

February 25, 2015

Project No.: 484-13-14-02.002

SENT VIA: EMAIL

Mr. Derek C. Lee Environmental Compliance East Bay Municipal Utility District 375 11th Street Oakland California 94607

SUBJECT: East Bay Municipal Utility District Bayside Groundwater Project, 2014 Annual

Report, Order No. R2-2007-0038

Dear Mr. Lee:

West Yost Associates (West Yost) has prepared this 2014 Annual Report (Report) on behalf of the East Bay Municipal Utility District (EBMUD) for the Bayside Groundwater Project (Project) in Alameda County. West Yost has prepared this Report in accordance with the Self Monitoring and Reporting Program (SMRP) Order No. R2-2007-0038, which was adopted by the San Francisco Regional Water Quality Control Board (Regional Board) on May 9, 2007, as Attachment A to Regional Board Order No. R2-2007-0038, the Waste Discharge Requirements (Permit) for the Project.

The Project consists of the Bayside Well and a number of monitoring wells constructed near and in the vicinity of the Bayside Well. Depth to groundwater was monitored in the Bayside Well and associated monitoring wells during 2014. Groundwater samples were collected from December 12 to December 17, 2014, for analytical testing. Groundwater elevations and analytical results are provided in this Report, along with results from previous years, in accordance with the SMRP, for evaluation of long-term trends.

This letter report covers the following specific topics:

- Project Overview
- Regulatory Requirements
- Injection and Recovery Activities
- Sampling and Analysis Activities
- Groundwater Elevations and Flow Directions
- Groundwater Quality Results
- Conclusions

PROJECT OVERVIEW

The Project is located in a predominantly industrial area within unincorporated portions of the City of San Lorenzo and the City of San Leandro. The Bayside Well is located at 2600 Grant Avenue in San Lorenzo. The Project area is bounded by residential communities to the north and east, and the San Francisco Bay about a half-mile to the west.

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The Bayside Well is an Aquifer Storage and Recovery (ASR) well designed and constructed for injection of water and aquifer storage during wet years and, later, for recovery as a source of supplemental drinking water supply for EBMUD during dry years. When it occurs, treated drinking water from EBMUD's distribution system is injected into the South East Bay Plain Groundwater Basin (SEBPB). As detailed later in this Report, injection has not occurred since 2011.

The Bayside Well was constructed with 18-inch diameter steel casing and is screened from 520 feet below ground surface (bgs) to 650 feet bgs. The monitoring well network consists of 17 monitoring wells constructed at various depths (Figure 1). Well construction details are summarized in Table 1. Additional background information on the Project is provided in the Permit.

REGULATORY REQUIREMENTS

The SMRP (Attachment A of the Permit) requires groundwater level monitoring in 13 of the Project monitoring wells (MW-1, MW-2S, MW-2I, MW-3, MW-4, MW-5S, MW-5I, MW-5D, MW-6, MW-7, MW-9D, MW-10I, and MW-10D). After the first year of monitoring, groundwater level monitoring in 11 of the 13 wells listed above is required to be performed on an hourly basis. For wells MW-4 and MW-6, groundwater level monitoring is required to be performed quarterly only.

The SMRP also requires EBMUD to implement a phased approach for monitoring groundwater quality in a subset of the Project monitoring wells. Each phase is successive and depends on certain triggers, generally related to the location of the injected water front (i.e., leading edge of the injected water). The SMRP specifies the following phased approach consisting of four groups of monitoring wells:

- Initial monitoring in Group 1 wells (Bayside Well, MW-2S, MW-2I, MW-4, and MW-10D²) is required to start three months prior to the start of Project operations and to continue on an annual basis until Group 2 monitoring is triggered.
- Monitoring of Group 2 wells (Bayside Well, MW-2S, MW-2I, MW-4, and MW-6) would begin once the injected water front reaches MW-4 and would continue on an annual basis until Group 3 monitoring is triggered.
- Monitoring of Group 3 wells (Group 2 wells plus MW-5D and MW-7) would begin once the injected water front reaches MW-6 and would continue on an annual basis until Group 4 monitoring is triggered.
- Monitoring of Group 4 wells (Group 3 wells plus MW-10D) would begin with the
 detection of injected water at MW-5D or MW-7, or 15 years after initiating Project
 operations, whichever is earlier.

EBMUD uses slightly different well names than those used in the Permit. For example, "MW-2I" is used instead of "MW-2D" and "MW-9D" instead of "MW-9." EBMUD's well naming convention is used in this Report.

Group 1 monitoring included limited monitoring at MW-10D. Specifically, the SMRP requires monitoring of MW-10D only once in the beginning of the Group 1 monitoring phase.

Water quality parameters required to be measured are listed in Table 4 of the SMRP and include pH, chlorine residual, Total Dissolved Solids (TDS), ammonia, nitrate, chloride, manganese, iron, total trihalomethanes and haloacetic acids (including the individual components), and various "standard minerals" (e.g. calcium and magnesium).³

The SMRP requires the submission of data from the Project's monitoring well network to the Regional Board in an annual report. Annual reports, due by March 1 of the following year, are required to include the following items, per Part A.4 of the SMRP:

- A table of groundwater injection and recovery data, including the cumulative total volume injected/recovered since Project inception.
- Maps of well locations, groundwater elevation contours, extent of injected groundwater flow, and extent of dissolved chemical constituents (isoconcentration maps).
- A table of location and construction details for the wells.
- A table of current groundwater depths, elevations, and horizontal and vertical gradients.
- A table of current and historical (past five years) water quality results for the wells.
- A discussion of field and laboratory results that includes conclusions, recommendations, and data anomalies.

INJECTION AND RECOVERY ACTIVITIES

No injection or recovery activities took place during 2014. Accordingly, the injection and recovery rates were in compliance with the permitted maximum rates – for both injection and recovery – of one million gallons per day. The cumulative volumes of injected and recovered water since Project inception (2009) are shown in Table 2.

SAMPLING AND ANALYSIS ACTIVITIES

The SMRP generally requires groundwater level monitoring on an hourly basis in the applicable monitoring wells listed above for each group. Prior to 2014, EBMUD installed dedicated pressure transducers in these wells to collect hourly groundwater level data. However, in early 2014, EBMUD staff discovered that the pressure transducers were not providing accurate results. Therefore, the pressure transducers were offline from late January to May 2014. Following the installation of new pressure transducers, hourly groundwater level data were collected from May through December 2014.

As noted in the 2013 Annual Report, monitoring well MW-7 was damaged by a PG&E contractor in 2012 and has not been repaired because PG&E has not accepted responsibility for the damage.

³ Table 4 of the SMRP also requires monitoring for "Title 22" drinking water parameters under the following conditions that are not currently applicable: MW-10D once with Group 1 monitoring and MW-5D and MW-7 with Group 4 monitoring.

Since this well has not been repaired, groundwater level monitoring was not conducted in 2014 for well MW-7.

The SMRP also requires groundwater quality monitoring, as discussed above, following a phased approach. In 2013, EBMUD initiated monitoring of Group 2 wells, which essentially entailed adding MW-6 to the annual monitoring well network. In 2014, EBMUD initiated monitoring of Group 3 wells, which entailed the addition of MW-5D and MW-7 to the annual monitoring network, in response to the detection of chlorine residual and haloacetic acids at MW-6, as detailed in the 2013 Annual Report. As discussed above, MW-7 is currently damaged. Therefore, MW-7 was not sampled during 2014.

EBMUD staff collected the 2014 groundwater samples for the required water quality analyses over four days: December 12, 13, 16, and 17. A peristaltic pump with new tubing was used to purge and sample wells MW-2S, MW-2I, and MW-4. A submersible pump with new tubing was used to purge and sample MW-5D and MW-6. The Bayside Well was purged using the dedicated downhole turbine pump with the sample collected from a spigot at the wellhead. Purge water was disposed of on permeable ground adjacent to wells MW-2S, MW-2I, MW-4, MW-5D, and MW-6. Purge water from the Bayside Well was pumped to an onsite holding tank and eventually discharged to Oro Loma Sanitary District under a separate discharge permit. No surface water discharges occurred.

Groundwater monitoring and sampling were completed according to the following procedures:

- 1. Measure static water level within each well, and calculate three-well volumes required for purging in accordance with USEPA groundwater sampling protocols.
- 2. Purge the well until three well casing volumes have been removed.
- 3. Measure field water quality parameters (pH, specific conductance, and temperature) periodically during purging.
- 4. Collect samples in containers with appropriate preservatives in accordance with USEPA sampling protocols for individual constituents.
- 5. Measure residual chlorine immediately after sample collection.
- 6. Transport samples to EBMUD's state-certified laboratory in a cooler under chain of custody for analytical testing.

Attachment A provides well purge logs, including the static water level, purge volumes, and field parameter measurements.

GROUNDWATER ELEVATIONS AND FLOW DIRECTIONS

Static water levels measured prior to well purging and sampling in December 2014 are summarized in Table 3, along with calculated groundwater elevations based on the reference elevations noted in Table 1. Table 3 also provides historical static water levels and groundwater elevations, as reported in the 2013 Annual Report.

Groundwater elevations derived from the new pressure transducers installed in May 2014 are plotted by well for May through December 2014 (Attachment B). Groundwater elevation

contours for August 1, 2014, corresponding to a low tide in San Francisco Bay, are shown on Figure 2. Groundwater elevation contours for December 1, 2014, corresponding to a high tide in San Francisco Bay, are shown on Figure 3. As shown on Figures 2 and 3, the groundwater flow direction is primarily to the south with a southwesterly component at low tide (Figure 2) and southeasterly to southwesterly components at high tide (Figure 3). Horizontal hydraulic gradients are variable with lower gradients further from the bay and higher gradients closer to the bay.

Groundwater elevations during low tide ranged from -8.92 feet above mean sea level (amsl) to -10.15 feet amsl (Figure 2). Groundwater elevations during high tide ranged from -6.38 feet amsl to -7.04 feet amsl (Figure 3).

Vertical hydraulic gradients were calculated based on groundwater elevations and well construction information for the nested wells MW-5S, MW-5I, and MW-5D. Specifically, vertical gradients were calculated for a low tide using groundwater elevation data from 11:05 AM on August 1, 2014, and for a high tide using data from 9:50 AM on December 1, 2014. The calculated vertical gradients for these dates, including supporting data for the calculations, are presented in Table 4. The overall vertical gradient under both conditions is downward at approximately 0.04 to 0.05 feet per foot. These results are consistent with the vertical gradients reported in the 2013 Annual Report.

GROUNDWATER QUALITY RESULTS

The 2014 analytical results are included in the following tables, along with historical water quality results for the last five years (2009 through 2013):

- Table 5 includes data for general water quality parameters (e.g., pH, chlorine residual, iron) and standard minerals (e.g., calcium, magnesium, potassium).
- Table 6 includes data for disinfection byproducts (haloacetic acids [HAAs] and trihalomethanes [THMs]).

Copies of the analytical lab reports for the 2014 water quality data are provided in Attachment C.4

For wells with pre-2014 data (Bayside Well, MW-2S, MW-2I, MW-4, and MW-6), the 2014 water quality results summarized in Table 5 are generally consistent. Concentrations for a number of parameters in MW-2S are noted as continuing to be higher than in the other monitoring wells. The 2014 data also indicate that iron concentrations are much lower than previous results for MW-2S, MW-2I, and MW-4, and MW-6. The analytical lab reports have been reviewed, but no apparent explanation was identified for these lower concentrations.

As noted above, well MW-5D was sampled for the first time in 2014. The results for MW-5D summarized in Table 5 are generally consistent with other monitoring wells, with the exception of MW-2S.

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⁴ The lab reports in Attachment C include results for additional parameters beyond those required by the SMRP. EBMUD collected this information per drinking water regulations unrelated to the Permit and SMRP. These data are not discussed in this Report.

For the 2014 groundwater quality results summarized in Table 5, TDS has been used as a representative constituent to evaluate overall groundwater quality conditions. The isoconcentration contours shown on Figure 4 are based on TDS concentrations for deep monitoring wells, including the Bayside Well, MW-4, MW-5D, and MW-6 (Table 1). The isoconcentration contours indicate the lowest concentration of 130 milligrams per liter (mg/L) occurs at the Bayside Well with increasing TDS concentrations in a northerly direction (i.e. further inland). The highest TDS concentration of 490 mg/L was detected at well MW-5D. Therefore, TDS concentrations decrease along the southerly groundwater flow direction (Figure 3).

The disinfection byproducts data summarized in Table 6 are also consistent with previous results with most constituents below Method Detection Limits (MDLs) in each well. Testing for HAAs in the groundwater sample collected from well MW-6 was inadvertently omitted. In addition, the combined parameters HAA(5), HAA(9), and total THMs (TTHMs) are within the range of historical results. These data also indicate no exceedances of the Permit's effluent water quality limits for HAAs and TTHMs. The only disinfection byproducts detected in 2014 were reported at low concentrations as summarized below:

• Chloroform: 0.45 micrograms per liter (µg/L) in the Bayside Well

Bromochloroacetic acid: 0.50 μg/L in Well MW-2I

• Monochloroacetic acid: 0.72 μg/L in Well MW-4

CONCLUSIONS

EBMUD conducted the 2014 groundwater monitoring at the Bayside Groundwater Project site in accordance with the Self Monitoring and Reporting Program Order No. R2-2007-0038 with minor exceptions, as noted above. In 2015, EBMUD will continue to implement groundwater monitoring for the Group 3 wells and work with PG&E on the repair of well MW-7 and its subsequent addition to the monitoring program. West Yost understands that EBMUD will repeat its request to the Regional Board to reduce the frequency of groundwater level measurements from hourly to quarterly during periods when the Project is inactive. The 2015 Annual Report will be submitted to the Regional Board by March 1, 2016.

Please call Charles Hardy at (925) 949-5814 or Jin Strandberg at (925) 949-5825 with any

questions or comments on this Report.

Sincerely,

WEST YOST ASSOCIATES

Charles Hardy, PE (€71015) Senior Engineer James F. Strandberg, PG (5308), CEG (1685), CHG (800) Groundwater Practice Leader

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Attachment A: Groundwater Purging Logs

Attachment B: Groundwater Elevation Trends for Monitoring Wells

Attachment C: Analytical Lab Reports for 2014 Water Quality Sampling

List of References

Francis, Thomas, Senior Civil Engineer, EBMUD, 2014, Letter to Mary Rose Casa, Regional Board, February 25, 2014, *Subject: East Bay Municipal Utility District Bayside Groundwater Project, 2013 Annual Report, Order No. R2-2007-0038.*

Regional Board, 2007, Order No. R2-2007-0038 Waste Discharge Requirements for East Bay Municipal Utility District, Bayside Groundwater Project, San Lorenzo, Alameda County, Adopted May 9, 2007.

Table 1. Groundwater Monitoring Well Construction Details

Well ID	Latitude	Longitude	Address	City	Completion Date	Drilled Depth, feet bgs ^(a)	Casing Depth, feet bgs	Depth of Top of Perforation, feet bgs	Depth of Bottom of Perforation, feet bgs	Casing Diameter, inches	Reference Elevation, feet amsl ^(b)	Reference Location on Well	
MW-1						665	650	520	640	2	8.71	Top of steel casing	
MW-2S	37° 40′ 4.8″	122° 9' 25.2"	2600 Grant Ave.			210	60	40	60	2	9.90	Top of stool casing	
MW-2I ^(c)			2000 Grant Ave.			210	200	160	190	2	9.90	Top of steel casing Top of steel casing Top of steel rim Seal of vault lid at easterly edg Top of casing at northerly edg Top of casing easterly edge	
MW-3	37° 40′ 4.8″	122° 9' 28.8"				665	660	520	650	2	8.12	Top of steel casing	
MW-4	37° 40′ 11.6″	122° 9' 28.8"	2575 Grant Ave.			705	650	520	650	2	8.96	Top of steel rim	
MW-5S	37° 40′ 34.4″	122° 9' 06.6"	2006 Via Barrett		Sep-08	460	210	200	210	2	13.88	Soal of yoult lid at contarty adap	
MW-5I	37° 40′ 34.4″	122° 9' 06.6"	2005 Via Barrett	San	Sep-08	460	325	315	325	2	13.00	Seal of vault lid at easterly edge	
MW-5D	37° 40′ 34.4″	122° 9' 06.6"	2007 Via Barrett	Lorenzo	Feb-01	1,025	640	500	630	4	13.76	Top of casing at northerly edge	
MW-6	37° 40' 07"	122° 9' 04.5"	15600 Worthley		Nov-00	1,000	655	480	650	4	9.46	Top of casing easterly edge	
MW-7	37° 39' 56.5"	122° 8' 44.2"	Western tip of San Lorenzo Park		Nov-00	972	680	510	630	4	7.42	Top of casing at northerly edge	
MW-8D	37° 43' 04"	122° 11' 50.3"	1970 Davis St.			910	490	420	480	2	14.76	Top of steel rim	
MW-9S					Jan-08	460	120	110	120	2			
MW-9I	37° 41' 11"	122° 6' 46"	589 E. Lewelling Ave.		Jan-08	460	210	200	210	2	54.39	Seal of vault, westerly side	
MW-9D ^(d)					Jan-08	460	335	325	335	2			
MW-10S					Sep-08	680	120	100	120	2	_		
MW-10I	37° 41' 19"	122° 9' 43"	15526 Wick Blvd.	San Leandro	Sep-08	680	360	340	360	2	11.76	Seal of vault lid at easterly edge	
MW-10D				200010	Sep-08	680	610	590	610	2			

⁽a) bgs = below ground surface

⁽b) amsl = above Mean Sea Level

 $^{^{(}c)}$ Well MW-2I is referred to in the Permit as "MW-2D."

^(d) Well MW-9D is referred to in the Permit as "MW-9."

Table 2. Historical Injected and Recovered Water Volumes										
Year	Injected Volume, gallons	Recovered Volume, gallons								
2009	445,000	4,545,000								
2010	0	113,000,000								
2011	28,432,401	0								
2012	0	0								
2013	0	0								
2014	0	0								
Total	28,877,401	117,545,000								

Table 3. Summar	y of Groundwater	Elevation and Depth
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Measurement		Groundwater Elevation, feet amsl								Depth to Groundwater, feet						
Date	Bayside	MW-1	MW-2S	MW-2I	MW-4	MW-6	MW-5D	MW-7	Bayside	MW-1	MW-2S	MW-2I	MW-4	MW-6	MW-5D	MW-7
12/8/08			0.99		-4.07	(a)					8.78 ^(b)		12.68 ^(b)			
12/9/08		-5.06		1.09						13.74 ^(b)		8.73 ^(b)				
12/14/09					-3.75								12.71			
12/15/09			0.95	1.44							8.95	8.46				
12/8/10	-7.22		1.71	0.25	-7.45				15.6		8.19	9.65	16.41			
12/21/11		-4.16	1.12	3.59	-4.17					12.87	8.78	6.31	13.13			
1/5/12		-3.94	1.04	6.24	-3.97					12.65	8.86	3.66	12.93			
12/13/12		-4.49	2.38	1.72	-4.16	-4.52				13.20	7.52	8.18	13.12	13.98		
12/18/13		-4.06	1.59	0.37	-6.68	-6.46				12.77	8.31	9.53	15.64	15.92		
12/12-12/17/14		-6.54	2.75	0.18	-6.01	-5.99	-5.76	(c)		15.25	7.15	9.72	14.97	15.45	19.52	(c)

⁽a) Gray shaded cells indicate that no monitoring was required for the well at that time period, reflecting the transition between monitoring groups.

⁽b) Applicable well reference elevations are different from those in Table 1.

⁽c) MW-7 was damaged in 2012, and accurate data collection in 2014 has not been feasible.

	Table 4. Calculated Vertical Hydraulic Gradients for Low Tide and High Tide in San Francisco Bay										
Nested Well	Measurement Date and Time	Screened Interval, feet	Center of Screened Intervals, feet bgs	Groundwater Elevation, feet amsl	Shallow to Intermediate Vertical Gradient, feet/foot	Intermediate to Deep Vertical Gradient, feet/foot	Shallow to Deep Vertical Gradient, feet/foot	Vertical Gradient Direction			
Low Tide											
MW-5S	8/1/2014 @ 11:05	200 - 210	205	8.933	0.0694						
MW-5I	8/1/2014 @ 11:05	315 - 325	320	0.953	0.0094	0.0387	0.0483	downward			
MW-5D	8/1/2014 @ 11:05	500 - 630	575	-8.922		0.0367					
High Tide											
MW-5S	12/1/2014 @ 09:50	200 - 210	205	9.341	0.0744						
MW-5I	12/1/2014 @ 09:50	315 - 325	320	0.781	0.0744	0.0281	0.0425	downward			
MW-5D	12/1/2014 @ 09:50	500 - 630	575	-6.377		0.0201					

Table 5. Current and Historical Groundwater Quality	y Results for General Water Quality Parameters and Standard Minerals ^(a)
General Water Quality Parameters	Standard Minerals

	General Water Quality Parameters								Standard Minerals									
		Chlorine														Alkalinity (as CaCO3)	
Sample		Residual,	TDS,	Ammonia,	Nitrate as N,	Chloride,	Manganese,	Iron,	Calcium,	Magnesium,	Potassium,	Sodium,	Sulfate,	Hardness,	Total,	Hydroxide,	Carbonate,	Bicarbonate,
Date	рН	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	μg/Ĺ	mg/L	mg/L	mg/L	mg/L [′]	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Bayside Well																		
12/14/2009	8.18	ND	200	<0.3	0.029	31	55.4	55.4	28,000	7,400	1,400	41,000	23	97	110	<0.1	0.66	109
12/8/2010	7.37	ND	360	<0.3	E0.004	55	58.1	58.1	27,000	7,900	1,700	84,000	42	100	170	<0.1	0.37	170
12/21/2011	8.17	ND	89	<0.12	0.18	9	11.2	11.2	10,800	2,780	768	15,200	11	40	47	<0.1	0.64	46
1/5/2012	7.82	ND																
12/13/2012	7.98	ND	110	<0.3	0.0074	10	16.8	16.8	12,200	3,120	789	21,300	13	47	59	<0.1	0.53	59
12/18/2013	7.87	ND	120	0.56	<0.003	13	22.8	22.8	14,000	3,770	1,050	22,500	15	50	65	<0.1	0.45	64
12/17/2014	8.19	ND	130	0.42	<0.00090	15	23.0	52.3	B14,700	3,880	1,070	28,000	15	70	69	<0.1	0.99	68
MW-2S	,		_	•	•	T		-	1							1	1	
12/15/2009	6.55	ND	87,000	<0.3	<0.095	39,000	36,900	36,900	1,300,000	2,800,000	500,000	23,000,000	4,000	17,000	380	<0.1	0.2	380
12/8/2010	6.33	ND	80,000	<0.3	<0.31	44,000	35,000	35,000	1,300,000	2,500,000	450,000	21,000,000	5,700	16,000	390	<0.1	<0.1	390
12/21/2011	6.67	0.14	78,000	<0.12	<0.095	44,000	36,400	36,400	1,250,000	2,780,000	509,000	22,200,000	5,700	16,000	420	<0.1	0.18	420
1/5/2012	6.83	0.09																
12/13/2012	6.29	ND	83,000	0.42	E0.19	E52,000	36,700	36,700	1,230,000	2,950,000	488,000	24,900,000	6,700	16,000	390	<0.1	<0.1	390
12/18/2013	6.67	0.08	85,000	0.7	<0.15	45,000	36,100	36,100	1,230,000	2,580,000	568,000	22,300,000	5,700	17,000	430	<0.1	0.19	420
12/13/2014	6.57	0.20	83,000	<0.30	23 ^(b)	39,000	36,900	<31.2 ^(c)	1,230,000	2,680,000	462,000	22,000,000	6,100	17,000	380	<0.1	0.13	380
MW-2I						0.4		22.2	1=000	40.000		1 400 000 1		100		T 0.4		
12/15/2009	8.05	ND	510	<0.3	0.16	84	98.6	98.6	15,000	13,000	6,100	160,000	26	100	310	<0.1	2.8	307
12/8/2010	7.56	ND	620	<0.3	<0.0031	110	99.8	99.8	17,000	15,000	6,000	170,000	23	100	310	<0.1	1	310
12/21/2011	7.86	ND	520	0.168	<0.095	79	102	102	13,900	12,600	5,200	153,000	32	94	310	<0.1	2.1	300
1/5/2012	7.82	ND																
12/13/2012	8.08	ND	520	<0.3	E0.0036	82	105	105	14,800	13,000	5,600	177,000	31	93	310	<0.1	3.5	310
12/18/2013	7.83	ND	500	<0.3	<0.003	75	115	115	14,800	13,400	6,760	153,000	32	89	310	<0.1	1.9	300
12/12/2014	7.9	ND	520	1.12	<0.0090	81	99	213 ^(c)	14,600	12,600	5,330	153,000	31	94	310	<0.1	2.3	310
MW-4	8.02	ND	440	-0.2	0.36	E A	220	228	20,000	12.000	2.000	110,000	27	120	240	-0.1	1.6	220
12/14/2009	7.51	ND ND	430	<0.3 <0.3	<0.0031	54 57	228 203	203	30,000 29,000	12,000 12,000	2,800 2,600	100,000	37 42	120 130	240 230	<0.1 <0.1	1.6 0.7	238 230
12/8/2010 12/21/2011	7.51	0.08	400	<0.3	0.026	56	260	260	27,800	10,500	2,600	100,000	42	120	230	<0.1	1.4	230
1/5/2012	7.6	ND		<0.1Z 	0.026		200		<i>21</i> ,000	10,500	2,410	103,000	<u>41</u>		230	<0.1	1.4	230
12/13/2012	7.42	ND	420	<0.3	0.0071	57	232	232	28,900	11,200	2,490	119,000	40	120	250	<0.1	1	240
12/18/2013	7.78	ND	430	<0.3	< 0.007	59	237	237	32,200	13,000	3,050	113,000	42	130	260	<0.1	1.5	260
12/16/2014	8.22	0.10	450	<0.3	0.028	56	239	33.7 ^(c)	32,200	12,800	2,720	113,000	39	130	270	<0.1	4.2	270
MW-5D	0.22	0.10	430	V 0.5	0.020	30	239	33.7	32,200	12,000	2,720	113,000	39	130	210	<u> </u>	4.2	210
12/16/2014	7.00	0.40	490	<0.3	<0.009	96	241	180	42,800	10,800	2,590	123,000	46	150	230	<0.1	0.22	230
MW-6	1.00	0.40	490	ζυ.3	<u> </u>	30	Z# I	100	42,000	10,000	2,390	123,000	40	130	230	<u> </u>	0.22	230
12/13/2012	7.26	ND	420	<0.3	0.099	56	302	302	31,000	7,680	1,880	117,000	46	120	220	<0.1	0.38	220
12/18/2013	7.41	0.07	420	<0.3	0.099	120	223	223	32,400	8,580	2,140	110,000	95	110	230	<0.1	0.55	230
12/13/2014	7.41	0.07	430	<0.3	0.0042	58	209	25.4 ^(c)	34,100	8,890	2,390	110,000	<u>95</u> 56	120	230	<0.1	1.8	230
		s are described			0.0042		200	20.4	J-7, 100	0,090	2,000	110,000	50	120	200	\0.1	1.0	200

⁽a) Symbols and data qualifiers are described as follows:

[&]quot;<" or "ND" indicates non-detect (ND) results, with the Method Detection Limit (MDL) shown as the value following "<".

[&]quot;B" preceding a value indicates that the parameter was detected in the laboratory blank associated with this data point.

[&]quot;E" preceding a value indicates an estimated value detected between the MDL and the Reporting Limit.

[&]quot;--" indicates that no result was reported for the analyte on the corresponding sample date.

Reported 12/13/2014 nitrate concentration of 23 mg/L for MW-2S is uncharacteristically high. The analytical lab report notes that the analysis for nitrate exceeded the hold time.

⁽c) Reported December 2014 iron concentrations for several wells (MW-2S, MW-2I, MW-4, and MW-6) are substantially different from previous iron concentrations for each well. Analytical lab reports have been reviewed, but no apparent explanation was identified.

Table 6. Current and Historical Groundwater Quality Results for Disinfection Byproducts^(a)

	Haloacetic Acids Trihalomethanes													Trihalomethar	nes	
			Bromochloro-	Bromodichloro-	Chlorodibromo-	Dibromo-	Dichloro-	Monobromo-	Monochloro-	Tribromo-	Trichloro-			Bromodichloro-	Dibromochloro-	
Sample	HAA(5), ^(a)	HAA(9), (b)	acetic Acid,	acetic Acid,	acetic Acid,	acetic Acid,	acetic Acid,	acetic Acid,	acetic Acid,	acetic Acid,	acetic Acid,	TTHMs, ^(d)	Chloroform,	methane,	methane,	Bromoform,
Date	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
Bayside Well																
12/14/2009	<2.9	<5	<0.55	<0.26	<0.54	<0.25	< 0.99	<0.54	<0.78	<0.83	<0.3	<2.43	<0.57	<0.58	<0.64	< 0.64
12/8/2010	<2.9	<5	<0.55	<0.26	<0.54	<0.25	<0.99	<0.54	<0.78	<0.83	<0.3	<2.43	<0.57	<0.58	<0.64	<0.64
12/21/2011	0.59	0.59	<0.55	<0.26	<0.54	<0.25	<0.99	<0.54	<0.78	<0.83	0.59	-				
1/5/2012												<40.09	38	1.6	0.26	<0.23
12/13/2012	ND	ND	<0.14	<0.16	<0.19	<0.11	<0.23	<0.22	<0.68	<0.44	<0.21	<9.71	9.1	0.25	<0.13	<0.23
12/18/2013	0.35	1.6	I 1.3	<0.16	<0.19	I 0.35	<0.23	<0.22	<0.68	<0.44	<0.21	<2.94	2.5	<0.079	<0.13	<0.23
12/17/2014	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<0.45	0.45	<0.079	<0.13	<0.23
MW-2S																
12/15/2009	<2.9	<5	<0.55	<0.26	<0.54	<0.25	<0.99	<0.54	<0.78	<0.83	<0.3	<2.43	<0.57	<0.58	<0.64	<0.64
12/8/2010	<2.9	<5	<0.55	<0.26	<0.54	<0.25	<0.99	<0.54	<0.78	<0.83	<0.3	<2.43	<0.57	<0.58	<0.64	<0.64
12/21/2011	0.31	0.31	<0.55	<0.26	<0.54	0.31	<0.99	<0.54	<0.78	<0.83	<0.3					
1/5/2012												<0.609	<0.17	<0.079	<0.13	<0.23
12/13/2012	ND	ND	<0.14	<0.16	<0.19	<0.11	<0.23	<0.22	<0.68	<0.44	<0.21	<0.609	<0.17	<0.079	<0.13	<0.23
12/18/2013	ND	ND	<0.14	<0.16	<0.19	<0.11	<0.23	<0.22	<0.68	<0.44	<0.21	<0.609	<0.17	<0.079	<0.13	<0.23
12/13/2014	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	N,J <0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
MW-2I																
12/15/2009	<2.9	<5	<0.55	<0.26	<0.54	<0.25	<0.99	<0.54	<0.78	<0.83	<0.3	<2.43	<0.57	<0.58	<0.64	<0.64
12/8/2010	<2.9	<5	<0.55	<0.26	<0.54	<0.25	<0.99	<0.54	<0.78	<0.83	<0.3	<2.43	<0.57	<0.58	<0.64	<0.64
12/21/2011	<2.9	<5	<0.55	<0.26	<0.54	<0.25	<0.99	<0.54	<0.78	<0.83	<0.3					
1/5/2012												<0.609	<0.17	<0.079	<0.13	<0.23
12/13/2012	ND	ND	<0.14	<0.16	<0.19	<0.11	<0.23	<0.22	<0.68	<0.44	<0.21	<0.609	<0.17	<0.079	<0.13	<0.23
12/18/2013	0.34	0.34	<0.14	<0.16	<0.19	I 0.34	<0.23	<0.22	<0.68	<0.44	<0.21	<0.609	<0.17	<0.079	<0.13	<0.23
12/12/2014	ND	<3.4	0.50	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	J <0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
MW-4					_					_			_	_		
12/14/2009	<2.9	<5	<0.55	<0.26	<0.54	<0.25	<0.99	<0.54	<0.78	<0.83	<0.3	<2.43	<0.57	<0.58	<0.64	<0.64
12/8/2010	<2.9	<5	<0.55	<0.26	<0.54	<0.25	<0.99	<0.54	<0.78	<0.83	<0.3	<2.43	<0.57	<0.58	<0.64	<0.64
12/21/2011	<2.9	<5	<0.55	<0.26	<0.54	<0.25	<0.99	<0.54	<0.78	<0.83	<0.3					
1/5/2012												<0.609	<0.17	<0.079	<0.13	<0.23
12/13/2012	ND	ND	<0.14	<0.16	<0.19	<0.11	<0.23	<0.22	<0.68	<0.44	<0.21	<0.609	<0.17	<0.079	<0.13	<0.23
12/18/2013	0.36	4.0	I 3.6	<0.16	<0.19	0.36	<0.23	<0.22	<0.68	<0.44	<0.21	<0.609	<0.17	<0.079	<0.13	<0.23
12/16/2014	<1.6	<3.1	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	0.72	<0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
MW-5D			1	1					1		1				1	
12/16/2014	<1.5	<3.0	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
MW-6			1	1					1		1				1	
12/13/2012	ND	ND	<0.14	<0.16	<0.19	<0.11	<0.23	<0.22	<0.68	<0.44	<0.21	<0.609	<0.17	<0.079	<0.13	<0.23
12/18/2013	0.34	3.9	I, N 3.6	<0.16	<0.19	0.34	<0.23	<0.22	<0.68	<0.44	<0.21	<0.609	<0.17	<0.079	<0.13	<0.23
12/13/2014	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	< 0.609	<0.17	<0.079	<0.13	< 0.23

⁽a) Symbols and data qualifiers are described as follows:

[&]quot;<" or "ND" indicates non-detect (ND) results, with the Method Detection Limit (MDL) shown as the value following "<", except for haloacetic acid (HAA) totals and total trihalomethanes (TTHMs) as detailed below.

[&]quot;I" preceding a value indicates a dual column quantitation difference greater than 40 percent Relative Percent Difference.

[&]quot;J" preceding a value indicates that the quantitation of the result does not meet the laboratory's Standard Operating Procedure criteria.

[&]quot;N" preceding a value indicates that the spike recovery for this data point was outside of control limits.

