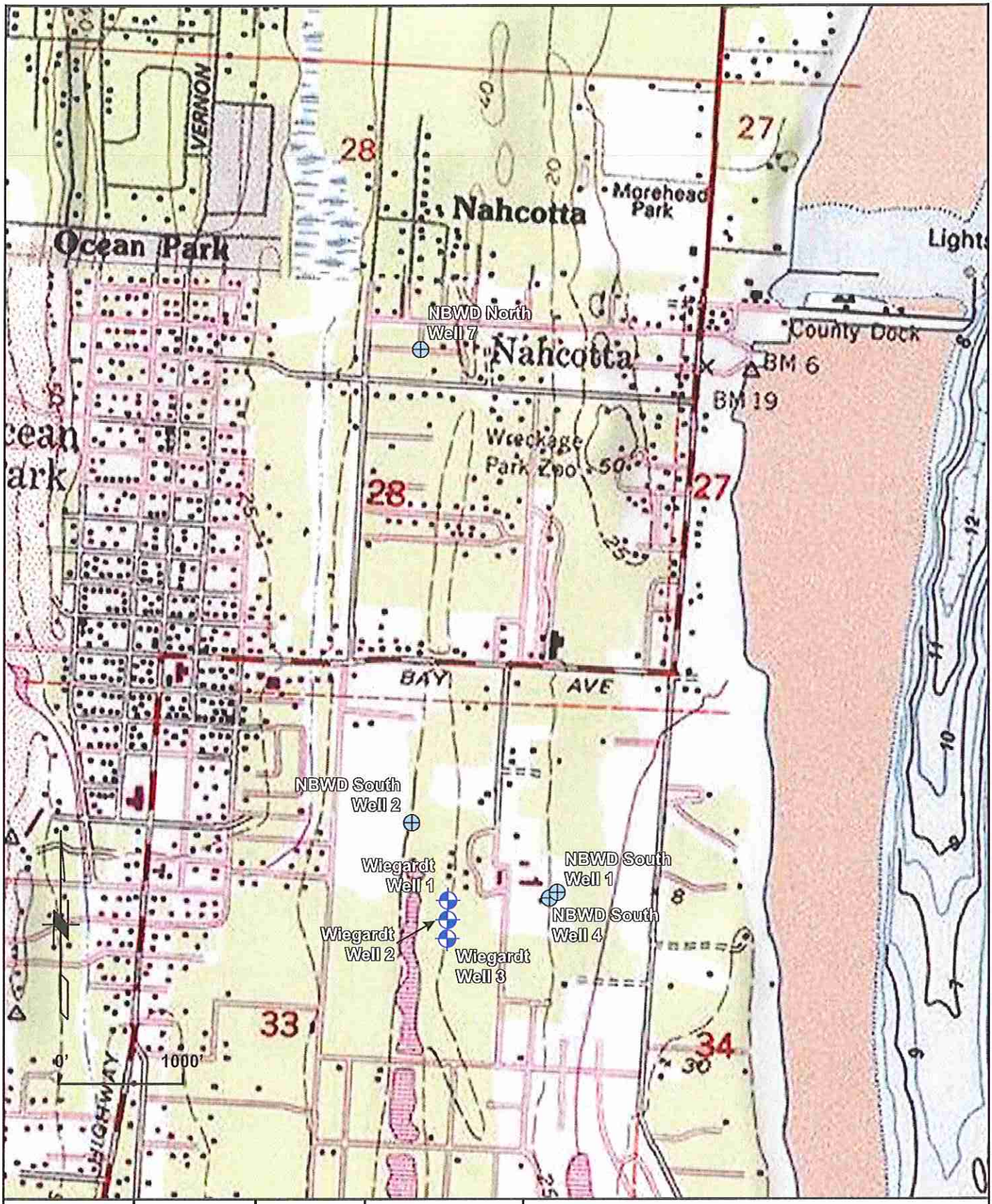
Two one-inch water level sounding tubes should be installed with each pump. Water level transducers should be installed in the wells as soon as possible to generate a baseline hydrograph for the aquifer at this location. Additionally, these wells should be added to the District's manual or electronic monitoring program to record water level changes over time.

We recommend that static and pumping water levels be manually measured and recorded weekly, along with total production and instantaneous discharge rate. Chloride should be tested quarterly once the wells are put into operation. Sentinel wells should be installed and instrumented with level, temperature, and conductivity sensors prior to placing the wellfield into service. These instruments should be monitored and serviced monthly. The regular sentinel well data should be reviewed in conjunction with wellfield data and production records.

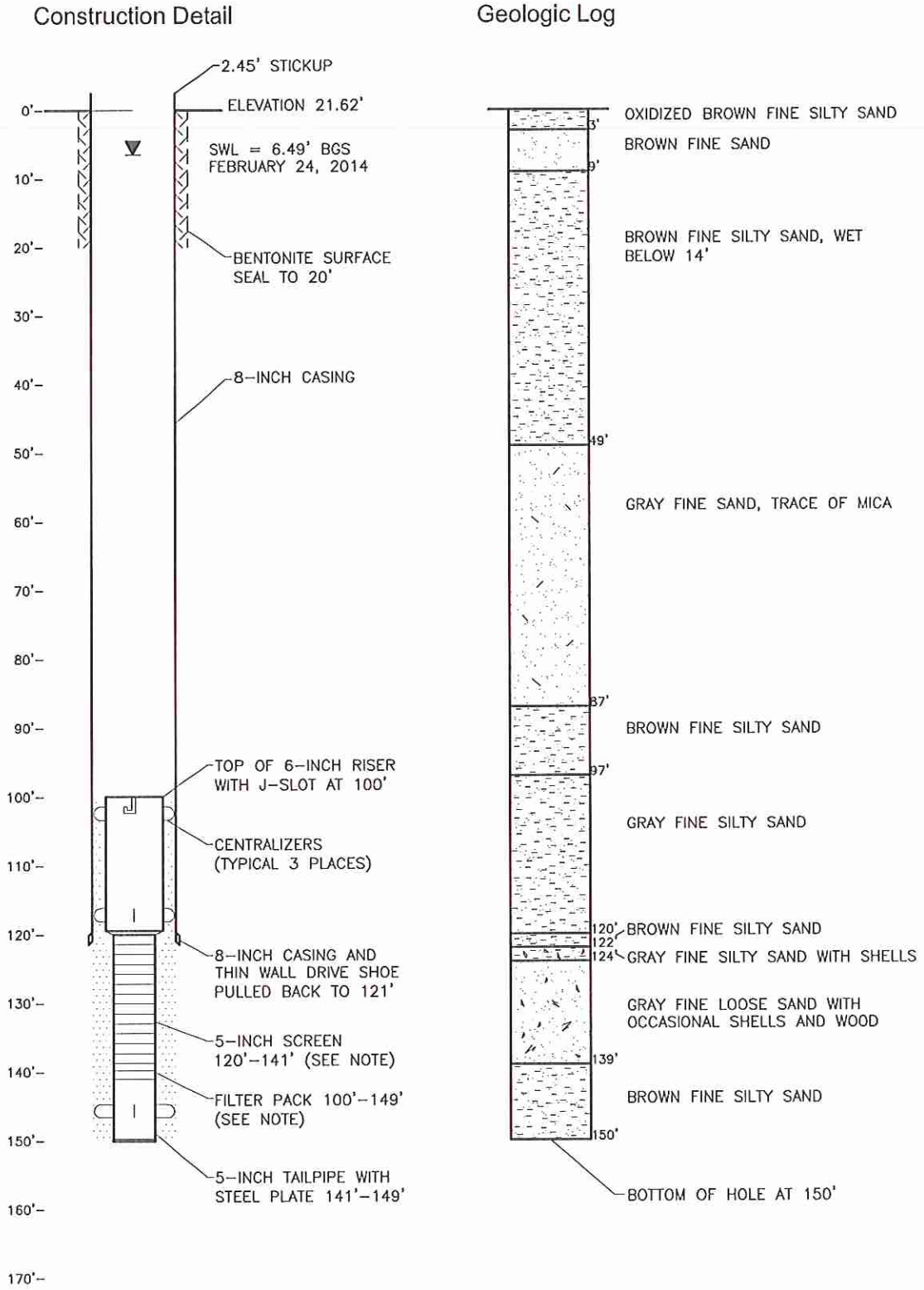
The water quality issue of elevated arsenic concentrations should be addressed as early in the system design process as possible. It is possible that treatment requirements may alter the recommended sizing of pumping equipment. The arsenic levels measured remained consistent with the testing of each well and likely represent the natural condition.

The statements, conclusions, and recommendations provided in this report are to be exclusively used within the context of this document. They are based upon generally accepted hydrogeologic practices and are the result of analysis by Robinson Noble staff. This report, including any attachments to it, is for the exclusive use of the North Beach Water District. Unless specifically stated in the document, no warranty, expressed or implied, is made.

FIGURES

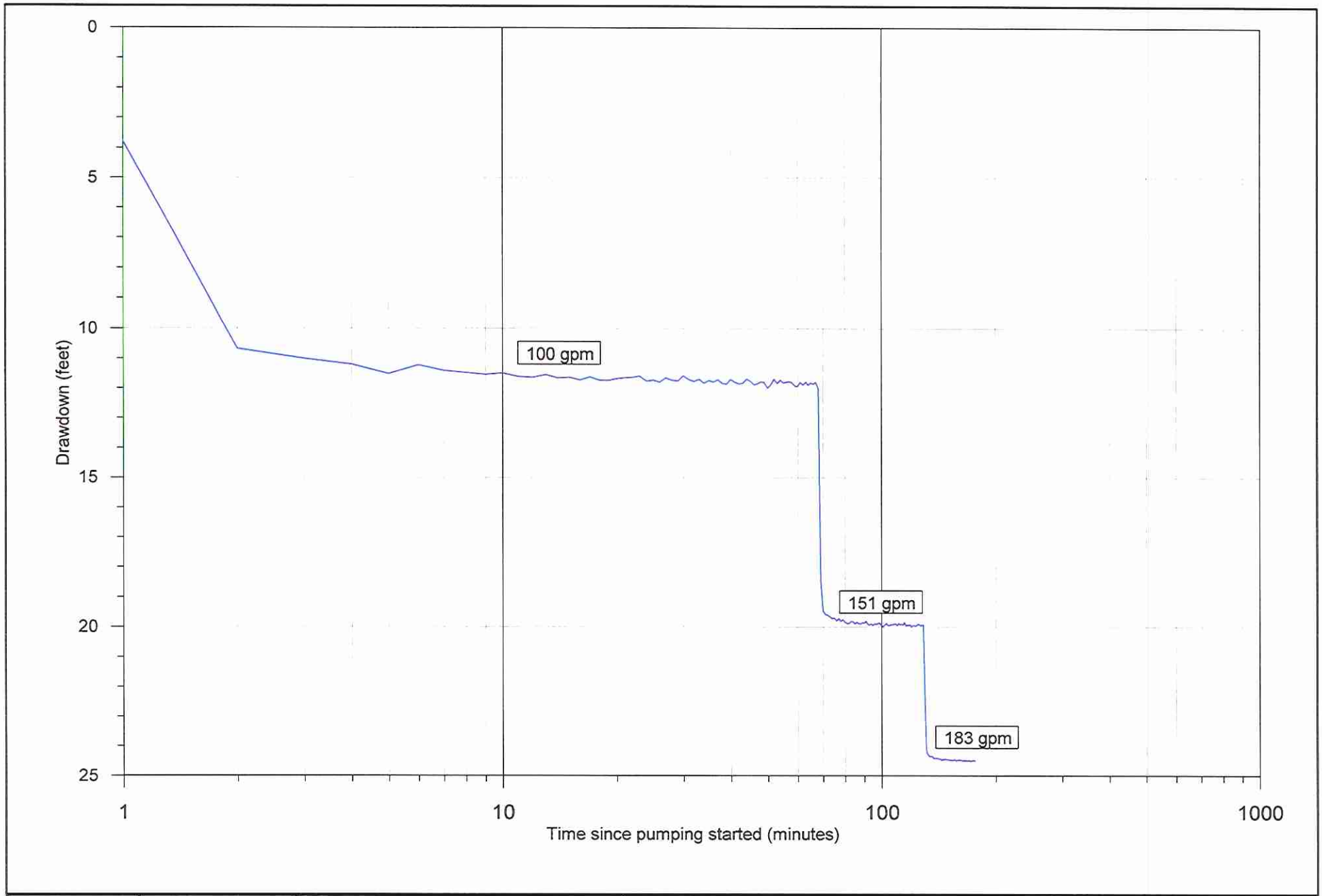


ROBINSON NOBLE	Note: Basemap taken from USGS Ocean Park Quadrangle	PM: MFP June 2014 2755-001B	Pacific County T 12 N/R 11 W - 28,33 Scale 1" = 1000'	Figure 1 Vicinity Map North Beach Water District: Wiegardt Wellfield

