

SUMMARY OF OPERATIONS WATER PROJECT 1 (PHASE 1 ASR PROJECT)

WATER YEAR 2011



Prepared for:



JULY 2012



July 31, 2012
Project No. 06-0028

Monterey Peninsula Water Management District
Post Office Box 85
Monterey, California 93942-0085

Attention: Mr. Joe Oliver, Water Resources Manager

Subject: Summary of Operations Report; Water Project 1 (Phase 1 ASR Project)
Water Year 2011

Dear Joe:

We are transmitting five copies and one digital image (PDF) of the subject report documenting operations of Water Project 1 (a.k.a. Phase 1 ASR Project) during Water Year 2011 (WY 2011). As you are aware, WY 2011 was an "Above Normal" hydrologic year on the Monterey Peninsula and both project wells (SM ASR-1 and SM ASR-2) were operational and injecting simultaneously for most of the injection season. These factors combined resulted in a total volume of 1,117 acre-feet (af) of water diverted from the Carmel River system for recharge in the Seaside Groundwater Basin, exceeding the previous year's recharge volume of 1,111 af and the project's projected average annual yield of 920 acre-feet per year (afy). To date, a total of approximately 3,750 af have been injected at the Santa Margarita ASR Facility since the project was initiated in 2001.

We appreciate the opportunity to provide assistance to the District on this important project. Please contact us with any questions.

Sincerely,

PUEBLO WATER RESOURCES, INC.

A handwritten signature in black ink, appearing to read "R. Marks", written over a white background.

Robert C. Marks, P.G., C.Hg.
Principal Hydrogeologist

A handwritten signature in black ink, appearing to read "Stephen P. Tanner", written over a white background.

Stephen P. Tanner, P.E.
Principal Engineer

Copies submitted: 5 hard and 1 digital (PDF)

4478 Market Street, Suite 705 ■ Ventura, California 93003
805-644-0470 ■ Fax 805-644-0480



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INTRODUCTION

GENERAL STATEMENT

Presented in this report is a summary of operations of Water Project 1 (a.k.a. Phase 1 ASR Project) during Water Year 2011 (WY 2011)¹. Water Project 1 is part of the Monterey Peninsula Water Management District's (MPWMD or District) and California American Water's (CAW) cooperative implementation of Aquifer Storage and Recovery (ASR) on the Monterey Peninsula. The Water Project 1 site (known as the Santa Margarita ASR Facility) is located on a parcel leased by the District on former Fort Ord property along General Jim Moore Boulevard in the northeast corner of the City of Seaside, California, and is shown on **Figure 1** - Site Location Map. During WY 2011, approximately 1,117 acre-feet (af) were diverted from the Carmel River system for recharge, storage, and subsequent recovery in the Seaside Groundwater Basin (SGB), exceeding the project's projected average annual yield of 920 acre-feet per year.

A graphical summary of historical injection and recovery operations at the Santa Margarita ASR Facility site is shown on **Figure 2**. Shown are the annual injection and recovery volumes at the facility since the inception of injection operations in WY 2001 through the current period of WY 2011. Also presented is a delineation of the various phases of project implementation, starting with the Santa Margarita Test Injection Well (SMTIW) in 2001, which became SM ASR-1 as the project transitioned from a testing program to a permanent project in 2006 (Phase 1 ASR Project), through construction and operation of the second well at the facility in 2010 (SM ASR-2). As shown, having the facility in full operation with two ASR wells injecting simultaneously in since 2010 (combined with above normal rainfall and Carmel River flows during WY 2010 and WY 2011) has resulted in the ability for significant increases in the volume injected annually.