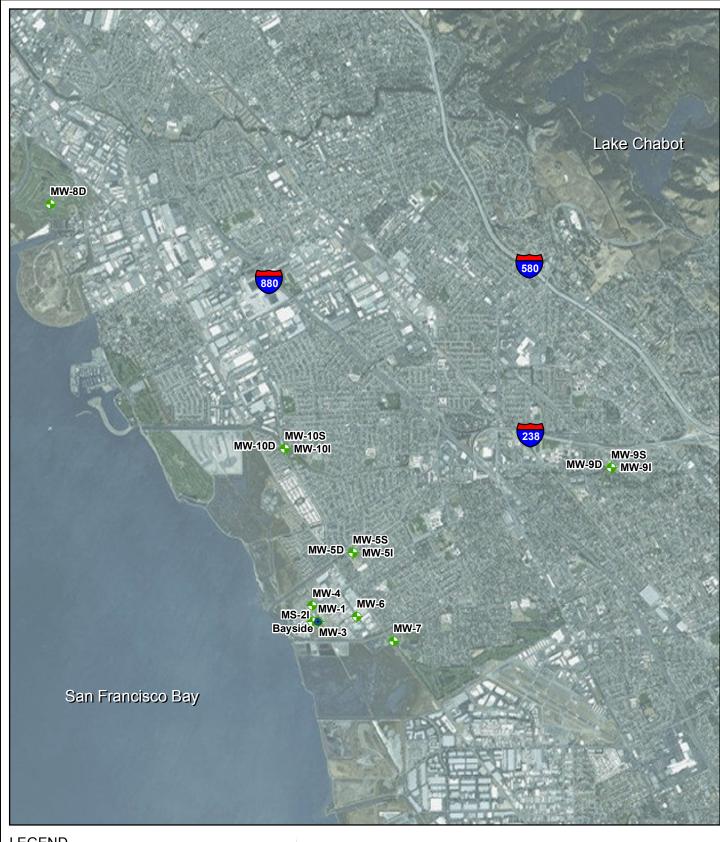
[&]quot;--" indicates that no result was reported for the analyte on the corresponding sample date.

⁽b) HAA5 value is calculated by addiing values for dibromoacetic, dichloroacetic, monobromoacetic, monochloroacetic, and trichloroacetic acids, with "<" indicating that the sum includes ND data. If all results are ND, then the sum is indicated as ND.

⁽c) HAA9 value is calculated by addiing results for all individual haloacetic acid values shown, with "<" indicating that the sum includes ND data. If all results are ND, then the sum is indicated as ND.

⁽i) TTHMs value is calculated by addiing individual trihalomethane values (including MDLs for ND data). If ND data is included, "<" is included with the TTHMs value.

⁽e) Well MW-6 was not monitored for haloacetic acids in 2014.







ASR (Bayside) Well

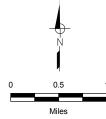


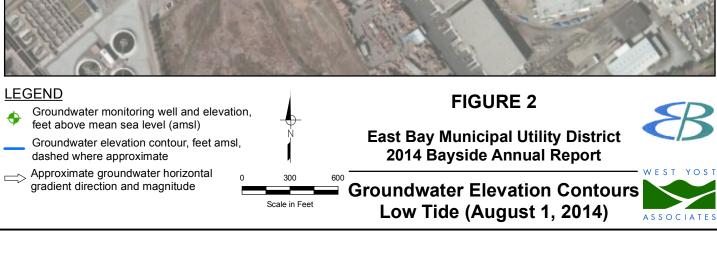
FIGURE 1

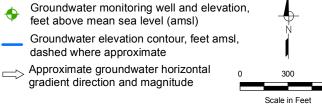
East Bay Municipal Utility District 2014 Bayside Annual Report

Well Location Map



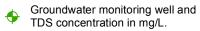




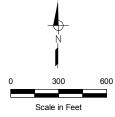


Groundwater Elevation Contours High Tide (December 1, 2014)





TDS concentration contour, dashed where approximate.



East Bay Municipal Utility District 2014 Bayside Annual Report

Groundwater TDS Contours
December 2014





ATTACHMENT A

Groundwater Purging Logs

SITE										
NAME: Bayside	Wells									
WELL NO: Baysic		INSPEC	$ror: \Lambda/P/$	(471	0	DATE: /2/17/14				
			PURGIN	, , , , ,	1	15/1///				
WELL	TUBI	NG WE	LL SCREEN INTE	RVAL	INITIAL TOTALIZER RI					
DIAMETER (inches):	18 DIAM	ETER (inches): NA DE	PTH: NA		(gal) 57958	dedicated well pump				
WELL VOLUME PUR	RGE: Purge	40,000 gal 25,	500 gal							
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): NA PURGING INITIATED AT: 0900 PURGING ENDED AT: 0934 TOTAL VOLUME PURGED (gallons): 25,608 FINAL TOTALIZER REA (gal): 482147										
TIME	VOLUME PURGED (gallons)	TOTAL VOLUME PURGED (gallons)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	FLOW TOTALIZER (gallons)				
0900	9220	1 9222	8.0	18.5	212	5805092				
09/6	7786	17,008	8.08	17.0	204.8	5812878				
0934	8600	25608	8.19	16.7	195.1	5821478				
		,			·	*				
		·			·					
WELL CAPA 2" = 0.16;	CITY (Ga 4" = 0.65	llons Per Foot):								
PURGING EQUIPMEN	IT CODES: BI	P = Bladder Pump; ESP	= Electric Submers	sible Pump;	PP = Peristaltic Pump;	O = Other (Specify)				

WELL NO: 5				INSPECT	FOR: TWG	INK		DATE:	12/15/	1/51 : 41																		
					PURGIN	G DATA		<u></u>	100	1																		
WELL DIAMETER (inches):	İ		TER (inches): 3/8	DEF	LL SCREEN INTE PTH: 500 feet feet	to 630	INITIAL STATIC D TO WATER (feet):	_	PURGE PUMP	TYPE; ESP																		
WELL VOLUME PUT only fill out if applicab	le)		LUME = $(TOTAL)$ = $(640 \text{ feet} - 1)$		PTH - STATIC		ER) X WELLC	APACITY s X 3 =	1209																			
NITIAL PUMP OR TU DEPTH IN WELL (feet): G	5 P	URGING NITIATED AT:		PURGING ENDED AT: 12		TOTAL VOLU		FINAL STA	ATIC DEPTH TO set): 19,52																		
TIME	PUR	UME GED ons)	TOTAL VOL PURGED (ga		pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	50	o gol 6 (0933 Ms																		
0957	100		100		6.4	17:0	645	•																				
1045	100		000		6.9	17.5	661																					
1130	100	v 300			7.1	18.0	609																					
1215	100	-	400	7.2		18.9	668																					
1300	100		500		7.2	207	659																					
1345	100		100		100		100		100		100		100-	0 600		100	<u>v</u>	600		- 600			न ।	50-0	699			
1430	100)	200		7.1	20.9	705																					
1515	100		800		701	5018	701	ENO.	15.14																			
1020	IW	-	900		7.1	19.1	678	}																				
WAYNS -	100)	1000		4.0	80,0	690	12.1/	med pur	ging																		
2/30	100)	1100		7.0	5.05	698		3 Y "" Y	1101																		
ENS	100 1500		1200		7.1	51.0	701																					
215	<u>30</u>	· ·	1830		7.0	26.4	697																					
$\mathbf{ELL CAPA}$ $\mathbf{P} = 0.16;$	CITY • 4" = 0		ons Per Foot):																								

SITE		<u>.</u>									
NAME Bayside	Wells										
WELL NO: 4	·			INSPECTOR: NPI	<		DATE:	DATE: 12/15/14			
· 				PURGI	NG DATA				-		
WELL		TUBING	A 10	WELL SCREEN INT	I	INITIAL STATIC DEP TO WATER (feet):	THO:1	PURGE PUMP TYPE:	_		
DIAMETER (inches):			ER (inches): 3/8	DEPTH: 520 feet VELL DEPTH - STATION			PP				
(only fill out if applicable	RGE: 1 W le)						ACITY				
				$4.97_{\text{feet}} \times 0.16$ g	allons/foot =			306			
INITIAL PUMP OR TU DEPTH IN WELL (feet)		O PU	IRGING ITIATED AT: 9'3	PURGING ENDED AT:	1450	TOTAL VOLUME (gallons):	PURGED	FINAL STATIC DEPTH TO WATER (feet): 15.62			
ТІМЕ	VOLI PUR (gall	GED	TOTAL VOLU PURGED (gall		TEMP.	COND. (circle units) padros/ent					
1031	55)	55	- 8.09	16.3	592					
1125	54	/	109	8.30	16.2	587			-		
1220	53	5	164	8.07	15.8	576					
1313	5	3	217	7.83	16.0	586	_				
1410	5	2	269	8.11	16.4	602	_				
1450	40	2	309	8.26	16.3	610					
							1				
WELL CAPA	CITY	(Gallo	ons Per Foot):			-l		-		
2" = 0.16;	4" = ().65	· · · · · · · · · · · · · · · · · · ·								
PURGING EQUIPMEN	T CODES	: BP=	Bladder Pump;	ESP = Electric Subme	rsible Pump;	PP = Peristaltic Pump	o; O = 0	Other (Specify)			

SITE								
NAME: Bayside	Wells							
WELL NO: 2S		INSPEC	TOR: DSS			DATE: 12/13/14		
	···		PURGIN					
WELL DIAMETER (inches): 2 TUBING DIAMETER (inches): 3/8		TER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 40 feet to 60 feet		INITIAL STATIC DEPTH TO WATER (feet): 7, (5	PURGE PUMP TYPE:		
WELL VOLUME PUR (only fill out if applicabl	RGE: 1 WELL VOI e)	LUME = (TOTAL WELL D) $= (60 \text{ feet} - 7 \cdot 15 \text{ feet})$	EPTH - STATICI		TER) X WELL CAPACI	TY		
INITIAL PUMP OR TU DEPTH IN WELL (feet)	BING P	URGING NITIATED AT: 905	PURGING	18/100t = 4	TOTAL VOLUME PU (gallons): 25	RGED FINAL STATIC DEPTH TO WATER (feet): 7.3		
TIME	VOLUME PURGED (gallons)	TOTAL VOLUME PURGED (gallons)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm			
0920	10	(0	6.37	16.8	34:11 ms			
0935	5	15	6.37	16.9	52.4 ms			
0940	\$	20	6.49	17.0	42.91 ms			
(000	5	25	6.51	17.6	74.7 ms			
· · · · · · · · · · · · · · · · · · ·		·						
			,					
WELL CAPA	CITY (Gallo	ons Per Foot):	·					
2" = 0.16;	4" = 0.65			•				
PURGING EQUIPMEN	CODES: BP =	Bladder Pump; ESP	= Electric Submersi	ble Pump;	PP = Peristaltic Pump;	O = Other (Specify)		

WELL NO: 6			PECTOR: NIPM			DATE: 12/12/14		
			PURGIN	G DATA		18/13/19		
WELL DIAMETER (inches):	I	ER (inches): 3/8	WELL SCREEN INTE DEPTH: 480 feet	RVAL to 655	INITIAL STATIC DEPTH TO WATER (feet): 156	PORGE POMP TYPE: EST		
(only fill out if applicat	oie)	= (655 feet -)5.45				1248		
INITIAL PUMP OR TO DEPTH IN WELL (fee	UBING 🦳 🦯 PL	IRGING ITIATED AT: 093	PURGING	800	TOTAL VOLUME P	PURGED FINAL STATIC DEPTH TO WATER (feet): 75.5		
TIME	VOLUME PURGED (gallons)	TOTAL VOLUME PURGED (gallons)		TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm			
041055	200	200	7.60	20.2	859.9			
1220	200	400	7.62	18.5	698			
1342	200	600	7.81	18.1	633			
1450	175	775	7.91	18.1	606			
1620	225	1,000	8,06	17.5	580			
1740	200	1,200	8.03	16.6	567			
1800	50	1,250	7,92	17.1	566			
	<u> </u>							
· · · · · · · · · · · · · · · · · · ·								
					5			
VELL CAPA	CITY (Gallo	ns Per Foot):	Ŧ					
2" = 0.16;	4" = 0.65							
JRGING EQUIPMEN	T CODES: BP = F	Bladder Pump; ES	P = Electric Submersi	hle Pumn:	PP = Peristaltic Pump;	O = Other (Specify)		

SITE NAME: Bayside	Wells			¥	<u>. · </u>		
WELL NO: 2I	W CHS	INSP	PECTOR: TWO	/ NK	·	DATE: 12-12-14	
			PURGIN	G DATA			
WELL DIAMETER (inches): 2 TUBING DIAMETER (inches): 3/8					INITIAL STATIC DEPTH TO WATER (feet):	72 P	:
WELL VOLUME PUR (only fill out if applicable	e)	UME = (TOTAL WELL $= (200 \text{ feet} - \frac{9}{3}, \frac{7}{4})$	DEPTH - STATIC D		ER) X WELL CAPAC	71.5	
INITIAL PUMP OR TU DEPTH IN WELL (feet)	BING PU	RGING ITIATED AT OUT	PURGING .	217	TOTAL VOLUME P	URGED FINAL STATIC DEPTH TO WATER (feet):	33
TIME	VOLUME PURGED (gallons)	TOTAL VOLUME PURGED (gallons)	pH (standard units)	TEMP, (°C)	COND. (circle units) µmhos/cm or µS/cm		
6920	610 5	W65	7.6	SAK,	659 US		
0938	1000 K	20 2AS	7.2	15.9	663		
0954	5	25	7.2	15.1	900		
1005	5	<u> २०</u>	7.5	15.7	861	4	
1019	5	30 35	76	15,5	-	0 1	
1030	5	40	7.8	15.4	822	Bo Herry Died	
1048	10	50	7.5	15.2	712	Enotica	
1113	10	60	65	15.6	696		
1133	10	70	3/1.5	15.9	673	New Bottony	
1163	10	80	7.5	16.2	475	,	
1217	12	92	7.9	16.4	664		
WELL CAPA	CITY (Gallo	ons Per Foot):			,		
2" = 0.16;	4" = 0.65						<u> </u>
PURGING EQUIPMEN	T CODES: BP =	Bladder Pump; ES	SP = Electric Submers	ible Pump;	PP = Peristaltic Pump;	O = Other (Specify)	

ATTACHMENT B

Groundwater Elevation Trends for Monitoring Wells

Figure B-1. 2014 MW-1 Groundwater Elevation Trend

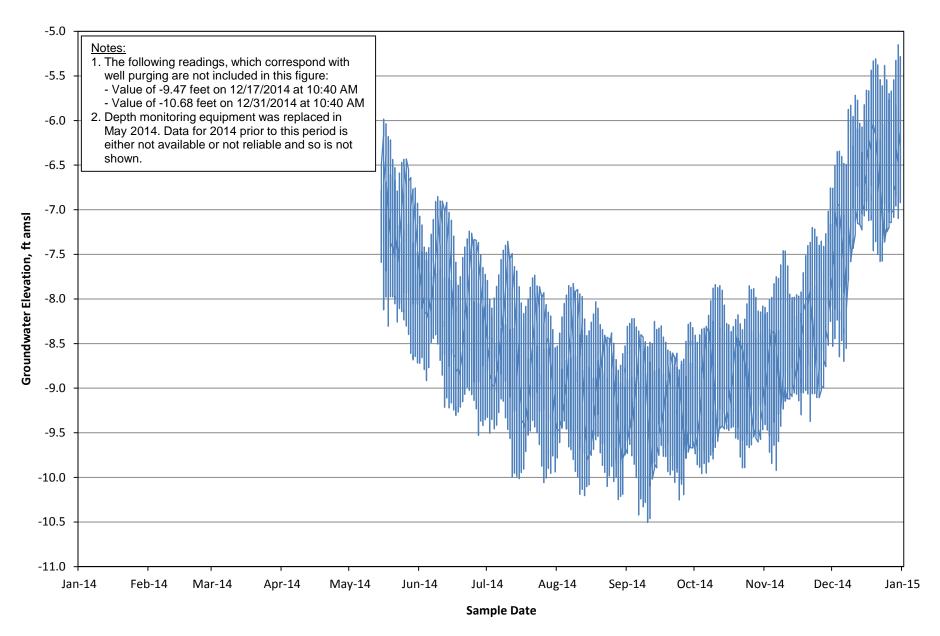


Figure B-2. 2014 MW-2S Groundwater Elevation Trend

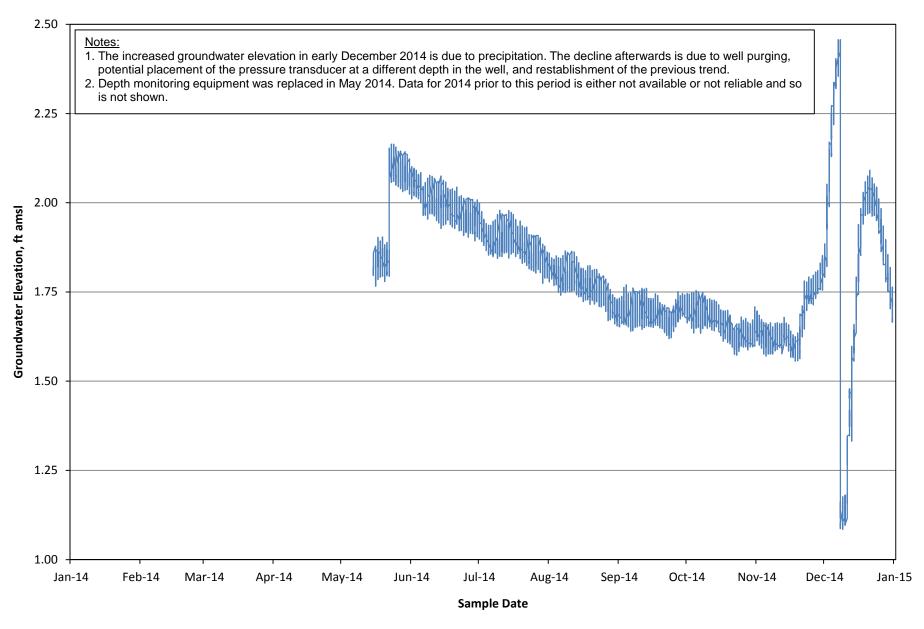


Figure B-3. 2014 MW-2I Groundwater Elevation Trend

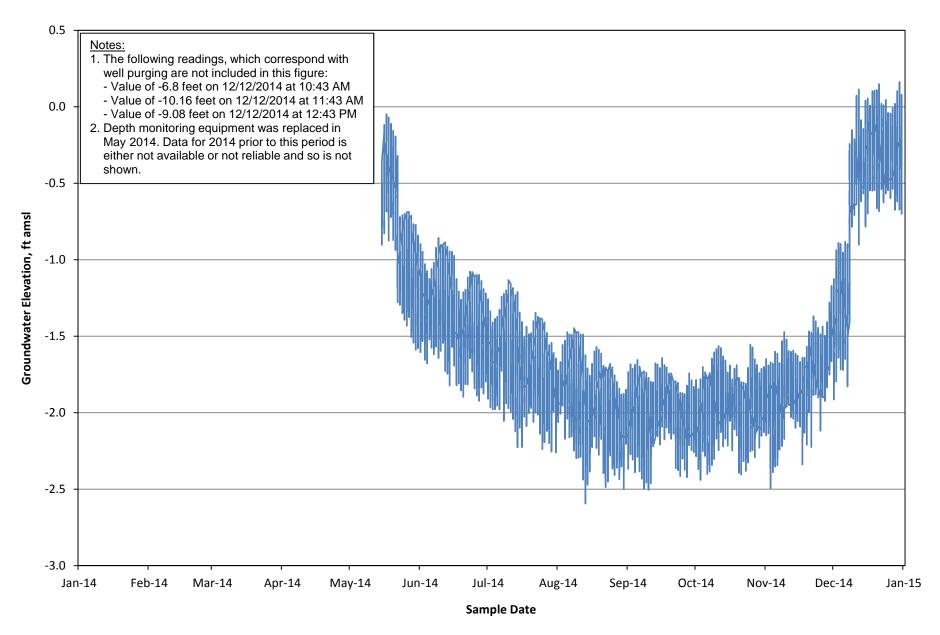


Figure B-4. 2014 MW-3 Groundwater Elevation Trend

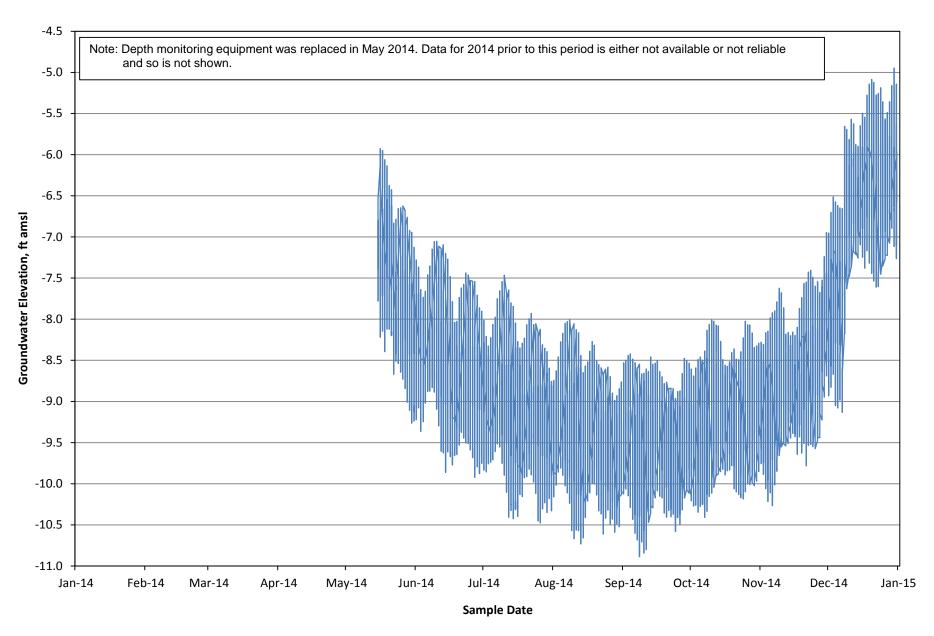


Figure B-5. 2014 MW-4 Groundwater Elevation Trend

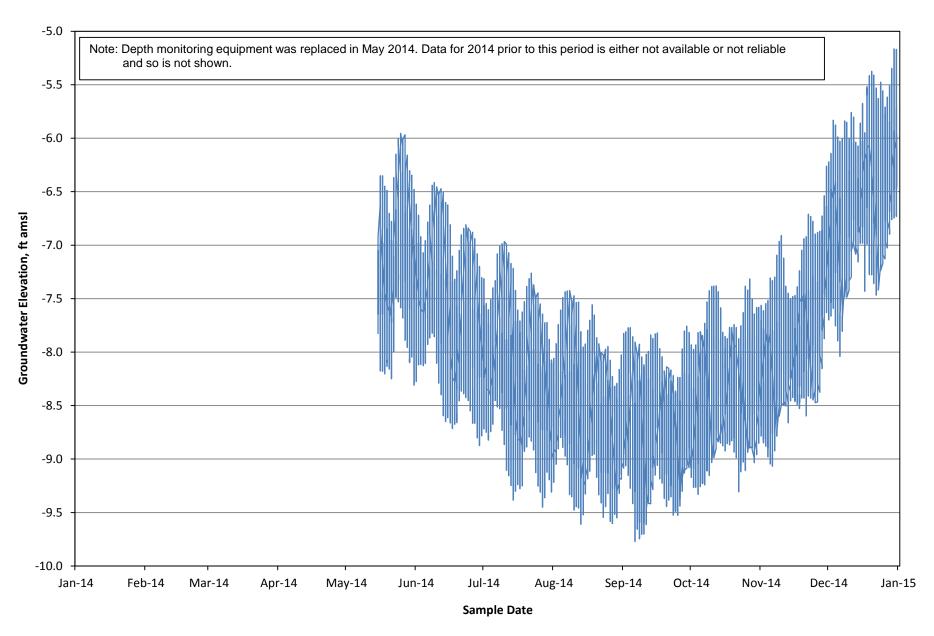


Figure B-6. 2014 MW-5S Groundwater Elevation Trend

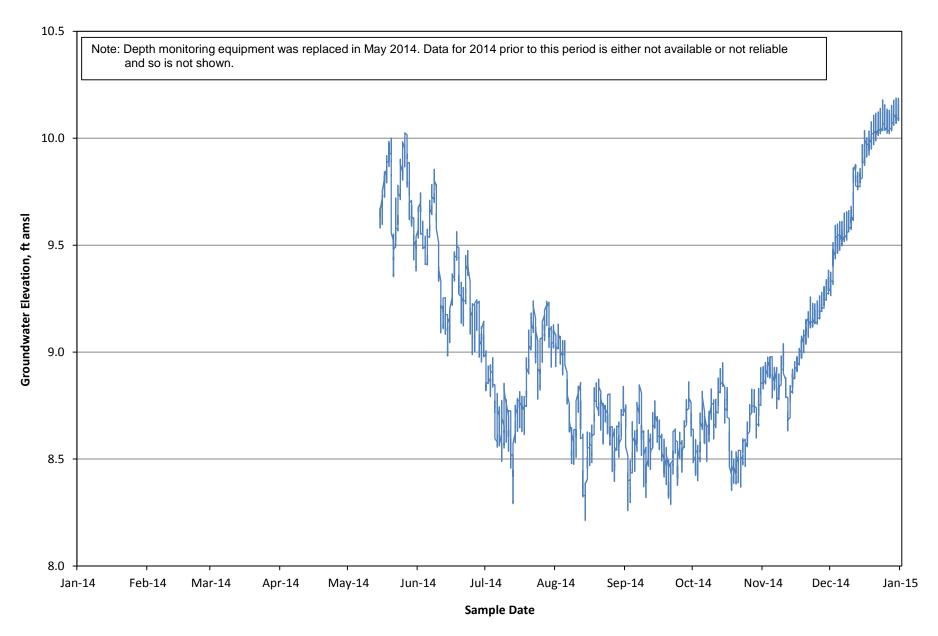


Figure B-7. 2014 MW-5I Groundwater Elevation Trend

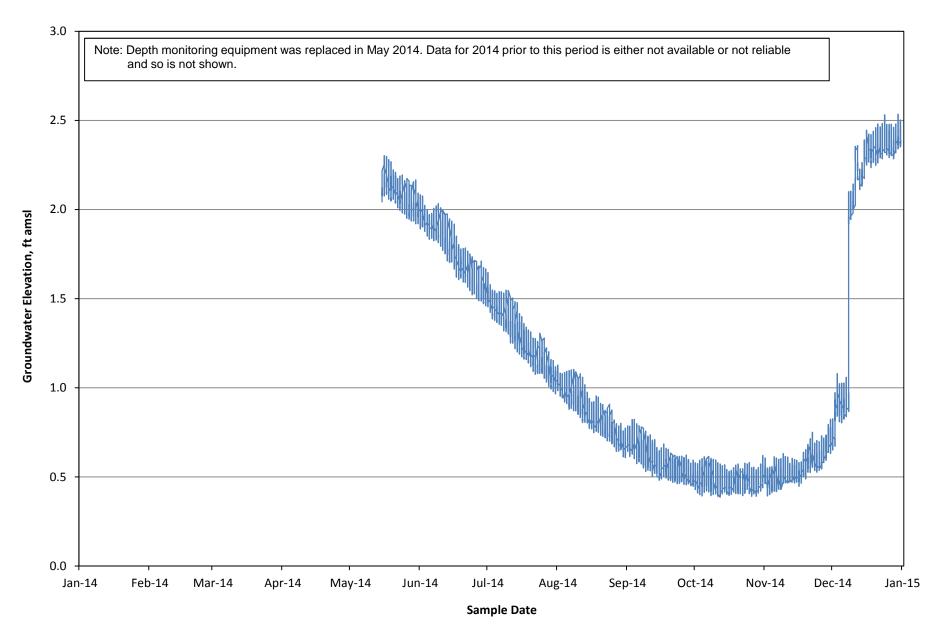


Figure B-8. 2014 MW-5D Groundwater Elevation Trend

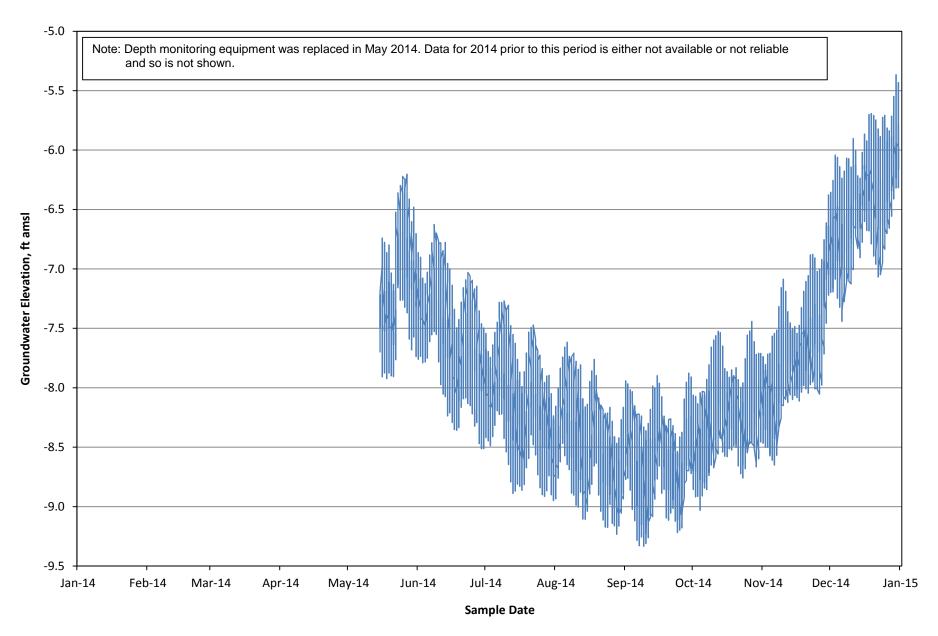


Figure B-9. 2014 MW-6 Groundwater Elevation Trend

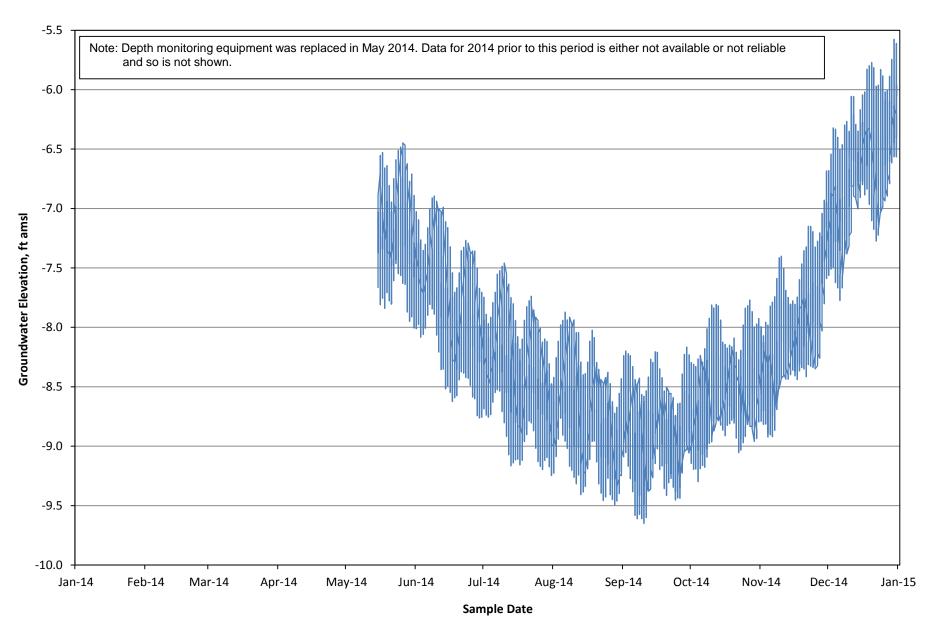


Figure B-10. 2014 MW-9D Groundwater Elevation Trend

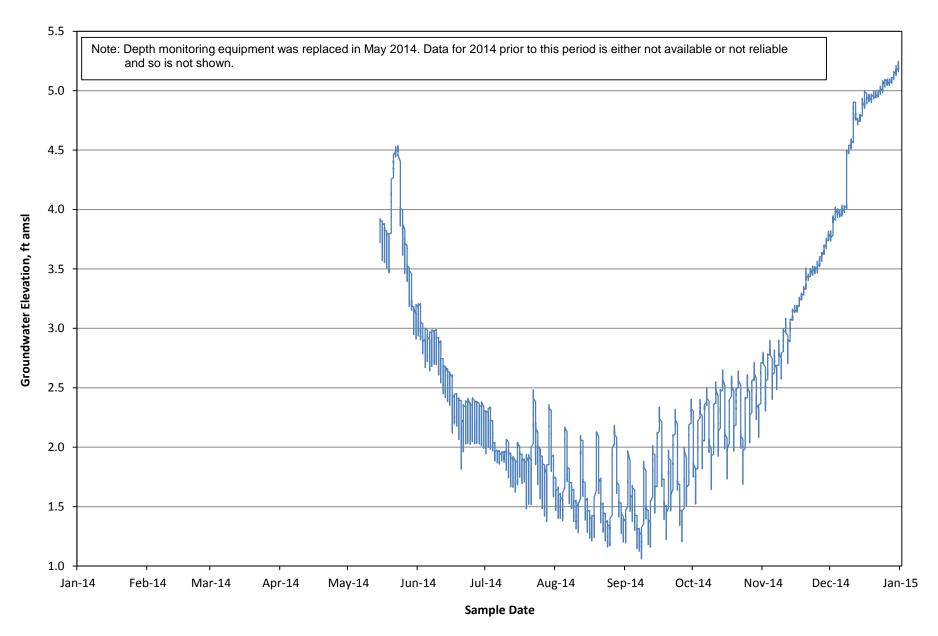


Figure B-11. 2014 MW-10l Groundwater Elevation Trend

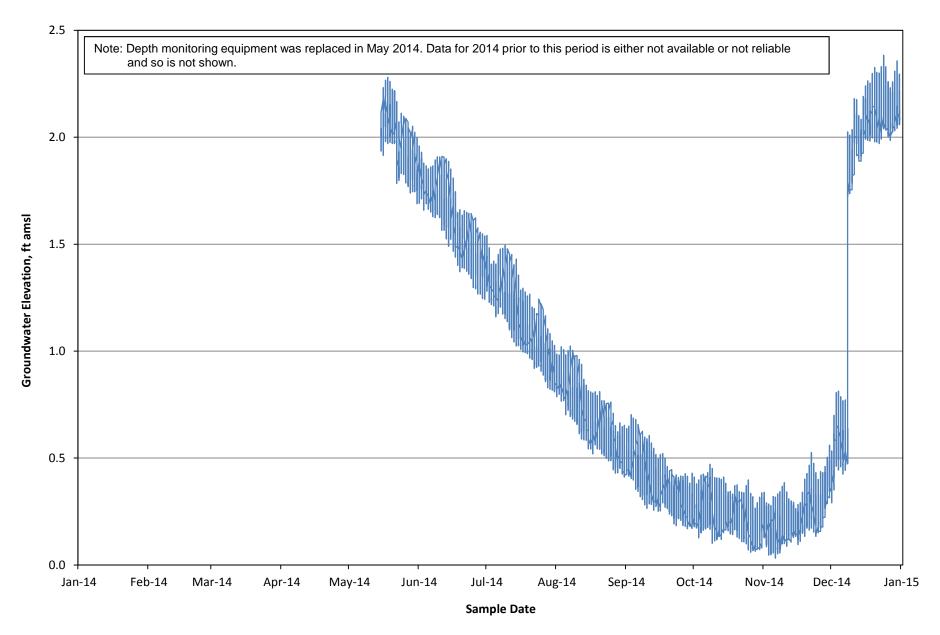
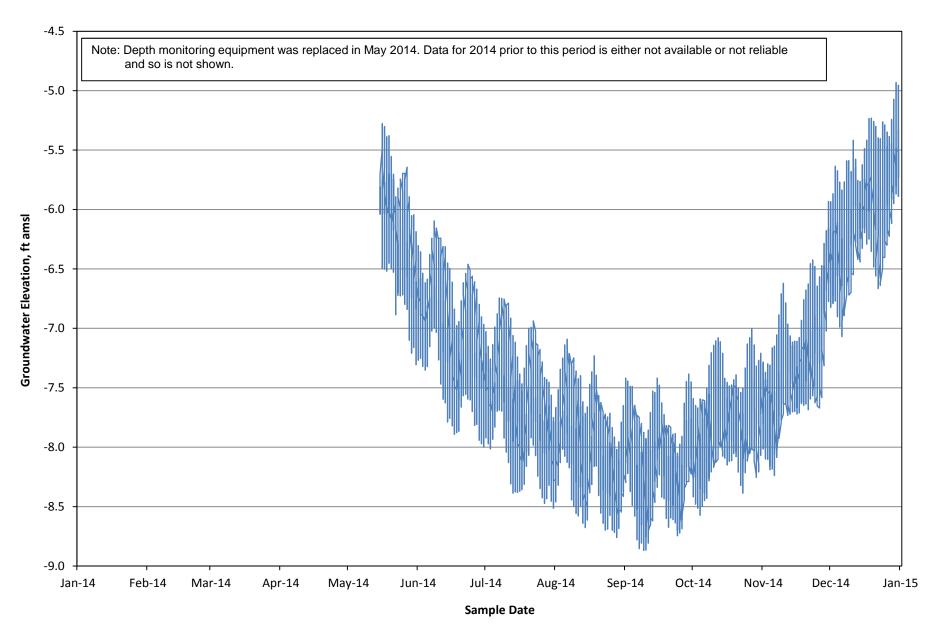