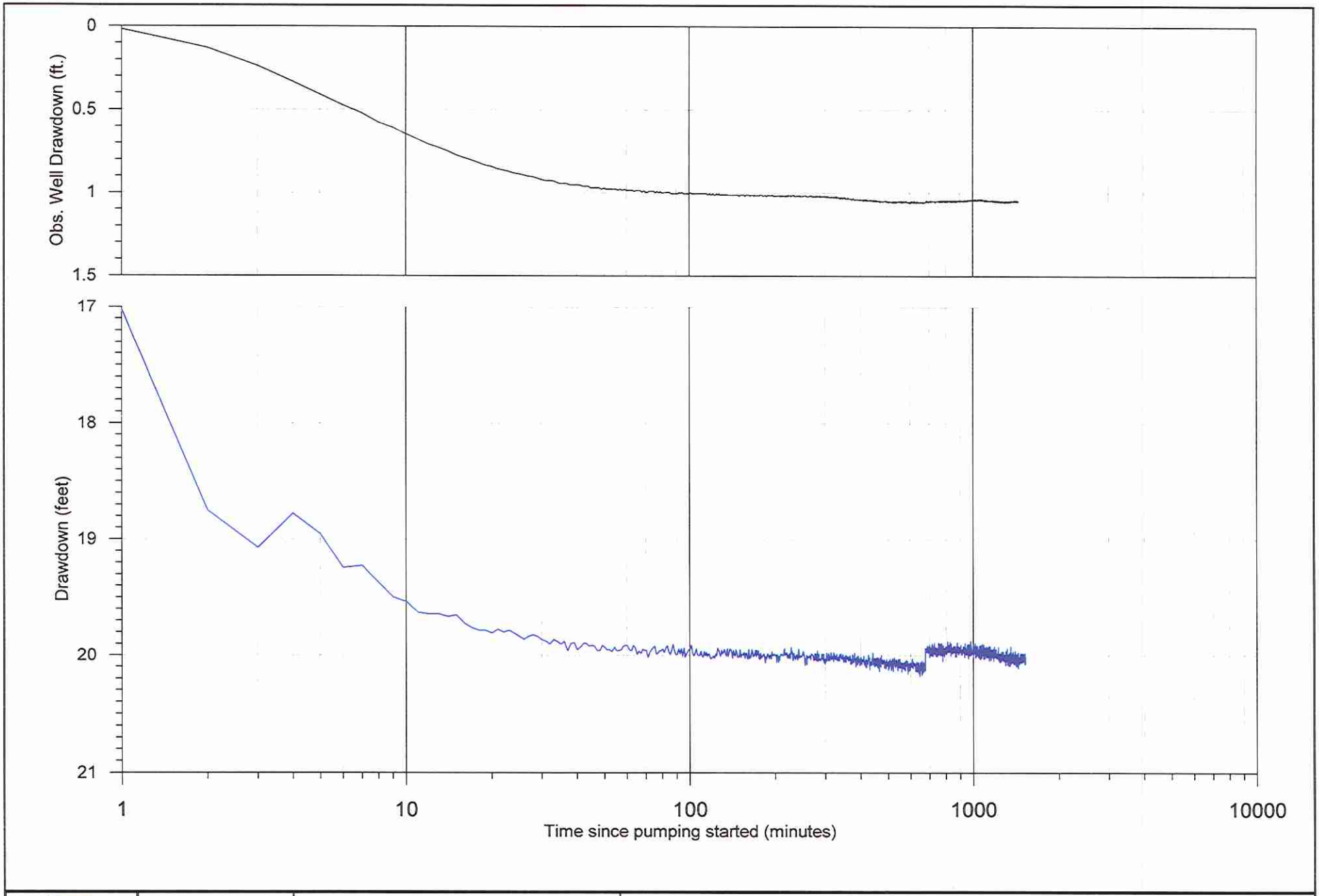


NOTE: WELL SCREEN IS 6-INCH TELESCOPE, 20-SLOT (0.20-INCH OPENING) TYPE 304, STANDARD STAINLESS STEEL. FILTER PACK IS 10x20 COLORADO SILICA SAND PRODUCT.

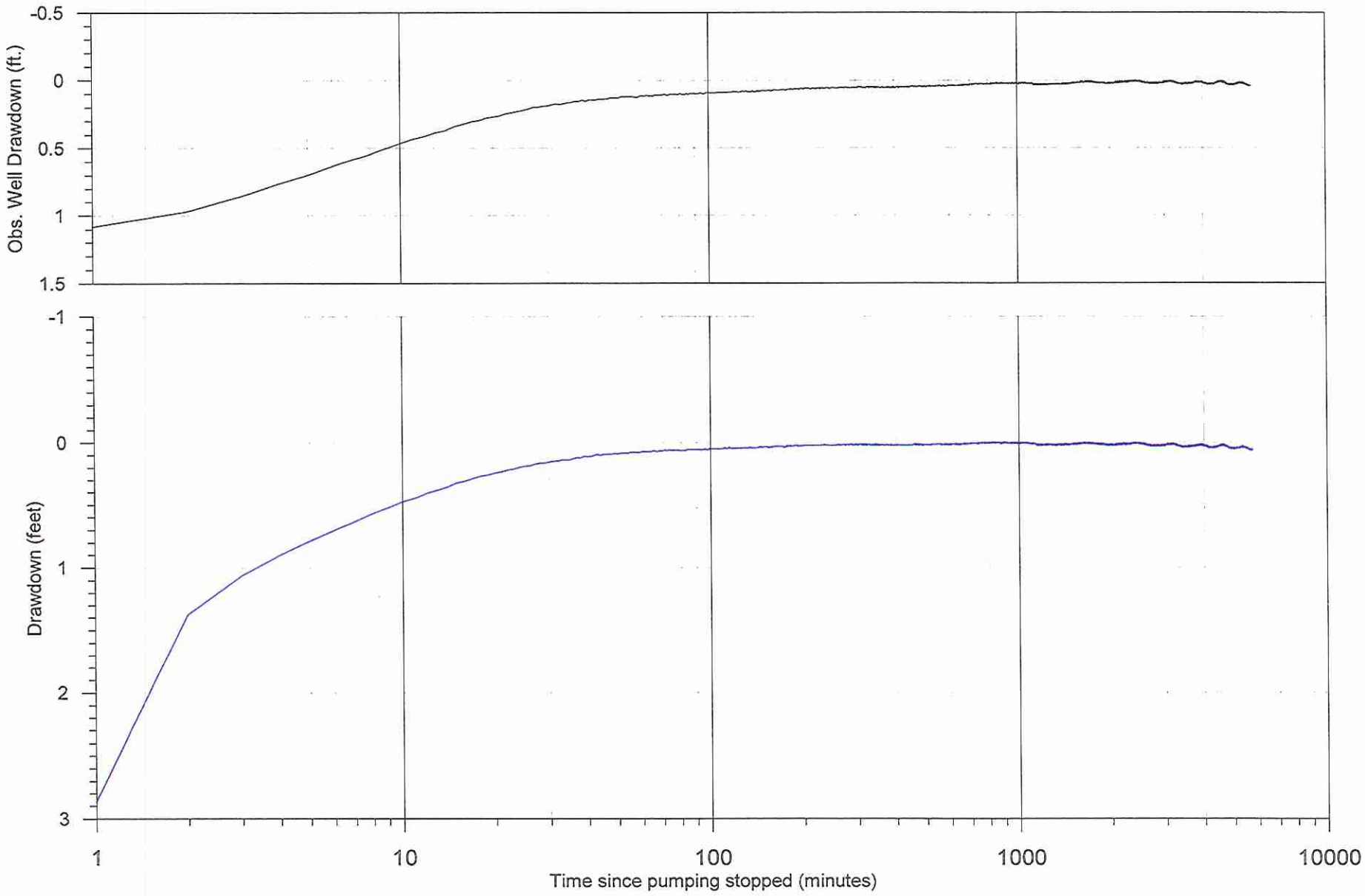
ROBINSON NOBLE	PM: MFP June 2014 2755-001B	Pacific County T 12 N/R 11 W - 33 Unique ID: BAF024	Figure 2 Construction Detail and Geologic Log for Wiegardt Well 2 North Beach Water District



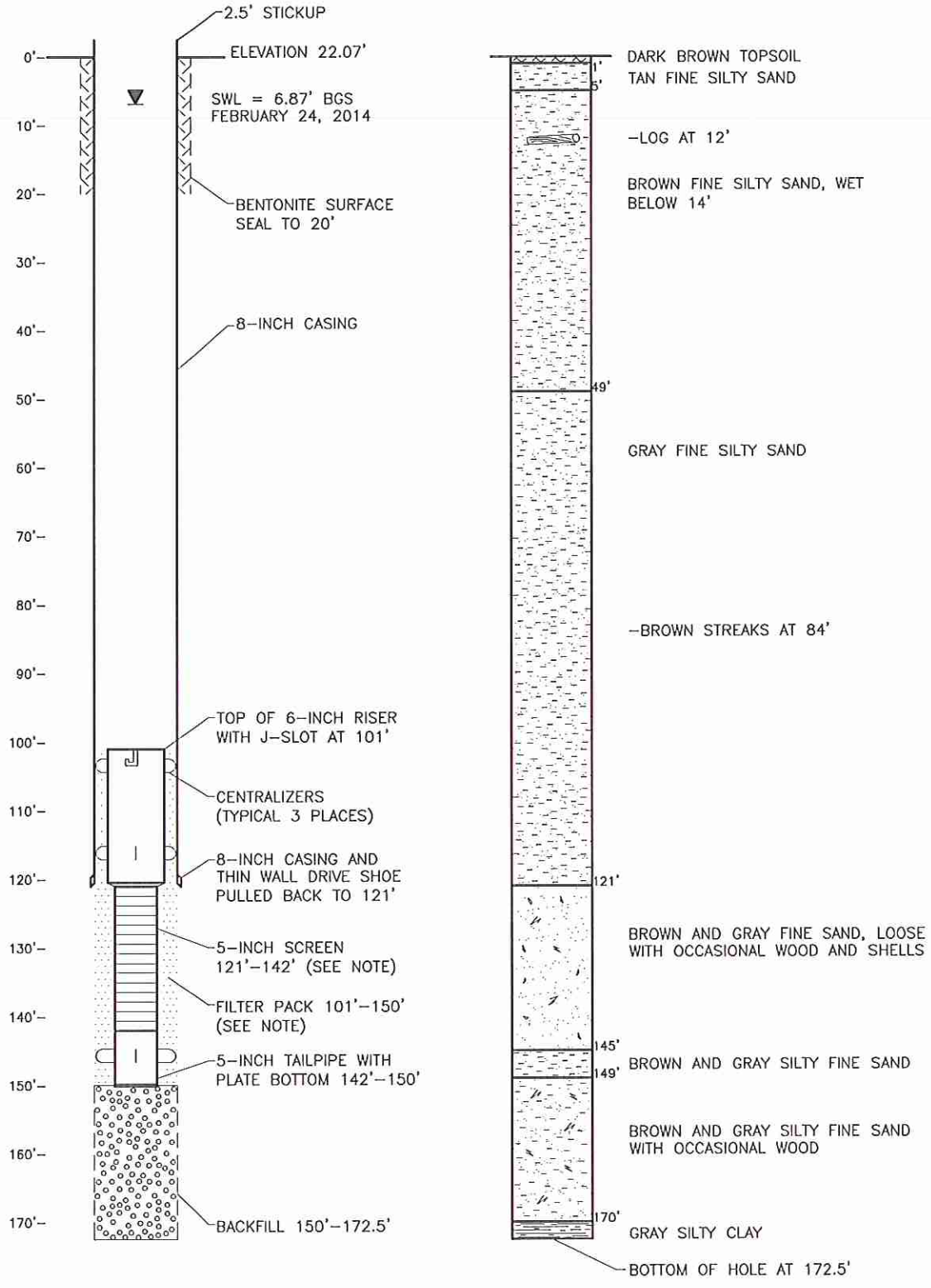
ROBINSON NOBLE	PM: MFP June 2014 2755-001B	Pumping rates as noted. Drawdown in feet from pre-test static	**Figure 3** Wiegardt Well 2 Step-Rate Drawdown Plot North Beach Water District Wiegardt Wellfield