BACKGROUND

The water supply for the Monterey Peninsula originates from two primary sources: the Carmel River system and the Seaside Groundwater Basin (SGB). ASR is a form of managed aquifer recharge and storage (or "groundwater banking") that involves the conjunctive use of surface and groundwater resources. As applied to the Monterey Peninsula, ASR involves the diversion of excess winter and spring time flows from the Carmel River system for recharge and storage in the SGB. The excess water is captured by California American Water (CAW) wells in the Carmel Valley during periods when flows in the Carmel River exceed fisheries bypass flow requirements, treated to potable drinking water standards, and then conveyed through CAW's distribution system to Seaside. Recharge is accomplished via injection of these excess flows into specially designed ASR wells in the SGB. The recharged water is temporarily stored underground in the SGB, utilizing the available storage space within the aquifer system. During periods of high demand, the same ASR wells and/or existing CAW production wells in the SGB

¹ Water Year 2011 is the period of October 1, 2010 through September 30, 2011.



are used to recover the recharged water, which in turn allows for reduced extractions from the Carmel River system during dry periods.

The District and CAW have been cooperatively developing an ASR project since 1996. These efforts have evolved over time from the performance of various technical feasibility investigations, leading to the construction and testing of pilot- and then full-scale ASR test wells to demonstrate the viability and operational parameters for ASR wells in the SGB. As designed, Water Project 1 is capable of recharging up to the State Water Resources Control Board (SWRCB) water right² maximum annual diversion limit of 2,426 acre-feet per year (afy) at a combined injection rate of 6.7 cubic feet per second (equivalent to approximately 3,000 gallons per minute [gpm]), with an average annual yield of approximately 920 afy. Water Project 1 includes two ASR wells (SM ASR-1 and ASR-2) located at the Santa Margarita ASR Facility. SM ASR-1 is designed for an injection capacity of 1,000 to 1,250 gpm and SM ASR-2 is designed for an injection capacity of 1,500 to 1,750 gpm. As-built schematics of SM ASR-1 and SM ASR-2 are presented on **Figures 3 and 4**, respectively.

PURPOSE AND SCOPE

The overall purpose of the ongoing ASR program is to recharge the SGB with excess treated Carmel River system water when it is available during wet periods for storage and later extraction (recovery) during dry periods. ASR benefits the resources of both systems by raising water levels in the SGB during the recharge and storage periods and reducing extractions from the Carmel River System during dry periods.

The scope of the ongoing data collection, analysis, and reporting program for the ASR program can be categorized into issues generally associated with:

- 1) ASR well hydraulics and performance;
- 2) Aquifer response to injection;
- 3) Movement and dispersion of injected waters, and;
- 4) Water-quality issues associated with geochemical interaction and mixing of injected and native groundwaters.

The ongoing data collection and reporting program is intended to support further demonstration of the capabilities and limitations of ASR in the SGB and to comply with the requirements of the Central Coast Regional Water Quality Control Board (RWQCB) for submitting annual technical reports for the project pursuant to Section 13267 of the California Water Code³ and the existing General Waiver for Specific Types of Discharges (Resolution R3-2008-0010). A summary of the findings developed from the operation of Water Project 1 during WY 2011 is presented below.

² The SWRCB water right for the Phase 1 ASR Project is held jointly by MPWMD and CAW.

³ Letter from Roger W. Briggs, Executive Officer of the Central Coast RWQCB, to Joseph Oliver, Water Resources Manager for MPWMD, dated April 29, 2009.



FINDINGS

WY 2011 ASR OPERATIONS

Recharge operations were performed during WY 2011 during the period of December 21, 2010 through May 19, 2011. WY 2011 was classified as an “Above Normal” hydrologic year⁴, and a total volume of approximately 1,117 acre-feet (af) of excess Carmel River system water was diverted by CAW for recharge in the SGB. The recharge water was injected at both SM ASR-1 and SM ASR-2 into the Santa Margarita Sandstone aquifer of the SGB at combined average injection rates ranging from 940 to 3,000 gpm (approximately 4.2 to 13.25 acre-feet per day [afd]).