Figure B-12. 2014 MW-10D Groundwater Elevation Trend



ATTACHMENT C

Analytical Lab Reports for 2014 Water Quality Sampling

Analytical Report Prepared for NA

Report generated on: Jan 20, 2015 12:42 pm Login No.: L195327

LSR B455-0706-1

Project Title: BAYSIDE GROUND WATER PROJECT

Login Performance Summary

3 - Samples received by the lab on: Dec 17 2014, 10:57 am

0 - Lost Analyses

0 - Hold Time Exceedences

Turn-around-time met

Samples included in this report:

Sample	Type	Collected		Site	Locator	ClientID
L195327-1	GRAB	17-Dec-2014	09:35	WTP BAYSIDE	BAY WELL HEAD	-
L195327-2	QCFB	17-Dec-2014	09:50	FIELD QC	COLLECTION QC	_
L195327-3	GRAB	17-Dec-2014	09:55	WTP BAYSIDE	BAY WELL HEAD	_

Legend to the laboratory qualifiers used in this report:

- * Duplicate value outside of control limits
- < Less than
- B Analyte detected in method blank
- F Analyte detected in field or rinsate blank
- JB Estimated value, method blank exceeds 10% of sample concentration
- ${\tt N}$ Spike recovery outside of control limits
- Q Data not suitable for regulatory compliance reporting
- U Analyte not detected

Qualifiers for subcontract work - See textvalue for description



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L195327-1 (P202120-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 17 2014, 09:35am Sample collector: NKlumpp Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.19

 ${\rm CL2R}$ = 0.0 DEPTH = NA . Extract 508A within HOLDTIME (Pending

Method Reference Parameter Method: SAMPLER PROVIDED FIELD MEASUREMEN FIELD ANALYSIS/OBSERVATION DATA PARAMETERS	Qualifier	Res	sult (Units	Dilution	MDL	Matrix RL/ML	Tag
Method: SAMPLER PROVIDED FIELD MEASUREMEN	Qualifier	Res	sult (Jnits	Dilution	MDL	RL/ML	
FIFE D ANIAL VOIC/ORCEDVATION DATA DADAMETERS	NTS - DATA EN	NTRY L	IST FOR E	FIELD DATA			RawH2O	
FIELD ANAL 1313/UBSER VATION DATA PARAMETERS								
PH			8.19	pH units	1			
CHLORINE RESIDUAL: TOTAL	<	(0.02	mg/L	1	0.02		
Run ID: R256980 / Work Group No.: WG19646								
Prep Datel: 17-DEC-14 Analyzed 17-Dec-14	09:35							
Method: EPA 524.2 - Volatile Organics, GO	C/MS						RawH2O	
TARGET ANALYTES								
ACETONE	Q,F	(0.70	ug/L	1	0.35		
Analysis does not meet SOP criteria	concerning (QCFB. A	Analytes	detected	in QCFB and	suspect error		
in sampling.								
ACRYLONITRILE	Q,U	(0.45	ug/L	1	0.45		
Analysis does not meet SOP criteria	concerning (QCFB. A	Analytes	detected	in QCFB and	suspect error		
in sampling.								
ALLYL CHLORIDE	Q,U	(0.17	ug/L	1	0.17		
Analysis does not meet SOP criteria	concerning (QCFB. A	Analytes	detected	in QCFB and	suspect error		
in sampling.								
TERT-AMYL METHYL ETHER	Q,U	(0.17	ug/L	1	0.17	3	
Analysis does not meet SOP criteria	concerning (QCFB. A	Analytes	detected	in QCFB and	suspect error		
in sampling.								
BENZENE	Q,U	(0.14	ug/L	1	0.14	0.5	
Analysis does not meet SOP criteria	concerning (QCFB. A	Analytes	detected	in QCFB and	suspect error		
in sampling.								
BROMOBENZENE	Q,U	(0.16	ug/L	1	0.16		
Analysis does not meet SOP criteria	concerning (QCFB. A	Analytes	detected	in QCFB and	suspect error		
in sampling.								
BROMOCHLOROMETHANE	Q,U	(0.21	ug/L	1	0.21		
Analysis does not meet SOP criteria	concerning (QCFB. A	Analytes	detected	in QCFB and	suspect error		
in sampling.								
BROMODICHLOROMETHANE	Q,U		0.21	ug/L	1	0.21		
Analysis does not meet SOP criteria	concerning (QCFB. A	Analytes	detected	in QCFB and	suspect error		
in sampling.								
BROMOFORM	Q,U	(0.31	ug/L	1	0.31		
Analysis does not meet SOP criteria	concerning (QCFB. A	Analytes	detected	in QCFB and	suspect error		
in sampling.								
BROMOMETHANE	Q,U		0.55	ug/L	1	0.55		
Analysis does not meet SOP criteria	concerning (QCFB. A	Analytes	detected	in QCFB and	suspect error		
in sampling.								
TERT-BUTYL ALCOHOL	Q,U		1.7	ug/L	1	1.7	2	
Analysis does not meet SOP criteria	concerning (QCFB. A	Analytes	detected	in QCFB and	suspect error		
in sampling.								
N-BUTYLBENZENE	Q,U		0.25	ug/L	1	0.25		
Analysis does not meet SOP criteria	concerning (QCFB. A	Analytes	detected	in QCFB and	suspect error		
in sampling.								
SEC-BUTYLBENZENE	Q,U		0.69	ug/L	1	0.69		
Analysis does not meet SOP criteria	concerning (QCFB. A	Analytes	detected	in QCFB and	suspect error		
in sampling.								
TERT-BUTYLBENZENE	Q,U		0.18	ug/L	1	0.18		
Analysis does not meet SOP criteria	concerning (QCFB. A	Analytes	detected	in QCFB and	suspect error		
in sampling.								
CARBON DISULFIDE	Q,U	(0.44	ug/L	1	0.44		



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L195327-1 (P202120-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 17 2014, 09:35am Sample collector: NKlumpp Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.19

 ${\rm CL2R}$ = 0.0 DEPTH = NA . Extract 508A within HOLDTIME (Pending

Method Reference	Matrix	Tag
Parameter Qualifier Result Units Dilution MDL	RL/ML	
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error in sampling.		
CARBON TETRACHLORIDE Q,U 0.25 ug/L 1 0.25	0.5	
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error in sampling.		
CHLOROACETONITRILE Q,U 0.23 ug/L 1 0.23		
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error in sampling.		
CHLOROBENZENE Q,U 0.21 ug/L 1 0.21	0.5	
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error	0.3	
in sampling.		
1-CHLOROBUTANE Q,U 0.21 ug/L 1 0.21		
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error		
in sampling.		
CHLOROETHANE Q,U 0.38 ug/L 1 0.38		
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error		
in sampling.		
CHLOROFORM Q,F 0.43 ug/L 1 0.15		
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error		
in sampling.		
CHLOROMETHANE Q,U 0.15 ug/L 1 0.15		
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error		
in sampling.		
O-CHLOROTOLUENE Q,U 0.19 ug/L 1 0.19 Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error		
in sampling.		
P-CHLOROTOLUENE 0,U 0.19 ug/L 1 0.19		
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error		
in sampling.		
DIBROMOCHLOROMETHANE Q,U 0.26 ug/L 1 0.26		
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error		
in sampling.		
DIBROMOCHLOROPROPANE Q,U 0.28 ug/L 1 0.28		
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error		
in sampling.		
DIBROMOMETHANE Q,U 0.28 ug/L 1 0.28		
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error		
in sampling.		
1,2-DICHLOROBENZENE Q,U 0.23 ug/L 1 0.23	0.5	
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error		
in sampling. 1,3-DICHLOROBENZENE Q,U 0.23 ug/L 1 0.23		
1,3-DICHLOROBENZENE Q,U 0.23 ug/L 1 0.23 Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error		
in sampling.		
1,4-DICHLOROBENZENE Q,U 0.18 ug/L 1 0.18	0.5	
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error		
in sampling.		
TRANS-1,4-DICHLORO-2-BUTENE Q,U 0.20 ug/L 1 0.2		
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error		
in sampling.		
DICHLORODIFLUOROMETHANE Q,U 0.17 ug/L 1 0.17	0.5	
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error		
in sampling.		



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L195327-1 (P202120-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 17 2014, 09:35am Sample collector: NKlumpp Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.19

 ${\rm CL2R}$ = 0.0 DEPTH = NA . Extract 508A within HOLDTIME (Pending

Method Reference						Matrix Tag	
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
1,1-DICHLOROETHANE	~ Q,U	0.21	ug/L	1	0.21	0.5	
Analysis does not meet SOP criteria		. Analytes	_	in QCFB and	suspect error		
in sampling.							
1,2-DICHLOROETHANE	Q,U	0.14	ug/L	1	0.14	0.5	
Analysis does not meet SOP criteria	concerning QCFE	3. Analytes	detected	in QCFB and	suspect error		
in sampling.							
1,1-DICHLOROETHENE	Q,U	0.20	ug/L	1	0.2	0.5	
Analysis does not meet SOP criteria	concerning QCFE	3. Analytes	detected	in QCFB and	suspect error		
in sampling.							
CIS-1,2-DICHLOROETHENE	Q,U	0.25	ug/L	1	0.25	0.5	
Analysis does not meet SOP criteria	concerning QCFE	3. Analytes	detected	in QCFB and	suspect error		
in sampling.							
TRANS-1,2-DICHLOROETHENE	Q,U	0.19	ug/L	1	0.19	0.5	
Analysis does not meet SOP criteria	concerning QCFE	3. Analytes	detected	in QCFB and	suspect error		
in sampling.							
1,2-DICHLOROPROPANE	Q,U	0.15	ug/L	1	0.15	0.5	
Analysis does not meet SOP criteria	concerning QCFE	3. Analytes	detected	in QCFB and	suspect error		
in sampling.							
1,3-DICHLOROPROPANE	Q,U	0.22	ug/L	1	0.22		
Analysis does not meet SOP criteria	concerning QCFE	3. Analytes	detected	in QCFB and	suspect error		
in sampling.							
SEC-DICHLOROPROPANE	Q,U	0.24	ug/L	1	0.24		
Analysis does not meet SOP criteria	concerning QCFE	3. Analytes	detected	in QCFB and	suspect error		
in sampling.							
1,1-DICHLOROPROPENE	Q,U	0.26	ug/L	1	0.26		
Analysis does not meet SOP criteria	concerning QCFE	3. Analytes	detected	in QCFB and	suspect error		
in sampling.							
1,1-DICHLORO-2-PROPANONE	Q,U	0.21	ug/L	1	0.21		
Analysis does not meet SOP criteria	concerning QCFE	3. Analytes	detected	in QCFB and	suspect error		
in sampling.							
CIS-1,3-DICHLOROPROPENE	Q,U	0.23	ug/L	1	0.23	0.5	
Analysis does not meet SOP criteria	concerning QCFE	3. Analytes	detected	in QCFB and	suspect error		
in sampling.							
TRANS-1,3-DICHLOROPROPENE	Q,U	0.18	ug/L	1	0.18	0.5	
Analysis does not meet SOP criteria	concerning QCFE	3. Analytes	detected	in QCFB and	suspect error		
in sampling.							
DIISOPROPYL ETHER	Q,U	0.29	ug/L	1	0.29		
Analysis does not meet SOP criteria	concerning QCFE	3. Analytes	detected	in QCFB and	suspect error		
in sampling.	0	0.10	/-	1	0.10	0.5	
ETHYL BENZENE	Q,U	0.18	ug/L	1	0.18	0.5	
Analysis does not meet SOP criteria	concerning QCFE	s. Analytes	aetectea	in QCFB and	suspect error		
in sampling.	0.77	0.00	/T	1	0.2		
ETHYL ETHER	Q,U	0.20	ug/L	1			
Analysis does not meet SOP criteria in sampling.	concerning QCFE	. Analytes	aetectea	In QCFB and	suspect error		
In sampling. ETHYLENE DIBROMIDE	0.11	0.19	110 /T	1	0.19		
Analysis does not meet SOP criteria	Q,U		ug/L				
in sampling.	Concerning OCLE	. Analytes	uerecrea	III QCFD allu	probect ettot		
In sampling. ETHYLMETHACRYLATE	Q,U	0.14	uq/L	1	0.14		
Analysis does not meet SOP criteria			3.				
in sampling.	. Concerning QCFE	. marytes	accected	III QCFD allu	paspece ciioi		
ETHYL-T-BUTYL ETHER	Q,U	0.19	ug/L	1	0.19	3	
Analysis does not meet SOP criteria						5	
				2012 and			



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L195327-1 (P202120-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 17 2014, 09:35am Sample collector: NKlumpp Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.19

 ${\rm CL2R}$ = 0.0 DEPTH = NA . Extract 508A within HOLDTIME (Pending

Method Reference					Matrix Tag	ſ
Parameter	Qualifier F	Result Un:	its Dilution	MDL	RL/ML	
in sampling.						
FLUOROTRICHLOROMETHANE	Q,U	0.22 ug	g/L 1	0.22	5	
Analysis does not meet SOP criteri	a concerning QCFB.	. Analytes de	etected in QCFB and	d suspect error		
in sampling.						
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	Q,U	0.25 ug	g/L 1	0.25	10	
Analysis does not meet SOP criteri	a concerning QCFB.	. Analytes de	etected in QCFB and	d suspect error		
in sampling.						
HEXACHLOROBUTADIENE	Q,U	0.20 ug	g/L 1	0.2		
Analysis does not meet SOP criteri	a concerning QCFB.	. Analytes de	etected in QCFB and	d suspect error		
in sampling.						
HEXACHLOROETHANE	Q,U	-	g/L 1	0.25		
Analysis does not meet SOP criteri	a concerning QCFB.	. Analytes de	etected in QCFB and	d suspect error		
in sampling.						
2-HEXANONE	Q,U	-	g/L 1	0.25		
Analysis does not meet SOP criteri	a concerning QCFB.	. Analytes de	etected in QCFB and	d suspect error		
in sampling.		0.60	/ - 1	0.60		
IODOMETHANE	Q,U	-	g/L 1	0.69		
Analysis does not meet SOP criteri	a concerning QCFB.	. Analytes de	etected in QCFB and	suspect error		
in sampling. ISOPROPYLBENZENE	O,U	0.21 u	g/L 1	0.21		
Analysis does not meet SOP criteri	~ .	-	J .			
in sampling.	a concerning QCFB.	. Analytes u	etected in QCFB and	suspect error		
P-ISOPROPYLTOLUENE	Q,U	0.22 ug	g/L 1	0.22		
Analysis does not meet SOP criteri		_	=			
in sampling.	a concerning gerb.	. Analytes a	eccecca in gerb and	a suspect ciror		
METHYLACRYLONITRILE	Q,U	0.20 ud	g/L 1	0.2		
Analysis does not meet SOP criteri		-	=	* * =		
in sampling.		1 1 1	~			
METHYLACRYLATE	Q,U	0.26 ug	g/L 1	0.26		
Analysis does not meet SOP criteri	a concerning QCFB.	. Analytes de	etected in QCFB and	d suspect error		
in sampling.						
METHYLENE CHLORIDE	Q,U	0.18 ug	g/L 1	0.18	0.5	
Analysis does not meet SOP criteri	a concerning QCFB.	. Analytes de	etected in QCFB and	d suspect error		
in sampling.						
2-BUTANONE	Q,U	0.43 ug	g/L 1	0.43		
Analysis does not meet SOP criteri	a concerning QCFB.	. Analytes de	etected in QCFB and	d suspect error		
in sampling.						
4-METHYL-2-PENTANONE	Q,U	-	g/L 1	0.2		
Analysis does not meet SOP criteri	a concerning QCFB.	. Analytes de	etected in QCFB and	l suspect error		
in sampling.	0 11	0.00	/ 1	0. 20		
METHYLMETHACRYLATE	Q,U	-	g/L 1	0.28		
Analysis does not meet SOP criteri	a concerning QCFB.	. Analytes de	erected in OCFB and	ı suspect error		
in sampling. METHYL-T-BUTYL ETHER	0,U	0.39 u	g/L 1	0.39	3	
Analysis does not meet SOP criteri	~ .	-	J.		3	
in sampling.	a concerning QCFB.	. Analytes ut	ccccca in ocra and	r pubbecc error		
NAPHTHALENE	O,U	0.20 u	g/L 1	0.2		
Analysis does not meet SOP criteri	~ .	-	J.			
in sampling.	2010.					
NITROBENZENE	U,O	1.0 uo	g/L 1	1		
Analysis does not meet SOP criteri	~ .	-	J .	l suspect error		
in sampling.	2 ~ .	-	~	-		
2-NITROPROPANE	Q,U	0.77 ug	g/L 1	0.77		



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L195327-1 (P202120-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 17 2014, 09:35am Sample collector: NKlumpp Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.19

 ${\rm CL2R}$ = 0.0 DEPTH = NA . Extract 508A within HOLDTIME (Pending

Method Reference	Matrix Tag
Method Reference Parameter Qualifier Result Units Dilution MDL	Matrix Tag RL/ML
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect err	
in sampling.	OL
PENTACHLOROETHANE Q,U 0.17 ug/L 1 0.17	
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect err	
in sampling.	01
N-PROPYLBENZENE Q,U 0.20 ug/L 1 0.2	
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect err	or
in sampling.	
STYRENE Q,U 0.19 ug/L 1 0.19	0.5
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect err	or
in sampling.	
1,1,1,2-TETRACHLOROETHANE Q,U 0.18 ug/L 1 0.18	
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect err	or
in sampling.	
1,1,2,2-TETRACHLOROETHANE Q,U 0.20 ug/L 1 0.2	0.5
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect err	or
in sampling.	
TETRACHLOROETHENE Q,U 0.20 ug/L 1 0.2	0.5
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect err	or
in sampling.	
TETRAHYDROFURAN Q,U 0.54 ug/L 1 0.54	
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect err	or
in sampling.	0.5
TOLUENE Q,U 0.16 ug/L 1 0.16 Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect err	
in sampling.	01
1,2,3-TRICHLOROBENZENE Q,U 0.24 ug/L 1 0.24	
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect err	
in sampling.	
1,2,4-TRICHLOROBENZENE O,U 0.19 ug/L 1 0.19	0.5
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect err	or
in sampling.	
1,1,1-TRICHLOROETHANE Q,U 0.19 ug/L 1 0.19	0.5
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect err	or
in sampling.	
1,1,2-TRICHLOROETHANE Q,U 0.21 ug/L 1 0.21	0.5
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect err	or
in sampling.	
TRICHLOROETHENE Q,U 0.17 ug/L 1 0.17	
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect err	or
in sampling.	
1,2,3-TRICHLOROPROPANE Q,U 0.19 ug/L 1 0.19	
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect err	or
in sampling. 1,2,4-TRIMETHYLBENZENE 0,U 0.21 ug/L 1 0.21	
1,2,4-TRIMETHYLBENZENE Q,U 0.21 ug/L 1 0.21 Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect err	
in sampling.	O1
in sampling. 1,3,5-TRIMETHYLBENZENE Q,U 0.20 ug/L 1 0.2	
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect err	or
in sampling.	<u> </u>
VINYL CHLORIDE 0.U 0.22 ug/L 1 0.22	0.5
Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect err	
in sampling.	



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo Site:

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L195327-1 (P202120-1) Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 17 2014, 09:35am Sample collector: NKlumpp Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.19

CL2R = 0.0 DEPTH = NA . Extract 508A within HOLDTIME (Pending

Method Reference						Matrix	Taq
Parameter	Oualifier	Result	Units	Dilution	MDL	RL/ML	103
O-XYLENE	0,U	0.18	uq/L	1	0.18	0.5	
Analysis does not meet SOP criter	~ .						
in sampling.				~			
M+P XYLENES	O,U	0.37	uq/L	1	0.37	0.5	
Analysis does not meet SOP criter				in OCFB and su	spect error		
in sampling.	5 ~	-		~	-		
VALUE(S) USED TO CALCULATE OTHER VALUE(S)							
TOTAL 1,3-DICHLOROPROPENES	Q,U	0.41	ug/L	1		0.5	
Analysis does not meet SOP criter	ia concerning QC	FB. Analytes	detected	in QCFB and su	spect error		
in sampling.							
TOTAL XYLENES	Q,U	0.55	ug/L	1		0.5	
Analysis does not meet SOP criter	ia concerning QC	FB. Analytes	detected	in QCFB and su	spect error		
in sampling.							
INTERNAL STANDARD							
FLUOROBENZENE	Q	98.0	% recover	ry 1			
Analysis does not meet SOP criter	ia concerning QC	FB. Analytes	detected	in QCFB and su	spect error		
in sampling.							
SURROGATE							
4-BROMOFLUOROBENZENE	Q	99.2	% recover	ry 1			
Analysis does not meet SOP criter	ia concerning QC	FB. Analytes	s detected	in QCFB and su	spect error		
in sampling.							
D4-1,2-DICHLOROBENZENE	Q	99.4	% recover	ry 1			
Analysis does not meet SOP criter	ia concerning QC	FB. Analytes	detected	in QCFB and su	spect error		
in sampling.							
Run ID: R257258 / Work Group No.: WG19							
Prep Date1: 23-DEC-14 Analyzed 23-Dec-	14 12:05						

Method: EPA 525.2 - Semivolatile Organ	ics, GC/MS					RawH2O
TARGET ANALYTES						
ACENAPHTHYLENE	Ŭ	0.035	ug/L	.959	0.035	
ALACHLOR	U	0.037	ug/L	.959	0.037	1
ALDRIN	U	0.024	ug/L	.959	0.024	
NTHRACENE	U	0.040	ug/L	.959	0.04	
ATRAZINE	U	0.042	ug/L	.959	0.042	0.5
BENZO (A) ANTHRACENE	Ū	0.016	ug/L	.959	0.016	
BENZO (B) FLUORANTHENE	U	0.065	ug/L	.959	0.065	
BENZO (K) FLUORANTHENE	Ū	0.012	ug/L	.959	0.012	
BENZO(A)PYRENE	Ū	0.030	ug/L	.959	0.03	0.1
BENZO(GHI)PERYLENE	U	0.014	ug/L	.959	0.014	
BIS(2-ETHYLHEXYL)ADIPATE	JВ	0.12	ug/L	.959	0.029	5
BIS(2-ETHYLHEXYL)PHTHALATE	JВ	0.13	ug/L	.959	0.057	3
ALPHA BHC	U	0.024	ug/L	.959	0.024	
BETA BHC	U	0.043	ug/L	.959	0.043	
DELTA BHC	U	0.040	ug/L	.959	0.04	
GAMMA BHC	U	0.024	ug/L	.959	0.024	0.2
BROMACIL	U	0.14	ug/L	.959	0.14	
BUTACHLOR	U	0.019	ug/L	.959	0.019	
BUTYLBENZYL PHTHALATE	JB	0.096	ug/L	.959	0.023	
CHLORDANE	U	0.096	ug/L	.959	0.096	0.1
HLORDANE-ALPHA	U	0.014	ug/L	.959	0.014	
HLORDANE-GAMMA	U	0.023	ug/L	.959	0.023	
CHLOROBENZILATE	U	0.0096	ug/L	.959	0.0096	
CHLORONEB	Ū	0.021	uq/L	.959	0.021	



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L195327-1 (P202120-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 17 2014, 09:35am Sample collector: NKlumpp Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.19

 ${\rm CL2R}$ = 0.0 DEPTH = NA . Extract 508A within HOLDTIME (Pending

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	rag
CHLOROTHALONIL	U	0.024	ug/L	.959	0.024	KE/TE	
CHRYSENE	Ū	0.012	ug/L	.959	0.012		
DCPA	Ū	0.029	ug/L	.959	0.029		
4,4'-DDD	Ū	0.016	ug/L	.959	0.016		
4,4'-DDE	Ū	0.020	ug/L	.959	0.02		
4,4'-DDT	Ū	0.014	ug/L	.959	0.014		
DIBENZO(A,H)ANTHRACENE	Ū	0.014	ug/L ug/L	.959	0.014		
DI-N-BUTYL PHTHALATE	0	0.13	ug/L	.959	0.083		
DIELDRIN	Ū	0.021	ug/L	.959	0.083		
DIETHYL PHTHALATE	JВ	0.021	ug/L ug/L	.959	0.038		
DIMETHOATE	U	0.035	ug/L	.959	0.035		
DIMETHOATE DIMETHYL PHTHALATE	Ū	0.039	ug/L ug/L	.959	0.033		
2,4-DINITROTOLUENE	Ū	0.030	ug/L ug/L	.959	0.03		
2,6-DINITROTOLUENE 2,6-DINITROTOLUENE	Ū						
•	Ū	0.023	ug/L	.959	0.023		
ALPHA ENDOSULFAN		0.012	ug/L	.959	0.012		
BETA ENDOSULFAN	U	0.016	ug/L	.959	0.016		
ENDOSULFAN SULFATE	U	0.025	ug/L	.959	0.025	0 1	
ENDRIN	U	0.052	ug/L	.959	0.052	0.1	
ENDRIN ALDEHYDE	U	0.052	ug/L	.959	0.052		
EPTC	U	0.057	ug/L	.959	0.057		
ETRIDIAZOLE	U	0.024	ug/L	.959	0.024		
FLUORENE	Ū	0.021	ug/L	.959	0.021		
HEPTACHLOR	U	0.065	ug/L	.959	0.065		
HEPTACHLOR EPOXIDE	U	0.13	ug/L	.959	0.13		
HEXACHLOROBENZENE	U	0.011	ug/L	.959	0.011	0.5	
HEXACHLOROCYCLOPENTADIENE	υ	0.016	ug/L	.959	0.016	1	
HEXAZINONE	υ	0.043	ug/L	.959	0.043		
INDENO(1,2,3-CD)PYRENE	Ū	0.016	ug/L	.959	0.016		
ISOPHORONE	Ū	0.021	ug/L	.959	0.021		
METHOXYCHLOR	υ	0.012	ug/L	.959	0.012	10	
METOLACHLOR	υ	0.039	ug/L	.959	0.039		
METRIBUZIN	Ū	0.030	ug/L	.959	0.03		
MOLINATE	Ū	0.025	ug/L	.959	0.025	2	
AROCLOR 1016	Ū	0.48	ug/L	.959	0.48	0.5	
AROCLOR 1221	Ū	0.48	ug/L	.959	0.48	0.5	
AROCLOR 1232	Ū	0.48	ug/L	.959	0.48	0.5	
AROCLOR 1242	Ū	0.48	ug/L	.959	0.48	0.5	
AROCLOR 1248	Ū	0.48	ug/L	.959	0.48	0.5	
AROCLOR 1254	Ū	0.48	ug/L	.959	0.48	0.5	
AROCLOR 1260	Ū	0.48	ug/L	.959	0.48	0.5	
PENTACHLOROPHENOL	Ū	0.76	ug/L	.959	0.76		
CIS-PERMETHRIN	Ū	0.020	ug/L	.959	0.02		
TRANS-PERMETHRIN	υ	0.016	ug/L	.959	0.016		
PHENANTHRENE	U	0.014	ug/L	.959	0.014		
PROMETRYN	U	0.053	ug/L	.959	0.053		
PROPACHLOR	U	0.012	ug/L	.959	0.012		
PYRENE	U	0.030	ug/L	.959	0.03		
SIMAZINE	U	0.034	ug/L	.959	0.034	1	
TERBACIL	U	0.045	ug/L	.959	0.045		
THIOBENCARB	U	0.018	ug/L	.959	0.018	1	
TOXAPHENE	U	0.48	ug/L	.959	0.48	1	
TRIFLURALIN	U	0.014	ug/L	.959	0.014		
INTERNAL STANDARD							



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L195327-1 (P202120-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 17 2014, 09:35am Sample collector: NKlumpp Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.19

 ${\rm CL2R}$ = 0.0 DEPTH = NA . Extract 508A within HOLDTIME (Pending

results of 508-PCBS will determine if analysis to proceed)

						*
Method Reference		Deg. 3+	TTm i b m	Dilusia	MDT	Matrix Tag
~	alifier	Result		Dilution	MDL	RL/ML
D10-ACENAPHTHENE	N	52.0	% recovery		1	
D10-PHENANTHRENE		79.2	% recovery		1	
D12-CHRYSENE		91.2	% recovery	1	1	
SURROGATE						
D12-PERYLENE		100	% recovery	1	1	
1,3-DIMETHYL-2-NITROBENZENE		81	% recovery	1	1	
TRIPHENYL PHOSPHATE		120	% recovery	1	1	
Run ID: R257352 / Work Group No.: WG196441						
Prep Date1: 24-DEC-14 Prep Date2: 22-DEC-14	Analyzed 3	30-Dec-14 00	15			
Method: EPA 548.1 - Endothall, GC/MS						RawH2O
TARGET ANALYTES						
ENDOTHALL	U	1.0	ug/L	1	1	45
INTERNAL STANDARD	ŭ				=	
D10-ACENAPHTHENE		77.6	% recovery		1	
Run ID: R257350 / Work Group No.: WG196567		,,	3 1000VCIY		±	
Prep Datel: 19-DEC-14 Prep Date2: 29-DEC-14	Analyzed 2	29-Dec-14 16	5:38			
Method: EPA 8260B - Trihalomethanes, GC/MS						GroundH20
TARGET ANALYTES						GI GUIIGHZO
TARGET ANALYTES CHLOROFORM		0.45	ug/L	1	0.17	
			5			
BROMODICHLOROMETHANE	Ū	0.079	ug/L	1	0.079	
DIBROMOCHLOROMETHANE	Ū	0.13	ug/L	1	0.13	
BROMOFORM	Ū	0.23	ug/L	1	0.23	
INTERNAL STANDARD						
FLUOROBENZENE		81.6	% recovery	1		
D5-CHLOROBENZENE		83.2	% recovery	1		
D4-1,4-DICHLOROBENZENE		86.0	% recovery	1		
SURROGATE						
D8-TOLUENE		101	% recovery	1		
4-BROMOFLUOROBENZENE		105	% recovery	1		
Run ID: R257029 / Work Group No.: WG196459						
Prep Datel: 23-DEC-14 Analyzed 23-Dec-14 11	:26					
Method: EPA 300.1 - Ion Chromatography						RawH2O
Instrument calibrated 09-DEC-14						
TARGET ANALYTES						
FLUORIDE		0.53	mg/L	1	0.0004	0.1
CHLORIDE		15	mg/L	1	0.0004	J. <u> </u>
NITRITE AS N	IJ	0.00050	mg/L	1	0.002	0.4
NITRATE AS N	υ	0.00090	_	1	0.0009	0.4
	U	15	mg/L	1	0.0009	0.4
SULFATE		12	mg/L	1	0.003	U.5
SURROGATE		0.1		1		
DICHLOROACETATE		91	% recovery	Τ.		
Run ID: R256845 / Work Group No.: WG196321						
Prep Datel: 17-DEC-14 Analyzed 17-Dec-14 17	:56					
Method: EPA 314.0 - Ion Chromatography						RawH2O
Instrument calibrated 07-JAN-15						
TARGET ANALYTES						
PERCHLORATE	U	0.500	ug/L	1	0.5	4
Run ID: R257452 / Work Group No.: WG196701			2.			
Prep Date1: 06-JAN-15 Analyzed 07-Jan-15 16	:32					
iler baser. oo oim is marybed of odn-15 10						

RL is either the client requested or regulatory mandated Reporting Limit. ML is the regulatory mandated Minimum Level



Method Reference

EAST BAY MUNICIPAL UTILITY DISTRICT Laboratory Services Division PO Box 24055, MS 59, Oakland, CA 94623 Phone (510)287-1432 Fax (510)465-5462

Analytical Results Report

Matrix Tag

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L195327-1 (P202120-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 17 2014, 09:35am Sample collector: NKlumpp Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.19

 ${\rm CL2R}$ = 0.0 DEPTH = NA . Extract 508A within HOLDTIME (Pending

results of 508-PCBS will determine if analysis to proceed)