ROBINSON NOBLE	PM: MFP June 2014 2755-001B	Drawdown from static level in feet. Well 2 pumped at 151 gpm for 24 hours	**Figure 4** Wiegardt Well 2 Drawdown Plot North Beach Water District Wiegardt Wellfield

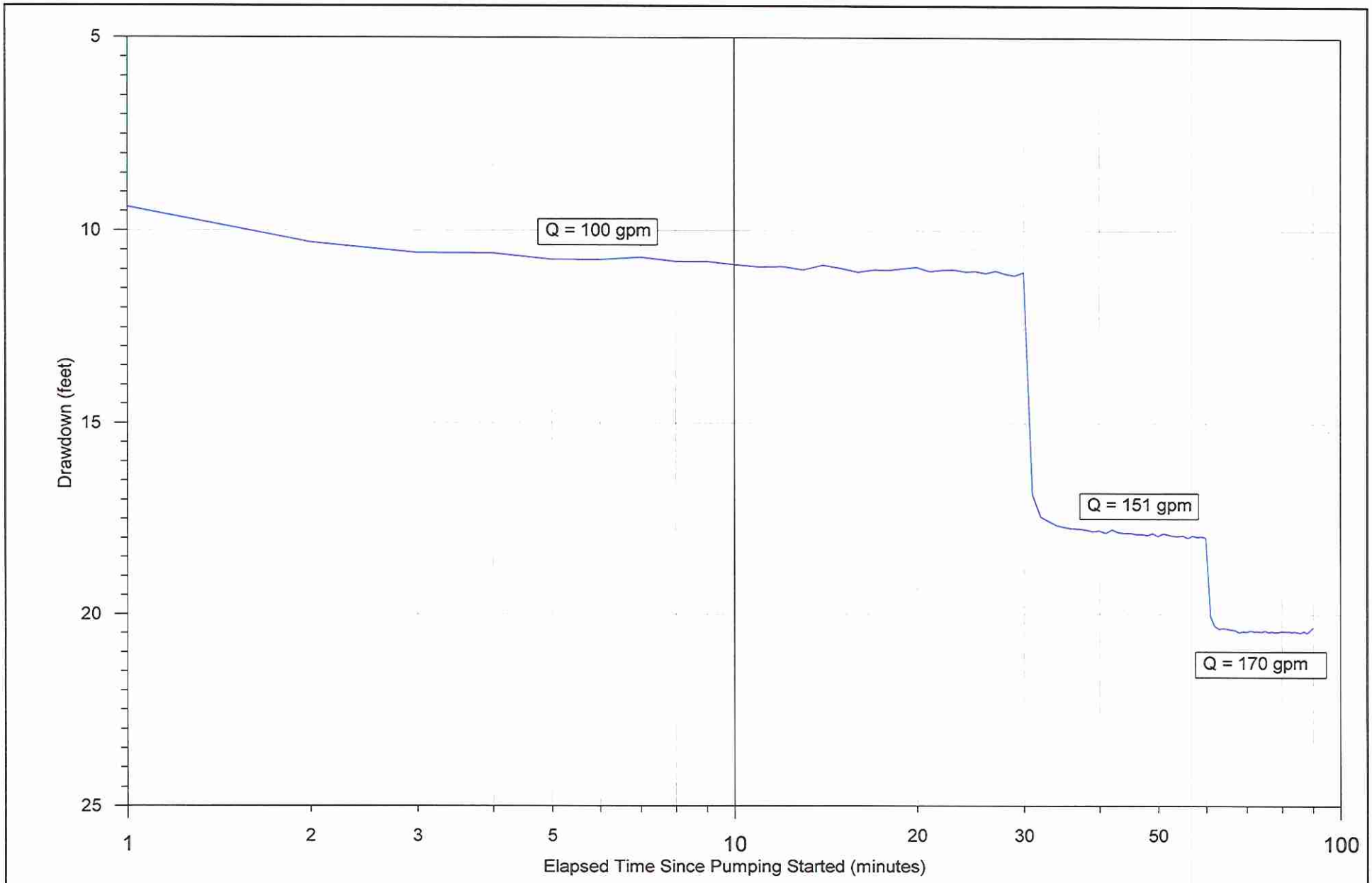


ROBINSON NOBLE	PM: MFP June 2014 2755-001B	Drawdown from static level in feet. Well 2 pumped at 151 gpm for 24 hours	**Figure 5** Wiegardt Well 2 Recovery Plot North Beach Water District Wiegardt Wellfield

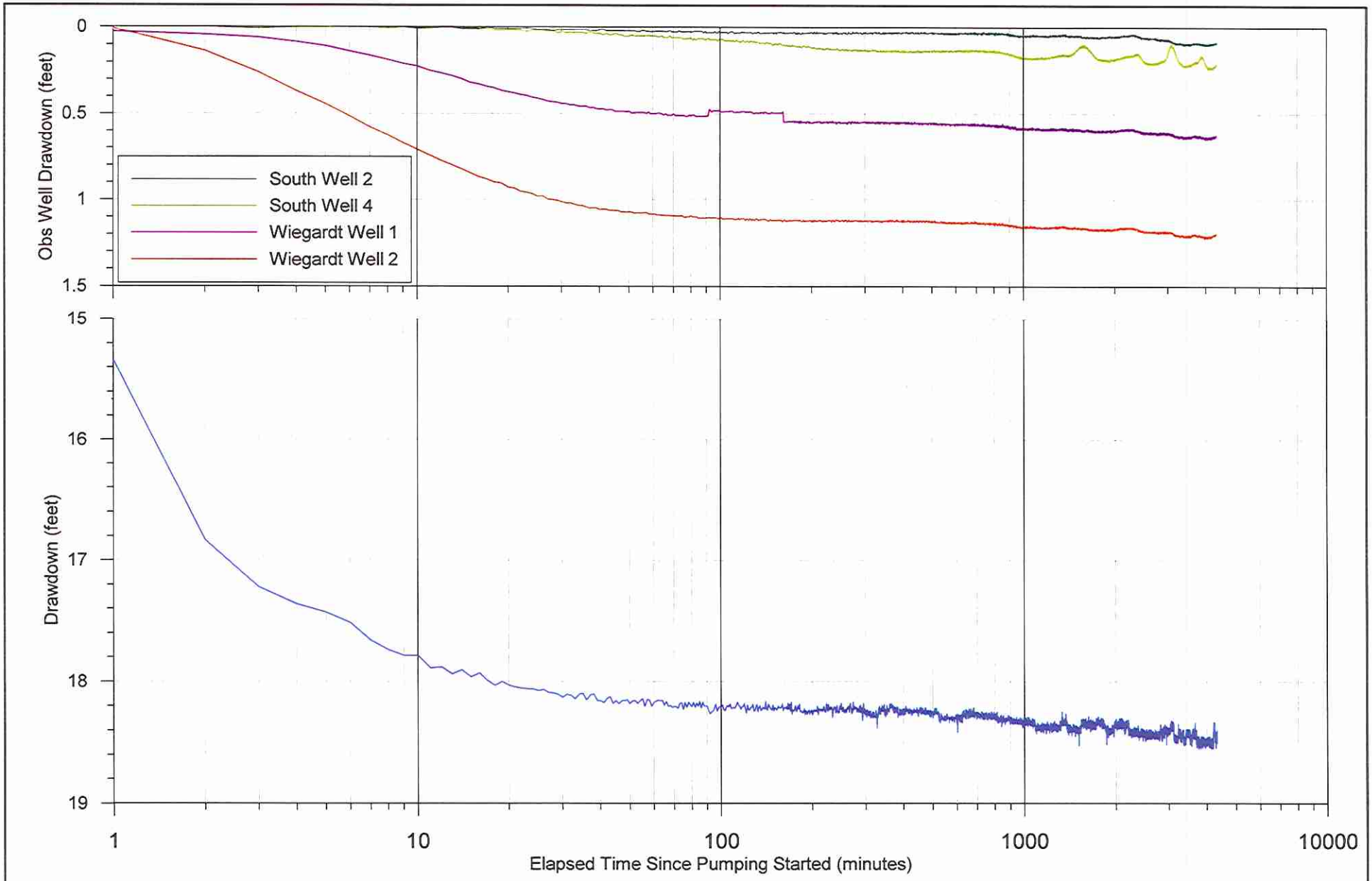


NOTE: WELL SCREEN IS 6-INCH TELESCOPE, 20-SLOT (0.20-INCH OPENING) TYPE 304, STANDARD STAINLESS STEEL. FILTER PACK IS 10x20 COLORADO SILICA SAND PRODUCT.

ROBINSON NOBLE	PM: MFP June 2014 2755-001B	Pacific County T 12 N/R 11 W - 33 Unique ID: BAF025	Figure 6 Construction Detail and Geologic Log for Wiegardt Well 3 North Beach Water District



ROBINSON NOBLE	PM: MFP June 2014 2755-001B	Pre-test DTW = 9.55 feet February 24,2014, 10:15 100, 151, and 170 GPM Step-rate testing	**Figure 7** Wiegardt Well 3 Step Rate Test Plot, February 24, 2014 North Beach Water District Wiegardt Wellfield



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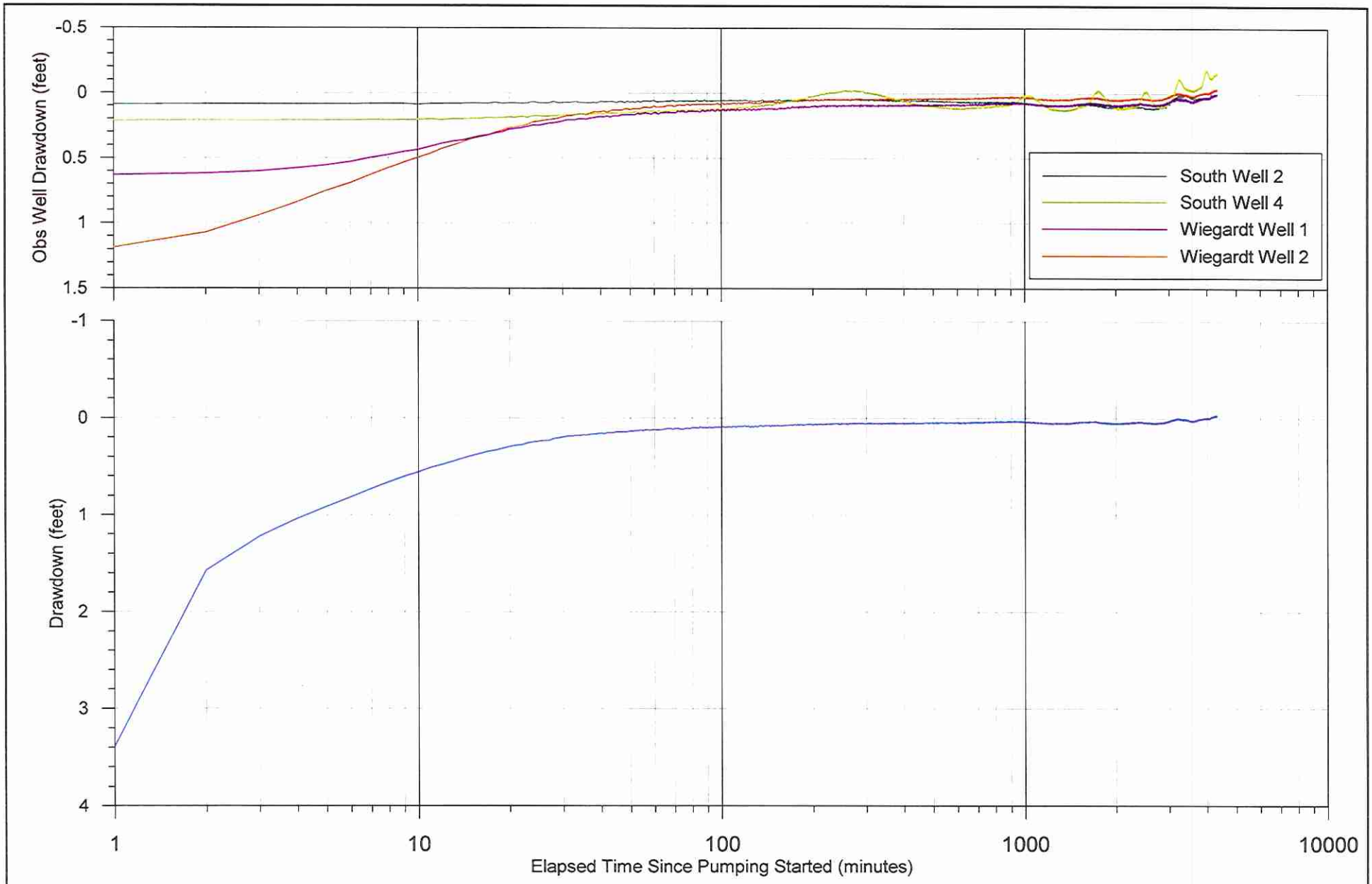
PM: MFP
June 2014
2755-001B