General Recharge Procedures

ASR recharge source water is potable (treated) water provided from the CAW distribution system. The water is currently diverted by various production well sources in the Carmel Valley system and then conveyed through the Segunda-Crest pipeline network to the ASR Pipeline in General Jim Moore Blvd and then to the Santa Margarita ASR facility site. Recharge of the SGB occurs via injection into both SM ASR-1 and SM ASR-2 during periods of available excess Carmel River system flows from the CAW distribution. Injection water is introduced into the ASR wells via the pump columns. Injection rates are controlled primarily by downhole flow control valves (FCV) installed on the pump columns, and secondarily by valves on the ASR wellhead piping. Injection flow rates and total injected volumes are measured with rate and totalizing meters at each of the wellheads. Positive gauge pressures are maintained at the wellheads during injection to prevent cascading of water into the wells (which can lead to air-binding). Water levels in each of the ASR wells are measured and collected with pressure transducers coupled to data loggers.

Injection Operations Summary

Injection generally occurs at each of the ASR wells on a continuous basis when flows are available, interrupted only for periodic backflushing (discussed in a following section), which typically occurs on an approximate weekly basis. These weekly periods of continuous injection followed by backflushing are termed in this report as numbered injection “periods” at each well. During WY 2011, a total of 20 and 13 injection periods occurred at SM ASR-1 and SM ASR-2, respectively. Summaries of pertinent injection period operations at SM ASR-1 and SM ASR-2 are presented in **Tables 1 and 2** below, respectively. Field data sheets collected during injection operations are presented in **Appendix A - Field Data Sheets**.

As shown in **Table 1**, the total duration of the 20 injection periods at SM ASR-1 during WY 2011 was approximately 108 days, with a total volume of 560.1 af injected at an average injection rate of approximately 1,190 gpm. As shown in **Table 2**, the total duration of the 13

⁴ Based on 101,769 af of unimpaired Carmel River flow at the San Clemente Dam site in WY 2011.



injection periods at SM ASR-2 was approximately 79 days, with a total volume of 554.3 af injected at an average rate of approximately 1,580 gpm. The combined total volume of injection during WY 2011 was 1114 af⁵.

Table 1. WY 2011 Injection Operations Summary - SM ASR-1

Injection Period No.	Dates		Duration (days)	Average Injection Rate (gpm)	Total Volume (af)
	Start	End			
1	12/21/10	12/22/10	0.8	1,367	5.1
2	12/22/10	12/28/10	5.8	1,540	39.8
3	12/29/10	1/4/11	6.1	1,528	41.0
4	1/4/11	1/10/11	5.8	1,568	40.0
5	1/13/11	1/17/11	4.0	1,586	27.8
6	2/16/11	2/17/11	1.1	1,954	9.8
7	2/19/11	2/24/11	5.0	412	9.2
8	2/24/11	3/2/11	5.7	698	17.7
9	3/4/11	3/10/11	5.7	493	12.4
10	3/10/11	3/14/11	4.0	767	13.4
11	3/18/11	3/23/11	4.9	879	19.2
12	3/23/11	4/1/11	8.9	969	38.3
13	4/1/11	4/3/11	2.2	834	8.3
14	4/5/11	4/13/11	8.0	1,469	52.2
15	4/13/11	4/20/11	6.9	1,246	38.1
16	4/20/11	4/27/11	6.9	1,267	38.6
17	4/27/11	5/3/11	5.8	895	22.9
18	5/4/11	5/11/11	6.9	1,290	39.6
19	5/11/11	5/18/11	7.1	1,572	49.4
20	5/18/11	5/24/11	5.8	1,454	37.3
ASR-1 Subtotals			107.7	1,189	560.1

⁵ The slight difference between this value and the 1,117 af value presented on page 2 is due to the relatively small volume of pipeline flushing (approximately 3 af, or 0.3% of the total diversion volume) required to clear particulates from the piping system prior to injection, which was routed to the onsite backflush pit and allowed to percolate into the groundwater basin.