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: EPA 504.1 - EDB & DBCP, GC/ECD						RawH2O	
TARGET ANALYTES			,_				
ETHYLENE DIBROMIDE	U 	0.0020	ug/L	1	0.002	0.02	
DIBROMOCHLOROPROPANE	Ū	0.0020	ug/L	1	0.002	0.01	
Run ID: R257046 / Work Group No.: WG1964		00 5 14 0					
Prep Date1: 23-DEC-14 Prep Date2: 23-DEC	-14 Analyzed	23-Dec-14 2	23:02				
Method: EPA 508.1 - Organochlorine Pesti	aidea (DCDa:	CC /ECD				RawH2O	
TARGET ANALYTES	ciues a PCBS.	GC/ECD				Rawn2U	
HEPTACHLOR	U,N,*	0.0064	ug/L	1	0.0064	0.01	
HEPTACHLOR EPOXIDE	U,N,*	0.0041	ug/L	1	0.0041	0.01	
INTERNAL STANDARD	0,11,	0.0011	ug/ L	_	0.0041	0.01	
PENTACHLORONITROBENZENE		110	% recov	erv	1		
SURROGATE		110	0 10001		-		
DECACHLOROBIPHENYL		88	% recov	erv	1		
Run ID: R257488 / Work Group No.: WG1967	30			- 1			
Prep Date1: 17-DEC-14 Prep Date2: 07-JAN		08-Jan-15 (3:27				
	_						
Method: EPA 508A - PCB Screen, GC/ECD						RawH2O	
TARGET ANALYTES							
DECACHLOROBIPHENYL	Q		ug/L	1	0.22	0.5	
Sample not extracted, not analyzed	for 508A beca	use 508-PCBs	were rus	hed. See R257302	for 508-PCB		
results							
Run ID: R257426 / Work Group No.: WG1966	45						
Prep Date1: 26-DEC-14 Prep Date2: 02-JAN	-15 Analyzed	02-Jan-15 1	2:49				
Method: EPA 515.3 - Chlorinated Acids, G	C/ECD					RawH2O	
TARGET ANALYTES			,_				
ACIFLUORFEN	U T	0.028	ug/L	1	0.028	2	
BENTAZON	U,*	0.14	ug/L	1	0.14	2	
CHLORAMBEN	Ū	0.012	ug/L	1	0.012	1.0	
(2,4-DICHLOROPHENOXY)ACETIC ACID	U U	0.056	ug/L	1	0.056	10 10	
DALAPON	ŢŢ	0.25 0.26	ug/L	1	0.25 0.26	10	
4-(2,4-DICHLOROPHENOXY)BUTANOIC ACID DACTHAL (DCPA)	U.*	0.26	ug/L ug/L	1	0.26		
DICAMBA	υ,	0.036	_	1	0.03	1.5	
3,5-DICHLOROBENZOIC ACID	Ū	0.036	ug/L ug/L	1	0.036	1.5	
DICHLORPROP	Ū	0.023	ug/L ug/L	1	0.025		
DINOSEB	Ū	0.21	ug/L	1	0.057	2	
4-NITROPHENOL	U,N,*	0.037	ug/L	1	0.037	5	
Qualitative result only. Diazometh			_			3	
quantitation.		P1000		Provide dec			
PENTACHLOROPHENOL	U,N	0.014	ug/L	1	0.014	0.2	
PICLORAM	U	0.022	ug/L	1	0.022	1	
(2,4,5-TRICHLOROPHENOXY)ACETIC ACID	Ū	0.082	ug/L	1	0.082		
2-(2,4,5-TRICHLOROPHENOXY)PROPIONIC ACID		0.063	ug/L	1	0.063	1	
INTERNAL STANDARD			٥,				
4,4'-DIBROMOCTAFLUOROBENZENE		120	% recov	ery	1		
SURROGATE				_			
DICHLOROPHENYLACETIC ACID		120	% recov	ery	1		
Run ID: R257382 / Work Group No.: WG1966	74						
Prep Date1: 22-DEC-14 Prep Date2: 02-JAN	-15 Analyzed	03-Jan-15 (1:34				

RL is either the client requested or regulatory mandated Reporting Limit. ML is the regulatory mandated Minimum Level



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L195327-1 (P202120-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 17 2014, 09:35am Sample collector: NKlumpp Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.19

 ${\rm CL2R}$ = 0.0 DEPTH = NA . Extract 508A within HOLDTIME (Pending

Method Reference						Matrix	Tag
Parameter Qual	ifier	Result	Units	Dilution	MDL	RL/ML	
Method: EPA 552.2 - Haloacetic Acids & Dalapo	n					RawH2O	
TARGET ANALYTES							
BROMOCHLOROACETIC ACID	U	0.15	ug/L	1	0.15		
BROMODICHLOROACETIC ACID	U	0.31	ug/L	1	0.31		
CHLORODIBROMOACETIC ACID	U	0.31	ug/L	1	0.31		
DALAPON	U	0.53	ug/L	1	0.53		
DIBROMOACETIC ACID	U	0.25	ug/L	1	0.25	1	
DICHLOROACETIC ACID	U	0.18	ug/L	1	0.18	1	
MONOBROMOACETIC ACID	U	0.29	ug/L	1	0.29	1	
MONOCHLOROACETIC ACID	U	0.65	ug/L	1	0.65	2	
TRIBROMOACETIC ACID	U	0.72	ug/L	1	0.72		
TRICHLOROACETIC ACID	U	0.17	ug/L	1	0.17	1	
VALUE CALCULATED FROM OTHER RESULTS							
HAA(5)		0.0	ug/L		1.5		
HAA(9)		0.0	ug/L		3		
INTERNAL STANDARD							
1,2,3-TRICHLOROPROPANE		94	% recov	ery	1		
SURROGATE							
2,3-DIBROMOPROPIONIC ACID		100	% recov	ery	1		
Run ID: R257422 / Work Group No.: WG196718							
Prep Date1: 29-DEC-14 Prep Date2: 06-JAN-15	Analyzed	06-Jan-15	21:48				
Method: SM5310C - 2000, TOC, Wet-Oxidation Me	thod					RawH2O	
TARGET ANALYTES							
TOTAL ORGANIC CARBON		0.64	mg/L	1	0.024		
Run ID: R257018 / Work Group No.: WG196436							
Prep Date1: 22-DEC-14 Analyzed 23-Dec-14 17:4	4						
Method: EPA 531.1 - Carbamates, HPLC						RawH2O	
TARGET ANALYTES							
ALDICARB SULFOXIDE	U	1.10	ug/L	5	1.1	3	
ALDICARB SULFONE	U	2.25	ug/L	5	2.25	4	
ALDICARB	U	2.05	ug/L	5	2.05	3	
OXAMYL	U	2.10	ug/L	5	2.1	20	
METHOMYL	U	1.40	ug/L	5	1.4	2	
3-HYDROXYCARBOFURAN	U	1.15	ug/L	5	1.15	3	
PROPOXUR	U	2.45	ug/L	5	2.45		
CARBOFURAN	U	1.95	ug/L	5	1.95	5	
CARBARYL	U	3.75	ug/L	5	3.75		
METHIOCARB	U	2.60	ug/L	5	2.6		
Run ID: R257312 / Work Group No.: WG196330							
Prep Datel: 17-DEC-14 Analyzed 22-Dec-14 18:4	0						
Method: EPA 547 - Glyphosate, HPLC						RawH2O	
TARGET ANALYTES							
GLYPHOSATE	U	10	ug/L	5	10	25	
Run ID: R257272 / Work Group No.: WG196480							
Prep Date1: 23-DEC-14 Analyzed 23-Dec-14 15:3	0						



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Prep Datel: 18-DEC-14 Analyzed 18-Dec-14 11:00

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L195327-1 (P202120-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 17 2014, 09:35am Sample collector: NKlumpp Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.19

 ${\tt CL2R}$ = 0.0 DEPTH = NA . Extract 508A within HOLDTIME (Pending

Method Reference		_				Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: EPA 549.2 - Diquat & Paraquat, H.	PT ₁ C					RawH2O	
TARGET ANALYTES	20					11011120	
DIQUAT	U	0.29	uq/L	1	0.29	4	
PARAQUAT	Ū	0.25	ug/L	1	0.25	20	
Run ID: R257316 / Work Group No.: WG1965	11						
Prep Date1: 18-DEC-14 Prep Date2: 24-DEC	-14 Analyzed	24-Dec-14 1	5:24				
Method: SM2120B - 2001, Visual Comparison	n					RawH2O	
TARGET ANALYTES		2.0	color uni		1		
COLOR		2.0	color uni	E 1	1		
pH=8 Run ID: R256831 / Work Group No.: WG1963	27						
Prep Date1: 17-DEC-14 Analyzed 17-Dec-14							
riep Datei: 17-DEC-14 Analyzed 17-Dec-14	12.30						
Method: SM2130B - 2001, Nephelometric						RawH2O	
TARGET ANALYTES							
TURBIDITY		0.14	NTU	1	0.08		
Run ID: R256832 / Work Group No.: WG1963	28						
Prep Datel: 17-DEC-14 Analyzed 17-Dec-14	13:05						
Method: SM2320B - 1997, Titration						RawH2O	
TARGET ANALYTES							
ALKALINITY: TOTAL AS CACO3		69	mg/L	1	5		
Run ID: R256892 / Work Group No.: WG1963							
Prep Date1: 19-DEC-14 Analyzed 19-Dec-14	08:13						
Method: SM2340C - 1997, Titration: EDTA						RawH2O	
TARGET ANALYTES						RawiiZO	
HARDNESS: TOTAL AS CACO3		70	mq/L	1	3		
Run ID: R256989 / Work Group No.: WG1964	77	, 0	g/ 1	_	3		
Prep Date1: 23-DEC-14 Analyzed 23-Dec-14							
Trop bacer 25 blo II imar/bea 25 bec II	15 00						
Method: SM2510B - 1997, Meter: Platinum:	Electrode					RawH2O	
TARGET ANALYTES							
CONDUCTIVITY		214	umhos/cm	1	0.3		
Run ID: R256956 / Work Group No.: WG1964	26						
Prep Datel: 22-DEC-14 Analyzed 22-Dec-14	13:20						
Method: SM2540C - 1997, Dried at 180C						RawH2O	
TARGET ANALYTES TOTAL DISSOLVED SOLIDS		130	mq/L	1	11		
Run ID: R256883 / Work Group No.: WG1963	4.8	130	шg/ ц	т	11		
Prep Date1: 18-DEC-14 Analyzed 18-Dec-14							
Tier bacer. To bue if mailybed to-bec-if	37-00						
Method: SM4500-CN C, E - 1999, Distillat	ion & Colorime	etric				RawH2O	
TARGET ANALYTES							
CYANIDE: TOTAL	U	0.003	mg/L	1	0.003		
Run ID: R256872 / Work Group No.: WG1963	47						



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L195327-1 (P202120-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 17 2014, 09:35am Sample collector: NKlumpp Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.19

 ${\rm CL2R}$ = 0.0 DEPTH = NA . Extract 508A within HOLDTIME (Pending

Method Reference						Matrix Tag
	Qualifier	Dogula	Tīm i b a	Dilution	MDT	RL/ML
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML
Method: SM4500-CO2 D - Calculation						RawH2O
TARGET ANALYTES						
ALKALINITY: HYDROXIDE	U	0.10	mg/L	1	0.1	
Run ID: R256894 / Work Group No.: WG19640	0					
Prep Date1: 19-DEC-14 Analyzed 19-Dec-14						
Method: SM4500-CO2 D - Calculation						RawH2O
TARGET ANALYTES						i(awii20
ALKALINITY: BICARBONATE		68		1	5	
	_	68	mg/L	1	5	
Run ID: R256894 / Work Group No.: WG19640						
Prep Date1: 19-DEC-14 Analyzed 19-Dec-14	12:30					
Method: SM4500-CO2 D - Calculation						RawH2O
TARGET ANALYTES						
ALKALINITY: CARBONATE		0.99	mg/L	1	0.1	
Run ID: R256894 / Work Group No.: WG19640	0		٥.			
Prep Datel: 19-DEC-14 Analyzed 19-Dec-14						
Trop bacer 1, ble 11 marybea 1, bee 11	12 30					
Method: SM4500-NH3 B, C - 1997, Distillat	ion & Titr	ation				GroundH2O
	1011 & 1101	acion				GI OulidH2O
TARGET ANALYTES						
AMMONIA AS N		0.420	mg/L	1	0.3	
Run ID: R257271 / Work Group No.: WG19658						
Prep Date1: 30-DEC-14 Analyzed 30-Dec-14	07:15					
Method: EPA 200.7 - Rev. 4.4, ICP Scan						RawH2O
TARGET ANALYTES						
ALUMINUM	U	11.4	ug/L	1.04	11.4	50
CALCIUM	В	14,700	ug/L	1.04	15.6	
COPPER	U	6.24	ug/L	1.04	6.24	50
	U		_			
IRON		52.3	ug/L	1.04	3.12	100
POTASSIUM		1,070	ug/L	1.04	15.6	
MAGNESIUM		3,880	ug/L	1.04	9.36	
MANGANESE		23.0	ug/L	1.04	0.52	20
SODIUM		28,000	ug/L	1.04	11.4	
ZINC		11.2	ug/L	1.04	4.16	50
Run ID: R257139 / Work Group No.: WG19655	6		3.			
Prep Date1: 29-DEC-14 Analyzed 29-Dec-14						
2, 220 11 1ma1/20a 2, 200 11						
Method: EPA 200.8 - Rev. 5.4, ICP-MS Scan						RawH2O
TARGET ANALYTES						RawiiZO
	Ū	0 001	/T	1 00	0 001	10
SILVER	Ű	0.081	ug/L	1.02	0.081	
BARIUM		29	ug/L	1.02	0.1	100
BERYLLIUM	U	0.051	ug/L	1.02	0.051	1
CADMIUM	U	0.030	ug/L	1.02	0.03	1
CHROMIUM		1.0	ug/L	1.02	0.61	10
NICKEL		0.43	ug/L	1.02	0.3	10
LEAD		0.59	ug/L	1.02	0.071	5
ANTIMONY	U	0.30	ug/L	1.02	0.3	6
	Ū	0.30		1.02	0.3	1
THALLIUM		0.30	ug/L	1.02	0.3	1
Run ID: R257176 / Work Group No.: WG19655		-100 5 1:	11.25			
Prep Date1: 19-DEC-14 Prep Date2: 29-DEC-	14 Analyz	ea 29-Dec-14	11:35			



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Prep Date1: 17-DEC-14 Analyzed 17-Dec-14 12:26

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L195327-1 (P202120-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 17 2014, 09:35am Sample collector: NKlumpp Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.19

 ${\rm CL2R}$ = 0.0 DEPTH = NA . Extract 508A within HOLDTIME (Pending

v 11 1 p 6							_
Method Reference	- 7161			-12 . 1		Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
						D 1100	
Method: EPA 245.1 - Cold Vapor AA						RawH2O	
TARGET ANALYTES			-				
MERCURY	Ū	0.040	ug/L	1	0.04		
Run ID: R256972 / Work Group No.: WG196							
Prep Date1: 22-DEC-14 Analyzed 22-Dec-1	4 09:35						
Method: SM3114B - 2009, Gaseous Hydride	AA					RawH2O	
TARGET ANALYTES							
ARSENIC		0.38	uq/L	1	0.3	2	
Run ID: R256998 / Work Group No.: WG196	427		3.				
Prep Date1: 18-DEC-14 Prep Date2: 22-DE		22-Dec-14	12:45				
1							
Method: SM3114B - 2009, Gaseous Hydride	AA					RawH2O	
TARGET ANALYTES							
SELENIUM	U	0.400	ug/L	1	0.4		
Run ID: R256994 / Work Group No.: WG196	428						
Prep Date1: 18-DEC-14 Prep Date2: 22-DE	C-14 Analyzed	22-Dec-14	09:56				
Method: SM9221B - 2006, Multiple Tube F	ermentation					RawH2O	
TARGET ANALYTES							
TOTAL COLIFORMS	<	1.8	MPN/100 t	nL	1.8		
Run ID: R256923 / Work Group No.: WG196	334						
Prep Datel: 17-DEC-14 Analyzed 17-Dec-1	4 12:26						
Method: SM9221F - 2001, Multiple Tube F	ermentation					RawH2O	
TARGET ANALYTES							
E. COLI	<	1.8	MPN/100 t	nL	1.8		
Run ID: R256923 / Work Group No.: WG196	334						



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

FIELD QC Site: Sample collection QC

COLLECTION QC Locator: Field QC Sample submitted for analysis

Lab ID: L195327-2 (P202120-2)

Sample Type: QCFB (Field Blank Grab)

Date Collected: Dec 17 2014, 09:50am Sample collector: NKlumpp

Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: QCFB for L195327-1; Prep'd on 12/11/2014 by JA; 524 acidified with 1+1 HCL?

								_
Method Reference			_				Matrix	Tag
Parameter	Qualifier	Re	sult T	Jnits	Dilution	MDL	RL/ML	
Method: EPA 524.2 - Volatile Or	ganics, GC/MS						DrinkH2O	
TARGET ANALYTES								
ACETONE	Ç	!	0.38	ug/L	1	0.35		
Analysis does not meet SOP in sampling.	criteria concernin	g QCFB.	Analytes	detected	in QCFB and	d suspect error		
ACRYLONITRILE	Q,U		0.45	ug/L	1	0.45		
Analysis does not meet SOP				_				
in sampling.		J ~ .			~			
ALLYL CHLORIDE	Q,U		0.17	ug/L	1	0.17		
Analysis does not meet SOP				_				
in sampling.	orrectia comperium	5 2015.		accecea	III QUID aire	L Dubpect Circi		
TERT-AMYL METHYL ETHER	Q,U		0.17	ug/L	1	0.17	3	
Analysis does not meet SOP				_			3	
in sampling.	CIICEIIA CONCEININ	g QCFB. I	Analytes	detected	III QCFB alic	suspect error		
BENZENE	0,0		0.14	uq/L	1	0.14	0.5	
	~ .						0.5	
Analysis does not meet SOP	Criteria Concernii	g QCFB.	Analytes	aetectea	In QCFB and	suspect error		
in sampling.	0.1		0 16	/T	1	0.16		
BROMOBENZENE	Q,U			ug/L	1	0.16		
Analysis does not meet SOP	criteria concernin	g QCFB.	Analytes	aetectea	in QCFB and	suspect error		
in sampling.								
BROMOCHLOROMETHANE	Q,U			ug/L	1	0.21		
Analysis does not meet SOP	criteria concernin	g QCFB.	Analytes	detected	in QCFB and	d suspect error		
in sampling.								
BROMODICHLOROMETHANE	Q,U			ug/L	1	0.21		
Analysis does not meet SOP	criteria concernin	g QCFB. I	Analytes	detected	in QCFB and	l suspect error		
in sampling.								
BROMOFORM	Q,U			ug/L	1	0.31		
Analysis does not meet SOP	criteria concernin	g QCFB.	Analytes	detected	in QCFB and	d suspect error		
in sampling.								
BROMOMETHANE	Q,U		0.55	ug/L	1	0.55		
Analysis does not meet SOP	criteria concernin	g QCFB.	Analytes	detected	in QCFB and	d suspect error		
in sampling.								
TERT-BUTYL ALCOHOL	Q,U	•	1.7	ug/L	1	1.7	2	
Analysis does not meet SOP	criteria concernin	g QCFB.	Analytes	detected	in QCFB and	d suspect error		
in sampling.								
N-BUTYLBENZENE	Q,U		0.25	ug/L	1	0.25		
Analysis does not meet SOP	criteria concernin	g QCFB.	Analytes	detected	in QCFB and	d suspect error		
in sampling.								
SEC-BUTYLBENZENE	Q,U		0.69	ug/L	1	0.69		
Analysis does not meet SOP	criteria concernin	g QCFB.	Analytes	detected	in QCFB and	d suspect error		
in sampling.								
TERT-BUTYLBENZENE	Q,U		0.18	ug/L	1	0.18		
Analysis does not meet SOP	criteria concernin	g QCFB.	Analytes	detected	in QCFB and	d suspect error		
in sampling.			_			_		
CARBON DISULFIDE	Q,U		0.44	ug/L	1	0.44		
Analysis does not meet SOP				_	in QCFB and	d suspect error		
in sampling.			-			-		
CARBON TETRACHLORIDE	0,0		0.25	ug/L	1	0.25	0.5	
Analysis does not meet SOP	~ .			-				
in sampling.	00110011111	J =			- 2-12 0110			
CHLOROACETONITRILE	Q,U		0.23	ug/L	1	0.23		
Analysis does not meet SOP				_				
in sampling.	SIISSIIA CONSCININ	2 ZCID.		accected	III QCID and	2 Supped Ciror		
in sampling.								



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

FIELD QC Sample collection QC Site:

COLLECTION QC Locator: Field QC Sample submitted for analysis

Lab ID: L195327-2 (P202120-2)
Sample Type: QCFB (Field Blank Grab)
Date Collected: Dec 17 2014, 09:50am Sample collector: NKlumpp
Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: QCFB for L195327-1; Prep'd on 12/11/2014 by JA; 524 acidified with 1+1 HCL?

Method Reference						Matrix	Tag
Parameter	Qualifier I	Result	Units	Dilution	MDL	RL/ML	
CHLOROBENZENE	Q,U	0.21	ug/L	1	0.21	0.5	
Analysis does not meet SOP criteria in sampling.	concerning QCFB	. Analytes	detected	in QCFB and	suspect error		
1-CHLOROBUTANE	Q,U	0.21	ug/L	1	0.21		
Analysis does not meet SOP criteria	concerning QCFB	. Analytes	detected	in QCFB and	suspect error		
in sampling.							
CHLOROETHANE	Q,U	0.38	ug/L	1	0.38		
Analysis does not meet SOP criteria in sampling.	concerning QCFB	. Analytes	detected	in QCFB and	suspect error		
CHLOROFORM	Q	0.46	ug/L	1	0.15		
Analysis does not meet SOP criteria	concerning QCFB	. Analytes	detected	in QCFB and	suspect error		
in sampling.							
CHLOROMETHANE	Q,U	0.15	ug/L	1	0.15		
Analysis does not meet SOP criteria in sampling.	concerning QCFB	. Analytes	detected	in QCFB and	suspect error		
O-CHLOROTOLUENE	Q,U	0.19	ug/L	1	0.19		
Analysis does not meet SOP criteria	concerning QCFB	. Analytes	detected	in QCFB and	suspect error		
in sampling.							
P-CHLOROTOLUENE	Q,U	0.19	ug/L	1	0.19		
Analysis does not meet SOP criteria in sampling.	concerning QCFB	. Analytes	detected	in QCFB and	suspect error		
DIBROMOCHLOROMETHANE	Q,U	0.26	ug/L	1	0.26		
Analysis does not meet SOP criteria in sampling.	concerning QCFB	. Analytes	detected	in QCFB and	suspect error		
DIBROMOCHLOROPROPANE	Q,U	0.28	ug/L	1	0.28		
Analysis does not meet SOP criteria			_				
in sampling.	concerning gerb	. maryces	accecea	III QCID alla	Bubbeec ciroi		
DIBROMOMETHANE	Q,U	0.28	ug/L	1	0.28		
Analysis does not meet SOP criteria			_	-			
in sampling.				&			
1,2-DICHLOROBENZENE	Q,U	0.23	ug/L	1	0.23	0.5	
Analysis does not meet SOP criteria	concerning QCFB	. Analytes	detected	in QCFB and	suspect error		
in sampling.							
1,3-DICHLOROBENZENE	Q,U	0.23	ug/L	1	0.23		
Analysis does not meet SOP criteria	concerning QCFB	. Analytes	detected	in QCFB and	suspect error		
in sampling.							
1,4-DICHLOROBENZENE	Q,U	0.18	ug/L	1	0.18	0.5	
Analysis does not meet SOP criteria	concerning QCFB	. Analytes	detected	in QCFB and	suspect error		
in sampling.		0.0-					
TRANS-1,4-DICHLORO-2-BUTENE	Q,U	0.20	ug/L	1	0.2		
Analysis does not meet SOP criteria	concerning QCFB	. Analytes	detected	in QCFB and	suspect error		
in sampling. DICHLORODIFLUOROMETHANE	O,U	0.17	uq/L	1	0.17	0.5	
Analysis does not meet SOP criteria	~ .					0.5	
in sampling.	concerning Octa	. Analytes	uerecrea	III QCFB allQ	probect ettot		
1,1-DICHLOROETHANE	Q,U	0.21	ug/L	1	0.21	0.5	
Analysis does not meet SOP criteria			_			0.5	
in sampling.	5 ~ ~ ~ ~	2		~	-		
1,2-DICHLOROETHANE	Q,U	0.14	ug/L	1	0.14	0.5	
Analysis does not meet SOP criteria			-				
in sampling.		-			-		
1,1-DICHLOROETHENE	Q,U	0.20	ug/L	1	0.2	0.5	
Analysis does not meet SOP criteria	concerning QCFB	. Analytes	detected	in QCFB and	suspect error		
in sampling.							



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

FIELD QC Sample collection QC Site:

COLLECTION QC Locator: Field QC Sample submitted for analysis

Lab ID: L195327-2 (P202120-2)
Sample Type: QCFB (Field Blank Grab)
Date Collected: Dec 17 2014, 09:50am Sample collector: NKlumpp
Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: QCFB for L195327-1; Prep'd on 12/11/2014 by JA; 524 acidified with 1+1 HCL?

Method Reference						Matrix	Taq
	ualifier R	esult (Units	Dilution	MDL	Matrix RL/ML	ıay
CIS-1,2-DICHLOROETHENE	Q,U	0.25	ug/L	1	0.25	0.5	
Analysis does not meet SOP criteria c in sampling.	oncerning QCFB.	Analytes	detected	in QCFB and suspe	ct error		
TRANS-1,2-DICHLOROETHENE	Q,U	0.19	ug/L	1	0.19	0.5	
Analysis does not meet SOP criteria c	oncerning QCFB.	Analytes	detected	in QCFB and suspe	ct error		
in sampling.							
1,2-DICHLOROPROPANE	Q,U	0.15	ug/L	1	0.15	0.5	
Analysis does not meet SOP criteria c in sampling.			detected	in QCFB and suspe	ct error		
1,3-DICHLOROPROPANE	Q,U	0.22	ug/L	1	0.22		
Analysis does not meet SOP criteria c	oncerning QCFB.	Analytes	detected	in QCFB and suspe	ct error		
in sampling.	0.77	0.04	/T	1	0.04		
SEC-DICHLOROPROPANE Analysis does not meet SOP criteria c	Q,U	0.24	ug/L	1	0.24		
in sampling.		_		_			
1,1-DICHLOROPROPENE	Q,U	0.26	ug/L	1	0.26		
Analysis does not meet SOP criteria c	oncerning QCFB.	Analytes	detected	in QCFB and suspe	ct error		
in sampling. 1,1-DICHLORO-2-PROPANONE	O,U	0.21	uq/L	1	0.21		
Analysis does not meet SOP criteria c	~ .		-				
in sampling.							
CIS-1,3-DICHLOROPROPENE	Q,U	0.23	ug/L	1	0.23	0.5	
Analysis does not meet SOP criteria con in sampling.	oncerning QCFB.		detected	in QCFB and suspe	ct error		
TRANS-1,3-DICHLOROPROPENE	Q,U	0.18	ug/L	1	0.18	0.5	
Analysis does not meet SOP criteria c	oncerning QCFB.	Analytes	detected	in QCFB and suspe	ct error		
in sampling.				_			
DIISOPROPYL ETHER	Q,U	0.29	ug/L	1	0.29		
Analysis does not meet SOP criteria c	oncerning QCFB.	Analytes	aetectea	in QCFB and suspe	ct error		
in sampling. ETHYL BENZENE	O,U	0.18	uq/L	1	0.18	0.5	
Analysis does not meet SOP criteria c	~ .		-			0.5	
in sampling.							
ETHYL ETHER	Q,U	0.20	ug/L	1	0.2		
Analysis does not meet SOP criteria con in sampling.	oncerning QCFB.	Analytes	aetectea	in QCFB and suspe	ct error		
ETHYLENE DIBROMIDE	Q,U	0.19	uq/L	1	0.19		
Analysis does not meet SOP criteria c			-				
in sampling.				2			
ETHYLMETHACRYLATE	Q,U	0.14	ug/L	1	0.14		
Analysis does not meet SOP criteria c	oncerning QCFB.	Analytes	detected	in QCFB and suspe	ct error		
in sampling.							
ETHYL-T-BUTYL ETHER	Q,U	0.19	ug/L	1	0.19	3	
Analysis does not meet SOP criteria c	oncerning QCFB.	Analytes	detected	in QCFB and suspe	ct error		
in sampling.							
FLUOROTRICHLOROMETHANE	Q,U	0.22	ug/L	1	0.22	5	
Analysis does not meet SOP criteria c	oncerning QCFB.	analytes	aetected	in QCFB and suspe	ct error		
<pre>in sampling. 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE</pre>	Q,U	0.25	ug /T	1	0.25	10	
Analysis does not meet SOP criteria c			ug/L detected			10	
in sampling.	oncerning gerb.	1 mid i y c C S	acceced	III ocin ana saspe	CC C1101		
HEXACHLOROBUTADIENE	Q,U	0.20	ug/L	1	0.2		
Analysis does not meet SOP criteria c			_				
in sampling.		=		<u>-</u>			



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

FIELD QC Site: Sample collection QC

COLLECTION QC Locator: Field QC Sample submitted for analysis

Lab ID: L195327-2 (P202120-2)
Sample Type: QCFB (Field Blank Grab)
Date Collected: Dec 17 2014, 09:50am Sample collector: NKlumpp
Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: QCFB for L195327-1; Prep'd on 12/11/2014 by JA; 524 acidified with 1+1 HCL?

Method Reference											Matrix	Tag
Parameter				Qualifier	R	esult	Units	Dilutio	on	MDL	RL/ML	
HEXACHLOROETHANE				Q,U		0.25	ug/L	1		0.25		
Analysis does not	meet	SOP	criteria	concerning	QCFB.	Analytes	detected	in QCFB	and	suspect error		
in sampling.												
2-HEXANONE				Q,U		0.25	ug/L	1		0.25		
Analysis does not	meet	SOP	criteria	concerning	QCFB.	Analytes	detected	in QCFB	and	suspect error		
in sampling.				_		_				_		
IODOMETHANE				Q,U		0.69	ug/L	1		0.69		
Analysis does not	meet.	SOP	criteria		OCFB.			in OCFB	and			
in sampling.					2							
ISOPROPYLBENZENE				Q,U		0.21	ug/L	1		0.21		
Analysis does not	maat	SUD	criteria		OCEB				and			
in sampling.	meec	DOL	CIICCIIa	concerning	QCFD.	Analyces	accecea	III QCFD	ana	Suspect CIIOI		
				0.11		0 00	/T	1		0.00		
P-ISOPROPYLTOLUENE		COD		Q,U	OGER	0.22	ug/L	1		0.22		
Analysis does not	meet	SOP	criteria	concerning	QCFB.	Analytes	aetectea	in QCFB	and	suspect error		
in sampling.								_		0.0		
METHYLACRYLONITRILE				Q,U		0.20	ug/L	1		0.2		
Analysis does not	meet	SOP	criteria	concerning	QCFB.	Analytes	detected	in QCFB	and	suspect error		
in sampling.												
METHYLACRYLATE				Q,U		0.26	ug/L	1		0.26		
Analysis does not	meet	SOP	criteria	concerning	QCFB.	Analytes	detected	in QCFB	and	suspect error		
in sampling.												
METHYLENE CHLORIDE				Q,U		0.18	ug/L	1		0.18	0.5	
Analysis does not	meet	SOP	criteria	concerning	QCFB.	Analytes	detected	in QCFB	and	suspect error		
in sampling.												
2-BUTANONE				Q,U		0.43	ug/L	1		0.43		
Analysis does not	meet	SOP	criteria	concerning	QCFB.	Analytes	detected	in QCFB	and	suspect error		
in sampling.				_		_				_		
4-METHYL-2-PENTANONE				Q,U		0.20	ug/L	1		0.2		
Analysis does not	meet	SOP	criteria		OCFB.	Analytes	_	in OCFB	and	suspect error		
in sampling.					~	-		~		±		
METHYLMETHACRYLATE				O,U		0.28	ug/L	1		0.28		
Analysis does not	meet.	SOP	criteria	~ .	OCFB.				and			
in sampling.					2							
METHYL-T-BUTYL ETHER				Q,U		0.39	ug/L	1		0.39	3	
Analysis does not	moot	COD	aritoria		OCED		_	-	and		3	
in sampling.	illeet	SOF	CIICEIIa	concerning	QCPB.	Analytes	detected	III QCFB	anu	suspect error		
				0.11		0 20	/T	1		0 0		
NAPHTHALENE				Q,U	0.000	0.20	ug/L	1	,	0.2		
Analysis does not	meet	SOP	criteria	concerning	QCFB.	Analytes	detected	in QCFB	ana	suspect error		
in sampling.								_				
NITROBENZENE				Q,U		1.0	ug/L	1		1		
Analysis does not	meet	SOP	criteria	concerning	QCFB.	Analytes	detected	in QCFB	and	suspect error		
in sampling.												
2-NITROPROPANE				Q,U		0.77	ug/L	1		0.77		
Analysis does not	meet	SOP	criteria	concerning	QCFB.	Analytes	detected	in QCFB	and	suspect error		
in sampling.												
PENTACHLOROETHANE				Q,U		0.17	ug/L	1		0.17		
Analysis does not	meet	SOP	criteria	concerning	QCFB.	Analytes	detected	in QCFB	and	suspect error		
in sampling.												
N-PROPYLBENZENE				Q,U		0.20	ug/L	1		0.2		
Analysis does not	meet	SOP	criteria	concerning	QCFB.	Analytes	detected	in QCFB	and	suspect error		
in sampling.						=		-		_		
·· ·· · · · · · · · · · · · · · · · ·				Q,U		0.19	ug/L	1		0.19	0.5	
STYRENE												
STYRENE Analysis does not	meet	SOP	criteria		OCFB			_	and		0.5	



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

FIELD QC Sample collection QC Site:

COLLECTION QC Locator: Field QC Sample submitted for analysis

Lab ID: L195327-2 (P202120-2)
Sample Type: QCFB (Field Blank Grab)
Date Collected: Dec 17 2014, 09:50am Sample collector: NKlumpp
Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: QCFB for L195327-1; Prep'd on 12/11/2014 by JA; 524 acidified with 1+1 HCL?