Pre-test DTW = 9.52 feet
February 25, 2014, 9:00 AM
151 GPM Constant-rate testing

Figure 8

Wiegardt Well 3 Test Drawdown Plot, February 25-28 2014

North Beach Water District Wiegardt Wellfield



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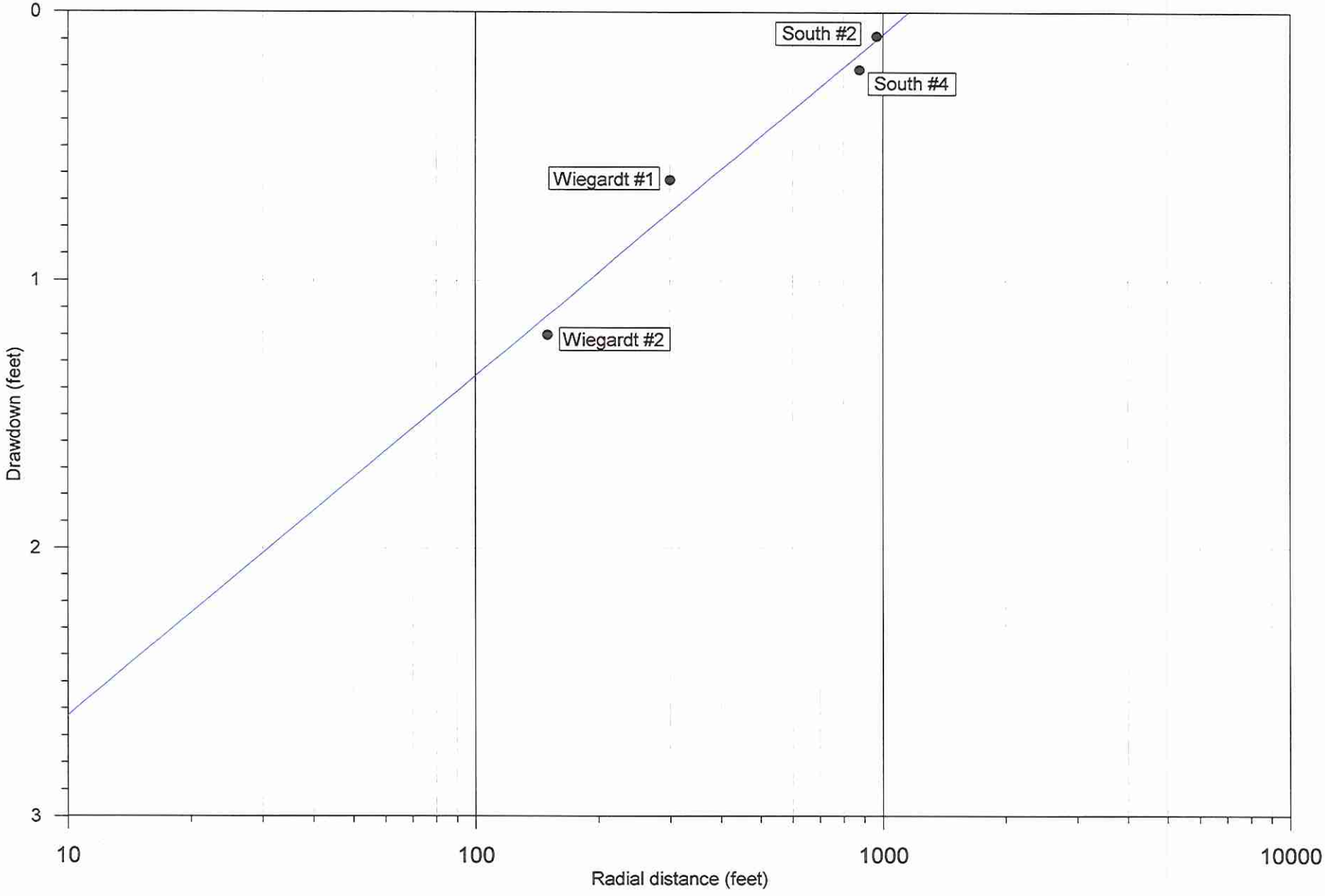
PM: MFP
June 2014
2755-001B

Pre-test DTW = 9.52 feet
February 25, 2014, 9:00 AM
151 GPM Constant-rate testing

Figure 9
Wiegardt Well 3 Test Drawdown Plot, February 25-28 2014
North Beach Water District Wiegardt Wellfield



ROBINSON NOBLE	PM: MFP June 2014 2755-001B	Drawdown at 4320 minutes 151 GPM pumped from Well 3	**Figure 10** Wiegardt Wellfield Distance-Drawdown Plot North Beach Water District Wiegardt Wellfield

WATER QUALITY ANALYSES

ALS Environmental

ALS Environmental
1317 South 13th Avenue
Kelso, WA 98626

INORGANIC CHEMICALS (IOCs) REPORT
for the State of Washington

REPORT OF ANALYSIS

Date Collected: (MM/DD/YY)	**1/17/2014**	System Group (Select A,B,Other):	**A**
Water System ID Number:	**63000**	System Name:	**North Beach Water District**
Lab Sample Number:	**01704921**	County:	**Pacific**
Sample Location:	**Well Head**	Source Number(s):	**NA**
Sample Purpose:		Date Received:	**01/17/14**
Select One		Date Analyzed:	**01/17-29/14**
	RC- Routine/Compliance	Date Reported:	**02/06/14**
	C- Confirmation	Comments:	**K1400492-001**
	Investigative		**New water source**
X	Other(specify)		
Sample Composition:		**Sample Type: (Select One)**	
Select One		X	Pre-Treatment/Raw
X	S- Single Source		Post-Treatment/Finished
	B- Blended		Unknown
	C- Composite	Sample Collected by:	**Nick Morrison**
	D- Distribution sample	Phone Number:	**360-665-4144**
Send Report to:	**North Beach Water District**	**Bill to:**	

DOH #	ANALYTES	RESULTS	UNITS	SRL	TRIGGER	MCL	MCL Exceeded check if yes	Method	Analyst
EPA REGULATED									
4	Arsenic	**<0.001**	mg/l	0.0014	0.005	0.01		200.8	GJ
5	Barium	**<0.005**	mg/l	0.1	2	2		200.7	EM
6	Cadmium	**<0.001**	mg/l	0.001	0.005	0.005		200.8	GJ
7	Chromium	**<0.001**	mg/l	0.007	0.1	0.1		200.8	GJ
11	Mercury	**<0.0002**	mg/l	0.0002	0.002	0.002		245.1	AM
12	Selenium	**<0.001**	mg/l	0.002	0.05	0.05		200.8	GJ
110	Beryllium	**<0.0002**	mg/l	0.0003	0.004	0.004		200.8	GJ
111	Nickel	**<0.001**	mg/l	0.005	---	---		200.8	GJ
112	Antimony	**<0.001**	mg/l	0.003	0.006	0.006		200.8	GJ
113	Thallium	**<0.001**	mg/l	0.001	0.002	0.002		200.8	GJ
116	Cyanide	**<0.010**	mg/l	0.01	0.2	0.2		335.4	NB
19	Fluoride	**<0.2**	mg/l	0.5	2	4		300.0	NB
114	Nitrite - N	**<0.1**	mg/l	0.1	0.5	1		300.0	NB
20	Nitrate - N	**<0.1**	mg/l	0.5	5	10		300.0	NB
161	Total Nitrate/Nitrite	**<0.1**	mg/l	0.5	5	10		300.0	NB
EPA REGULATED (Secondary)									
8	Iron	**<0.02**	mg/l	0.1	---	0.3 [1]		200.7	EM
10	Manganese	**<0.005**	mg/l	0.01	---	0.5 [1]		200.7	EM
13	Silver	**<0.001**	mg/l	0.1	---	0.1 [1]		200.8	GJ
21	Chloride	**20.1**	mg/l	20	---	250 [1]		300.0	NB
22	Sulfate	**3.99**	mg/l	50	---	250 [1]		300.0	NB
24	Zinc	**<0.01**	mg/l	0.2	---	5 [1]		200.7	EM

INORGANIC CHEMICALS (IOCs) REPORT
for the State of Washington (cont.)

Lab Sample Number: **01704921**
Date Collected: **01/17/14**

STATE REGULATED									
DOH #	ANALYTES	RESULTS	UNITS	SRL	TRIGGER	MCL	MCL Exceeded check if yes	Method	Analyst
14	Sodium	**16.5**	mg/l	5	---	---		200.7	EM
15	Hardness	**41.8**	mg/l	10	---	---		2340B	EM
16	Conductivity	**189**	umhos/cm	70	---	700 [1]		2510B	MS
17	Turbidity	**<0.2**	NTU	0.1	---	---		180.1	TH
18	Color	**<5.0**	color units	15	---	15 [1]		2120B	AC
26	Total Dissolved Solids	**129**	mg/l	100	---	500 [1]		2540C	MS

STATE UNREGULATED									
9	Lead	**<0.001**	mg/l	0.001	---	---		200.8	GJ
23	Copper	**<0.01**	mg/l	0.02	---	---		200.7	EM
OTHER									
171	Orthophosphate	NA	mg/l	0.1	---	---		SM4500-P-E	
172	Silica	**34.0**	mg/l	1	---	---		200.7	EM
402	Aluminum	NA	mg/l	0.05	---	---		200.7	
403	Alkalinity	**56.3**	mg/l	5	---	---		SM2320B	AB
404	Magnesium	NA	mg/l	0.1	---	---		200.7	
405	Calcium	NA	mg/l	0.05	---	---		200.7	
406	Ammonia	NA	mg/l	1	---	---		4500 NH3 E	
409	pH	**8.41**	pH Units	---	---	---		SM 4500-H+B	AC

NOTES:

SRL (State Reporting Level): indicates the minimum reporting level required by the Washington Department of Health (DOH)

Trigger Level: DOH Drinking Water Response Level. Systems with compounds detected at concentrations in excess of this level are required to take additional samples. Contact your regional DOH office for further information.

MCL (Maximum Contaminant Level): If the contaminant amount exceeds the MCL, immediately contact your regional DOH office.

NA (Not Analyzed): in the results column indicates this compound was not included in the current analysis.

ND (Not Detected): in the results column indicates this compound was analyzed and not detected at a level greater than or equal to the SRL.

<(0.00X): indicates the compound was not detected in the sample at or above the concentration indicated (lab mdl) lower than the SRL.

[1]: Secondary MCL (established for esthetic purposes, not health based.