Method Reference						Matrix	Tag
Parameter	Qualifier		Units	Dilution	MDL	RL/ML	
L,1,1,2-TETRACHLOROETHANE	Q,U	0.18	ug/L	1	0.18		
Analysis does not meet SOP cri	teria concerning QCF	3. Analytes	detected	in QCFB and	suspect error		
in sampling.							
1,1,2,2-TETRACHLOROETHANE	Q,U	0.20	ug/L	1	0.2	0.5	
Analysis does not meet SOP cri	teria concerning QCF	3. Analytes	detected	in QCFB and	suspect error		
in sampling.							
TETRACHLOROETHENE	Q,U	0.20	ug/L	1	0.2	0.5	
Analysis does not meet SOP cri	teria concerning QCF	3. Analytes	detected	in QCFB and	suspect error		
in sampling.		_			-		
TETRAHYDROFURAN	Q,U	0.54	ug/L	1	0.54		
Analysis does not meet SOP cri		3. Analytes	-	in OCFB and	suspect error		
in sampling.				~			
TOLUENE	Q,U	0.16	ug/L	1	0.16	0.5	
Analysis does not meet SOP cri			-			0.5	
in sampling.	TILLE CONSCINING QCF	,	2000000	gold and			
11 Sampiing. 1,2,3-TRICHLOROBENZENE	Q,U	0.24	ug/L	1	0.24		
	·		_				
Analysis does not meet SOP cri	ceria concerning QCF	o. Analytes	uerecrea	TH ACLR WUG	suspect ellor		
in sampling.	0.11	0 10	/T	1	0 10	0 5	
1,2,4-TRICHLOROBENZENE	Q,U	0.19	ug/L	1	0.19	0.5	
Analysis does not meet SOP cri	teria concerning QCF	3. Analytes	detected	in QCFB and	suspect error		
in sampling.				_			
1,1,1-TRICHLOROETHANE	Q,U	0.19	ug/L	1	0.19	0.5	
Analysis does not meet SOP cri	teria concerning QCF	3. Analytes	detected	in QCFB and	suspect error		
in sampling.							
1,1,2-TRICHLOROETHANE	Q,U	0.21	ug/L	1	0.21	0.5	
Analysis does not meet SOP cri	teria concerning QCF	3. Analytes	detected	in QCFB and	suspect error		
in sampling.							
TRICHLOROETHENE	Q,U	0.17	ug/L	1	0.17	0.5	
Analysis does not meet SOP cri	teria concerning QCF	3. Analytes	detected	in QCFB and	suspect error		
in sampling.							
1,2,3-TRICHLOROPROPANE	Q,U	0.19	ug/L	1	0.19		
Analysis does not meet SOP cri	teria concerning QCF	3. Analytes	detected	in QCFB and	suspect error		
in sampling.							
1,2,4-TRIMETHYLBENZENE	Q,U	0.21	ug/L	1	0.21		
Analysis does not meet SOP cri			-				
in sampling.		,		~			
1,3,5-TRIMETHYLBENZENE	Q,U	0.20	ug/L	1	0.2		
Analysis does not meet SOP cri			_				
in sampling.	ccria concerning QCF.	J. MIGITYTES	acticited	III VCLD alla	Pappece CIIOI		
III SAMPIING. VINYL CHLORIDE	Q,U	0.22	ug/L	1	0.22	0.5	
			-			0.5	
Analysis does not meet SOP cri	ceria concerning QCF	o. Analyces	uerecrea	III OCER and	suspect error		
in sampling.	2 11	0 10	/T	1	0 10	0 5	
O-XYLENE	Q,U	0.18	ug/L	1	0.18	0.5	
Analysis does not meet SOP cri	teria concerning QCF	s. Analytes	aetected	in QCFB and	suspect error		
in sampling.		0 0-					
M+P XYLENES	Q,U	0.37	ug/L	1	0.37	0.5	
Analysis does not meet SOP cri	teria concerning QCF	3. Analytes	detected	in QCFB and	suspect error		
in sampling.							
VALUE(S) USED TO CALCULATE OTHER VALUE(S)							
TOTAL 1,3-DICHLOROPROPENES	Q,U	0.41	ug/L	1		0.5	
Analysis does not meet SOP cri	teria concerning QCF	3. Analytes	detected	in QCFB and	suspect error		
in sampling.	- ~	-			_		
TOTAL XYLENES	Q,U	0.55	ug/L	1		0.5	
Analysis does not meet SOP cri			5		suspect error	- · ·	
	Composition QCF						



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: FIELD QC Sample collection QC

Locator: COLLECTION QC Field QC Sample submitted for analysis

Lab ID: L195327-2 (P202120-2) QCFB (Field Blank Grab) Sample Type:

Date Collected: Dec 17 2014, 09:50am Sample collector: NKlumpp Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: QCFB for L195327-1; Prep'd on 12/11/2014 by JA; 524 acidified with 1+1 HCL?

_Y_Acid CONTAINER ID # BTL8 126100

Method Reference Matrix Tag

Parameter Oualifier Result Units Dilution MDT. RL/ML

in sampling. INTERNAL STANDARD

FLUOROBENZENE Q 97.8 % recovery 1

Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error

in sampling.

SURROGATE

4-BROMOFLUOROBENZENE Q 97.2 % recovery 1

Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error

in sampling.

D4-1,2-DICHLOROBENZENE Q 98.6 % recovery 1

Analysis does not meet SOP criteria concerning QCFB. Analytes detected in QCFB and suspect error

U

in sampling.

DIBROMOCHLOROPROPANE

Run ID: R257258 / Work Group No.: WG196458 Prep Datel: 23-DEC-14 Analyzed 23-Dec-14 11:19

DrinkH20 Method: EPA 504.1 - EDB & DBCP, GC/ECD TARGET ANALYTES 0.02 ETHYLENE DIBROMIDE IJ 0.0020 ug/L 0.002 0.0020 ug/L

0.002

0.01

Run ID: R257046 / Work Group No.: WG196482

Prep Datel: 23-DEC-14 Prep Date2: 23-DEC-14 Analyzed 23-Dec-14 21:57



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo Site:

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L195327-3 (P202120-3) Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 17 2014, 09:55am Sample collector: NKlumpp Date Received: Dec 17 2014, 10:57am Sample receiver: JALLARD

Sample Comments: annual BAYSIDE Sampling per DPH Title 22 and WDR; SUBCONTRACT DATA

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: EPA 218.6 - Hexavalent Chromium I	by IC					RawH2O	
Subcontract data from E. S. Babcock Lab							
Comment: ND - NOT DETECTED AT OR ABOVE TERMINERS. SUBCONTRACT LAB DATA	HE METHOD DETE	ECTION LIMIT	ľ				
HEXAVALENT CHROMIUM	ND	0.013	ug/L	1	0.013	1	
Run ID: R257303 / Work Group No.: WG1965	79						
Prep Date1: 23-DEC-14 Analyzed 23-Dec-14	19:38						
Method: EPA 508 - PCBS by 508						RawH2O	
Subcontract data from E. S. Babcock Lab							
Comment: Total PCBs as DCB STORET # 3951	6; Analyte NOT	r DETECTED a	at or abov	e the Method Det	ection Limit (if	MDL is	
reported), otherwise at or above the Repo	ortable Detect	cion Limit ((RDL)				
reported), otherwise at or above the Repo SUBCONTRACTLABDATA	ortable Detect	cion Limit ((RDL)				
<u> </u>	ortable Detect	cion Limit ((RDL) % recov	ery	1		
SUBCONTRACT LAB DATA	ortable Detect ND			ery	1 0.17	0.5	
SUBCONTRACT LAB DATA TETRACHLORO-M-XYLENE		79.3	% recov	ery		0.5 0.5	
SUBCONTRACT LAB DATA TETRACHLORO-M-XYLENE AROCLOR 1016	ND	79.3 0.17	% recov	ery	0.17		
SUBCONTRACT LAB DATA TETRACHLORO-M-XYLENE AROCLOR 1016 AROCLOR 1221	ND ND	79.3 0.17 0.11	% recov ug/L ug/L	ery	0.17 0.11	0.5	
SUBCONTRACT LAB DATA TETRACHLORO-M-XYLENE AROCLOR 1016 AROCLOR 1221 AROCLOR 1232	ND ND ND	79.3 0.17 0.11 0.19	% recov ug/L ug/L ug/L	ery	0.17 0.11 0.19	0.5	
SUBCONTRACT LAB DATA TETRACHLORO-M-XYLENE AROCLOR 1016 AROCLOR 1221 AROCLOR 1232 AROCLOR 1242	ND ND ND ND	79.3 0.17 0.11 0.19 0.036	% recov ug/L ug/L ug/L ug/L	ery	0.17 0.11 0.19 0.036	0.5 0.5 0.5	
SUBCONTRACT LAB DATA TETRACHLORO-M-XYLENE AROCLOR 1016 AROCLOR 1221 AROCLOR 1232 AROCLOR 1242 AROCLOR 1248	ND ND ND ND	79.3 0.17 0.11 0.19 0.036 0.092	% recovug/Lug/Lug/Lug/Lug/Lug/Lug/L	ery	0.17 0.11 0.19 0.036 0.092	0.5 0.5 0.5 0.5	
SUBCONTRACT LAB DATA TETRACHLORO-M-XYLENE AROCLOR 1016 AROCLOR 1221 AROCLOR 1232 AROCLOR 1242 AROCLOR 1248 AROCLOR 1254	ND ND ND ND ND	79.3 0.17 0.11 0.19 0.036 0.092 0.29	% recovug/Lug/Lug/Lug/Lug/Lug/Lug/Lug/Lug/L	ery	0.17 0.11 0.19 0.036 0.092 0.29	0.5 0.5 0.5 0.5	
SUBCONTRACT LAB DATA TETRACHLORO-M-XYLENE AROCLOR 1016 AROCLOR 1221 AROCLOR 1232 AROCLOR 1242 AROCLOR 1248 AROCLOR 1254 AROCLOR 1254 AROCLOR 1260	ND ND ND ND ND ND ND	79.3 0.17 0.11 0.19 0.036 0.092 0.29	% recov ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	ery	0.17 0.11 0.19 0.036 0.092 0.29 0.27	0.5 0.5 0.5 0.5 0.5 0.5	
SUBCONTRACT LAB DATA CETRACHLORO-M-XYLENE AROCLOR 1016 AROCLOR 1221 AROCLOR 1232 AROCLOR 1242 AROCLOR 1248 AROCLOR 1254 AROCLOR 1254 AROCLOR 1260 COTAL PCB'S EVEN ID: R257302 / Work Group No.: WG1965	ND ND ND ND ND ND ND	79.3 0.17 0.11 0.19 0.036 0.092 0.29	% recov ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	ery	0.17 0.11 0.19 0.036 0.092 0.29 0.27	0.5 0.5 0.5 0.5 0.5 0.5	
SUBCONTRACT LAB DATA TETRACHLORO-M-XYLENE AROCLOR 1016 AROCLOR 1221 AROCLOR 1232 AROCLOR 1242 AROCLOR 1248 AROCLOR 1254 AROCLOR 1254 AROCLOR 1260 TOTAL PCB'S	ND	79.3 0.17 0.11 0.19 0.036 0.092 0.29 0.27 0.5	% recov ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	ery	0.17 0.11 0.19 0.036 0.092 0.29 0.27	0.5 0.5 0.5 0.5 0.5 0.5	

SUBCONTRACT LAB DATA

THRESHOLD ODOR NUMBER ND 1 TON NUMBER ANALYZING SAMPLE 1 Panelists TEMPERATURE 21 deg C

Run ID: R257138 / Work Group No.: WG196561 Prep Datel: 17-DEC-14 Analyzed 17-Dec-14 16:04

Analytical Report Prepared for DEREK LEE

Report generated on: Jan 20, 2015 12:12 pm Login No.: L195530

Reported by:

JACK C.

Laboratory Program Manager

Approved by:

NIRMELA ARSEM

Laboratory Services Division Manager

LSR B455-0706-1

Project Title: BAYSIDE GROUND WATER PROJECT

Login Performance Summary

2 - Samples received by the lab on: Dec 31 2014, 10:35 am

0 - Lost Analyses

0 - Hold Time Exceedences

Turn-around-time met

Samples included in this report:

Site Type Collected ClientID Sample Locator

L195530-1 GRAB 31-Dec-2014 09:55 WTP BAYSIDE BAY WELL HEAD

COLLECTION QC L195530-2 QCFB 31-Dec-2014 09:52 FIELD QC

Legend to the laboratory qualifiers used in this report:

U - Analyte not detected

Qualifiers for subcontract work - See textvalue for description



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L195530-1 (P203526-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 31 2014, 09:55am Sample collector: NKlumpp Date Received: Dec 31 2014, 10:35am Sample receiver: JALLARD

Sample Comments: Follow-up sampling for 524 and 8260. Residual Cl2: <0.02 ppm

Method Reference						Matrix	Тэс
	Ouglifica	Pog::1+	Unita	Dilution	MDI		Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: EPA 524.2 - Volatile Organics	, GC/MS					RawH2O	
TARGET ANALYTES							
ACETONE	U	0.35	ug/L	1	0.35		
ACRYLONITRILE	Ū	0.45	ug/L	1	0.45		
ALLYL CHLORIDE	Ū	0.17	ug/L	1	0.17		
TERT-AMYL METHYL ETHER	Ū	0.17	ug/L	1	0.17	3	
BENZENE	Ū	0.14	ug/L	1	0.14	0.5	
BROMOBENZENE	Ū	0.16	ug/L	1	0.16		
BROMOCHLOROMETHANE	Ū	0.21	ug/L	1	0.21		
BROMODICHLOROMETHANE	Ū	0.21	ug/L	1	0.21		
BROMOFORM	Ū	0.31	ug/L	1	0.31		
BROMOMETHANE	Ū	0.55	ug/L	1	0.55		
TERT-BUTYL ALCOHOL	Ū	1.7	ug/L	1	1.7	2	
N-BUTYLBENZENE	Ū	0.25	ug/L	1	0.25	2	
SEC-BUTYLBENZENE	Ū	0.69	ug/L	1	0.69		
TERT-BUTYLBENZENE	Ū	0.18	ug/L	1	0.18		
CARBON DISULFIDE	Ū	0.18	ug/L	1	0.44		
CARBON TETRACHLORIDE	Ū	0.25	ug/L	1	0.25	0.5	
CHLOROACETONITRILE	Ū	0.23	ug/L	1	0.23	0.5	
CHLOROBENZENE	Ū	0.23	ug/L	1	0.21	0.5	
1-CHLOROBUTANE	Ū	0.21	ug/L	1	0.21	0.5	
CHLOROETHANE	Ū	0.38	ug/L ug/L	1	0.38		
	U			1	0.38		
CHLOROFORM CHLOROMETHANE	Ū	0.42 0.15	ug/L	1	0.15		
	Ū		ug/L	1	0.15		
O-CHLOROTOLUENE		0.19 0.19	ug/L	1	0.19		
P-CHLOROTOLUENE	Ū		ug/L				
DIBROMOCHLOROMETHANE	Ū	0.26	ug/L	1	0.26		
DIBROMOCHLOROPROPANE	U	0.28	ug/L	1	0.28		
DIBROMOMETHANE	Ū	0.28	ug/L	1	0.28	0 5	
1,2-DICHLOROBENZENE	U	0.23	ug/L	1	0.23	0.5	
1,3-DICHLOROBENZENE	U	0.23	ug/L	1	0.23	0 5	
1,4-DICHLOROBENZENE	Ū	0.18	ug/L	1	0.18	0.5	
TRANS-1,4-DICHLORO-2-BUTENE	Ŭ	0.20	ug/L	1	0.2	0 5	
DICHLORODIFLUOROMETHANE	U	0.17	ug/L	1	0.17	0.5	
1,1-DICHLOROETHANE	Ŭ	0.21	ug/L	1	0.21	0.5	
1,2-DICHLOROETHANE	Ŭ	0.14	ug/L	1	0.14	0.5	
1,1-DICHLOROETHENE	Ŭ	0.20	ug/L	1	0.2	0.5	
CIS-1,2-DICHLOROETHENE	Ŭ	0.25	ug/L	1	0.25	0.5	
TRANS-1,2-DICHLOROETHENE	Ŭ 	0.19	ug/L	1	0.19	0.5	
1,2-DICHLOROPROPANE	U	0.15	ug/L	1	0.15	0.5	
1,3-DICHLOROPROPANE	U	0.22	ug/L	1	0.22		
SEC-DICHLOROPROPANE	U	0.24	ug/L	1	0.24		
1,1-DICHLOROPROPENE	U	0.26	ug/L	1	0.26		
1,1-DICHLORO-2-PROPANONE	U	0.21	ug/L	1	0.21		
CIS-1,3-DICHLOROPROPENE	U	0.23	ug/L	1	0.23	0.5	
TRANS-1,3-DICHLOROPROPENE	U	0.18	ug/L	1	0.18	0.5	
DIISOPROPYL ETHER	U	0.29	ug/L	1	0.29		
ETHYL BENZENE	U	0.18	ug/L	1	0.18	0.5	
ETHYL ETHER	U	0.20	ug/L	1	0.2		
ETHYLENE DIBROMIDE	Ū	0.19	ug/L	1	0.19		
ETHYLMETHACRYLATE	Ū	0.14	ug/L	1	0.14		
ETHYL-T-BUTYL ETHER	Ū	0.19	ug/L	1	0.19	3	
FLUOROTRICHLOROMETHANE	Ū	0.22	ug/L	1	0.22	5	
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	U	0.25	ug/L	1	0.25	10	



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L195530-1 (P203526-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 31 2014, 09:55am Sample collector: NKlumpp Date Received: Dec 31 2014, 10:35am Sample receiver: JALLARD

Sample Comments: Follow-up sampling for 524 and 8260. Residual Cl2: <0.02 ppm

Method Reference						Matrix Tag
	ualifier	Result	Units	Dilution	MDL	RL/ML
HEXACHLOROBUTADIENE	Ū	0.20	ug/L	1	0.2	
HEXACHLOROETHANE	U	0.25	ug/L	1	0.25	
2-HEXANONE	U	0.25	ug/L	1	0.25	
ODOMETHANE	Ū	0.69	ug/L	1	0.69	
ISOPROPYLBENZENE	Ū	0.21	ug/L	1	0.21	
P-ISOPROPYLTOLUENE	Ū	0.22	ug/L	1	0.22	
METHYLACRYLONITRILE	Ū	0.20	ug/L	1	0.2	
METHYLACRYLATE	Ū	0.26	ug/L	1	0.26	
METHYLENE CHLORIDE	Ū	0.18	ug/L	1	0.18	0.5
2-BUTANONE	Ū	0.43	ug/L	1	0.43	0.5
4-METHYL-2-PENTANONE	Ū	0.20	ug/L	1	0.2	
METHYLMETHACRYLATE	Ū	0.28	ug/L	1	0.28	
METHYL-T-BUTYL ETHER	Ū	0.39	ug/L	1	0.39	3
IAPHTHALENE	Ū	0.20	ug/L ug/L	1	0.39	3
MAPHIHALENE NITROBENZENE	Ū	1.0	ug/L ug/L	1	1	
	Ū	0.77	_	1	0.77	
-NITROPROPANE			ug/L	1		
PENTACHLOROETHANE	U	0.17	ug/L		0.17	
I-PROPYLBENZENE	U	0.20	ug/L	1	0.2	0. 5
TYRENE	U	0.19	ug/L	1	0.19	0.5
,1,1,2-TETRACHLOROETHANE	Ū	0.18	ug/L	1	0.18	
,1,2,2-TETRACHLOROETHANE	U	0.20	ug/L	1	0.2	0.5
ETRACHLOROETHENE	U	0.20	ug/L	1	0.2	0.5
'ETRAHYDROFURAN	U	0.54	ug/L	1	0.54	
OLUENE	U	0.16	ug/L	1	0.16	0.5
,2,3-TRICHLOROBENZENE	U	0.24	ug/L	1	0.24	
,2,4-TRICHLOROBENZENE	U	0.19	ug/L	1	0.19	0.5
,1,1-TRICHLOROETHANE	U	0.19	ug/L	1	0.19	0.5
,1,2-TRICHLOROETHANE	U	0.21	ug/L	1	0.21	0.5
TRICHLOROETHENE	U	0.17	ug/L	1	0.17	0.5
L,2,3-TRICHLOROPROPANE	U	0.19	ug/L	1	0.19	
L,2,4-TRIMETHYLBENZENE	U	0.21	ug/L	1	0.21	
.,3,5-TRIMETHYLBENZENE	U	0.20	ug/L	1	0.2	
INYL CHLORIDE	U	0.22	ug/L	1	0.22	0.5
)-XYLENE	U	0.18	ug/L	1	0.18	0.5
M+P XYLENES	U	0.37	ug/L	1	0.37	0.5
/ALUE(S) USED TO CALCULATE OTHER VALUE(S)						
TOTAL 1,3-DICHLOROPROPENES	U	0.41	ug/L	1		0.5
TOTAL XYLENES	Ū	0.55	ug/L	1		0.5
NTERNAL STANDARD	-		٥,			
FLUOROBENZENE		96.4	% recov	ery 1		
SURROGATE				-		
4-BROMOFLUOROBENZENE		93.0	% recov	erv 1		
04-1,2-DICHLOROBENZENE		103	% recov	_		
Run ID: R257390 / Work Group No.: WG196662			. 1000 v	- 4 =		
rep Datel: 05-JAN-15 Analyzed 05-Jan-15 1						
Method: EPA 8260B - Trihalomethanes, GC/MS						GroundH20
ARGET ANALYTES						
CHLOROFORM		0.55	ug/L	1	0.17	
Confirms original sample L195327-1						
ROMODICHLOROMETHANE	U	0.079	ug/L	1	0.079	
DIBROMOCHLOROMETHANE	U	0.13	ug/L	1	0.13	
ROMOFORM	U	0.23	ug/L	1	0.23	
NTERNAL STANDARD						
LUOROBENZENE		80.4	% recov	erv 1		

RL is either the client requested or regulatory mandated Reporting Limit. ML is the regulatory mandated Minimum Level



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L195530-1 (P203526-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 31 2014, 09:55am Sample collector: NKlumpp Date Received: Dec 31 2014, 10:35am Sample receiver: JALLARD

Sample Comments: Follow-up sampling for 524 and 8260. Residual Cl2: <0.02 ppm

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
D5-CHLOROBENZENE		83.6	% recov	ery 1			
D4-1,4-DICHLOROBENZENE		87.4	% recov	ery 1			
SURROGATE							
D8-TOLUENE		101	% recov	ery 1			
4-BROMOFLUOROBENZENE		103	% recov	ery 1			
Run ID: R257375 / Work Group No : WG	196661						

Run 1D: R25/3/5 / Work Group No.: WG196661 Prep Datel: 05-JAN-15 Analyzed 05-Jan-15 11:16



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

FIELD QC Site: Sample collection QC

COLLECTION QC Locator: Field QC Sample submitted for analysis

Lab ID: L195530-2 (P203526-2)

Sample Type: QCFB (Field Blank Grab)

Date Collected: Dec 31 2014, 09:52am Sample collector: NKlumpp

Date Received: Dec 31 2014, 10:35am Sample receiver: JALLARD

Sample Comments: QCFB for L195530-2; Prep'd on 12/24/2014 by JA; 524 acidified with 1+1

HCL? _x_Acid CONTAINER ID #1264101

Method Reference						Matrix Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML
Method: EPA 524.2 - Volatile Organics	, GC/MS					RawH2O
ARGET ANALYTES						
CETONE	U	0.35	ug/L	1	0.35	
CRYLONITRILE	U	0.45	ug/L	1	0.45	
ALLYL CHLORIDE	U	0.17	ug/L	1	0.17	
ERT-AMYL METHYL ETHER	U	0.17	ug/L	1	0.17	3
BENZENE	U	0.14	ug/L	1	0.14	0.5
BROMOBENZENE	U	0.16	ug/L	1	0.16	
ROMOCHLOROMETHANE	U	0.21	ug/L	1	0.21	
ROMODICHLOROMETHANE	U	0.21	ug/L	1	0.21	
ROMOFORM	U	0.31	ug/L	1	0.31	
ROMOMETHANE	U	0.55	ug/L	1	0.55	
ERT-BUTYL ALCOHOL	U	1.7	ug/L	1	1.7	2
-BUTYLBENZENE	U	0.25	ug/L	1	0.25	
EC-BUTYLBENZENE	U	0.69	ug/L	1	0.69	
ERT-BUTYLBENZENE	Ū	0.18	ug/L	1	0.18	
ARBON DISULFIDE	Ū	0.44	ug/L	1	0.44	
ARBON TETRACHLORIDE	Ū	0.25	ug/L	1	0.25	0.5
HLOROACETONITRILE	U	0.23	ug/L	1	0.23	
HLOROBENZENE	U	0.21	ug/L	1	0.21	0.5
-CHLOROBUTANE	U	0.21	ug/L	1	0.21	
HLOROETHANE	Ū	0.38	ug/L	1	0.38	
HLOROFORM	Ū	0.15	ug/L	1	0.15	
HLOROMETHANE	Ū	0.15	ug/L	1	0.15	
-CHLOROTOLUENE	Ū	0.19	ug/L	1	0.19	
-CHLOROTOLUENE	Ū	0.19	ug/L	1	0.19	
IBROMOCHLOROMETHANE	Ū	0.26	ug/L	1	0.26	
IBROMOCHLOROPROPANE	Ū	0.28	ug/L	1	0.28	
IBROMOMETHANE	Ū	0.28	ug/L	1	0.28	
,2-DICHLOROBENZENE	Ū	0.23	ug/L	1	0.23	0.5
,3-DICHLOROBENZENE	Ū	0.23	ug/L	1	0.23	
,4-DICHLOROBENZENE	Ū	0.18	ug/L	1	0.18	0.5
RANS-1,4-DICHLORO-2-BUTENE	Ū	0.20	ug/L	1	0.2	
ICHLORODIFLUOROMETHANE	Ū	0.17	ug/L	1	0.17	0.5
,1-DICHLOROETHANE	Ū	0.21	ug/L	1	0.21	0.5
,2-DICHLOROETHANE	Ū	0.14	ug/L	1	0.14	0.5
,1-DICHLOROETHENE	Ū	0.20	ug/L	1	0.2	0.5
IS-1,2-DICHLOROETHENE	Ū	0.25	ug/L	1	0.25	0.5
RANS-1,2-DICHLOROETHENE	Ū	0.19	ug/L	1	0.19	0.5
,2-DICHLOROPROPANE	Ū	0.15	ug/L	1	0.15	0.5
,3-DICHLOROPROPANE	Ū	0.22	ug/L	1	0.22	* * *
EC-DICHLOROPROPANE	Ū	0.24	ug/L	1	0.24	
,1-DICHLOROPROPENE	Ū	0.26	ug/L	1	0.26	
,1-DICHLORO-2-PROPANONE	Ū	0.21	ug/L	1	0.21	
IS-1,3-DICHLOROPROPENE	Ū	0.23	ug/L	1	0.23	0.5
RANS-1,3-DICHLOROPROPENE	Ū	0.18	ug/L	1	0.18	0.5
IISOPROPYL ETHER	Ū	0.29	ug/L	1	0.29	
THYL BENZENE	Ū	0.18	ug/L	1	0.18	0.5
THYL ETHER	Ū	0.20	ug/L	1	0.2	* * *
THYLENE DIBROMIDE	Ū	0.19	ug/L	1	0.19	
THYLMETHACRYLATE	Ū	0.14	ug/L	1	0.14	
THYL-T-BUTYL ETHER	Ū	0.19	ug/L	1	0.19	3
	0	0.17	~3/1	-	0.10	<u> </u>



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

FIELD QC Sample collection QC Site:

COLLECTION QC Locator: Field QC Sample submitted for analysis

Lab ID: L195530-2 (P203526-2)

Sample Type: QCFB (Field Blank Grab)

Date Collected: Dec 31 2014, 09:52am Sample collector: NKlumpp

Date Received: Dec 31 2014, 10:35am Sample receiver: JALLARD

Sample Comments: QCFB for L195530-2; Prep'd on 12/24/2014 by JA; 524 acidified with 1+1

HCL? _x_Acid CONTAINER ID #1264101

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	U	0.25	ug/L	1	0.25	10	
HEXACHLOROBUTADIENE	U	0.20	ug/L	1	0.2		
HEXACHLOROETHANE	U	0.25	ug/L	1	0.25		
2-HEXANONE	U	0.25	ug/L	1	0.25		
IODOMETHANE	U	0.69	ug/L	1	0.69		
ISOPROPYLBENZENE	U	0.21	ug/L	1	0.21		
P-ISOPROPYLTOLUENE	U	0.22	ug/L	1	0.22		
METHYLACRYLONITRILE	U	0.20	ug/L	1	0.2		
METHYLACRYLATE	U	0.26	ug/L	1	0.26		
METHYLENE CHLORIDE	U	0.18	ug/L	1	0.18	0.5	
2-BUTANONE	U	0.43	ug/L	1	0.43		
4-METHYL-2-PENTANONE	Ū	0.20	ug/L	1	0.2		
METHYLMETHACRYLATE	Ū	0.28	ug/L	1	0.28		
METHYL-T-BUTYL ETHER	Ū	0.39	ug/L	1	0.39	3	
NAPHTHALENE	Ū	0.20	ug/L	1	0.2		
NITROBENZENE	Ū	1.0	ug/L	1	1		
2-NITROPROPANE	Ū	0.77	ug/L	1	0.77		
PENTACHLOROETHANE	Ū	0.17	ug/L	1	0.17		
N-PROPYLBENZENE	Ū	0.20	ug/L	1	0.2		
STYRENE	Ū	0.19	ug/L	1	0.19	0.5	
1,1,1,2-TETRACHLOROETHANE	Ū	0.18	ug/L	1	0.18	0.5	
1,1,2,2-TETRACHLOROETHANE	Ū	0.20	ug/L	1	0.2	0.5	
TETRACHLOROETHENE	Ū	0.20	ug/L	1	0.2	0.5	
TETRAHYDROFURAN	Ū	0.54	ug/L	1	0.54	0.5	
TOLUENE	Ū	0.16	ug/L	1	0.16	0.5	
1,2,3-TRICHLOROBENZENE	Ū	0.24	ug/L	1	0.24	0.5	
1,2,4-TRICHLOROBENZENE	Ū	0.19	ug/L	1	0.19	0.5	
1,1,1-TRICHLOROETHANE	Ū	0.19	ug/L	1	0.19	0.5	
1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE	Ū	0.19	ug/L ug/L	1	0.19	0.5	
	Ū		_	1			
TRICHLOROETHENE	Ū	0.17	ug/L	1	0.17 0.19	0.5	
1,2,3-TRICHLOROPROPANE	Ū	0.19	ug/L	1			
1,2,4-TRIMETHYLBENZENE		0.21	ug/L		0.21		
1,3,5-TRIMETHYLBENZENE	U	0.20	ug/L	1	0.2	0 5	
VINYL CHLORIDE	Ū	0.22	ug/L	1	0.22	0.5	
O-XYLENE	U	0.18	ug/L	1	0.18	0.5	
M+P XYLENES	U	0.37	ug/L	1	0.37	0.5	
VALUE(S) USED TO CALCULATE OTHER VALUE(S)							
TOTAL 1,3-DICHLOROPROPENES	Ū	0.41	ug/L	1		0.5	
TOTAL XYLENES	Ū	0.55	ug/L	1		0.5	
INTERNAL STANDARD							
FLUOROBENZENE		97.4	% recov	rery 1			
SURROGATE							
4-BROMOFLUOROBENZENE		97.6	% recov	rery 1			
D4-1,2-DICHLOROBENZENE		99.2	% recov	rery 1			
Run ID: R257390 / Work Group No.: WG196	662						

Run ID: R257390 / Work Group No.: WG196662 Prep Datel: 05-JAN-15 Analyzed 05-Jan-15 13:05

Analytical Report Prepared for NA

Report generated on: Jan 20, 2015 12:47 pm Login No.: L195246

LSR B455-0706-1

Project Title: BAYSIDE GROUND WATER PROJECT

Login Performance Summary

1 - Sample received by the lab on: Dec 13 2014, 12:59 pm

0 - Lost Analyses

1 - Hold Time Exceedences

Turn-around-time met

Samples included in this report:

Site Sample Type Collected Locator ClientID Sample Type Collected Site Locator L195246-1 GRAB 13-Dec-2014 10:05 GW BAYSIDE BAY1-MW2S MW-2S

Legend to the laboratory qualifiers used in this report:

D - Surrogate spike outside of control limits

H - Analyzed past hold time

 $\ensuremath{\mathrm{J}}$ - Estimated value, quantitation does not meet SOP criteria

N - Spike recovery outside of control limits

U - Analyte not detected

Qualifiers for subcontract work - See textvalue for description



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW2S OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW2-60

ClientID: MW-2S

Lab ID: L195246-1 (P202442-2)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 13 2014, 10:05am Sample collector: DSS Date Received: Dec 13 2014, 12:59pm Sample receiver: JXIE

Sample Comments: MW-2S; +FLD DATA: pH = 6.57; Cl2R = 0.2 mg/L; Depth to GW = 7.3 feet; GW

Elevation = __na__feet; Labelled as RAW WATER for the program. (Analytical

NOTE: may need to dilute for ICP & IC - salt water intrusion

Method Reference						Matrix	Taq
	alifier	Result	Units	Dilution	MDL	RL/ML	5
Method: SAMPLER PROVIDED FIELD MEASUREMENTS	- DATA EN	NTRY LIST FOR	FIELD DATA			GroundH2O	
FIELD ANALYSIS/OBSERVATION DATA PARAMETERS							
PH		6.57	pH units	1			
DEPTH		7.3	feet	1			
CHLORINE RESIDUAL: TOTAL		0.2	mg/L	1	0.02		
Run ID: R257026 / Work Group No.: WG196504							
Prep Date1: 13-DEC-14 Analyzed 13-Dec-14 10:	:05						
W. I. J. T. 2000 T. I. J. J. J. GG/MG						g 3770.0	
Method: EPA 8260B - Trihalomethanes, GC/MS						GroundH20	
TARGET ANALYTES		0 15	/-	1	0.15		
CHLOROFORM	U	0.17	ug/L	1	0.17		
BROMODICHLOROMETHANE	U	0.079	ug/L	1	0.079		
DIBROMOCHLOROMETHANE	Ū	0.13	ug/L	1	0.13		
BROMOFORM	Ū	0.23	ug/L	1	0.23		
INTERNAL STANDARD							
FLUOROBENZENE		87.4	% recovery				
D5-CHLOROBENZENE		91.0	% recovery				
D4-1,4-DICHLOROBENZENE		90.8	% recovery	1			
SURROGATE							
D8-TOLUENE		103	% recovery	1			
4-BROMOFLUOROBENZENE		100	% recovery	1			
Run ID: R256878 / Work Group No.: WG196297							
Prep Datel: 16-DEC-14 Analyzed 16-Dec-14 13	:16						
Method: EPA 300.1 - Ion Chromatography						GroundH2O	1
Instrument calibrated 09-DEC-14							
TARGET ANALYTES							
CHLORIDE		39,000	mg/L	5000	10		
SURROGATE							
DICHLOROACETATE		93	% recovery	5000			
Run ID: R256880 / Work Group No.: WG196371			-				
Prep Date1: 18-DEC-14 Analyzed 18-Dec-14 15:	:50						
Method: EPA 300.1 - Ion Chromatography						GroundH20	
Instrument calibrated 09-DEC-14							
TARGET ANALYTES							
NITRATE AS N	н	23	mg/L	5000	4.5	0.4	
SULFATE		6,100	mg/L	5000	15	0.5	
SURROGATE							
DICHLOROACETATE	D	120	% recovery	5000			
Run ID: R256792 / Work Group No.: WG196252			_				
Prep Date1: 15-DEC-14 Analyzed 15-Dec-14 10:	:34						
-							
Method: EPA 552.2 - Haloacetic Acids & Dalag	pon					GroundH20	
TARGET ANALYTES							
BROMOCHLOROACETIC ACID	U	0.15	ug/L	1	0.15		
BROMODICHLOROACETIC ACID	Ū	0.31	ug/L	1	0.31		
CHLORODIBROMOACETIC ACID	Ū	0.31	ug/L	1	0.31		
DALAPON	Ū	0.53	ug/L	1	0.53		
DIBROMOACETIC ACID	Ū	0.25	ug/L	1	0.25	1	
DICHLOROACETIC ACID	Ū	0.18	ug/L ug/L	1	0.18	1	
	Ü	0.10	~3/ ~	_	0.10	-	

RL is either the client requested or regulatory mandated Reporting Limit. ML is the regulatory mandated Minimum Level



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

GW BAYSIDE BAY1-MW2S East Bay Ground Water Injection/Extraction Project Bayside Groundwater Site:

Locator: OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW2-60

ClientID: MW-2S

Lab ID: L195246-1 (P202442-2)
Sample Type: GRAB (Instantaneous Grab)

Prep Datel: 15-DEC-14 Analyzed 15-Dec-14 12:40

Date Collected: Dec 13 2014, 10:05am Sample collector: DSS Date Received: Dec 13 2014, 12:59pm Sample receiver: JXIE

Sample Comments: MW-2S; +FLD DATA: pH = 6.57; Cl2R = 0.2 mg/L; Depth to GW = 7.3 feet; GW

Elevation = __na__feet; Labelled as RAW WATER for the program. (Analytical

NOTE: may need to dilute for ICP & IC - salt water intrusion

Matrix Tog Parameter Qualifier Result Units Dilution MDL ML/ML							
MONDEMEMBER TICALED	Method Reference						Matrix Tag
MANDELLIAGRACEFIC ACID		~					<i>,</i>
######################################							
TRICELOROACETIC ACID	MONOCHLOROACETIC ACID	U		ug/L	1		2
MAIL CALCULATED FROM OTHER RESULTS 11A1(5)	TRIBROMOACETIC ACID	U,N,J	0.72	ug/L		0.72	
HAM.15	TRICHLOROACETIC ACID	U	0.17	ug/L	1	0.17	1
MARKA 9	VALUE CALCULATED FROM OTHER RESULTS						
NUTRING SYMBOLARD 120	HAA(5)		0.0	ug/L		1.5	
1.20	HAA(9)		0.0	ug/L		3	
SURROGATE	INTERNAL STANDARD						
2.3 - DIERCOMOPROPICANIC ACID 120	1,2,3-TRICHLOROPROPANE		120	% recov	rery	1	
Run 1D: R257156 / Work Group No.: WG196473	SURROGATE						
Prep Datel: 16-DEC-14 Prep Date2: 23-DEC-14 Analyzed 25-Dec-14 04:29	2,3-DIBROMOPROPIONIC ACID		120	% recov	rery	1	
Method: SM2320B - 1997, Titration TARGET ANALYTES ALKALINITY: TOTAL AS CACO3 380 mg/L 1 5 Run ID: R256761 / Work Group No.: WG196255 Prep Datel: 15-DEC-14 Analyzed 15-Dec-14 08:03 Method: SM2340C - 1997, Titration: EDTA TARGET ANALYTES HARDNESS: TOTAL AS CACO3 mg/L 200 600 Run ID: R256790 / Work Group No.: WG196294 Prep Datel: 16-DEC-14 Analyzed 16-Dec-14 10:00 Method: SM2540C - 1997, Dried at 180C groundH2O TARGET ANALYTES Run ID: R256789 / Work Group No.: WG196348 Prep Datel: 18-DEC-14 Analyzed 18-Dec-14 07:00 Method: SM2500-CO2 D - Calculation TARGET ANALYTES ALKALINITY: BICARBONATE ALKALINITY: BICARBONATE ALKALINITY: BICARBONATE ALKALINITY: BICARBONATE ALKALINITY: BICARBONATE ALKALINITY: CARSONATE ALKALINITY: MCDROUDE Method: SM4500-CO2 D - Calculation TARGET ANALYTES ALKALINITY: HYDROXIDE U 0.10 mg/L 1 0.1	_						
ALKALINITY: TOTAL AS CACO3 Run ID: R256761 / Work Group No.: WG196255 Prep Date1: 15-DEC-14 Analyzed 15-Dec-14 08:03 Method: SM2340C - 1997, Titration: EDTA TARGET ANALYTES HARDNESS: TOTAL AS CACO3 Run ID: R256790 / Work Group No.: WG196294 Prep Date1: 16-DEC-14 Analyzed 16-Dec-14 10:00 Method: SM2540C - 1997, Dried at 180C TARGET ANALYTES TOTAL DISSOLVED SOLIDS Run ID: R256883 / Work Group No.: WG196348 Prep Date1: 18-DEC-14 Analyzed 18-Dec-14 07:00 Method: SM4500-CO2 D - Calculation TARGET ANALYTES RUN ID: R256686 / Work Group No.: WG196268 Prep Date1: 15-DEC-14 Analyzed 15-Dec-14 12:40 Method: SM4500-CO2 D - Calculation TARGET ANALYTES ALKALINITY: BICARBONATE RUN ID: R256766 / Work Group No.: WG196268 Prep Date1: 15-DEC-14 Analyzed 15-Dec-14 12:40 Method: SM4500-CO2 D - Calculation TARGET ANALYTES ALKALINITY: CARBONATE RUN ID: R256766 / Work Group No.: WG196268 Prep Date1: 15-DEC-14 Analyzed 15-Dec-14 12:40 Method: SM4500-CO2 D - Calculation TARGET ANALYTES ALKALINITY: CARBONATE ALKALINITY: CARBONATE RUN ID: R256766 / Work Group No.: WG196268 Prep Date1: 15-DEC-14 Analyzed 15-Dec-14 12:40 Method: SM4500-CO2 D - Calculation TARGET ANALYTES ALKALINITY: CARBONATE ALKALINITY: CARBONATE RUN ID: R256766 / Work Group No.: WG196268 Prep Date1: 15-DEC-14 Analyzed 15-Dec-14 12:40 Method: SM4500-CO2 D - Calculation TARGET ANALYTES ALKALINITY: HYDROXIDE U 0.10 mg/L 1 0.1	Prep Date1: 16-DEC-14 Prep Date2: 23-DEC	C-14 Analyze	d 25-Dec-14	04:29			
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Run ID: R256883 / Work Group No.: WG196348 Prep Datel: 18-DEC-14 Analyzed 18-Dec-14 07:00 Method: SM4500-CO2 D - Calculation	TARGET ANALYTES						
Prep Date1: 18-DEC-14 Analyzed 18-Dec-14 07:00 Method: SM4500-CO2 D - Calculation GroundH2O TARGET ANALYTES 380 mg/L 1 5 ALKALINITY: BICARBONATE 380 mg/L 1 5 Run ID: R256766 / Work Group No.: WG196268 GroundH2O Prep Date1: 15-DEC-14 Analyzed 15-Dec-14 12:40 Mg/L 1 0.1 Method: SM4500-CO2 D - Calculation GroundH2O TARGET ANALYTES ALKALINITY: HYDROXIDE U 0.10 mg/L 1 0.1	TOTAL DISSOLVED SOLIDS		83,000	mg/L	20	220	
Method: SM4500-CO2 D - Calculation	Run ID: R256883 / Work Group No.: WG1963	348					
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TARGET ANALYTES ALKALINITY: HYDROXIDE U 0.10 mg/L 1 0.1	Method: SM4500-CO2 D - Calculation						GroundH2O
and the state of t							
5,	ALKALINITY: HYDROXIDE	U	0.10	mg/L	1	0.1	
	Run ID: R256766 / Work Group No.: WG196	268					



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater Site:

Locator: BAY1-MW2S ${
m OW-1}$ the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW2-60

ClientID: MW-2S

L195246-1 (P202442-2) Lab ID: Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 13 2014, 10:05am Sample collector: DSS Date Received: Dec 13 2014, 12:59pm Sample receiver: JXIE

Sample Comments: MW-2S; +FLD DATA: pH = 6.57; Cl2R = 0.2 mg/L; Depth to GW = 7.3 feet; GW

Elevation = __na__feet; Labelled as RAW WATER for the program. (Analytical

NOTE: may need to dilute for ICP & IC - salt water intrusion

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: SM4500-NH3 B, C - 1997, Distillat	ion & Titrat	ion				GroundH20	
TARGET ANALYTES	.ioii a liciac	1011				OI Ounding O	
AMMONIA AS N	υ	0.300	mq/L	1	0.3		
		0.300	IIIg/L	1	0.3		
Run ID: R256866 / Work Group No.: WG19637							
Prep Date1: 18-DEC-14 Analyzed 18-Dec-14	10:00						
Method: EPA 200.7 - Rev. 4.4, ICP Scan						RawH2O	
TARGET ANALYTES							
CALCIUM	1.2	3E+06	ug/L	10.4	156		
IRON	U	31.2	ug/L	10.4	31.2	100	
POTASSIUM	4	62,000	ug/L	10.4	156		
MAGNESIUM	2.6	8E+06	ug/L	10.4	93.6		
MANGANESE		36,900	ug/L	10.4	5.2	20	
SODIUM	2.2	0E+07	ug/L	52	570		
Run ID: R256898 / Work Group No.: WG19638	32						
Dren Datel: 19-DEC-14 Analyzed 19-Dec-14	11:06						

Prep Datel: 19-DEC-14 Analyzed 19-Dec-14 11:06

Analytical Report Prepared for NA

Report generated on: Jan 20, 2015 12:47 pm Login No.: L195233

LSR B455-0706-1

Project Title: BAYSIDE GROUND WATER PROJECT

Login Performance Summary

2 - Samples received by the lab on: Dec 12 2014, 01:16 pm

0 - Lost Analyses

0 - Hold Time Exceedences

Turn-around-time met

Samples included in this report:

Sample	Type Collected	Site	Locator	ClientID
L195233-1	GRAB 12-Dec-2014 12:34	W BAYSIDE	BAY1-MW2I	MW-2I
L195233-2	QCFB 12-Dec-2014 12:34	FIELD QC	COLLECTION QC	-

Legend to the laboratory qualifiers used in this report:

J - Estimated value, quantitation does not meet SOP criteria

U - Analyte not detected

Qualifiers for subcontract work - See textvalue for description



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW2I OW-1 the same parcel as the Bayside Well on Oro Loma Property; aka BAY1-MW2D until 11-2009;

formerly BAY1-MW2-190

ClientID: MW-2I

Lab ID: L195233-1 (P202127-3)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 12 2014, 12:34pm Sample collector: T QUANE Date Received: Dec 12 2014, 01:16pm Sample receiver: PTRUONG

Sample Comments: MW-2I; +FLD DATA: pH =7.9; Cl2R = 0.0 mg/L; Depth to GW = 12.83 feet; GW

Elevation = __NA___ feet; Labelled as RAW WATER for the program.

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: EPA 8260B - Trihalomethanes, GC/	MS					GroundH20	
TARGET ANALYTES							
CHLOROFORM	Ŭ	0.17	ug/L	1	0.17		
BROMODICHLOROMETHANE	Ŭ	0.079	ug/L	1	0.079		
DIBROMOCHLOROMETHANE	Ŭ	0.13	ug/L	1	0.13		
BROMOFORM	U	0.23	ug/L	1	0.23		
INTERNAL STANDARD							
FLUOROBENZENE		91.4	% recover	y 1			
D5-CHLOROBENZENE		92.4	% recover	y 1			
D4-1,4-DICHLOROBENZENE		92.6	% recover	y 1			
SURROGATE							
D8-TOLUENE		104	% recover	y 1			
4-BROMOFLUOROBENZENE		103	% recover	y 1			
Run ID: R256878 / Work Group No.: WG1962	197						
Prep Datel: 16-DEC-14 Analyzed 16-Dec-14	12:53						
Method: EPA 300.1 - Ion Chromatography						GroundH20	
Instrument calibrated 09-DEC-14							
TARGET ANALYTES							
CHLORIDE		81	mg/L	10	0.02		
NITRATE AS N	U	0.0090	mg/L	10	0.009	0.4	
SULFATE		31	mg/L	10	0.03	0.5	
SURROGATE							
DICHLOROACETATE		100	% recover	y 10			
Run ID: R256754 / Work Group No.: WG1962	215						
Prep Date1: 12-DEC-14 Analyzed 12-Dec-14	18:39						
w.l. 1. 553 550 0 1 1 1						a 1770.0	
Method: EPA 552.2 - Haloacetic Acids & I	alapon					GroundH20	
TARGET ANALYTES					0.45		
BROMOCHLOROACETIC ACID		0.50	ug/L	1	0.15		
BROMODICHLOROACETIC ACID	Ŭ	0.31	ug/L	1	0.31		
CHLORODIBROMOACETIC ACID	Ū	0.31	ug/L	1	0.31		
DALAPON	Ū	0.53	ug/L	1	0.53	_	
DIBROMOACETIC ACID	Ū	0.25	ug/L	1	0.25	1	
DICHLOROACETIC ACID	Ū	0.18	ug/L	1	0.18	1	
MONOBROMOACETIC ACID	Ū	0.29	ug/L	1	0.29	1	
MONOCHLOROACETIC ACID	U	0.65	ug/L	1	0.65	2	
TRIBROMOACETIC ACID	U,J	0.72	ug/L	1	0.72		
TRICHLOROACETIC ACID	U	0.17	ug/L	1	0.17	1	
VALUE CALCULATED FROM OTHER RESULTS							
HAA(5)		0.0	ug/L		1.5		
HAA(9)		0.50	ug/L		3		
INTERNAL STANDARD							
1,2,3-TRICHLOROPROPANE		120	% recover	У	1		
SURROGATE							
2,3-DIBROMOPROPIONIC ACID		110	% recover	У	1		
Run ID: R257156 / Work Group No.: WG1964	173						
Prep Date1: 16-DEC-14 Prep Date2: 23-DEC	2-14 Analyzed	25-Dec-14 0	3:46				

RL is either the client requested or regulatory mandated Reporting Limit. ML is the regulatory mandated Minimum Level



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW2I OW-1 the same parcel as the Bayside Well on Oro Loma Property; aka BAY1-MW2D until 11-2009;

formerly BAY1-MW2-190

ClientID: MW-2I

Lab ID: L195233-1 (P202127-3)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 12 2014, 12:34pm Sample collector: T QUANE Date Received: Dec 12 2014, 01:16pm Sample receiver: PTRUONG

Sample Comments: MW-2I; +FLD DATA: pH =7.9; Cl2R = 0.0 mg/L; Depth to GW = 12.83 feet; GW Elevation = __NA___ feet; Labelled as RAW WATER for the program.

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: SM2320B - 1997, Titration						GroundH20	
TARGET ANALYTES							
ALKALINITY: TOTAL AS CACO3	_	310	mg/L	1	5		
Run ID: R256761 / Work Group No.: WG19625 Prep Date1: 15-DEC-14 Analyzed 15-Dec-14							
Frep Date: 13-DEC-14 Analyzed 13-Dec-14	00.03						
Method: SM2340C - 1997, Titration: EDTA						GroundH20	
TARGET ANALYTES		0.4	/=		2		
HARDNESS: TOTAL AS CACO3 Run ID: R256790 / Work Group No.: WG19629	14	94	mg/L	1	3		
Prep Date1: 16-DEC-14 Analyzed 16-Dec-14							
Method: SM2540C - 1997, Dried at 180C TARGET ANALYTES						GroundH20	
TOTAL DISSOLVED SOLIDS		520	mg/L	1	1.1		
Run ID: R256883 / Work Group No.: WG19634	18	320	97.2	-			
Prep Date1: 18-DEC-14 Analyzed 18-Dec-14	07:00						
Method: SM4500-CO2 D - Calculation						GroundH2O	
TARGET ANALYTES						Groundh20	
ALKALINITY: CARBONATE		2.3	mg/L	1	0.1		
Run ID: R256766 / Work Group No.: WG19626							
Prep Datel: 15-DEC-14 Analyzed 15-Dec-14	12:40						
Method: SM4500-CO2 D - Calculation						GroundH20	
TARGET ANALYTES							
ALKALINITY: BICARBONATE		310	mg/L	1	5		
Run ID: R256766 / Work Group No.: WG19626 Prep Datel: 15-DEC-14 Analyzed 15-Dec-14							
Frep bacer. 13 bbc 14 Analyzed 13 bee 14	12.10						
Method: SM4500-CO2 D - Calculation						GroundH20	
TARGET ANALYTES		0.10	/=		0 1		
ALKALINITY: HYDROXIDE Run ID: R256766 / Work Group No.: WG19626	U S8	0.10	mg/L	1	0.1		
Prep Date1: 15-DEC-14 Analyzed 15-Dec-14							
Method: SM4500-NH3 B, C - 1997, Distillat TARGET ANALYTES	ion & Titr	ation				GroundH20	
AMMONIA AS N		1.12	mg/L	1	0.3		
Run ID: R256797 / Work Group No.: WG19629	93		<u>.</u>				
Prep Datel: 16-DEC-14 Analyzed 16-Dec-14	07:00						
Method: EPA 200.7 - Rev. 4.4, ICP Scan						RawH2O	
TARGET ANALYTES						11411120	
CALCIUM		14,600	ug/L	1.04	15.6		
IRON		213	ug/L	1.04	3.12	100	
POTASSIUM MAGNESIUM		5,330 12,600	ug/L ug/L	1.04	15.6 9.36		
MANGANESE		98.7	ug/L ug/L	1.04	0.52	20	
SODIUM		153,000	ug/L	1.04	11.4		
Run ID: R256898 / Work Group No.: WG19638							
Prep Date1: 19-DEC-14 Analyzed 19-Dec-14	09:10						

RL is either the client requested or regulatory mandated Reporting Limit. ML is the regulatory mandated Minimum Level



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW2I OW-1 the same parcel as the Bayside Well on Oro Loma Property; aka BAY1-MW2D until 11-2009;

formerly BAY1-MW2-190

ClientID: MW-2I

Lab ID: L195233-1 (P202127-3)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 12 2014, 12:34pm Sample collector: T QUANE Date Received: Dec 12 2014, 01:16pm Sample receiver: PTRUONG

Sample Comments: MW-2I; +FLD DATA: pH =7.9; Cl2R = 0.0 mg/L; Depth to GW = 12.83 feet; GW

Elevation = __NA___ feet; Labelled as RAW WATER for the program.

Method Reference Matrix Tag

Parameter Qualifier Result Units Dilution MDL RL/ML



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

FIELD QC Site: Sample collection QC

COLLECTION QC Locator: Field QC Sample submitted for analysis

Lab ID: L195233-2 (P202127-6)
Sample Type: QCFB (Field Blank Grab)
Date Collected: Dec 12 2014, 12:34pm Sample collector: T QUANE
Date Received: Dec 12 2014, 01:16pm Sample receiver: PTRUONG Sample Comments: QCFB for L195233-1; Prep'd on 11-DEC-14 by JLA;

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: EPA 8260B - Trihalomethanes, G	C/MS					GroundH20	
TARGET ANALYTES							
CHLOROFORM	U	0.17	ug/L	1	0.17		
BROMODICHLOROMETHANE	U	0.079	ug/L	1	0.079		
DIBROMOCHLOROMETHANE	U	0.13	ug/L	1	0.13		
BROMOFORM	Ū	0.23	ug/L	1	0.23		
INTERNAL STANDARD							
FLUOROBENZENE		91.6	% recov	ery 1			
D5-CHLOROBENZENE		97.4	% recov	ery 1			
D4-1,4-DICHLOROBENZENE		96.6	% recov	ery 1			
SURROGATE							
D8-TOLUENE		102	% recov	ery 1			
4-BROMOFLUOROBENZENE		97.8	% recov	ery 1			
Run ID: R256878 / Work Group No.: WG19	6297						

Prep Datel: 16-DEC-14 Analyzed 16-Dec-14 12:31

Analytical Report Prepared for NA

Report generated on: Jan 20, 2015 12:47 pm Login No.: L195299

LSR B455-0706-1

Project Title: BAYSIDE GROUND WATER PROJECT

Login Performance Summary

3 - Samples received by the lab on: Dec 16 2014, 11:40 am

0 - Lost Analyses

0 - Hold Time Exceedences

Turn-around-time met

Samples included in this report:

Sample	Type Collected	Site	Locator	ClientID
L195299-1	GRAB 16-Dec-2014 09:14	: GW BAYSIDE	BAY1-MW4	-
L195299-2	GRAB 16-Dec-2014 10:01	GW BAYSIDE	BAY1-MW4	-
L195299-3	QCFB 16-Dec-2014 09:26	FIELD QC	COLLECTION QC	-

Legend to the laboratory qualifiers used in this report:

< - Less than

JB - Estimated value, method blank exceeds 10% of sample concentration

 ${\tt N}$ - Spike recovery outside of control limits

Q - Data not suitable for regulatory compliance reporting

U - Analyte not detected

Qualifiers for subcontract work - See textvalue for description $% \left(1\right) =\left(1\right) +\left(



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW4 OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW5

Lab ID: L195299-1 (P202125-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 16 2014, 09:14am Sample collector: N KLUMPP Date Received: Dec 16 2014, 11:40am Sample receiver: PTRUONG

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.22

 ${\tt CL2R}$ = 0.1 DEPTH =14.97 . Extract 508A within HOLDTIME (Pending results

of 508-PCBS will determine if analysis to proceed)

Parameter	Method Reference						Matrix Ta	a
Method: SAMPLEK PROVIDED FIELD MEASUREMENTS - DATA ENTRY LIST FOR FIELD DATA FI		Oualifier	Result	Units	Dilution	MDI		9
FELD ANALYSISOSSERVI/ON DATA PARAMETERS FILE 1		guarrie	110001	011100	211401011		112/112	
PEP 14.97 Feet 1 14.97 Feet 14.97 Feet	Method: SAMPLER PROVIDED FIELD MEASURE	MENTS - DATA ENT	RY LIST FOR	R FIELD DATA	1		RawH2O	
DEPTH	FIELD ANALYSIS/OBSERVATION DATA PARAMETERS							
CHLORIN RESIDUAL: IDTAL No. 1	PH		8.22	pH units	1			
Num 10 R256999 Mork Group No. Wolf-96489	DEPTH		14.97	feet	1			
Method: EPA 524.2 - Volatile Organice, OC/MS	CHLORINE RESIDUAL: TOTAL		0.1	mg/L	1	0.02		
Method: EPA 524,2 - Volatile Organics, OC/MS	Run ID: R256999 / Work Group No.: WG19	6489						
TARGET AMALYTES	Prep Datel: 16-DEC-14 Analyzed 16-Dec-	14 09:14						
TARGET AMALYTES								
ACETIONE		GC/MS					RawH2O	
RCHYLORIDE								
MILTER								
Tert - Anylo methyle ether U				_				
BENZENE				_				
BROMOCHLOROMETHANE				_				
ROMOCHLOROMETHANE							0.5	
BROMOFICHLOROMETHANE				_				
REMOMDETHANE				<u> </u>				
RENOMETHANE				<u> </u>				
Text-Putyl Alcohol N	BROMOFORM							
N-BUTLIBENZENE	BROMOMETHANE			ug/L				
SEC_BUTYLBENZENE	TERT-BUTYL ALCOHOL			_			2	
TERT-BUTYLBENZENE	N-BUTYLBENZENE			_				
CARBON DISULFIDE				_				
CARBON TETRACHLORIDE	TERT-BUTYLBENZENE							
CHLOROACETONITRILE	CARBON DISULFIDE			ug/L				
CHLOROBENZENE	CARBON TETRACHLORIDE			ug/L		0.25	0.5	
CHLOROBUTANE	CHLOROACETONITRILE	U	0.23	ug/L	1	0.23		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	CHLOROBENZENE	U	0.21	ug/L	1	0.21	0.5	
CHLOROFORM	1-CHLOROBUTANE			ug/L				
Chloromethane				_				
O-CHLOROTOLUENE U 0.19 ug/L 1 0.19 P-CHLOROTOLUENE U 0.19 ug/L 1 0.19 DIBROMOCHLOROMETHANE U 0.26 ug/L 1 0.26 DIBROMOCHLOROPROPANE U 0.28 ug/L 1 0.28 DIBROMORETHANE U 0.28 ug/L 1 0.28 1,2-DICHLOROBENZENE U 0.23 ug/L 1 0.23 0.5 1,3-DICHLOROBENZENE U 0.23 ug/L 1 0.23 0.5 1,4-DICHLOROBENZENE U 0.18 ug/L 1 0.18 0.5 TRANS-1, 4-DICHLORO-2-BUTENE U 0.18 ug/L 1 0.18 0.5 DICHLORODIFLUOROMETHANE U 0.17 ug/L 1 0.17 0.5 1,1-DICHLOROETHANE U 0.21 ug/L 1 0.14 0.5 1,2-DICHLOROETHENE U 0.14 ug/L 1 0.2 <	CHLOROFORM			ug/L				
P-CHLOROTOLUENE	CHLOROMETHANE			ug/L				
DIBROMOCHLOROMETHANE U 0.26 ug/L 1 0.26 DIBROMOCHLOROPROPANE U 0.28 ug/L 1 0.28 DIBROMOMETHANE U 0.28 ug/L 1 0.28 1,2-DICHLOROBENZENE U 0.23 ug/L 1 0.23 0.5 1,3-DICHLOROBENZENE U 0.23 ug/L 1 0.23 0.5 TRANS-1,4-DICHLORO-2-BUTENE U 0.18 ug/L 1 0.18 0.5 TRANS-1,4-DICHLORO-2-BUTENE U 0.20 ug/L 1 0.18 0.5 TRANS-1,4-DICHLORO-2-BUTENE U 0.20 ug/L 1 0.18 0.5 TRANS-1,4-DICHLOROETHANE U 0.17 ug/L 1 0.17 0.5 1,1-DICHLOROETHANE U 0.14 ug/L 1 0.14 0.5 1,1-DICHLOROETHENE U 0.25 ug/L 1 0.2 0.5 CIS-1,2-DICHLOROETHENE U 0.19	O-CHLOROTOLUENE	U	0.19	ug/L	1	0.19		
DIBROMOCHLOROPROPANE U 0.28 ug/L 1 0.28 DIBROMOMETHANE U 0.28 ug/L 1 0.28 1,2-DICHLOROBENZENE U 0.23 ug/L 1 0.23 0.5 1,3-DICHLOROBENZENE U 0.23 ug/L 1 0.23 0.5 1,4-DICHLOROBENZENE U 0.18 ug/L 1 0.18 0.5 TRANS-1,4-DICHLORO-2-BUTENE U 0.20 ug/L 1 0.2 0.5 DICHLORODIFLUOROMETHANE U 0.17 ug/L 1 0.21 0.5 1,1-DICHLOROETHANE U 0.21 ug/L 1 0.21 0.5 1,1-DICHLOROETHENE U 0.20 ug/L 1 0.2 0.5 CIS-1,2-DICHLOROETHENE U 0.25 ug/L 1 0.25 0.5 TRANS-1,2-DICHLOROETHENE U 0.19 ug/L 1 0.19 0.5 1,2-DICHLOROPROPANE U 0.22 </td <td>P-CHLOROTOLUENE</td> <td>U</td> <td></td> <td>ug/L</td> <td></td> <td>0.19</td> <td></td> <td></td>	P-CHLOROTOLUENE	U		ug/L		0.19		
DIBROMOMETHANE U 0.28 ug/L 1 0.28 1,2-DICHLOROBENZENE U 0.23 ug/L 1 0.23 0.5 1,3-DICHLOROBENZENE U 0.23 ug/L 1 0.23 0.5 1,4-DICHLOROBENZENE U 0.18 ug/L 1 0.18 0.5 TRANS-1,4-DICHLORO-2-BUTENE U 0.20 ug/L 1 0.18 0.5 DICHLORODIFLUOROMETHANE U 0.17 ug/L 1 0.17 0.5 1,1-DICHLOROETHANE U 0.21 ug/L 1 0.21 0.5 1,1-DICHLOROETHENE U 0.20 ug/L 1 0.2 0.5 CIS-1,2-DICHLOROETHENE U 0.25 ug/L 1 0.25 0.5 TRANS-1,2-DICHLOROETHENE U 0.19 ug/L 1 0.19 0.5 1,2-DICHLOROPROPANE U 0.15 ug/L 1 0.15 0.5 1,3-DICHLOROPROPANE U <td>DIBROMOCHLOROMETHANE</td> <td></td> <td>0.26</td> <td>ug/L</td> <td>1</td> <td>0.26</td> <td></td> <td></td>	DIBROMOCHLOROMETHANE		0.26	ug/L	1	0.26		
1,2-DICHLOROBENZENE U 0.23 ug/L 1 0.23 0.5 1,3-DICHLOROBENZENE U 0.23 ug/L 1 0.23 1,4-DICHLOROBENZENE U 0.18 ug/L 1 0.18 0.5 TRANS-1,4-DICHLORO-2-BUTENE U 0.20 ug/L 1 0.2 DICHLORODIFLUOROMETHANE U 0.17 ug/L 1 0.17 0.5 1,1-DICHLOROETHANE U 0.14 ug/L 1 0.14 0.5 1,1-DICHLOROETHENE U 0.20 ug/L 1 0.14 0.5 1,1-DICHLOROETHENE U 0.25 ug/L 1 0.25 0.5 TRANS-1,2-DICHLOROETHENE U 0.19 ug/L 1 0.19 0.5 1,2-DICHLOROPROPANE U 0.19 ug/L 1 0.15 0.5 1,3-DICHLOROPROPANE U 0.24 ug/L 1 0.24 1,1-DICHLOROPROPANE U 0.24 ug/L 1 0.24 1,1-DICHLOROPROPANE U	DIBROMOCHLOROPROPANE	U	0.28	ug/L	1	0.28		
1,3-DICHLOROBENZENE	DIBROMOMETHANE	U		ug/L		0.28		
1,4-DICHLOROBENZENE U 0.18 ug/L 1 0.18 0.5 TRANS-1,4-DICHLORO-2-BUTENE U 0.20 ug/L 1 0.2 DICHLORODIFLUOROMETHANE U 0.17 ug/L 1 0.17 0.5 1,1-DICHLOROETHANE U 0.14 ug/L 1 0.14 0.5 1,2-DICHLOROETHENE U 0.20 ug/L 1 0.2 0.5 CIS-1,2-DICHLOROETHENE U 0.25 ug/L 1 0.25 0.5 TRANS-1,2-DICHLOROETHENE U 0.19 ug/L 1 0.19 0.5 1,2-DICHLOROETHENE U 0.19 ug/L 1 0.19 0.5 1,2-DICHLOROETHENE U 0.15 ug/L 1 0.19 0.5 1,2-DICHLOROPROPANE U 0.15 ug/L 1 0.22 SEC-DICHLOROPROPANE U 0.24 ug/L 1 0.24 1,1-DICHLOROPROPENE U 0.24 ug/L 1 0.26	1,2-DICHLOROBENZENE	U	0.23	ug/L		0.23	0.5	
TRANS-1,4-DICHLORO-2-BUTENE U 0.20 ug/L 1 0.17 0.5 DICHLORODIFLUOROMETHANE U 0.17 ug/L 1 0.17 0.5 1,1-DICHLOROETHANE U 0.21 ug/L 1 0.21 0.5 1,2-DICHLOROETHANE U 0.14 ug/L 1 0.14 0.5 1,1-DICHLOROETHENE U 0.20 ug/L 1 0.2 0.5 CIS-1,2-DICHLOROETHENE U 0.25 0.5 CIS-1,2-DICHLOROETHENE U 0.25 0.5 TRANS-1,2-DICHLOROETHENE U 0.19 ug/L 1 0.25 0.5 TRANS-1,2-DICHLOROETHENE U 0.19 ug/L 1 0.19 0.5 1,2-DICHLOROPROPANE U 0.15 ug/L 1 0.19 0.5 1,3-DICHLOROPROPANE U 0.22 ug/L 1 0.22 SEC-DICHLOROPROPANE U 0.24 ug/L 1 0.22 SEC-DICHLOROPROPANE U 0.24 ug/L 1 0.24 1,1-DICHLOROPROPENE U 0.26 ug/L 1 0.24	•			_				
DICHLORODIFLUOROMETHANE U 0.17 ug/L 1 0.17 0.5 1,1-DICHLOROETHANE U 0.21 ug/L 1 0.21 0.5 1,2-DICHLOROETHANE U 0.14 ug/L 1 0.14 0.5 1,1-DICHLOROETHENE U 0.20 ug/L 1 0.25 0.5 CIS-1,2-DICHLOROETHENE U 0.19 ug/L 1 0.19 0.5 TRANS-1,2-DICHLOROETHENE U 0.19 ug/L 1 0.19 0.5 1,2-DICHLOROPROPANE U 0.15 ug/L 1 0.15 0.5 1,3-DICHLOROPROPANE U 0.24 ug/L 1 0.24 0.24 5EC-DICHLOROPROPANE U 0.24 ug/L 1 0.24 0.24 1,1-DICHLOROPROPENE U 0.26 ug/L 1 0.26 0.24				_			0.5	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$				_				
1,2-DICHLOROETHANE U 0.14 ug/L 1 0.14 0.5 1,1-DICHLOROETHENE U 0.20 ug/L 1 0.2 0.5 CIS-1,2-DICHLOROETHENE U 0.25 ug/L 1 0.25 0.5 TRANS-1,2-DICHLOROETHENE U 0.19 ug/L 1 0.19 0.5 1,2-DICHLOROPROPANE U 0.15 ug/L 1 0.15 0.5 1,3-DICHLOROPROPANE U 0.24 ug/L 1 0.24 SEC-DICHLOROPROPANE U 0.24 ug/L 1 0.24 1,1-DICHLOROPROPENE U 0.26 ug/L 1 0.26								
1,1-DICHLOROETHENE U 0.20 ug/L 1 0.2 0.5 CIS-1,2-DICHLOROETHENE U 0.25 ug/L 1 0.25 0.5 TRANS-1,2-DICHLOROETHENE U 0.19 ug/L 1 0.19 0.5 1,2-DICHLOROPROPANE U 0.15 ug/L 1 0.15 0.5 1,3-DICHLOROPROPANE U 0.22 ug/L 1 0.22 SEC-DICHLOROPROPANE U 0.24 ug/L 1 0.24 1,1-DICHLOROPROPENE U 0.26 ug/L 1 0.26	•			_				
CIS-1,2-DICHLOROETHENE U 0.25 ug/L 1 0.25 0.5 TRANS-1,2-DICHLOROETHENE U 0.19 ug/L 1 0.19 0.5 1,2-DICHLOROPROPANE U 0.15 ug/L 1 0.15 0.5 1,3-DICHLOROPROPANE U 0.22 ug/L 1 0.22 SEC-DICHLOROPROPANE U 0.24 ug/L 1 0.24 1,1-DICHLOROPROPENE U 0.26 ug/L 1 0.26				_				
TRANS-1,2-DICHLOROETHENE U 0.19 ug/L 1 0.19 0.5 1,2-DICHLOROPROPANE U 0.15 ug/L 1 0.15 0.5 1,3-DICHLOROPROPANE U 0.22 ug/L 1 0.22 SEC-DICHLOROPROPANE U 0.24 ug/L 1 0.24 1,1-DICHLOROPROPENE U 0.26 ug/L 1 0.26				_				
1,2-DICHLOROPROPANE U 0.15 ug/L 1 0.15 0.5 1,3-DICHLOROPROPANE U 0.22 ug/L 1 0.22 SEC-DICHLOROPROPANE U 0.24 ug/L 1 0.24 1,1-DICHLOROPROPENE U 0.26 ug/L 1 0.26	•			_				
1,3-DICHLOROPROPANE U 0.22 ug/L 1 0.22 SEC-DICHLOROPROPANE U 0.24 ug/L 1 0.24 1,1-DICHLOROPROPENE U 0.26 ug/L 1 0.26				_				
SEC-DICHLOROPROPANE U 0.24 ug/L 1 0.24 1,1-DICHLOROPROPENE U 0.26 ug/L 1 0.26	1,2-DICHLOROPROPANE	U		ug/L			0.5	
1,1-DICHLOROPROPENE U 0.26 ug/L 1 0.26	•			<u> </u>				
· · · · · · · · · · · · · · · · · · ·				ug/L				
1 1 DIGITION 2 DECEMBER 11 0 21 12 1 1 0 21	1,1-DICHLOROPROPENE	U		ug/L				
1,1-DICHIDORO-Z-PROPANONE 0 0.21 Ug/L 1 0.21	1,1-DICHLORO-2-PROPANONE	U	0.21	ug/L	1	0.21		