Comments: _____

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Kelso, WA 98626

INORGANIC CHEMICALS (IOCs) REPORT: TOTAL ORGANIC CARBON (TOC) for the State of Washington

REPORT OF ANALYSIS

Date Collected:(MM/DD/YY) **1/17/2014**	System Group: (Select A, B, Other): **A**
Water System ID Number **63000**	System Name: **North Beach Water District**
Lab Sample Number: **01704921**	County: **Pacific**
Sample Location: **Well Head**	Source Number(s) **NA**
Sample Purpose:	Date Received: **01/17/14**
Select One	Date Analyzed: **01/22/14**
( ) RC- Routine/Compliance	Date Reported: **02/06/14**
( ) C- Confirmation	Comments: **K1400492-001**
( ) Investigative	**New water source**
(X) Other(specify)	
Sample Composition:	**Sample Type: (Select One)**
Select One	(X) Pre-Treatment/Raw
(X) S- Single Source	( ) Post-Treatment/Finished
( ) B- Blended (List multiple source numbers)	( ) Unknown
( ) C- Composite	Sample Collected by **Nick Morrison**
( ) D- Distribution sample	Phone Number: **360-665-4144**
Send Report to: **North Beach Water District** **WA DOH**	Bill to:

DOH #	ANALYTES	RESULTS	UNITS	SRL	MCL	Method	Analyst
	EPA REGULATED						
421	Total Organic Carbon	**<0.50**	mg/l	0.7	N/A	SM5310-C	CES

NOTES:

SRL (State Reporting Level): indicates the minimum reporting level required by the Washington Department of Health (DOH).

Trigger Level: DOH Drinking Water Response Level. Systems with compounds detected at concentrations in excess of this level are required to take additional samples. Contact your regional DOH office for further information.

MCL (Maximum Contaminant Level): If the contaminant amount exceeds the MCL, immediately contact your regional DOH office.

NA (Not Analyzed): in the results column indicates this compound was not included in the current analysis.

ND (Not Detected): in the results column indicates this compound was analyzed and not detected at a level greater than or equal to the SRL.

<(0.00X): indicates the compound was not detected in the sample at or above the concentration indicated. (lab mdl) lower than the SRL.

Comments: _____

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Kelso, WA 98626

INORGANIC CHEMICALS (IOCs) REPORT
for the State of Washington

REPORT OF ANALYSIS

Date Collected: (MM/DD/YY) **1/17/2014**	System Group (Select A,B,Other): **A**
Water System ID Number: **63000**	System Name: **North Beach Water District**
Lab Sample Number: **01704921**	County: **Pacific**
Sample Location: **Well Head**	Source Number(s): **NA**
Sample Purpose:	Date Received: **01/17/14**
Select One	Date Analyzed: **01/17-29/14**
RC- Routine/Compliance	Date Reported: **02/06/14**
C- Confirmation	Comments: **K1400492-001**
Investigative	**New water source**
X Other(specify)	
Sample Composition:	**Sample Type: (Select One)**
Select One	X Pre-Treatment/Raw
X S- Single Source	Post-Treatment/Finished
B- Blended	Unknown
C- Composite	Sample Collected by: **Nick Morrison**
D- Distribution sample	Phone Number: **360-665-4144**
Send Report to: North Beach Water District	**Bill to:**

DOH #	ANALYTES	RESULTS	UNITS	SRL	TRIGGER	MCL	MCL Exceeded check if yes	Method	Analyst
EPA REGULATED									
4	Arsenic	**0.016**	mg/l	0.0014	0.005	0.01	Y	200.8	GJ
5	Barium	**<0.005**	mg/l	0.1	2	2		200.7	EM
6	Cadmium	**<0.001**	mg/l	0.001	0.005	0.005		200.8	GJ
7	Chromium	**<0.001**	mg/l	0.007	0.1	0.1		200.8	GJ
11	Mercury	**<0.0002**	mg/l	0.0002	0.002	0.002		245.1	AM
12	Selenium	**<0.001**	mg/l	0.002	0.05	0.05		200.8	GJ
110	Beryllium	**<0.0002**	mg/l	0.0003	0.004	0.004		200.8	GJ
111	Nickel	**<0.001**	mg/l	0.005	---	---		200.8	GJ
112	Antimony	**<0.001**	mg/l	0.003	0.006	0.006		200.8	GJ
113	Thallium	**<0.001**	mg/l	0.001	0.002	0.002		200.8	GJ
116	Cyanide	**<0.010**	mg/l	0.01	0.2	0.2		335.4	NB
19	Fluoride	**<0.2**	mg/l	0.5	2	4		300.0	NB
114	Nitrite - N	**<0.1**	mg/l	0.1	0.5	1		300.0	NB
20	Nitrate - N	**<0.1**	mg/l	0.5	5	10		300.0	NB
161	Total Nitrate/Nitrite	**<0.1**	mg/l	0.5	5	10		300.0	NB
EPA REGULATED (Secondary)									
8	Iron	**<0.02**	mg/l	0.1	---	0.3 [1]		200.7	EM
10	Manganese	**<0.005**	mg/l	0.01	---	0.5 [1]		200.7	EM
13	Silver	**<0.001**	mg/l	0.1	---	0.1 [1]		200.8	GJ
21	Chloride	**20.1**	mg/l	20	---	250 [1]		300.0	NB
22	Sulfate	**3.99**	mg/l	50	---	250 [1]		300.0	NB
24	Zinc	**<0.01**	mg/l	0.2	---	5 [1]		200.7	EM

REVISED
2:48 pm. Feb 13. 2014

INORGANIC CHEMICALS (IOCs) REPORT
for the State of Washington (cont.)

Lab Sample Number: **01704921**

Date Collected: **01/17/14**

STATE REGULATED									
DOH #	ANALYTES	RESULTS	UNITS	SRL	TRIGGER	MCL	MCL Exceeded check if yes	Method	Analyst
14	Sodium	**16.5**	mg/l	5	---	---		200.7	EM
15	Hardness	**41.8**	mg/l	10	---	---		2340B	EM
16	Conductivity	**189**	umhos/cm	70	---	700 [1]		2510B	MS
17	Turbidity	**<0.2**	NTU	0.1	---	---		180.1	TH
18	Color	**<5.0**	color units	15	---	15 [1]		2120B	AC
26	Total Dissolved Solids	**129**	mg/l	100	---	500 [1]		2540C	MS

STATE UNREGULATED									
9	Lead	**<0.001**	mg/l	0.001	---	---		200.8	GJ
23	Copper	**<0.01**	mg/l	0.02	---	---		200.7	EM
OTHER									
171	Orthophosphate	NA	mg/l	0.1	---	---		SM4500-P-E	
172	Silica	**34.0**	mg/l	1	---	---		200.7	EM
402	Aluminum	NA	mg/l	0.05	---	---		200.7	
403	Alkalinity	**56.3**	mg/l	5	---	---		SM2320B	AB
404	Magnesium	NA	mg/l	0.1	---	---		200.7	
405	Calcium	NA	mg/l	0.05	---	---		200.7	
406	Ammonia	NA	mg/l	1	---	---		4500 NH3 E	
409	pH	**8.41**	pH Units	---	---	---		SM 4500-H+B	AC

NOTES:

SRL (State Reporting Level): indicates the minimum reporting level required by the Washington Department of Health (DOH).

Trigger Level: DOH Drinking Water Response Level. Systems with compounds detected at concentrations in excess of this level are required to take additional samples. Contact your regional DOH office for further information.

MCL (Maximum Contaminant Level): If the contaminant amount exceeds the MCL, immediately contact your regional DOH office.

NA (Not Analyzed): in the results column indicates this compound was not included in the current analysis.

ND (Not Detected): in the results column indicates this compound was analyzed and not detected at a level greater than or equal to the SRL.

<(0.00X): indicates the compound was not detected in the sample at or above the concentration indicated (lab mdl) lower than the SRL.

[1]: Secondary MCL (established for esthetic purposes, not health based.

Comments: _____

REVISED
2:47 pm, Feb 13, 2014

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1317 South 13th Avenue
Kelso, WA 98626

INORGANIC CHEMICALS (IOCs) REPORT: TOTAL ORGANIC CARBON (TOC) for the State of Washington

REPORT OF ANALYSIS

Date Collected:(MM/DD/YY) **1/17/2014**	System Group: (Select A, B, Other): **A**
Water System ID Number **63000**	System Name: **North Beach Water District**
Lab Sample Number: **01704921**	County: **Pacific**
Sample Location: **Well Head**	Source Number(s) **NA**
Sample Purpose:	Date Received: **01/17/14**
Select One	Date Analyzed: **01/22/14**
( ) RC- Routine/Compliance	Date Reported: **02/06/14**
( ) C- Confirmation	Comments: **K1400492-001**
( ) Investigative	**New water source**
(X) Other(specify)	
Sample Composition:	**Sample Type: (Select One)**
Select One	(X) Pre-Treatment/Raw
(X) S- Single Source	( ) Post-Treatment/Finished
( ) B- Blended (List multiple source numbers)	( ) Unknown
( ) C- Composite	Sample Collected by **Nick Morrison**
( ) D- Distribution sample	Phone Number: **360-665-4144**
Send Report to: **North Beach Water District** **WA DOH**	Bill to:

DOH #	ANALYTES	RESULTS	UNITS	SRL	MCL	Method	Analyst
			EPA REGULATED				
421	Total Organic Carbon	**<0.50**	mg/l	0.7	N/A	SM5310-C	CES

NOTES:

SRL (State Reporting Level): indicates the minimum reporting level required by the Washington Department of Health (DOH).

Trigger Level: DOH Drinking Water Response Level. Systems with compounds detected at concentrations in excess of this level are required to take additional samples. Contact your regional DOH office for further information.

MCL (Maximum Contaminant Level): If the contaminant amount exceeds the MCL, immediately contact your regional DOH office.

NA (Not Analyzed): in the results column indicates this compound was not included in the current analysis.

ND (Not Detected): in the results column indicates this compound was analyzed and not detected at a level greater than or equal to the SRL.

<(0.00X): indicates the compound was not detected in the sample at or above the concentration indicated. (lab mdl) lower than the SRL.

Comments: _____

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Standard Turnaround Level Reports

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Kelso, WA 98626

INORGANIC CHEMICALS (IOCs) REPORT: TOTAL ORGANIC CARBON (TOC)
for the State of Washington

REPORT *OF* ANALYSIS

Date Collected:(MM/DD/YY) **2/28/2014**	System Group: (Select A, B, Other): **A**
Water System ID Number **63000C**	System Name: **North Beach Water**
Lab Sample Number: **01719841**	County: **Pacific**
Sample Location: **Weigardt Well #3**	Source Number(s) **New Well**
Sample Purpose:	Date Received: **02/28/14**
Select One	Date Analyzed: **03/05/14**
X RC- Routine/Compliance	Date Reported: **03/20/14**
C- Confirmation	Comments: **K1401984-001**
Investigative	
Other(specify)	
Sample Composition:	**Sample Type: (Select One)**
Select One	**X** Pre-Treatment/Raw
X S- Single Source	Post-Treatment/Finished
B- Blended (List multiple source numbers)	Unknown
C- Composite	Sample Collected by **Nick Morrison**
D- Distribution sample	Phone Number: **360-665-4144**
Send Report to: **North Beach Water** **WA DOH**	Bill to:

DOH #	ANALYTES	RESULTS	UNITS	SRL	MCL	Method	Analyst
			EPA REGULATED				
421	Total Organic Carbon	**<0.50**	mg/l	0.7	N/A	SM5310-C	BH

NOTES:

SRL (State Reporting Level): indicates the minimum reporting level required by the Washington Department of Health (DOH).

Trigger Level: DOH Drinking Water Response Level. Systems with compounds detected at concentrations in excess of this level are required to take additional samples. Contact your regional DOH office for further information.

MCL (Maximum Contaminant Level): If the contaminant amount exceeds the MCL, immediately contact your regional DOH office.

NA (Not Analyzed): in the results column indicates this compound was not included in the current analysis.

ND (Not Detected): in the results column indicates this compound was analyzed and not detected at a level greater than or equal to the SRL.

<(0.00X): indicates the compound was not detected in the sample at or above the concentration indicated. (lab mdl) lower than the SRL.

Comments: _____

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INORGANIC CHEMICALS (IOCs) REPORT
for the State of Washington

REPORT OF ANALYSIS

Date Collected: (MM/DD/YY) **02/28/14**	System Group (Select A,B,Other): **A**
Water System ID Number: **63000C**	System Name: **North Beach Water**
Lab Sample Number: **01719841**	County: **Pacific**
Sample Location: **Weigardt Well #3**	Source Number(s): **New Well**
Sample Purpose:	Date Received: **02/28/14**
Select One	Date Analyzed: **02/28-10/14**
[ ] RC- Routine/Compliance	Date Reported: **03/20/14**
[ ] C- Confirmation	Comments: **K1401984-001**
[X] Investigative	
[ ] Other(specify)	
Sample Composition:	**Sample Type: (Select One)**
Select One	[X] Pre-Treatment/Raw
[X] S- Single Source	[ ] Post-Treatment/Finished
[ ] B- Blended	[ ] Unknown
[ ] C- Composite	Sample Collected by: **Nick Morrison**
[ ] D- Distribution sample	Phone Number: **360-665-4144**
Send Report to: **North Beach Water**	**Bill to:**

DOH #	ANALYTES	RESULTS	UNITS	SRL	TRIGGER	MCL	MCL Exceeded check if yes	Method	Analyst
	EPA REGULATED								
4	Arsenic	**0.015**	mg/l	0.0014	0.005	0.01		200.8	BS
5	Barium	**<0.01**	mg/l	0.1	2	2		200.7	EM
6	Cadmium	**<0.001**	mg/l	0.001	0.005	0.005		200.8	BS
7	Chromium	**<0.001**	mg/l	0.007	0.1	0.1		200.8	BS
11	Mercury	**<0.0002**	mg/l	0.0002	0.002	0.002		245.1	EM
12	Selenium	**<0.001**	mg/l	0.002	0.05	0.05		200.8	BS
110	Beryllium	**<0.0003**	mg/l	0.0003	0.004	0.004		200.8	BS
111	Nickel	**<0.001**	mg/l	0.005	---	---		200.8	BS
112	Antimony	**<0.001**	mg/l	0.003	0.006	0.006		200.8	BS
113	Thallium	**<0.001**	mg/l	0.001	0.002	0.002		200.8	BS
116	Cyanide	**<0.010**	mg/l	0.01	0.2	0.2		335.4	BH
19	Fluoride	**<0.20**	mg/l	0.5	2	4		300.0	NB
114	Nitrite - N	**<0.10**	mg/l	0.1	0.5	1		300.0	NB
20	Nitrate - N	**<0.10**	mg/l	0.5	5	10		300.0	NB
161	Total Nitrate/Nitrite	**<0.10**	mg/l	0.5	5	10		300.0	NB
	EPA REGULATED (Secondary)								
8	Iron	**<0.02**	mg/l	0.1	---	0.3 [1]		200.7	EM
10	Manganese	**<0.01**	mg/l	0.01	---	0.5 [1]		200.7	EM
13	Silver	**<0.001**	mg/l	0.1	---	0.1 [1]		200.8	BS
21	Chloride	**19.2**	mg/l	20	---	250 [1]		300.0	NB
22	Sulfate	**4.29**	mg/l	50	---	250 [1]		300.0	NB
24	Zinc	**<0.01**	mg/l	0.2	---	5 [1]		200.7	EM

Cont. on next page

INORGANIC CHEMICALS (IOCs) REPORT
for the State of Washington (cont.)

Lab Sample Number: **01719841**
Date Collected: **02/28/14**

DOH #	ANALYTES	RESULTS	UNITS	SRL	TRIGGER	MCL	MCL Exceeded check if yes	Method	Analyst
STATE REGULATED									
14	Sodium	**15.0**	mg/l	5	---	---		200.7	EM
15	Hardness	**49.5**	mg/l	10	---	---		2340B	EM
16	Conductivity	**197**	umhos/cm	70	---	700 [1]		2510B	CES
17	Turbidity	**0.17**	NTU	0.1	---	---		180.1	NM/PF/NB
18	Color	**<5.0**	color units	15	---	15 [1]		2120B	NB
26	Total Dissolved Solids	**129**	mg/l	100	---	500 [1]		2540C	MK
STATE UNREGULATED									
9	Lead	**<0.001**	mg/l	0.001	---	---		200.8	BS
23	Copper	**<0.01**	mg/l	0.02	---	---		200.7	EM
OTHER									
171	Orthophosphate	NA	mg/l	0.1	---	---		SM4500-P-E	
172	Silica	36.1	mg/l	1	---	---		200.7	EM
402	Aluminum	NA	mg/l	0.05	---	---		200.7	
403	Alkalinity	58.7	mg/l	5	---	---		SM2320B	AB
404	Magnesium	NA	mg/l	0.1	---	---		200.7	
405	Calcium	NA	mg/l	0.05	---	---		200.7	
406	Ammonia	NA	mg/l	1	---	---		4500 NH3 E	
409	pH	8.48	pH Units	---	---	---		SM 4500-H+B	AB

NOTES:

SRL (State Reporting Level): indicates the minimum reporting level required by the Washington Department of Health (DOH).

Trigger Level: DOH Drinking Water Response Level. Systems with compounds detected at concentrations in excess of this level are required to take additional samples. Contact your regional DOH office for further information.

MCL (Maximum Contaminant Level): If the contaminant amount exceeds the MCL, immediately contact your regional DOH office.

NA (Not Analyzed): in the results column indicates this compound was not included in the current analysis.

ND (Not Detected): in the results column indicates this compound was analyzed and not detected at a level greater than or equal to the SRL.

<(0.00X): indicates the compound was not detected in the sample at or above the concentration indicated (lab mdl) lower than the SRL.

[1]: Secondary MCL (established for esthetic purposes, not health based.

Comments: _____

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FUMIGANT TEST PANEL
(Soil Fumigants by EPA Methods 504.1)

REPORT OF ANALYSIS

Date Collected (MM/DD/YY):	**2/28/2014**	System Group Type:	✓ A ☐ B ☐ Other
Water System ID Number:	**63000C**	System Name:	**North Beach Water**
Lab -- Sample Number:	**01719841**	County:	**Pacific**
Sample Location:	**Wiegradt Well #3**	Source Number(s):	New Well
Sample Purpose: (Check Appropriate Box)		Date Received (MM/DD/YY):	**2/28/2014**
	RC – Routine/Compliance (satisfies monitoring requirements)	Date Analyzed (MM/DD/YY):	**3/11/2014**
	C – Confirmation (confirmation of chemical result) *	Date Reported (MM/DD/YY):	**3/19/2014**
X	I – Investigative (does not satisfy monitoring requirements)	COMMENTS:	**K1401984-001**
	O – Other (specify – does not satisfy monitoring requirements)		
Sample Composition: (Check Appropriate Box)		Sample Type: (Check one)	
X	S - Single Source	X	Pre-Treatment/Raw
	B - Blended (List sources in 'Source Number(s)' field)		Post-Treatment/Finished
	C - Composite (List sources in 'Source Number(s)' field)		Unknow
	D - Distribution sample	Sample Collected by (Name):	Nick Morrison
		Phone Number:	360-665-4144
Send Report to :North Beach Water		Bill to (Client Name):	

EPA REGULATED AND STATE REGULATED OR REQUIRED

DOH #	ANALYTE	RESULTS	UNITS	SRL	TRIGGER	MCL or SAL**	MCL Exceeded (Check only if YES)?	METHOD	Analyst Initials
0102	EDB (Ethylene Dibromide)	**ND**	ug/L	0.01	0.01	0.05	☐	504.1	SS
0103	DBCP	**ND**	ug/L	0.02	0.02	0.02	☐	504.1	SS
0079	1,2,3 Trichloropropane	**ND**	ug/L	0.5	0.5	21*	☐	504.1	SS
0063	1,2 Dichloropropane	**NA**	ug/L	0.5	0.5	5	☐	504.1	----

NOTES:

***Confirmation:** Include the original lab number, sample number, and collection date of original sample in either lab or sampler comments section.

****SAL (State Advisory Level):** The Washington State Board of Health established health based advisory level. Systems with compounds detected at concentrations in excess of this level may be required to take additional samples or monitor more frequently.

SRL (State Reporting Level): The minimum reporting level established by the Washington State Department of Health (DOH)

Trigger Level: DOH Drinking Water response level. Systems with compounds detected at concentrations in excess of this level may be required to take additional samples or monitor more frequently. Please contact your DOH drinking water regional office

MCL (maximum contaminant level): If the contaminant amount exceeds the MCL, please contact your regional DOH office to determine follow-up actions.

NA (Not Analyzed): In the results column, indicates this compound was not included in the current analysis.

ND (Not Detected): In the results column, indicates this compound was analyzed and not detected at a level greater than or equal to the SRL.

< (0.00X) : The compound was not detected in the sample at or above the concentration indicated (usually the lab MRL).

-- : No existing value

Comments:

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PEST1 TEST PANEL
(General Pesticides & PCBs by EPA Methods 525.2, 508.1)

REPORT OF ANALYSIS			
Date Collected (MM/DD/YY):	02/28/14	System Group Type:	☑ A ☐ B ☐ Other
Water System ID Number:	63000C	System Name:	North Beach
Lab -- Sample Number:	01719841	County:	Pacific
Sample Location:	Wiegradt	Source Number(s):	New Well
Sample Purpose: (Check Appropriate Box)		Date Received:	02/28/14
	RC – – Routine/Compliance (satisfies monitoring requirements)	Date Analyzed:	03/11/14
	C – Confirmation (confirmation of chemical result) *	Date Reported:	03/19/14
X	I – – Investigative (does not satisfy monitoring requirements)	COMMENTS:	K1401984-001
	Other (specify – does not satisfy monitoring requirements)		
Sample Composition: (Check Appropriate Box)		Sample Type: (Check one)	
(Select One)		X	Pre-Treatment/Raw
X	S - Single Source		Post-Treatment/Finished
	B - Blended (list sources in 'Source Number(s)' field)		Unknow
	C - Composite(list sources in 'Source Number(s)' field)	Sample Collected by:	Nick Morrison
	D - Distribution sample	Phone Number:	360-665-4144
Send Report to: North Beach Water		Bill to (Client Name)	

EPA REGULATED AND STATE REGULATED OR REQUIRED

DOH #	ANALYTE	RESULTS	UNITS	SRL	TRIGGER	MCL	MCL Exceeded (Check only if YES)?	METHOD	Analyst Initials
0033	ENDRIN	ND	ug/L	0.01	0.01	2		508.1	SS
0034	LINDANE (BHC - GAMMA)	ND	ug/L	0.02	0.02	0.2	☐	508.1	SS
0035	METHOXYCHLOR	ND	ug/L	0.1	0.1	40	☐	508.1	SS
0036	TOXAPHENE	ND	ug/L	1	1	3	☐	508.1	SS
0117	ALACHLOR	ND	ug/L	0.2	0.2	2	☐	525.2	AM
0119	ATRAZINE	ND	ug/L	0.1	0.1	3	☐	525.2	AM
0120	BENZO (A) PYRENE	ND	ug/L	0.02	0.02	0.2	☐	525.2	AM
0122	CHLORDANE (TOTAL)	ND	ug/L	0.2	0.2	2	☐	508.1	SS
0124	DI (2-ETHYLHEXYL) ADIPATE	ND	ug/L	0.6	0.6	400	☐	525.2	AM
0125	DI (2-ETHYLHEXYL) PHTHALATE	ND	ug/L	0.6	0.6	6	☐	525.2	AM
0126	HEPTACHLOR	ND	ug/L	0.04	0.04	0.4	☐	508.1	SS
0127	HEPTACHLOR EPOXIDE	ND	ug/L	0.02	0.02	0.2	☐	508.1	SS
0128	HEXACHLOROBENZENE	ND	ug/L	0.1	0.1	1	☐	525.2	AM
0129	HEXACHLOROCYCLO PENTADIENE	ND	ug/L	0.1	0.1	50	☐	525.2	AM
0133	SIMAZINE	ND	ug/L	0.07	0.07	4	☐	525.2	AM
0134	PENTACHLOROPHENOL	NA[1]	ug/L	0.04	0.2	1	☐	525.2	AM
0121	BUTACHLOR	ND	ug/L	0.4	--	--		525.2	AM
0123	DIELDRIN	ND	ug/L	0.1	--	--		508.1	SS
0130	METOLACHLOR	ND	ug/L	1	--	--		525.2	AM
0131	METRIBUZIN	ND	ug/L	0.2	--	--		525.2	AM
0132	PROPACHLOR	ND	ug/L	0.1	--	--		525.2	AM
0254	FLUORENE	ND	ug/L	0.2	--	--		525.2	AM

NA[1] Pentachlorophenol must be analyzed by EPA Method 515.4 per ALS-Kelso WA Certification

Cont. on next page

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PEST1 TEST PANEL
(General Pesticides & PCBs by EPA Methods 525.2, 508.1)

EPA REGULATED AND STATE REGULATED OR REQUIRED (cont.)