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW4 OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW5

Lab ID: L195299-1 (P202125-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 16 2014, 09:14am Sample collector: N KLUMPP Date Received: Dec 16 2014, 11:40am Sample receiver: PTRUONG

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.22

 ${\tt CL2R}$ = 0.1 DEPTH =14.97 . Extract 508A within HOLDTIME (Pending results

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
CIS-1,3-DICHLOROPROPENE	Ū	0.23	ug/L	1	0.23	0.5	
TRANS-1,3-DICHLOROPROPENE	Ū	0.18	ug/L	1	0.18	0.5	
DIISOPROPYL ETHER	Ū	0.29	ug/L	1	0.29		
ETHYL BENZENE	U	0.18	ug/L	1	0.18	0.5	
ETHYL ETHER	U	0.20	ug/L	1	0.2		
ETHYLENE DIBROMIDE	Ū	0.19	ug/L	1	0.19		
ETHYLMETHACRYLATE	U	0.14	ug/L	1	0.14		
ETHYL-T-BUTYL ETHER	Ū	0.19	ug/L	1	0.19	3	
FLUOROTRICHLOROMETHANE	Ū	0.22	ug/L	1	0.22	5	
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	Ū	0.25	ug/L	1	0.25	10	
HEXACHLOROBUTADIENE	U	0.20	ug/L	1	0.2		
HEXACHLOROETHANE	U	0.25	ug/L	1	0.25		
2-HEXANONE	U	0.25	ug/L	1	0.25		
IODOMETHANE	Ū	0.69	ug/L	1	0.69		
ISOPROPYLBENZENE	Ū	0.21	ug/L	1	0.21		
P-ISOPROPYLTOLUENE	Ū	0.22	ug/L	1	0.22		
METHYLACRYLONITRILE	Ū	0.20	ug/L	1	0.2		
METHYLACRYLATE	Ū	0.26	ug/L	1	0.26		
METHYLENE CHLORIDE	Ū	0.18	ug/L	1	0.18	0.5	
2-BUTANONE	Ū	0.43	ug/L	1	0.43		
4-METHYL-2-PENTANONE	Ū	0.20	ug/L	1	0.2		
METHYLMETHACRYLATE	Ū	0.28	ug/L	1	0.28		
METHYL-T-BUTYL ETHER	Ū	0.39	ug/L	1	0.39	3	
NAPHTHALENE	Ū	0.20	ug/L	1	0.2	3	
NITROBENZENE	Ū	1.0	ug/L	1	1		
2-NITROPROPANE	Ū	0.77	ug/L	1	0.77		
PENTACHLOROETHANE	Ū	0.17	ug/L	1	0.17		
N-PROPYLBENZENE	Ū	0.20	ug/L	1	0.2		
STYRENE	Ū	0.19	ug/L	1	0.19	0.5	
1,1,1,2-TETRACHLOROETHANE	Ū	0.18	ug/L	1	0.18	0.5	
1,1,2,2-TETRACHLOROETHANE	Ū	0.20	ug/L	1	0.2	0.5	
TETRACHLOROETHENE	Ū	0.20	ug/L	1	0.2	0.5	
TETRAHYDROFURAN	Ū	0.54	ug/L	1	0.54	0.5	
TOLUENE	Ū	0.16	ug/L	1	0.16	0.5	
1,2,3-TRICHLOROBENZENE	Ū	0.10	ug/L	1	0.24	0.5	
1,2,4-TRICHLOROBENZENE 1,2,4-TRICHLOROBENZENE	Ū	0.19	ug/L ug/L	1	0.19	0.5	
1,1,1-TRICHLOROETHANE	Ū	0.19	_	1	0.19	0.5	
1,1,1-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE	Ū	0.19	ug/L ug/L	1	0.19	0.5	
TRICHLOROETHENE	Ū	0.17	ug/L	1	0.17	0.5	
	Ū	0.17		1	0.17	0.5	
1,2,3-TRICHLOROPROPANE 1,2,4-TRIMETHYLBENZENE	Ū	0.19	ug/L	1	0.19		
1,2,4-IRIMETHYLBENZENE 1,3,5-TRIMETHYLBENZENE	Ū	0.21	ug/L	1	0.2		
			ug/L	1		0 5	
VINYL CHLORIDE	Ū	0.22	ug/L		0.22	0.5	
O-XYLENE	U	0.18	ug/L	1	0.18	0.5	
M+P XYLENES	Ū	0.37	ug/L	1	0.37	0.5	
VALUE(S) USED TO CALCULATE OTHER VALUE(S)		0 43	/ -	1		0 5	
TOTAL 1,3-DICHLOROPROPENES	U	0.41	ug/L	1		0.5	
TOTAL XYLENES	Ū	0.55	ug/L	1		0.5	
INTERNAL STANDARD		06.					
FLUOROBENZENE		98.4	% recov	very 1			
SURROGATE							
4-BROMOFLUOROBENZENE		97.8	% recov	-			
D4-1,2-DICHLOROBENZENE		102	% recov	ery 1			



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW4 OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW5

Lab ID: L195299-1 (P202125-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 16 2014, 09:14am Sample collector: N KLUMPP Date Received: Dec 16 2014, 11:40am Sample receiver: PTRUONG

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.22

 ${\tt CL2R = 0.1 \ DEPTH = 14.97 \ . \ Extract 508A \ within \ HOLDTIME \ (Pending \ results)}$

of 508-PCBS will determine if analysis to proceed)

Method Reference						Matrix Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML
Run ID: R257258 / Work Group No.:	WG196458					
Prep Date1: 23-DEC-14 Analyzed 23-	-Dec-14 11:42					
Method: EPA 525.2 - Semivolatile C	Organics, GC/MS					RawH2O
TARGET ANALYTES						
ACENAPHTHYLENE	U	0.034	ug/L	.958	0.034	
ALACHLOR	U	0.037	ug/L	.958	0.037	1
ALDRIN	U	0.024	ug/L	.958	0.024	
ANTHRACENE	U	0.040	ug/L	.958	0.04	
ATRAZINE	U	0.042	ug/L	.958	0.042	0.5
BENZO (A) ANTHRACENE	U	0.016	ug/L	.958	0.016	
BENZO(B)FLUORANTHENE	Ū	0.065	ug/L	.958	0.065	
BENZO(K)FLUORANTHENE	Ū	0.011	ug/L	.958	0.011	
BENZO(A)PYRENE	Ū	0.030	ug/L	.958	0.03	0.1
BENZO(GHI)PERYLENE	Ū	0.014	ug/L	.958	0.014	
BIS(2-ETHYLHEXYL)ADIPATE	JВ	0.096	ug/L	.958	0.029	5
BIS(2-ETHYLHEXYL)PHTHALATE	JB	0.46	ug/L	.958	0.057	3
ALPHA BHC	U	0.024	ug/L	.958	0.024	
BETA BHC	U	0.043	ug/L	.958	0.043	
DELTA BHC	Ū	0.040	ug/L	.958	0.04	
GAMMA BHC	Ū	0.024	ug/L	.958	0.024	0.2
BROMACIL	Ū	0.14	ug/L	.958	0.14	
BUTACHLOR	U	0.019	ug/L	.958	0.019	
BUTYLBENZYL PHTHALATE	JВ	0.096	ug/L	.958	0.023	
CHLORDANE	Ū	0.096	ug/L	.958	0.096	0.1
CHLORDANE-ALPHA	U	0.014	ug/L	.958	0.014	
CHLORDANE-GAMMA	Ū	0.023	ug/L	.958	0.023	
CHLOROBENZILATE	Ū	0.0096	ug/L	.958	0.0096	
CHLORONEB	Ū	0.021	ug/L	.958	0.021	
CHLOROTHALONIL	Ū	0.024	ug/L	.958	0.024	
CHRYSENE	Ū	0.011	ug/L	.958	0.011	
DCPA	Ū	0.029	ug/L	.958	0.029	
4 , 4 ' -DDD	Ū	0.016	ug/L	.958	0.016	
4,4'-DDE	Ū	0.020	ug/L	.958	0.02	
4,4'-DDT	Ū	0.014	ug/L	.958	0.014	
DIBENZO(A,H)ANTHRACENE	Ū	0.016	ug/L	.958	0.016	
DI-N-BUTYL PHTHALATE	ů.	0.16	ug/L	.958	0.083	
DIELDRIN	U	0.021	ug/L	.958	0.003	
DIETHYL PHTHALATE	JВ	0.36	ug/L	.958	0.021	
DIMETHOATE	U	0.034	ug/L	.958	0.034	
DIMETHOATE DIMETHYL PHTHALATE	Ū	0.034	ug/L	.958	0.034	
2,4-DINITROTOLUENE	Ū	0.030	ug/L	.958	0.03	
2,6-DINITROTOLUENE	Ū	0.030	ug/L	.958	0.023	
ALPHA ENDOSULFAN	Ū	0.023	ug/L ug/L	.958	0.023	
	Ū		_			
BETA ENDOSULFAN		0.016	ug/L	.958	0.016	
ENDOSULFAN SULFATE	Ū	0.025	ug/L	.958	0.025	0 1
ENDRIN	U	0.052	ug/L	.958	0.052	0.1
ENDRIN ALDEHYDE	U	0.052	ug/L	.958	0.052	
EPTC	Ŭ 	0.057	ug/L	.958	0.057	
ETRIDIAZOLE	Ŭ	0.024	ug/L	.958	0.024	
FLUORENE	U	0.021	ug/L	.958	0.021	
HEPTACHLOR	U	0.065	ug/L	.958	0.065	
HEPTACHLOR EPOXIDE	Ū	0.13	ug/L	.958	0.13	



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW4 OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW5

Lab ID: L195299-1 (P202125-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 16 2014, 09:14am Sample collector: N KLUMPP Date Received: Dec 16 2014, 11:40am Sample receiver: PTRUONG

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.22

 ${\tt CL2R}$ = 0.1 DEPTH =14.97 . Extract 508A within HOLDTIME (Pending results

of 508-PCBS will determine if analysis to proceed)

Method Reference	- 1161		1.	-13 . 1		Matrix Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML
HEXACHLOROBENZENE	Ū	0.011	ug/L	.958	0.011	0.5
HEXACHLOROCYCLOPENTADIENE	Ū	0.016	ug/L	.958	0.016	1
HEXAZINONE	Ū	0.043	ug/L	.958	0.043	
INDENO(1,2,3-CD)PYRENE	Ū	0.016	ug/L	.958	0.016	
ISOPHORONE	Ū	0.021	ug/L	.958	0.021	
METHOXYCHLOR	Ū	0.011	ug/L	.958	0.011	10
METOLACHLOR	Ū	0.039	ug/L	.958	0.039	
METRIBUZIN	Ū	0.030	ug/L	.958	0.03	
MOLINATE	Ū	0.025	ug/L	.958	0.025	2
AROCLOR 1016	Ū	0.48	ug/L	.958	0.48	0.5
AROCLOR 1221	Ū	0.48	ug/L	.958	0.48	0.5
AROCLOR 1232	U 	0.48	ug/L	.958	0.48	0.5
AROCLOR 1242	U 	0.48	ug/L	.958	0.48	0.5
AROCLOR 1248	U 	0.48	ug/L	.958	0.48	0.5
AROCLOR 1254	U 	0.48	ug/L	.958	0.48	0.5
AROCLOR 1260	U	0.48	ug/L	.958	0.48	0.5
PENTACHLOROPHENOL	U	0.76	ug/L	.958	0.76	
CIS-PERMETHRIN	U	0.020	ug/L	.958	0.02	
TRANS-PERMETHRIN	U 	0.016	ug/L	.958	0.016	
PHENANTHRENE	U 	0.014	ug/L	.958	0.014	
PROMETRYN	U	0.053	ug/L	.958	0.053	
PROPACHLOR	Ū	0.011	ug/L	.958	0.011	
PYRENE	U 	0.030	ug/L	.958	0.03	_
SIMAZINE	Ŭ 	0.034	ug/L	.958	0.034	1
TERBACIL	Ū	0.045	ug/L	.958	0.045	_
THIOBENCARB	Ū	0.018	ug/L	.958	0.018	1
TOXAPHENE	Ū	0.48	ug/L	.958	0.48	1
TRIFLURALIN	Ū	0.014	ug/L	.958	0.014	
INTERNAL STANDARD			_	_	_	
D10-ACENAPHTHENE	N	61.6	% recovery		1	
D10-PHENANTHRENE		71.2	% recovery		1	
D12-CHRYSENE		80.0	% recovery	7 1	1	
SURROGATE		0.5				
D12-PERYLENE		96	% recovery		1	
1,3-DIMETHYL-2-NITROBENZENE		83	% recovery		1	
TRIPHENYL PHOSPHATE	4.1	120	% recovery	7 1	1	
Run ID: R257352 / Work Group No.: WG1964		00 D 14 (22.21			
Prep Date1: 24-DEC-14 Prep Date2: 22-DEC	:-14 Analyzed	29-Dec-14 2	23:31			
Method: EPA 548.1 - Endothall, GC/MS						RawH2O
TARGET ANALYTES						
ENDOTHALL	Ū	1.0	ug/L	1	1	45
INTERNAL STANDARD	-		<u> </u>			
D10-ACENAPHTHENE		72.0	% recovery	7	1	
Run ID: R257350 / Work Group No.: WG1965	67					
Prep Date1: 19-DEC-14 Prep Date2: 29-DEC		29-Dec-14 1	17:06			
Method: EPA 8260B - Trihalomethanes, GC/	MS					GroundH2O
TARGET ANALYTES						
CHLOROFORM	U	0.17	ug/L	1	0.17	
BROMODICHLOROMETHANE	U	0.079	ug/L	1	0.079	
DIBROMOCHLOROMETHANE	Ū	0.13	ug/L	1	0.13	
BROMOFORM	Ū	0.23	ug/L	1	0.23	



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW4 OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW5

Lab ID: L195299-1 (P202125-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 16 2014, 09:14am Sample collector: N KLUMPP Date Received: Dec 16 2014, 11:40am Sample receiver: PTRUONG

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.22

 ${\tt CL2R}$ = 0.1 DEPTH =14.97 . Extract 508A within HOLDTIME (Pending results

of 508-PCBS will determine if analysis to proceed)

Method Reference						Matrix	Tag
~	lifier	Result	Units	Dilution	MDL	RL/ML	
INTERNAL STANDARD							
FLUOROBENZENE		88.2	% recovery				
D5-CHLOROBENZENE		91.0	% recovery	, 1			
D4-1,4-DICHLOROBENZENE		97.4	% recovery	, 1			
SURROGATE							
D8-TOLUENE		102	% recovery	7 1			
4-BROMOFLUOROBENZENE		103	% recovery	7 1			
Run ID: R256878 / Work Group No.: WG196297							
Prep Datel: 16-DEC-14 Analyzed 16-Dec-14 16:	46						
Method: EPA 300.1 - Ion Chromatography						RawH2O	1
Instrument calibrated 09-DEC-14							
TARGET ANALYTES							
CHLORIDE		56	mg/L	5	0.01		
SULFATE		39	mg/L	5	0.015	0.5	
SURROGATE			5.				
DICHLOROACETATE		96	% recovery	7 5			
Run ID: R256845 / Work Group No.: WG196321				•			
Prep Datel: 17-DEC-14 Analyzed 17-Dec-14 14:	05						
Method: EPA 300.1 - Ion Chromatography						RawH20	
Instrument calibrated 09-DEC-14							
TARGET ANALYTES							
FLUORIDE		0.19	mg/L	1	0.0004	0.1	
NITRITE AS N		0.0091	mg/L	1	0.0005	0.4	
NITRATE AS N		0.028	mg/L	1	0.0009	0.4	
SURROGATE							
DICHLOROACETATE		96	% recovery	7 1			
Run ID: R256845 / Work Group No.: WG196321							
Prep Datel: 17-DEC-14 Analyzed 17-Dec-14 14:	42						
Method: EPA 314.0 - Ion Chromatography						RawH2O	
Instrument calibrated 07-JAN-15							
TARGET ANALYTES							
PERCHLORATE	U	0.500	ug/L	1	0.5	4	
Run ID: R257452 / Work Group No.: WG196701			2.				
Prep Datel: 06-JAN-15 Analyzed 08-Jan-15 08:	57						
Wether a PD FOA 1 PD 1 PD 2 PD 2						D - **^^	
Method: EPA 504.1 - EDB & DBCP, GC/ECD TARGET ANALYTES						RawH2O	
ETHYLENE DIBROMIDE	Ū	0.0020	ug/L	1	0.002	0.02	
DIBROMOCHLOROPROPANE	Ū	0.0020	ug/L ug/L	1	0.002	0.02	
Run ID: R257046 / Work Group No.: WG196482	U	0.0020	ug/ Li	1	0.002	0.01	
Prep Date1: 23-DEC-14 Prep Date2: 23-DEC-14	Analyzed	23-Dec-1/ 2	2:30				
rich parer. 79-pre-14 treb parez. 79-pre-14	Anaryzed	23-DEC=14 Z	۷٠٥∪				
Method: EPA 508.1 - Organochlorine Pesticide	s & PCBs:	GC/ECD				RawH2O	
TARGET ANALYTES				_			
HEPTACHLOR	U	0.0064	ug/L	1	0.0064	0.01	
HEPTACHLOR EPOXIDE	U	0.0041	ug/L	1	0.0041	0.01	
INTERNAL STANDARD							
PENTACHLORONITROBENZENE		110	% recovery	?	1		
SURROGATE							
DECACHLOROBIPHENYL		99	% recovery	?	1		



TRICHLOROACETIC ACID

HAA(5)

HAA(9)

VALUE CALCULATED FROM OTHER RESULTS

EAST BAY MUNICIPAL UTILITY DISTRICT
Laboratory Services Division
PO Box 24055, MS 59, Oakland, CA 94623
Phone (510)287-1432 Fax (510)465-5462

Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW4 OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW5

Lab ID: L195299-1 (P202125-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 16 2014, 09:14am Sample collector: N KLUMPP Date Received: Dec 16 2014, 11:40am Sample receiver: PTRUONG

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.22

CL2R = 0.1 DEPTH =14.97 . Extract 508A within HOLDTIME (Pending results

of 508-PCBS will determine if analysis to proceed)

Method Reference Matrix Tag Qualifier Dilution RL/ML Run ID: R257488 / Work Group No.: WG196730 Prep Datel: 17-DEC-14 Prep Date2: 07-JAN-15 Analyzed 08-Jan-15 02:41 Method: EPA 508A - PCB Screen, GC/ECD RawH20 TARGET ANALYTES DECACHLOROBIPHENYL O 0.5 Sample not extracted, not analyzed for 508A because 508-PCBs were rushed. See R257302 for 508-PCB Run ID: R257426 / Work Group No.: WG196645 Prep Date1: 26-DEC-14 Prep Date2: 02-JAN-15 Analyzed 02-Jan-15 12:49 Method: EPA 515.3 - Chlorinated Acids, GC/ECD RawH20 TARGET ANALYTES ACIFLUORFEN TT 0.028 0.028 ua/L BENTAZON TT 0.14 ug/L 1 0.14 2 0.012 0.012 CHLORAMBEN U uq/L 1 (2,4-DICHLOROPHENOXY)ACETIC ACID IJ 0.056 ug/L 1 0.056 10 DALAPON IJ 0.25 uq/L 0.25 10 4-(2,4-DICHLOROPHENOXY)BUTANOIC ACID TT 0.26 ug/L 1 0.26 DACTHAL (DCPA) U 0.050 ug/L 1 0.05 TT 0.036 0.036 1.5 DTCAMBA ug/L 1 3,5-DICHLOROBENZOIC ACID 0.025 0.025 U ug/L 0.21 DICHLORPROP IJ 1 0.21 uq/L DINOSEB U 0.057 uq/L 1 0.057 2 4-NITROPHENOL U 0.075 1 0.075 5 uq/L Qualitative result only. Diazomethane derivatization procedure does not provide accurate quantitation. 0.014 PENTACHLOROPHENOL TT 0.014 ug/L 1 0.2 PICLORAM IJ 0.022 1 0.022 uq/L 1 (2,4,5-TRICHLOROPHENOXY)ACETIC ACID 0.082 IJ 0.082 uq/L 1 2-(2,4,5-TRICHLOROPHENOXY)PROPIONIC ACID U 0.063 ug/L 1 0.063 INTERNAL STANDARD 4,4'-DIBROMOCTAFLUOROBENZENE 130 % recovery 1 SURROGATE DICHLOROPHENYLACETIC ACID 130 % recovery Run ID: R257382 / Work Group No.: WG196674 Prep Date1: 22-DEC-14 Prep Date2: 02-JAN-15 Analyzed 03-Jan-15 00:37 RawH20 Method: EPA 552.2 - Haloacetic Acids & Dalapon TARGET ANALYTES BROMOCHLOROACETIC ACID TT 0.15 ug/L 1 0.15 BROMODICHLOROACETIC ACID U 0.31 1 0.31 ug/L 0.31 0.31 CHLORODIBROMOACETIC ACID IJ uq/L 1 0.53 DALAPON U uq/L 1 0.53 0.25 DIBROMOACETIC ACID U uq/L 1 0.25 1 DICHLOROACETIC ACID IJ 0.18 ug/L 1 0.18 1 MONOBROMOACETIC ACID U 0.29 1 0.29 ua/L 1 MONOCHLOROACETIC ACID 0.72 ug/L 1 0.65 2 U TRIBROMOACETIC ACID 0.72 ug/L 1 0.72

RL is either the client requested or regulatory mandated Reporting Limit. ML is the regulatory mandated Minimum Level

0.17

0.72

0.72

IJ

ug/L

11a/L

ug/L

1

0.17

1.5

1



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW4 OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW5

Lab ID: L195299-1 (P202125-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 16 2014, 09:14am Sample collector: N KLUMPP Date Received: Dec 16 2014, 11:40am Sample receiver: PTRUONG

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.22

 ${\tt CL2R}$ = 0.1 DEPTH =14.97 . Extract 508A within HOLDTIME (Pending results

of 508-PCBS will determine if analysis to proceed)

Method Reference						Matrix	Tag
Parameter Q	ualifier	Result	Units	Dilution	MDL	RL/ML	
INTERNAL STANDARD							
1,2,3-TRICHLOROPROPANE		97	% recov	ery	1		
SURROGATE							
2,3-DIBROMOPROPIONIC ACID		100	% recov	ery	1		
Run ID: R257422 / Work Group No.: WG196718							
Prep Date1: 29-DEC-14 Prep Date2: 06-JAN-1	5 Analyzed	06-Jan-15	20:22				
Method: SM5310C - 2000, TOC, Wet-Oxidation	Method					RawH2O	
TARGET ANALYTES							
TOTAL ORGANIC CARBON		0.61	mg/L	10	0.24		
Run ID: R256852 / Work Group No.: WG196305							
Prep Date1: 17-DEC-14 Analyzed 18-Dec-14 0	5:41						
Method: EPA 531.1 - Carbamates, HPLC						RawH2O	
TARGET ANALYTES							
ALDICARB SULFOXIDE	U	1.10	ug/L	5	1.1	3	
ALDICARB SULFONE	U	2.25	ug/L	5	2.25	4	
ALDICARB	U	2.05	ug/L	5	2.05	3	
OXAMYL	U	2.10	ug/L	5	2.1	20	
METHOMYL	U	1.40	ug/L	5	1.4	2	
3-HYDROXYCARBOFURAN	U	1.15	ug/L	5	1.15	3	
PROPOXUR	U	2.45	ug/L	5	2.45		
CARBOFURAN	U	1.95	ug/L	5	1.95	5	
CARBARYL	U	3.75	ug/L	5	3.75		
METHIOCARB	U	2.60	ug/L	5	2.6		
Run ID: R257312 / Work Group No.: WG196330			_				
Prep Date1: 17-DEC-14 Analyzed 22-Dec-14 1	8:13						
Method: EPA 547 - Glyphosate, HPLC						RawH2O	
TARGET ANALYTES							
GLYPHOSATE	U	10	ug/L	5	10	25	
Run ID: R257272 / Work Group No.: WG196480			_				
Prep Date1: 23-DEC-14 Analyzed 23-Dec-14 1							
Method: EPA 549.2 - Diquat & Paraquat, HPL	C					RawH2O	
TARGET ANALYTES							
DIQUAT	U	0.29	uq/L	1	0.29	4	
PARAOUAT	Ū	0.25	uq/L	1	0.25	20	
Run ID: R257316 / Work Group No.: WG196511		- · · ·	3,			-	
Prep Date1: 18-DEC-14 Prep Date2: 24-DEC-1		24-Dec-14	15:02				
Method: SM2120B - 2001, Visual Comparison						RawH2O	
TARGET ANALYTES						1.0.1.120	
COLOR		2.0	color u	nit 1	1		
pH=8			00101 0		-		
± -							

Run ID: R256831 / Work Group No.: WG196327 Prep Datel: 17-DEC-14 Analyzed 17-Dec-14 12:30



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW4 OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW5

Lab ID: L195299-1 (P202125-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 16 2014, 09:14am Sample collector: N KLUMPP Date Received: Dec 16 2014, 11:40am Sample receiver: PTRUONG

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.22

 ${\tt CL2R}$ = 0.1 DEPTH =14.97 . Extract 508A within HOLDTIME (Pending results

Method Reference						Matrix	Tag
Parameter Q	ualifier	Result	Units	Dilution	MDL	RL/ML	
Method: SM2130B - 2001, Nephelometric						RawH2O	
TARGET ANALYTES							
TURBIDITY		0.28	NTU	1	0.08		
Run ID: R256832 / Work Group No.: WG196328							
Prep Date1: 17-DEC-14 Analyzed 17-Dec-14 1							
Method: SM2320B - 1997, Titration						RawH2O	
TARGET ANALYTES							
ALKALINITY: TOTAL AS CACO3		270	mg/L	1	5		
Run ID: R256829 / Work Group No.: WG196319							
Prep Datel: 17-DEC-14 Analyzed 17-Dec-14 0	7:10						
Method: SM2340C - 1997, Titration: EDTA						RawH2O	
TARGET ANALYTES							
HARDNESS: TOTAL AS CACO3		130	mg/L	1	3		
Run ID: R256989 / Work Group No.: WG196477			_				
Prep Date1: 23-DEC-14 Analyzed 23-Dec-14 1	3:00						
Method: SM2510B - 1997, Meter: Platinum El	ectrode					RawH2O	
TARGET ANALYTES							
CONDUCTIVITY		693	umhos/cm	1	0.3		
Run ID: R256956 / Work Group No.: WG196426							
Prep Date1: 22-DEC-14 Analyzed 22-Dec-14 1	.3:20						
Method: SM2540C - 1997, Dried at 180C						RawH2O	
TARGET ANALYTES							
TOTAL DISSOLVED SOLIDS		450	mg/L	1	11		
Run ID: R256883 / Work Group No.: WG196348			_				
Prep Date1: 18-DEC-14 Analyzed 18-Dec-14 0	7:00						
Method: SM4500-CN C, E - 1999, Distillatio	n & Colorim	etric				RawH2O	
TARGET ANALYTES	ŢŢ	0 002	/T	1	0.003		
CYANIDE: TOTAL	-	0.003	mg/L	1	0.003		
Run ID: R256872 / Work Group No.: WG196347							
Prep Date1: 18-DEC-14 Analyzed 18-Dec-14 1	1:00						
Method: SM4500-CO2 D - Calculation						RawH2O	
TARGET ANALYTES							
ALKALINITY: HYDROXIDE	Ū	0.10	mg/L	1	0.1		
Run ID: R256839 / Work Group No.: WG196337			_				
Prep Datel: 17-DEC-14 Analyzed 17-Dec-14 0	3:15						
						D ***0-	
Method: SM4500-CO2 D - Calculation TARGET ANALYTES						RawH2O	
ALKALINITY: BICARBONATE		270	mq/L	1	5		
ALKALINIIY: BICARBONAIE Run ID: R256839 / Work Group No.: WG196337		270	шg/ ц	1	5		
Run ID: R256839 / Work Group No.: WG19633/ Prep Datel: 17-DEC-14 Analyzed 17-Dec-14 0							
rrep pater. I/-prc-ra Amaryzed I/-pec-14 0	3.13						



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW4 OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW5

Lab ID: L195299-1 (P202125-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 16 2014, 09:14am Sample collector: N KLUMPP Date Received: Dec 16 2014, 11:40am Sample receiver: PTRUONG

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.22

 ${\tt CL2R}$ = 0.1 DEPTH =14.97 . Extract 508A within HOLDTIME (Pending results

Method Reference						Matrix Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML
Method: SM4500-CO2 D - Calculation						RawH2O
TARGET ANALYTES						
ALKALINITY: CARBONATE		4.2	mg/L	1	0.1	
Run ID: R256839 / Work Group No.: WG1963						
Prep Date1: 17-DEC-14 Analyzed 17-Dec-14	03:15					
Mathala GMAEGO MUO DI GO 1007 Diatilla	edan o mdense					GroundH2O
Method: SM4500-NH3 B, C - 1997, Distilla TARGET ANALYTES	tion & Titrat	ion				GroundH20
AMMONIA AS N	Ū	0.300	mq/L	1	0.3	
Run ID: R256982 / Work Group No.: WG1964		0.300	шg/ ц	1	0.3	
Prep Date1: 23-DEC-14 Analyzed 23-Dec-14						
Frep Date: 23-DEC-14 Analyzed 23-DeC-14	00.30					
Method: EPA 200.7 - Rev. 4.4, ICP Scan						RawH2O
TARGET ANALYTES						
ALUMINUM	U	11.4	ug/L	1.04	11.4	50
CALCIUM		32,200	uq/L	1.04	15.6	
COPPER	Ū	6.24	ug/L	1.04	6.24	50
IRON		33.7	ug/L	1.04	3.12	100
POTASSIUM		2,720	ug/L	1.04	15.6	
MAGNESIUM		12,800	ug/L	1.04	9.36	
MANGANESE		239	ug/L	1.04	0.52	20
SODIUM	1	13,000	uq/L	1.04	11.4	
ZINC	U	4.16	ug/L	1.04	4.16	50
Run ID: R256898 / Work Group No.: WG1963	82		3.			
Prep Date1: 19-DEC-14 Analyzed 19-Dec-14						
Method: EPA 200.8 - Rev. 5.4, ICP-MS Sca	n					RawH2O
TARGET ANALYTES						
SILVER	U	0.081	ug/L	1.02	0.081	10
BARIUM		70	ug/L	1.02	0.1	100
BERYLLIUM	U	0.051	ug/L	1.02	0.051	1
CADMIUM		0.16	ug/L	1.02	0.03	1
CHROMIUM		1.8	ug/L	1.02	0.61	10
NICKEL		0.86	ug/L	1.02	0.3	10
LEAD		0.17	ug/L	1.02	0.071	5
ANTIMONY	Ū	0.30	ug/L	1.02	0.3	6
THALLIUM	Ū	0.30	ug/L	1.02	0.3	1
Run ID: R257176 / Work Group No.: WG1965						
Prep Date1: 19-DEC-14 Prep Date2: 29-DEC	-14 Analyzed	29-Dec-14	11:38			
Method: EPA 245.1 - Cold Vapor AA						RawH2O
TARGET ANALYTES						KaWN2U
MERCURY	Ū	0.040	uq/L	1	0.04	
Run ID: R256972 / Work Group No.: WG1964		0.040	ug/L	Τ.	0.04	
Prep Date1: 22-DEC-14 Analyzed 22-Dec-14						
Method: SM3114B - 2009, Gaseous Hydride	AA					RawH2O
TARGET ANALYTES						
ARSENIC		1.3	ug/L	1	0.3	2
Run ID: R256998 / Work Group No.: WG1964	27					
,						
Prep Date1: 18-DEC-14 Prep Date2: 22-DEC	-14 Analyzed	22-Dec-14	12:45			



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW4 OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW5

Lab ID: L195299-1 (P202125-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 16 2014, 09:14am Sample collector: N KLUMPP Date Received: Dec 16 2014, 11:40am Sample receiver: PTRUONG

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 8.22

 ${\tt CL2R}$ = 0.1 DEPTH =14.97 . Extract 508A within HOLDTIME (Pending results

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: SM3114B - 2009, Gaseous Hydride A	AΑ					RawH2O	
TARGET ANALYTES SELENIUM Run ID: R256994 / Work Group No.: WG19642 Prep Date1: 18-DEC-14 Prep Date2: 22-DEC-		0.400 22-Dec-14	ug/L 09:56	1	0.4		
Method: SM9221B - 2006, Multiple Tube Fer	rmentation					RawH2O	
TARGET ANALYTES TOTAL COLIFORMS Run ID: R256925 / Work Group No.: WG19630 Prep Datel: 16-DEC-14 Analyzed 16-Dec-14		13	MPN/100	mL	1.8		
Method: SM9221F - 2001, Multiple Tube Fer	rmentation					RawH2O	
TARGET ANALYTES E. COLI Run ID: R256925 / Work Group No.: WG19630 Prep Datel: 16-DEC-14 Analyzed 16-Dec-14		1.8	MPN/100	mL	1.8		



SUBCONTRACT LAB DATA
THRESHOLD ODOR NUMBER

TEMPERATURE

NUMBER ANALYZING SAMPLE

Run ID: R257048 / Work Group No.: WG196515 Prep Datel: 16-DEC-14 Analyzed 16-Dec-14 16:00

EAST BAY MUNICIPAL UTILITY DISTRICT Laboratory Services Division PO Box 24055, MS 59, Oakland, CA 94623 Phone (510)287-1432 Fax (510)465-5462

Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW4 OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW5

Lab ID: L195299-2 (P202125-3)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 16 2014, 10:01am Sample collector: N KLUMPP Date Received: Dec 16 2014, 11:40am Sample receiver: PTRUONG

Sample Comments: annual BAYSIDE Sampling per DPH Title 22 and WDR; SUBCONTRACT DATA

Comment: ND - non-detect The analysis was performed at 21 C, by client request

ND

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: EPA 218.6 - Hexavalent Chromium	by TC					RawH2O	
Subcontract data from E. S. Babcock Lab	Dy IC					Rawiizo	
Comment: ND - NOT DETECTED AT OR ABOVE :	DIE MEMIOD DES	EGETON TIME					
	THE METHOD DET	ECITON LIMI.	1				
SUBCONTRACT LAB DATA			/=	1	0.010	1	
HEXAVALENT CHROMIUM	ND	0.013	ug/L	1	0.013	1	
Run ID: R257303 / Work Group No.: WG1969							
Prep Date1: 23-DEC-14 Analyzed 23-Dec-14	1 17:39						
Method: EPA 508 - PCBS by 508						RawH2O	
Subcontract data from E. S. Babcock Lab							
Comment: Total PCBs as DCB STORET # 3953	l6; Analyte NC	T DETECTED a	at or above	the Method Det	ection Limit (if	MDL is	
reported), otherwise at or above the Rep							
SUBCONTRACT LAB DATA			•				
TETRACHLORO-M-XYLENE		75	% recove	ery	1		
AROCLOR 1016	ND	0.17	ug/L	1	0.17	0.5	
AROCLOR 1221	ND	0.11	ug/L		0.11	0.5	
AROCLOR 1232	ND	0.19	ug/L		0.19	0.5	
AROCLOR 1242	ND	0.036	ug/L		0.036	0.5	
AROCLOR 1248	ND	0.092	ug/L		0.092	0.5	
AROCLOR 1254	ND	0.29	ug/L		0.29	0.5	
AROCLOR 1260	ND	0.27	ug/L		0.27	0.5	
TOTAL PCB'S	ND	0.5	ug/L		0.5	0.5	
Run ID: R257302 / Work Group No.: WG1969		****	43/2		0.5	0.5	
Prep Date1: 19-DEC-14 Analyzed 23-Dec-14							
riep bater. 19 ble 14 Anaryzea 25 bee 1-	10.33						
Method: PER SUBCONTRACT LABORATORY REPOR	RT - Subcontra	ct data tra	nsmittal			RawH2O	
Subcontract data	ti baboonoro	.oc aaca cra				110111111111111111111111111111111111111	
Comment: Original report transmitted to	client Conv	of report :	archived wi	th data packet			
SUBCONTRACT LAB DATA	ciiche. copy	OI ICPOIC (archivea wi	cii data packet			
DATA TRANSMITTAL							
DATA TRANSMITTAL Run ID: R257047 / Work Group No.: WG1969	516						
· · · · · · · · · · · · · · · · · · ·							
Prep Datel: 16-DEC-14 Analyzed 16-Dec-14	± T0:00						
Method: SM2150B - 1997, Ambient Temperat	ture, one pane	list				RawH2O	
Subcontract data from Caltest Analytical							

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Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

FIELD QC Sample collection QC Site:

COLLECTION QC Locator: Field QC Sample submitted for analysis

Lab ID: L195299-3 (P202125-4)

Sample Type: QCFB (Field Blank Grab)

Date Collected: Dec 16 2014, 09:26am Sample collector: N KLUMPP

Date Received: Dec 16 2014, 11:40am Sample receiver: PTRUONG

Sample Comments: QCFB for L195299-1; Prep'd on 12/11/2014 by JA; 524 acidified with 1+1 HCL?