Lab Sample Number: 01719841
Date Collected (MM/DD/YY) : 02/28/14

DOH #	ANALYTE	RESULTS	UNITS	SRL	TRIGGER	MCL	MCL Exceeded (Check only if YES)?	METHOD	Analyst Initials
0153	PCB (AS TOTAL AROCHLORS)	ND	ug/L	0.2	--	--		508.1	SS
0173	AROCHLOR 1221	ND	ug/L	20	--	--		508.1	SS
0174	AROCHLOR 1232	ND	ug/L	0.5	--	--		508.1	SS
0175	AROCHLOR 1242	ND	ug/L	0.3	--	--		508.1	SS
0176	AROCHLOR 1248	ND	ug/L	0.1	--	--		508.1	SS
0177	AROCHLOR 1254	ND	ug/L	0.1	--	--		508.1	SS
0178	AROCHLOR 1260	ND	ug/L	0.2	--	--		508.1	SS
0179	BROMACIL	ND	ug/L	0.2	--	--		525.2	AM
0180	AROCHLOR 1016	ND	ug/L	0.08	--	--		508.1	SS

NOTES:

SRL (State Reporting Level): The minimum reporting level established by the Washington State Department of Health (DOH)

Trigger Level: DOH Drinking Water response level. Systems with compounds detected at concentrations in excess of this level may be required to take additional samples or monitor more frequently. Please contact your DOH drinking water regional office

MCL (maximum contaminant level): If the contaminant amount exceeds the MCL, please contact your regional DOH office to determine follow-up actions.

NA (Not Analyzed): In the results column, indicates this compound was not included in the current analysis.

ND (Not Detected): In the results column, indicates this compound was analyzed and not detected at a level greater than or equal to the SRL.

< (0.00X) : The compound was not detected in the sample at or above the concentration indicated (usually the lab MRL).

***Confirmation:** Include the original lab number, sample number, and collection date of original sample in either lab or sampler comments section.

--: No existing value

Comments:

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HERB1 TEST PANEL
(SOC - Herbicides by EPA Methods 515.4)

REPORT OF ANALYSIS

Date Collected (MM/DD/YY) :	**2/28/2014**	System Group Type: ✓ A ☐ B ☐ Other	
Water System ID Number :	**63000C**	System Name :	**North Beach Water**
Lab -- Sample Number :	**01719841**	County :	**Pacific**
Sample Location :	**Wiegradt Well #3**	Source Number(s) :	New Well
Sample Purpose: (Check Appropriate Box)		Date Received (MM/DD/YY) :	**2/28/2014**
RC – Routine/Compliance		Date Analyzed (MM/DD/YY) :	**3/12/2014**
C – Confirmation (confirmation of chemical result)*		Date Reported (MM/DD/YY) :	**3/19/2014**
X I – Investigative (does not satisfy monitoring requirements)		COMMENTS:	**K1401984-001**
O – Other (specify – does not satisfy monitoring requirements)			
Sample Composition: (Check Appropriate Box)		Sample Type: (Check one)	
X S - Single Source		X	Pre-Treatment/Raw
B - Blended (List Multiple Source Numbers in Source Nos. field)			Post-Treatment/Finished
C - Composite (Specify in Comments field)			Unknow
D - Distribution sample		Sample Collected by (Name) :	Nick Morrison
		Phone Number :	360-665-4144
Send Report to :North Beach Water		Bill to (Client Name) :	

EPA REGULATED AND STATE REGULATED OR REQUIRED

DOH #	ANALYTE	RESULTS	UNITS	SRL	TRIGGER	MCL	MCL Exceeded (Check only if YES)?	METHOD	Analyst Initials
0037	2,4 - D	ND	ug/L	0.1	0.1	70	☐	515.4	SS
0038	2,4,5- TP (Silvex)	ND	ug/L	0.2	0.2	50	☐	515.4	SS
0134	Pentachlorophenol	ND	ug/L	0.04	0.04	1	☐	515.4	SS
0137	Dalapon	ND	ug/L	1	1	200	☐	515.4	SS
0139	Dinoseb	ND	ug/L	0.2	0.2	7	☐	515.4	SS
0140	Picloram	ND	ug/L	0.1	0.1	500	☐	515.4	SS
0225	DCPA (Acid Metabolites)	ND	ug/L	0.02	0.02	--	--	515.4	SS
0222	Total DCPA	ND	ug/L	0.02	0.02	--	--	515.4	SS
0138	Dicamba	ND	ug/L	0.2	0.2	--	--	515.4	SS
0135	2,4 DB	ND	ug/l	1	1	--	--	515.4	SS
0223	Acifluorfen	ND	ug/l	2	2	--	--	515.4	SS
0224	Chloramben	ND	ug/l	0.2	0.2	--	--	515.4	SS
0226	3,5 - Dichlorobenzoic Acid	ND	ug/l	0.5	0.5	--	--	515.4	SS

NOTES:

***Confirmation:** Include the original lab number, sample number, and collection date of original sample in either lab or sampler comments section.

SRL (State Reporting Level): The minimum reporting level established by the Washington State Department of Health (DOH)

Trigger Level: DOH Drinking Water response level Systems with compounds detected at concentrations in excess of this level may be required to take additional samples or monitor more frequently. Please contact your DOH drinking water regional office

MCL (maximum contaminant level): If the contaminant amount exceeds the MCL, please contact your regional DOH office to determine follow-up actions.

NA (Not Analyzed): In the results column, indicates this compound was not included in the current analysis.

ND (Not Detected): In the results column, indicates this compound was analyzed and not detected at a level greater than or equal to the SRL

< (0.00X) : The compound was not detected in the sample at or above the concentration indicated (usually the lab MRL).

-- : No existing value

Comments:

ALS Environmental
1317 South 13th Avenue
Kelso, WA 98626

VOC TEST PANEL
Volatile Organic Compounds by EPA Method 524.2
for the State of Washington
REPORT OF ANALYSIS

Date Collected:(MM/DD/YY)	02/28/14	System Group (Select A,B,Other):	A
Water System ID Number:	63000C	System Name:	North Beach Water
Lab Sample Number:	01719841	County:	Pacific
Sample Location:	Wiegradt Well #3	Source Number(s):	New Well

Sample Purpose:
Select One

	RC- Routine/Compliance (satisfies monitoring requirements)
	C- Confirmation (confirmation of chemical result)
X	I - Investigative (does not satisfy monitoring requirements)
	O – Other (specify – does not satisfy monitoring requirements)

Date Received:	02/28/14
Date Analyzed:	03/11/14
Date Reported:	03/21/14
Comments:	K1401984-001

Sample Composition:
Select One

X	S- Single Source
	B- Blended (List multiple source numbers)
	C- Composite
	D- Distribution sample

Sample Type: (Select One)

X	Pre-Treatment/Raw
	Post-Treatment/Finished
	Unknown

Sample Collected by: Nick Morridson
Phone Number: 360-665-4144

Send Report to: Northh Beach Water

Bill to:

EPA/STATE REGULATED OR REQUIRED

DOH #	ANALYTES	RESULTS	UNITS	SRL	TRIGGER	MCL	MCL (check only if YES)	Method	Analyst
0045	VINYL CHLORIDE	ND	ug/L	0.5	0.5	2.0		524.2	HB
0046	1,1-DICHLOROETHYLENE	ND	ug/L	0.5	0.5	7.0		524.2	HB
0047	1,1,1-TRICHLOROETHANE	ND	ug/L	0.5	0.5	200.0		524.2	HB
0048	CARBON TETRACHLORIDE	ND	ug/L	0.5	0.5	5.0		524.2	HB
0049	BENZENE	ND	ug/L	0.5	0.5	5.0		524.2	HB
0050	1,2-DICHLOROETHANE	ND	ug/L	0.5	0.5	5.0		524.2	HB
0051	TRICHLOROETHYLENE	ND	ug/L	0.5	0.5	5.0		524.2	HB
0052	Para-DICHLOROBENZENE	ND	ug/L	0.5	0.5	75.0		524.2	HB
0056	METHYLENE CHLORIDE(dichloromethane)	ND	ug/L	0.5	0.5	5.0		524.2	HB
0057	TRANS-1,2-DICHLOROETHYLENE	ND	ug/L	0.5	0.5	100.0		524.2	HB
0060	CIS-1,2-DICHLOROETHYLENE	ND	ug/L	0.5	0.5	70.0		524.2	HB
0063	1,2-DICHLOROPROPANE	ND	ug/L	0.5	0.5	5.0		524.2	HB
0066	TOLUENE	ND	ug/L	0.5	0.5	1000		524.2	HB
0067	1,1,2-TRICHLOROETHANE	ND	ug/L	0.5	0.5	5.0		524.2	HB
0068	TETRACHLOROETHYLENE	ND	ug/L	0.5	0.5	5.0		524.2	HB
0071	MONOCHLOROBENZENE	ND	ug/L	0.5	0.5	100.0		524.2	HB
0073	ETHYLBENZENE	ND	ug/L	0.5	0.5	700.0		524.2	HB
0074	M/P XYLENES (MCL FOR TOTAL)	ND	ug/L	0.5	0.5	--		524.2	HB
0075	O-XYLENE (MCL FOR TOTAL)	ND	ug/L	0.5	0.5	--		524.2	HB
0076	STYRENE	ND	ug/L	0.5	0.5	100.0		524.2	HB
0084	Ortho-DICHLOROBENZENE	ND	ug/L	0.5	0.5	60.0		524.2	HB
0095	1,2,4-TRICHLOROBENZENE	ND	ug/L	0.5	0.5	70.0		524.2	HB
0160	TOTAL XYLENES	ND	ug/L	0.5	0.5	10000		524.2	HB

Volatile Organic Compounds by EPA Methods 524.2
for the State of Washington (cont.)

Lab Sample Number: **01719841**

EPA/STATE REGULATED OR REQUIRED									
0079	1,2,3-TRICHLOROPROPANE	ND	ug/L	0.5	0.5	21*		524.2	HB
0027	CHLOROFORM *[screening]*	ND	ug/L	0.5	--	N/A		524.2	HB
0053	CHLOROMETHANE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0054	BROMOMETHANE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0058	1,1-DICHLOROETHANE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0078	BROMOBENZENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0081	O-CHLOROTOLUENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0085	FLUOROTRICHLOROMETHANE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0086	BROMOCHLOROMETHANE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0089	1,3,5-TRIMETHYLBENZENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0091	1,2,4-TRIMETHYLBENZENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0092	SEC-BUTYLBENZENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0096	NAPHTHALENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0102	EDB (Ethylene Dibromide)*[screening]*	ND	ug/L	0.5	N/A	N/A		524.2	HB
0103	DBCP *[screening]*	ND	ug/L	0.5	N/A	N/A		524.2	HB
0104	DICHLORODIFLUOROMETHANE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0028	BROMODICHLOROMETHANE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0029	DIBROMOCHLOROMETHANE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0030	BROMOFORM	ND	ug/L	0.5	N/A	N/A		524.2	HB
0055	CHLOROETHANE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0059	2,2-DICHLOROPROPANE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0062	1,1-DICHLOROPROPENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0064	DIBROMOMETHANE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0065	CIS-1,3-DICHLOROPROPENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0069	TRANS-1,3-DICHLOROPROPENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0070	1,3-DICHLOROPROPANE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0072	1,1,1,2-TETRACHLOROETHANE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0079	1,2,3-TRICHLOROPANE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0080	1,1,2,2-TETRACHLOROETHANE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0082	P-CHLOROTOLUENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0083	M-DICHLOROBENZENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0087	ISOPROPYLBENZENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0088	N-PROPYLBENZENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0090	TERT-BUTYLBENZENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0093	P-ISOPROPYLTOLUENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0094	N-BUTYLBENZENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0097	HEXACHLOROBUTADIENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0098	1,1,3 TRICHLORBENZENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0154	1,3 DICHLOROPROPENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
0158	DICHLOROBENZENE	ND	ug/L	0.5	N/A	N/A		524.2	HB
	CHLORODIFLUOROMETHANE (CFC 22)	ND	ug/L	0.5	N/A	N/A		524.2	HB
	MTBE	ND	ug/L	0.5	N/A	N/A		524.2	HB

NOTES:

***Confirmation:** Include the original lab number, sample number, and collection date of original sample in either lab or sampler comments section.

****SAL (State Advisory Level):** The Washington State Board of Health established health based advisory level. Systems with compounds detected at concentrations in excess of this level may be required to take additional samples or monitor more frequently.

SRL (State Reporting Level): indicates the minimum reporting level required by the Washington Department of Health (DOH).

Trigger Level: DOH Drinking Water Response Level. Systems with compounds detected at concentrations in excess of this level are required to take additional samples. Contact your regional DOH office for further information

MCL (Maximum Contaminant Level): If the contaminant amount exceeds the MCL, immediately contact your regional DOH office.

NA (Not Analyzed): in the results column indicates this compound was not included in the current analysis.

ND (Not Detected): in the results column indicates this compound was analyzed and not detected at a level greater than or equal to the SRL.

<(0.00X): indicates the compound was not detected in the sample at or above the concentration indicated. (lab mdl) lower than the SRL.

-- : No existing value

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ENDO TEST PANEL
(Endothall by EPA Method 548.1)

REPORT OF ANALYSIS

Date Collected (MM/DD/YY) :	**2/28/2014**	System Group Type : ☑ A ☐ B ☐ Other	
Water System ID Number :	**63000C**	System Name :	**North Beach Water**
Lab -- Sample Number :	**01719841**	County :	**Pacific**
Sample Location :	**Wiegradt Well #3**	Source Number(s)	**New Well**
Sample Purpose (Select One)		Date Received (MM/DD/YY) :	**02/28/14**
	RC- Routine Compliance (satisfies monitoring requirements)	Date Analyzed (MM/DD/YY) :	**03/11/14**
	C- Confirmation (confirmation of chemical result)	Date Reported (MM/DD/YY) :	**03/19/14**
X	I - Investigative (does not satisfy monitoring requirements)	COMMENTS :	**K1401984-001**
	O – Other (specify – does not satisfy monitoring requirements)		
Sample Composition:		Sample Type (Select One)	
Select One		X	Pre-Treatment/Raw
X	S - Single Source		Post-Treatment/Finished
	B - Blended (List Multiple Source No. in Source Nos. field)		Unknown
	C - Composite (Specify in Comments field)	Sample Collected by	Nick Morrison
	D - Distribution sample	Phone Number :	360-665-4144
Send Report to :	**North Beach Water**	Bill to (Client Name) :	

EPA/STATE REGULATED

DOH #	ANALYTE	RESULTS	UNITS	SRL	TRIGGER	MCL	MCL Exceeded? (Check only if YES)	METHOD	Analyst Initials
0151	Endothall	**ND**	ug/L	9	9	100	☐	548.1	LP

NOTES:

SRL (State Reporting Level): The minimum reporting level established by the Washington State Department of Health (DOH)

Trigger Level: DOH Drinking Water response level. Systems with compounds detected at concentrations in excess of this level may be required to take additional samples or monitor more frequently. Please contact your DOH drinking water regional office for

MCL (maximum contaminant level): If the contaminant amount exceeds the MCL, please contact your regional DOH office to determine follow-up actions.

NA (Not Analyzed): In the results column, indicates this compound was not included in the current analysis.

ND (Not Detected): In the results column, indicates this compound was analyzed and not detected at a level greater than or equal to the SRL

< (0.00X) : The compound was not detected in the sample at or above the concentration indicated (usually the lab MRL).

Comments:

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QUAT TEST PANEL
(Diquat and Paraquat by EPA Methods 549.2)

REPORT OF ANALYSIS

Date Collected (MM/DD/YY) : **02/28/14**		System Group Type : ✓ A ☐ B ☐ Other	
Water System ID Number : **63000C**		System Name : **North Beach Water**	
Lab -- Sample Number : **01719841**		County : **Pacific**	
Sample Location : **Wiegradt Well #3**		Source Number(s) : **New Well**	
Sample Purpose (Select One)		Date Received (MM/DD/YY) : **02/28/14**	
	RC- Routine Compliance (satisfies monitoring requirements)	Date Analyzed (MM/DD/YY) : **03/04/14**	
	C- Confirmation (confirmation of chemical result)	Date Reported (MM/DD/YY) : **04/07/14**	
X	I - Investigative (does not satisfy monitoring requirements)	COMMENTS : **K1401984-001**	
	O – Other (specify – does not satisfy monitoring requirements)		
Sample Composition:		Sample Type (Select One)	
Select One		X	Pre-Treatment/Raw
X	S - Single Source		Post-Treatment/Finished
	B - Blended (List Multiple Source No. in Source Nos. field)		Unknown
	C - Composite (Specify in Comments field)	Sample Collected by	Nick Morrison
	D - Distribution sample	Phone Number :	360-665-4144
Send Report to : **North Beach Water**		Bill to (Client Name) :	

EPA/STATE REGULATED

DOH #	ANALYTE	RESULTS	UNITS	SRL	TRIGGER	MCL	MCL Exceeded? (Check only if YES)	METHOD	Analyst Initials
0150	Diquat	<2	ug/L	2	2	20	☐	549.2	SJ

EPA/STATE UNREGULATED

0400	Paraquat	2.1	ug/L	0.8	0.8	--	☐	549.2	SJ

NOTES:

SRL (State Reporting Level): The minimum reporting level established by the Washington State Department of Health (DOH)

Trigger Level: DOH Drinking Water response level. Systems with compounds detected at concentrations in excess of this level may be required to take additional samples or monitor more frequently. Please contact your DOH drinking water regional office

MCL (maximum contaminant level): If the contaminant amount exceeds the MCL, please contact your regional DOH office to determine follow-up actions.

NA (Not Analyzed): In the results column, indicates this compound was not included in the current analysis.

ND (Not Detected): In the results column, indicates this compound was analyzed and not detected at a level greater than or equal to the SRL.

< (0.00X) : The compound was not detected in the sample at or above the concentration indicated (usually the lab MRL).

Comments:

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Middletown, PA 17057
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INSECT1 TEST PANEL

(SOC-Carbamate Insecticides by EPA Methods 531.1, 531.2, or 6610)

REPORT OF ANALYSIS

Date Collected: (MM/DD/YY) 02 / 28 / 14	System Group Type: (Circle one) [A] B Other
Water System ID Number: 63000C	System Name: North Beach Water
Lab -- Sample Number: 219 – 74113	County: Pacific
Sample Location: Wiegardt Well #3	Source Number(s): New Well Wiegardt #3 – No Source Number
Sample Purpose: (Check Appropriate Box) ☐ RC – Routine/Compliance (satisfies monitoring requirements) ☐ C – Confirmation (confirmation of chemical result) ☐ I – Investigative (does not satisfy monitoring requirements) X O – Other (New well)	Date Received: (MM/DD/YY) 03 / 04 / 14 Date Analyzed: (MM/DD/YY) 03/ 06 / 14 Date Reported: (MM/DD/YY) 03 / 13 / 14 COMMENTS: K1401984-001
Sample Composition: (Check Appropriate Box) X S - Single Source ☐ B - Blended (List Multiple Source Numbers in Source Nos. field) ☐ C - Composite (Specify in Comments field) ☐ D - Distribution sample	Sample Type: (Check one) ☐ Pre-Treatment/Raw ☐ Post-Treatment/Finished X Unknown Sample Collected by: Nick Morrison Phone Number: (360) 665-4144
Send Report to: William Neal PO Box 618 Ocean Park, WA 98640	Bill to: (Client Name William Neal PO Box 618 Ocean Park, WA 98640

EPA/STATE REGULATED

DOH #	ANALYTE	RESULTS	UNITS	SRL	TRIGGER	MCL	MCL Exceeded? (Check only if YES)	METHOD/Analyst initials
0146	Carbofuran	<1.0	ug/L	0.9	0.9	40		531.1 CJS
0148	Oxamyl (Vydate)	<1.0	ug/L	2	2	200		531.1 CJS
0142	Aldicarb	<1.0	ug/L	0.5	0.5	3		531.1 CJS
0145	Carbaryl	<1.0	ug/L	2	2	--		531.1 CJS
0147	Methomyl	<1.0	ug/L	4	4	--		531.1 CJS

NOTES:

SRL (State Reporting Level): The minimum reporting level established by the Washington State Department of Health (DOH)

Trigger Level: DOH Drinking Water response level. Systems with compounds detected at concentrations in excess of this level may be required to take additional samples or monitor more frequently. Please contact your DOH drinking water regional office for further information.

MCL (maximum contaminant level): If the contaminant amount exceeds the MCL, please contact your regional DOH office to determine follow-up actions.

NA (Not Analyzed): In the results column, indicates this compound was not included in the current analysis.

ND (Not Detected): In the results column, indicates this compound was analyzed and not detected at a level greater than or equal to the SRL.

< (0.00X) : The compound was not detected in the sample at or above the concentration indicated (usually the lab MRL).

GLYPH TEST PANEL
(Glyphosate by EPA Method 547 or SM 6651)

REPORT OF ANALYSIS

Date Collected: (MM/DD/YY) 02 / 28 / 14	System Group Type: (Circle one) [A] B Other
Water System ID Number: 63000C	System Name: North Beach Water District
Lab -- Sample Number: 219 – 74113	County: Pacific
Sample Location: Wiegardt Well #3	Source Number(s): New Well – No Source Number – Weigardt #3
Sample Purpose: (Check Appropriate Box) ☐ RC – Routine/Compliance (satisfies monitoring requirements) ☐ C – Confirmation (confirmation of chemical result) ☐ I – Investigative (does not satisfy monitoring requirements) X O – Other (specify)	Date Received: (MM/DD/YY) 03/ 04 / 14 Date Analyzed: (MM/DD/YY) 03 / 12 / 14 Date Reported: (MM/DD/YY) 03 / 13 / 14 COMMENTS: K1401984-001
Sample Composition: (Check Appropriate Box) X S - Single Source ☐ B - Blended (List Multiple Source Numbers in Source Nos. field) ☐ C - Composite (Specify in Comments field) ☐ D - Distribution sample	Sample Type: (Check one) ☐ Pre-Treatment/Raw ☐ Post-Treatment/Finished X Unknown Sample Collected by: Nick Morrison Phone Number: (360) 665-4144
Send Report to: William Neal PO Box 618 Ocean Park, WA 98040	Bill to: (Client Name) William Neal PO Box 618 Ocean Park, WA 98040

EPA/STATE REGULATED

DOH #	ANALYTE	RESULTS	UNITS	SRL	TRIGGER	MCL	MCL Exceeded? (Check only if YES)	METHOD/Analyst initials
0152	Glyphosate	<4.5	ug/L	13	13	700		547 CGS

NOTES:

SRL (State Reporting Level): The minimum reporting level established by the Washington State Department of Health (DOH)

Trigger Level: DOH Drinking Water response level. Systems with compounds detected at concentrations in excess of this level may be required to take additional samples or monitor more frequently. Please contact your DOH drinking water regional office for further information.

MCL (maximum contaminant level): If the contaminant amount exceeds the MCL, please contact your regional DOH office to determine follow-up actions.

NA (Not Analyzed): In the results column, indicates this compound was not included in the current analysis.

ND (Not Detected): In the results column, indicates this compound was analyzed and not detected at a level greater than or equal to the SRL.

< (0.00X) : The compound was not detected in the sample at or above the concentration indicated (usually the lab MRL).

REVISED
1:56 pm, Jun 05, 2014