_yes_Acid CONTAINER ID #1264119

Method Reference						Matrix Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML
Method: EPA 524.2 - Volatile Organi	ics, GC/MS					DrinkH2O
TARGET ANALYTES						
ACETONE	U	0.35	ug/L	1	0.35	
ACRYLONITRILE	U	0.45	ug/L	1	0.45	
ALLYL CHLORIDE	Ū	0.17	uq/L	1	0.17	
TERT-AMYL METHYL ETHER	Ū	0.17	ug/L	1	0.17	3
BENZENE	Ŭ	0.14	ug/L	1	0.14	0.5
BROMOBENZENE	Ū	0.16	ug/L	1	0.16	0.3
BROMOCHLOROMETHANE	Ū	0.10	ug/L	1	0.10	
BROMODICHLOROMETHANE	Ū	0.21	ug/L ug/L	1	0.21	
	Ū		_	1		
BROMOFORM		0.31	ug/L		0.31	
BROMOMETHANE	Ŭ	0.55	ug/L	1	0.55	_
TERT-BUTYL ALCOHOL	Ŭ	1.7	ug/L	1	1.7	2
N-BUTYLBENZENE	Ŭ	0.25	ug/L	1	0.25	
SEC-BUTYLBENZENE	Ŭ	0.69	ug/L	1	0.69	
TERT-BUTYLBENZENE	Ū	0.18	ug/L	1	0.18	
CARBON DISULFIDE	U	0.44	ug/L	1	0.44	
CARBON TETRACHLORIDE	U	0.25	ug/L	1	0.25	0.5
CHLOROACETONITRILE	U	0.23	ug/L	1	0.23	
CHLOROBENZENE	U	0.21	ug/L	1	0.21	0.5
1-CHLOROBUTANE	Ū	0.21	ug/L	1	0.21	
CHLOROETHANE	U	0.38	ug/L	1	0.38	
CHLOROFORM	U	0.15	ug/L	1	0.15	
CHLOROMETHANE	Ū	0.15	ug/L	1	0.15	
O-CHLOROTOLUENE	Ū	0.19	ug/L	1	0.19	
P-CHLOROTOLUENE	Ū	0.19	ug/L	1	0.19	
DIBROMOCHLOROMETHANE	Ū	0.26	ug/L	1	0.26	
DIBROMOCHLOROPROPANE	Ū	0.28	ug/L	1	0.28	
DIBROMOMETHANE	Ū	0.28	ug/L	1	0.28	
	Ū			1		0.5
1,2-DICHLOROBENZENE		0.23	ug/L		0.23	0.5
1,3-DICHLOROBENZENE	Ŭ	0.23	ug/L	1	0.23	
1,4-DICHLOROBENZENE	Ŭ	0.18	ug/L	1	0.18	0.5
TRANS-1,4-DICHLORO-2-BUTENE	Ŭ	0.20	ug/L	1	0.2	
DICHLORODIFLUOROMETHANE	U	0.17	ug/L	1	0.17	0.5
1,1-DICHLOROETHANE	U	0.21	ug/L	1	0.21	0.5
1,2-DICHLOROETHANE	U	0.14	ug/L	1	0.14	0.5
1,1-DICHLOROETHENE	U	0.20	ug/L	1	0.2	0.5
CIS-1,2-DICHLOROETHENE	U	0.25	ug/L	1	0.25	0.5
TRANS-1,2-DICHLOROETHENE	U	0.19	ug/L	1	0.19	0.5
1,2-DICHLOROPROPANE	U	0.15	ug/L	1	0.15	0.5
1,3-DICHLOROPROPANE	U	0.22	ug/L	1	0.22	
SEC-DICHLOROPROPANE	Ū	0.24	ug/L	1	0.24	
1,1-DICHLOROPROPENE	Ū	0.26	ug/L	1	0.26	
1,1-DICHLORO-2-PROPANONE	Ŭ	0.21	ug/L	1	0.21	
CIS-1,3-DICHLOROPROPENE	Ū	0.23	ug/L	1	0.23	0.5
TRANS-1,3-DICHLOROPROPENE	Ū	0.18	ug/L	1	0.18	0.5
	Ū	0.18	_	1	0.18	0.3
DIISOPROPYL ETHER			ug/L			0 F
ETHYL BENZENE	Ū	0.18	ug/L	1	0.18	0.5
ETHYL ETHER	U 	0.20	ug/L	1	0.2	
ETHYLENE DIBROMIDE	Ŭ	0.19	ug/L	1	0.19	
ETHYLMETHACRYLATE	U	0.14	ug/L	1	0.14	
ETHYL-T-BUTYL ETHER	U	0.19	ug/L	1	0.19	3
FLUOROTRICHLOROMETHANE	Ū	0.22	ug/L	1	0.22	5



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

FIELD QC Site: Sample collection QC

COLLECTION QC Locator: Field QC Sample submitted for analysis

Lab ID: L195299-3 (P202125-4)

Sample Type: QCFB (Field Blank Grab)

Date Collected: Dec 16 2014, 09:26am Sample collector: N KLUMPP

Date Received: Dec 16 2014, 11:40am Sample receiver: PTRUONG

Sample Comments: QCFB for L195299-1; Prep'd on 12/11/2014 by JA; 524 acidified with 1+1 HCL?

_yes_Acid CONTAINER ID #1264119

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	Ū	0.25	ug/L	1	0.25	10	
HEXACHLOROBUTADIENE	Ū	0.20	ug/L	1	0.2		
HEXACHLOROETHANE	Ū	0.25	ug/L	1	0.25		
2-HEXANONE	Ū	0.25	ug/L	1	0.25		
IODOMETHANE	Ū	0.69	ug/L	1	0.69		
ISOPROPYLBENZENE	Ū	0.21	ug/L	1	0.21		
P-ISOPROPYLTOLUENE	Ū	0.22	ug/L	1	0.22		
METHYLACRYLONITRILE	Ū	0.20	ug/L	1	0.2		
METHYLACRYLATE	Ū	0.26	ug/L	1	0.26		
METHYLENE CHLORIDE	Ū	0.18	ug/L	1	0.18	0.5	
2-BUTANONE	Ū	0.43	ug/L	1	0.43		
4-METHYL-2-PENTANONE	Ū	0.20	ug/L	1	0.2		
METHYLMETHACRYLATE	Ū	0.28	ug/L	1	0.28		
METHYL-T-BUTYL ETHER	Ū	0.39	ug/L	1	0.39	3	
NAPHTHALENE	U	0.20	ug/L	1	0.2		
NITROBENZENE	U	1.0	ug/L	1	1		
2-NITROPROPANE	U	0.77	ug/L	1	0.77		
PENTACHLOROETHANE	Ū	0.17	ug/L	1	0.17		
N-PROPYLBENZENE	Ū	0.20	ug/L	1	0.2		
STYRENE	Ū	0.19	ug/L	1	0.19	0.5	
1,1,1,2-TETRACHLOROETHANE	Ū	0.18	ug/L	1	0.18		
1,1,2,2-TETRACHLOROETHANE	Ū	0.20	ug/L	1	0.2	0.5	
TETRACHLOROETHENE	Ū	0.20	ug/L	1	0.2	0.5	
TETRAHYDROFURAN	Ū	0.54	ug/L	1	0.54		
TOLUENE	Ū	0.16	ug/L	1	0.16	0.5	
1,2,3-TRICHLOROBENZENE	U	0.24	ug/L	1	0.24		
1,2,4-TRICHLOROBENZENE	Ū	0.19	ug/L	1	0.19	0.5	
1,1,1-TRICHLOROETHANE	Ū	0.19	ug/L	1	0.19	0.5	
1,1,2-TRICHLOROETHANE	U	0.21	ug/L	1	0.21	0.5	
TRICHLOROETHENE	Ū	0.17	ug/L	1	0.17	0.5	
1,2,3-TRICHLOROPROPANE	Ū	0.19	ug/L	1	0.19		
1,2,4-TRIMETHYLBENZENE	U	0.21	ug/L	1	0.21		
1,3,5-TRIMETHYLBENZENE	Ū	0.20	ug/L	1	0.2		
VINYL CHLORIDE	U	0.22	ug/L	1	0.22	0.5	
O-XYLENE	Ū	0.18	ug/L	1	0.18	0.5	
M+P XYLENES	Ū	0.37	ug/L	1	0.37	0.5	
VALUE(S) USED TO CALCULATE OTHER VALUE(S)			,_	1		0 =	
TOTAL 1,3-DICHLOROPROPENES	U	0.41	ug/L	1		0.5	
TOTAL XYLENES	U	0.55	ug/L	1		0.5	
INTERNAL STANDARD		05.5		1			
FLUOROBENZENE		97.6	% recov	rery 1			
SURROGATE							
4-BROMOFLUOROBENZENE		99.4	% recov	=			
DA 1 1 DIGIT ODODDNIZENE		102	% recov	rery 1			
D4-1,2-DICHLOROBENZENE Run ID: R257258 / Work Group No.: WG1964	= 0			-			

Method: EPA 504.1 - EDB & DBCP, GC/ECD						DrinkH2O	
TARGET ANALYTES							
ETHYLENE DIBROMIDE	U	0.0020	ug/L	1	0.002	0.02	
DIBROMOCHLOROPROPANE	U	0.0020	ug/L	1	0.002	0.01	
Run ID: R257046 / Work Group No.: WG196482							

Prep Date1: 23-DEC-14 Prep Date2: 23-DEC-14 Analyzed 23-Dec-14 21:25

Analytical Report Prepared for NA

Report generated on: Jan 20, 2015 12:48 pm Login No.: L195302

LSR B455-0706-1

Project Title: BAYSIDE GROUND WATER PROJECT

Login Performance Summary

2 - Samples received by the lab on: Dec 16 2014, 01:16 pm

0 - Lost Analyses

0 - Hold Time Exceedences

Turn-around-time not met

Samples included in this report:

Samples Thoraca — Sample Type Collected Site L195302-1 GRAB 16-Dec-2014 12:35 GW BAYSIDE Locator
BAY1-MW5D ClientID MW-2I L195302-2 QCFB 16-Dec-2014 12:35 FIELD QC COLLECTION QC

Legend to the laboratory qualifiers used in this report:

U - Analyte not detected Qualifiers for subcontract work - See textvalue for description



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater Site: Locator: BAY1-MW5D Q APN 411-0003-0083 Via Barrett, San Lorenzo; Formerly BAY-MW-BARETT ClientID: MW-2I

L195302-1 (P203147-4) Lab ID: Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 16 2014, 12:35pm Sample collector: tquane Date Received: Dec 16 2014, 01:16pm Sample receiver: jallard

Sample Comments: MW-5D; +FLD DATA: pH = 7.0; Cl2R = 0.4 mg/L; Depth to GW = 19.52 feet; GW = 13.76; feet; Labelled as RAW WATER for the program.

Method Reference	3.1.6.1		1,			Matrix	Tag
Parameter Qua	alifier	Result	Units	Dilution	MDL	RL/ML	
Method: SAMPLER PROVIDED FIELD MEASUREMENTS	- DATA ENT	RY LIST FOR	FIELD DATA			GroundH20	
FIELD ANALYSIS/OBSERVATION DATA PARAMETERS							
PH		7	pH units	1			
DEPTH		19.52	feet	1			
CHLORINE RESIDUAL: TOTAL		0.4	mg/L	1	0.02		
Run ID: R257023 / Work Group No.: WG196475			5,				
Prep Datel: 16-DEC-14 Analyzed 16-Dec-14 12	:35						
Method: EPA 8260B - Trihalomethanes, GC/MS						GroundH20	
TARGET ANALYTES							
CHLOROFORM	U	0.17	ug/L	1	0.17		
BROMODICHLOROMETHANE	U	0.079	ug/L	1	0.079		
DIBROMOCHLOROMETHANE	U	0.13	ug/L	1	0.13		
BROMOFORM	U	0.23	ug/L	1	0.23		
INTERNAL STANDARD							
FLUOROBENZENE		89.2	% recovery	7 1			
D5-CHLOROBENZENE		91.4	% recovery	7 1			
D4-1,4-DICHLOROBENZENE		93.2	% recovery	7 1			
SURROGATE							
D8-TOLUENE		101	% recovery	7 1			
4-BROMOFLUOROBENZENE		102	% recovery	7 1			
Run ID: R256878 / Work Group No.: WG196297							
Prep Datel: 16-DEC-14 Analyzed 16-Dec-14 16	:23						
Method: EPA 300.1 - Ion Chromatography						GroundH20	
Instrument calibrated 09-DEC-14							
TARGET ANALYTES							
CHLORIDE		96	mg/L	10	0.02		
NITRATE AS N	U	0.0090	mg/L	10	0.009	0.4	
SULFATE		46	mg/L	10	0.03	0.5	
SURROGATE							
DICHLOROACETATE		95	% recovery	7 10			
Run ID: R256845 / Work Group No.: WG196321							
Prep Date1: 17-DEC-14 Analyzed 17-Dec-14 16	:38						
Method: EPA 552.2 - Haloacetic Acids & Dalay	pon					GroundH20	
TARGET ANALYTES				_			
BROMOCHLOROACETIC ACID	Ū	0.15	ug/L	1	0.15		
BROMODICHLOROACETIC ACID	Ū	0.31	ug/L	1	0.31		
CHLORODIBROMOACETIC ACID	U	0.31	ug/L	1	0.31		
DALAPON	U	0.53	ug/L	1	0.53	1	
DIBROMOACETIC ACID	U	0.25	ug/L	1	0.25	1	
DICHLOROACETIC ACID	U	0.18	ug/L	1	0.18	1	
MONOBROMOACETIC ACID	U	0.29	ug/L	1	0.29	1	
MONOCHLOROACETIC ACID	U	0.65	ug/L	1	0.65	2	
TRIBROMOACETIC ACID	U	0.72	ug/L	1	0.72	1	
TRICHLOROACETIC ACID	U	0.17	ug/L	1	0.17	1	
VALUE CALCULATED FROM OTHER RESULTS		0 0	/T		1 5		
HAA(5)		0.0	ug/L		1.5		
HAA(9)		0.0	ug/L		3		
INTERNAL STANDARD		0.6	9	_	1		
1,2,3-TRICHLOROPROPANE		96	% recovery	,	1		



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater Site: Locator: BAY1-MW5D Q APN 411-0003-0083 Via Barrett, San Lorenzo; Formerly BAY-MW-BARETT

ClientID: MW-2I

Lab ID: L195302-1 (P203147-4)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 16 2014, 12:35pm Sample collector: tquane Date Received: Dec 16 2014, 01:16pm Sample receiver: jallard

Sample Comments: MW-5D; +FLD DATA: pH = 7.0; Cl2R = 0.4 mg/L; Depth to GW = 19.52 feet; GW = 13.76; feet; Labelled as RAW WATER for the program.

Method Reference						Matrix	Tag
·-	ifier	Result	Units	Dilution	MDL	RL/ML	
SURROGATE							
2,3-DIBROMOPROPIONIC ACID		100	% recove	ry	1		
Run ID: R257422 / Work Group No.: WG196718							
Prep Date1: 29-DEC-14 Prep Date2: 06-JAN-15	Analyzed	06-Jan-15 2	21:05				
Method: SM2320B - 1997, Titration						GroundH20	
TARGET ANALYTES						Groundhzo	
ALKALINITY: TOTAL AS CACO3		230	mg/L	1	5		
Run ID: R256829 / Work Group No.: WG196319		230	mg/ n	_	3		
Prep Date1: 17-DEC-14 Analyzed 17-Dec-14 07:1	0						
Trep batter in ble it mainbea in bet if the							
Method: SM2340C - 1997, Titration: EDTA						GroundH20	
TARGET ANALYTES							
HARDNESS: TOTAL AS CACO3		150	mg/L	1	3		
Run ID: R256989 / Work Group No.: WG196477							
Prep Date1: 23-DEC-14 Analyzed 23-Dec-14 13:0	0						
Method: SM2540C - 1997, Dried at 180C						GroundH20	
TARGET ANALYTES		400	/T	1	1.1		
TOTAL DISSOLVED SOLIDS		490	mg/L	1	11		
Run ID: R256883 / Work Group No.: WG196348	0						
Prep Datel: 18-DEC-14 Analyzed 18-Dec-14 07:0	U						
Method: SM4500-CO2 D - Calculation						GroundH20	
TARGET ANALYTES						0_0.00000000000000000000000000000000000	
ALKALINITY: BICARBONATE		230	mg/L	1	5		
Run ID: R256839 / Work Group No.: WG196337			5, =				
Prep Datel: 17-DEC-14 Analyzed 17-Dec-14 03:1	5						
Method: SM4500-CO2 D - Calculation						GroundH20	
TARGET ANALYTES							
ALKALINITY: CARBONATE		0.22	mg/L	1	0.1		
Run ID: R256839 / Work Group No.: WG196337							
Prep Datel: 17-DEC-14 Analyzed 17-Dec-14 03:1	5						
Method: SM4500-CO2 D - Calculation						GroundH20	
Method: SM4500-CO2 D - Calculation TARGET ANALYTES						GrounaH20	
ALKALINITY: HYDROXIDE	U	0.10	mg/L	1	0.1		
Run ID: R256839 / Work Group No.: WG196337	U	0.10	11g/11	1	0.1		
Prep Datel: 17-DEC-14 Analyzed 17-Dec-14 03:1	5						
Trop Bassi. I, Ble II mary lea I, Dec 14 05.1	_						
Method: SM4500-NH3 B, C - 1997, Distillation	& Titrat:	ion				GroundH20	
TARGET ANALYTES							
AMMONIA AS N	U	0.300	mg/L	1	0.3		
Run ID: R256982 / Work Group No.: WG196437							
Prep Date1: 23-DEC-14 Analyzed 23-Dec-14 06:3	0						
Method: EDA 200 7 Des 4.4 TGD Gree						Dec-1120	
Method: EPA 200.7 - Rev. 4.4, ICP Scan TARGET ANALYTES						RawH2O	
		12 800	110 /T	1 04	15 6		
CALCIUM IRON	•	42,800 180	ug/L	1.04	15.6 3.12	100	
POTASSIUM		2,590	ug/L ug/L	1.04	3.12 15.6	100	
MAGNESIUM		10,800	ug/L ug/L	1.04	9.36		
FEIGHDOTON	•	10,000	и9/ П	1.01	J.30		



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater Site: Locator: BAY1-MW5D Q APN 411-0003-0083 Via Barrett, San Lorenzo; Formerly BAY-MW-BARETT

ClientID: MW-2I L195302-1 (P203147-4)
GRAB (Instantaneous Grab) Lab ID: Sample Type:

Date Collected: Dec 16 2014, 12:35pm Sample collector: tquane Date Received: Dec 16 2014, 01:16pm Sample receiver: jallard

Sample Comments: MW-5D; +FLD DATA: pH = 7.0; Cl2R = 0.4 mg/L; Depth to GW = 19.52 feet; GW Elevation = 13.76' feet; Labelled as RAW WATER for the program.

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
MANGANESE		241	ug/L	1.04	0.52	20	
SODIUM	123	3,000	ug/L	1.04	11.4		

Run ID: R256898 / Work Group No.: WG196382 Prep Datel: 19-DEC-14 Analyzed 19-Dec-14 10:36



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

FIELD QC Site: Sample collection QC

COLLECTION QC Locator: Field QC Sample submitted for analysis

Lab ID: L195302-2 (P203147-6)
Sample Type: QCFB (Field Blank Grab)
Date Collected: Dec 16 2014, 12:35pm Sample collector: tquane
Date Received: Dec 16 2014, 01:16pm Sample receiver: jallard Sample Comments: QCFB for L195302-1; Prep'd on 12/11/2014 by JA.

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: EPA 8260B - Trihalomethanes, GC	/MS					GroundH20	
TARGET ANALYTES							
CHLOROFORM	U	0.17	ug/L	1	0.17		
BROMODICHLOROMETHANE	U	0.079	ug/L	1	0.079		
DIBROMOCHLOROMETHANE	Ū	0.13	ug/L	1	0.13		
BROMOFORM	U	0.23	ug/L	1	0.23		
INTERNAL STANDARD							
FLUOROBENZENE		88.0	% recov	ery 1			
D5-CHLOROBENZENE		89.0	% recov	ery 1			
D4-1,4-DICHLOROBENZENE		91.2	% recov	ery 1			
SURROGATE							
D8-TOLUENE		99.0	% recov	ery 1			
4-BROMOFLUOROBENZENE		104	% recov	ery 1			
Run ID: R256878 / Work Group No.: WG196	297						

Prep Datel: 16-DEC-14 Analyzed 16-Dec-14 16:00

Analytical Report Prepared for NA

Report generated on: Jan 20, 2015 12:47 pm Login No.: L195259

LSR B455-0706-1

Project Title: BAYSIDE GROUND WATER PROJECT

Login Performance Summary

2 - Samples received by the lab on: Dec 14 2014, 03:57 pm

0 - Lost Analyses

0 - Hold Time Exceedences

Turn-around-time met

Samples included in this report:

Sample	Type	Collected		Site	Locator	ClientID
L195259-1	GRAB	13-Dec-2014	18:12	GW BAYSIDE	BAY1-MW6	-
L195259-2	GRAB	13-Dec-2014	18:10	GW BAYSIDE	BAY1-MW6	_

Legend to the laboratory qualifiers used in this report:

U - Analyte not detected Qualifiers for subcontract work - See textvalue for description



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater Locator: BAY1-MW6 R APN 438-0010-003 2364 Baumann Ave., San Lorenzo; formerly BAY-MW-WORTHLEY

Lab ID: L195259-1 (P202126-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 13 2014, 06:12pm Sample collector: N Klumpp Date Received: Dec 14 2014, 03:57pm Sample receiver: RMOLINA

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 7.92

CL2R = 0.1 DEPTH = 15.57'

Method Reference						Matrix	Taq
	fier	Result	Units	Dilution	MDT	Matrix RL/ML	Tag
rarameter quari	rrer	Result	UIIICS	DITUCION	МДП	KII/ PIII	
Method: SAMPLER PROVIDED FIELD MEASUREMENTS -	DATA EN	TRY LIST FOR	FIELD DATA			RawH2O	
FIELD ANALYSIS/OBSERVATION DATA PARAMETERS							
PH		7.92	pH units	1			
DEPTH		15.57	feet	1			
CHLORINE RESIDUAL: TOTAL		0.1	mg/L	1	0.02		
Run ID: R257025 / Work Group No.: WG196503							
Prep Date1: 13-DEC-14 Analyzed 13-Dec-14 18:12	2						
Method: EPA 8260B - Trihalomethanes, GC/MS						GroundH20	
TARGET ANALYTES							
CHLOROFORM	U	0.17	ug/L	1	0.17		
BROMODICHLOROMETHANE	Ū	0.079	ug/L	1	0.079		
DIBROMOCHLOROMETHANE	Ū	0.13	ug/L	1	0.13		
BROMOFORM	IJ	0.23	ug/L	1	0.23		
INTERNAL STANDARD	Ü		-5, -	=			
FLUOROBENZENE		90.6	% recover	v 1			
D5-CHLOROBENZENE		93.0	% recover	=			
D4-1,4-DICHLOROBENZENE		94.8	% recover	•			
SURROGATE		94.0	% TECOVET	у т			
D8-TOLUENE		101	% recover	. 1			
		101		=			
4-BROMOFLUOROBENZENE		101	% recover	У Т			
Run ID: R256878 / Work Group No.: WG196297							
Prep Datel: 16-DEC-14 Analyzed 16-Dec-14 13:38	3						
Method: EPA 300.1 - Ion Chromatography						RawH2O	1
Instrument calibrated 09-DEC-14							
TARGET ANALYTES							
FLUORIDE		0.19	mg/L	1	0.0004	0.1	
NITRITE AS N	U	0.00050	mg/L	1	0.0005	0.4	
NITRATE AS N		0.0042	mg/L	1	0.0009	0.4	
SURROGATE							
DICHLOROACETATE		110	% recover	y 1			
Run ID: R256792 / Work Group No.: WG196252							
Prep Datel: 15-DEC-14 Analyzed 15-Dec-14 14:20)						
Mathada EDN 200 1 Tay Character washing						DIIOO	0
Method: EPA 300.1 - Ion Chromatography						RawH2O	2
Instrument calibrated 09-DEC-14							
TARGET ANALYTES		F0	/T	1.0	0.00		
CHLORIDE		58	mg/L	10	0.02		
SURROGATE		0.4		1.0			
DICHLOROACETATE		94	% recover	λ TΩ			
Run ID: R256880 / Work Group No.: WG196371							
Prep Date1: 18-DEC-14 Analyzed 18-Dec-14 16:28	3						
Method: EPA 300.1 - Ion Chromatography						RawH2O	
Instrument calibrated 09-DEC-14							
TARGET ANALYTES							
SULFATE		56	mg/L	100	0.3	0.5	
SURROGATE							
DICHLOROACETATE		110	% recover	y 100			
Run ID: R256792 / Work Group No.: WG196252				-			
Prep Date1: 15-DEC-14 Analyzed 15-Dec-14 13:43	3						
- ·							



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater Site: R APN 438-0010-003 2364 Baumann Ave., San Lorenzo; formerly BAY-MW-WORTHLEY Locator: BAY1-MW6

Lab ID: L195259-1 (P202126-1)
Sample Type: GRAB (Instantaneous Grab)
Date Collected: Dec 13 2014, 06:12pm Sample collector: N Klumpp
Date Received: Dec 14 2014, 03:57pm Sample receiver: RMOLINA

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 7.92

CL2R = 0.1 DEPTH = 15.57'

Method Reference	0 1151				107	Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: SM2320B - 1997, Titration						RawH2O	
TARGET ANALYTES						Kawiizo	
ALKALINITY: TOTAL AS CACO3		230	mg/L	1	5		
Run ID: R256761 / Work Group No.: WG19625	55			-	3		
Prep Date1: 15-DEC-14 Analyzed 15-Dec-14							
Method: SM2340C - 1997, Titration: EDTA						RawH2O	
TARGET ANALYTES							
HARDNESS: TOTAL AS CACO3		120	mg/L	1	3		
Run ID: R256790 / Work Group No.: WG19629	94						
Prep Date1: 16-DEC-14 Analyzed 16-Dec-14	10:00						
Method: SM2510B - 1997, Meter: Platinum E	Electrode					RawH2O	
TARGET ANALYTES							
CONDUCTIVITY		676	umhos/cm	1	0.3		
Run ID: R256956 / Work Group No.: WG19642							
Prep Date1: 22-DEC-14 Analyzed 22-Dec-14	13:20						
Method: SM2540C - 1997, Dried at 180C						RawH2O	
TARGET ANALYTES						RawhZU	
TOTAL DISSOLVED SOLIDS		430	mq/L	1	11		
Run ID: R256883 / Work Group No.: WG19634	LQ.	450	mg/ H	_	11		
Prep Date1: 18-DEC-14 Analyzed 18-Dec-14							
Trep bacer to ble it maryhed to bee it	0,100						
Method: SM4500-CO2 D - Calculation						RawH2O	
TARGET ANALYTES							
ALKALINITY: BICARBONATE		230	mg/L	1	5		
Run ID: R256766 / Work Group No.: WG19626	58						
Prep Date1: 15-DEC-14 Analyzed 15-Dec-14	12:40						
Method: SM4500-CO2 D - Calculation						RawH2O	
TARGET ANALYTES							
ALKALINITY: HYDROXIDE	Ŭ	0.10	mg/L	1	0.1		
Run ID: R256766 / Work Group No.: WG19626							
Prep Datel: 15-DEC-14 Analyzed 15-Dec-14	12:40						
Method: SM4500-CO2 D - Calculation						RawH2O	
TARGET ANALYTES						I(dWIIZO	
ALKALINITY: CARBONATE		1.8	mg/L	1	0.1		
Run ID: R256766 / Work Group No.: WG19626	58			-	0.1		
Prep Date1: 15-DEC-14 Analyzed 15-Dec-14							
-							
Method: SM4500-NH3 B, C - 1997, Distillat	ion & Titrat	ion				GroundH20	
TARGET ANALYTES							
AMMONIA AS N	U	0.300	mg/L	1	0.3		
Run ID: R256982 / Work Group No.: WG19643							
Prep Date1: 23-DEC-14 Analyzed 23-Dec-14	06:30						



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater
Locator: BAY1-MW6 R APN 438-0010-003 2364 Baumann Ave., San Lorenzo; formerly BAY-MW-WORTHLEY

Lab ID: L195259-1 (P202126-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 13 2014, 06:12pm Sample collector: N Klumpp Date Received: Dec 14 2014, 03:57pm Sample receiver: RMOLINA

Prep Date1: 18-DEC-14 Prep Date2: 22-DEC-14 Analyzed 22-Dec-14 09:56

Sample Comments: ANNUAL BAYSIDE Sampling per DPH Title 22 AND WDR; +FLD DATA: pH = 7.92

CL2R = 0.1 DEPTH = 15.57'

Method Reference						Matrix Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML
ethod: EPA 200.7 - Rev. 4.4, ICP Scan						RawH2O
TARGET ANALYTES						
ALUMINUM	U	11.4	ug/L	1.04	11.4	50
CALCIUM		34,100	ug/L	1.04	15.6	
COPPER	Ū	6.24	ug/L	1.04	6.24	50
IRON		25.4	ug/L	1.04	3.12	100
POTASSIUM		2,390	ug/L	1.04	15.6	
MAGNESIUM		8,890	ug/L	1.04	9.36	
MANGANESE		209	ug/L	1.04	0.52	20
SODIUM	1	10,000	ug/L	1.04	11.4	
ZINC	U	4.16	ug/L	1.04	4.16	50
Run ID: R256898 / Work Group No.: WG19638		1.10	45/2	1.01	1.10	5.5
Prep Datel: 19-DEC-14 Analyzed 19-Dec-14						
Method: EPA 200.8 - Rev. 5.4, ICP-MS Scan						RawH2O
TARGET ANALYTES						1.0.1120
SILVER	Ū	0.081	ug/L	1.02	0.081	10
BARIUM	0	78	ug/L	1.02	0.1	100
BERYLLIUM	Ū	0.051	ug/L	1.02	0.051	1
CADMIUM	U	0.066	ug/L	1.02	0.03	1
CHROMIUM		1.4	ug/L	1.02	0.61	10
JICKEL		0.89	_	1.02	0.3	10
			ug/L		0.3	10 5
LEAD	U	0.35	ug/L	1.02	0.071	6
NONTIMONY		0.30	ug/L	1.02		
CHALLIUM	Ū	0.30	ug/L	1.02	0.3	1
Run ID: R257176 / Work Group No.: WG19655 Prep Date1: 19-DEC-14 Prep Date2: 29-DEC-		29-Dec-14	11:01			
Method: EPA 245.1 - Cold Vapor AA						RawH2O
TARGET ANALYTES						NawiiZO
MERCURY	Ū	0.040	ug/L	1	0.04	
MERCURY Run ID: R256972 / Work Group No.: WG19640		0.040	ug/ь	Τ.	0.04	
Run ID. R256972 / Work Group No WG19640 Prep Date1: 22-DEC-14 Analyzed 22-Dec-14						
Mothod: CM211AD 2000 Common Think I a	7					Davitoo
Method: SM3114B - 2009, Gaseous Hydride A TARGETANALYTES	A					RawH2O
ARSENIC		0.61	ug/L	1	0.3	2
Run ID: R256998 / Work Group No.: WG19642	:7	****	45,2	-	0.5	_
Prep Date1: 18-DEC-14 Prep Date2: 22-DEC-		22-Dec-14	12:45			
ethod: SM3114B - 2009, Gaseous Hydride A	ıΑ					RawH2O
TARGET ANALYTES						
SELENIUM	Ū	0.400	ug/L	1	0.4	
Run ID: R256994 / Work Group No.: WG19642		3.130	45/2	-	···	
Run 1D: K250554 / WOLK Gloup No.: WG15042		00 D 14	00.56			



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater
Locator: BAY1-MW6 R APN 438-0010-003 2364 Baumann Ave., San Lorenzo; formerly BAY-MW-WORTHLEY

Lab ID: L195259-2 (P202126-3)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Dec 13 2014, 06:10pm Sample collector: N Klumpp Date Received: Dec 14 2014, 03:57pm Sample receiver: RMOLINA

Sample Comments: annual BAYSIDE Sampling per DPH Title 22 and WDR; SUBCONTRACT DATA

Method Reference Matrix Tag

Parameter Qualifier Result Units Dilution MDL RL/ML