Table 2. WY 2011 Injection Operations Summary - SM ASR-2

Injection Period No.	Dates		Duration (days)	Average Injection Rate (gpm)	Total Volume (af)
	Start	End			
1	2/18/11	2/19/11	0.8	1,353	4.9
2	2/19/11	2/24/11	5.1	1,497	33.7
3	2/24/11	3/3/11	7.0	1,468	45.5
4	3/3/11	3/10/11	6.9	1,655	50.8
5	3/10/11	3/15/11	4.7	1,619	33.4
6	3/18/11	3/26/11	7.9	1,886	65.4
7	3/26/11	4/1/11	5.8	1,813	46.6
8	4/1/11	4/6/11	5.1	1,693	38.1
9	4/6/11	4/13/11	7.1	1,329	41.6
10	4/13/11	4/20/11	6.9	1,571	48.1
11	4/20/11	4/26/11	5.9	1,853	48.6
12	4/26/11	5/4/11	8.0	1,499	52.8
13	5/16/11	5/24/11	7.8	1,292	44.8
ASR-2 Subtotals			79.1	1,579	554.3

Water-level data collected at SM ASR-1 and SM ASR-2 during WY 2011 are presented in **Figures 5 and 6**, respectively. The water-level data show the response of both SM ASR-1 and SM ASR-2 to injection, with a maximum water-level increase of approximately 100 feet at SM ASR-1 and approximately 80 feet at SM ASR-2. Water-level increases due to injection at SM ASR-1 approached, but generally did not exceed, the maximum recommended drawup level of approximately 100 feet. Water-level increases due to injection at SM ASR-2 were maintained well below the recommended maximum drawup level at this well of approximately 140 feet (discussion of the basis for the recommended maximum drawup levels at each well is presented in the Backflushing section below). The water-level data also show ongoing diurnal fluctuations in response to varying injection rates as a result of pressure fluctuations in the CAW distribution system, as well as the drawdown response to routine backflush pumping during the injection season (discussed below).

Backflushing

Most sources of injection water contain trace amounts of solids that slowly accumulate in the pore spaces in the well's gravel pack and adjacent aquifer materials, and the CAW source water is no exception. Periodic backflushing of ASR / injection wells is therefore necessary to maintain well performance by removing materials deposited/accumulated around the well bore during injection. The procedure is similar to backwashing a media filter to remove accumulated material deposited during filtration.



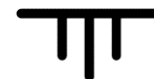
The general rule-of-thumb for ASR wells is to backflush at pumping rates that are at least two times the rate of injection in order to create pore-throat velocities sufficient to remove particles that cling to the surfaces of gravel pack and aquifer grains. A typical and prudent trigger for backflushing is when the amount of water-level drawup during injection equals the available drawdown (as measured from the static water level to the top of the pump bowls) in the well for backflushing. This helps to avoid over-pressurization and compression of plugging materials, thereby maximizing the efficiency of backflushing and limiting the amount of residual plugging.

Based on the several years of testing conducted as part of the Santa Margarita Test Injection Well (SMTIW) project, a weekly backflushing frequency has been determined to be the best operational practice. The general procedure consists of temporarily stopping injection and then pumping the wells at a rates of approximately 2,000 to 3,000 gpm (i.e., at least twice the rate of injection) for a period of approximately 10 to 20 minutes, repeated as necessary to effectively remove particulates from the well screen / gravel pack / aquifer matrix. Backflush water is discharged to the on-site backflush pit, where it percolates back into the groundwater basin.

During backflushing, the initial backflush discharge is usually very turbid and of a deep orange-brown color, becoming cloudy after approximately 5 minutes and then generally clears within 15 to 20 minutes. These observations have been generally consistent throughout the years of operating ASR wells at the Santa Margarita ASR Facility. Additional “incidental” backflushing was also conducted during the WY 2011 storage period, typically as part of water-quality sampling of the stored water. Following routine backflushing operations and brief periods of water-level recovery, controlled 10-minute specific-capacity tests are typically performed to track well production performance and residual plugging between injection periods (discussed in the following section).

Recovery Operations Summary

Recovery of the volume of water recharged during WY 2011 was performed primarily via existing CAW wells in the SGB (SM ASR-1 and SM ASR-2 had not yet been permitted for recovery into the CAW distribution system). As shown on **Figure 2**, a total of 1,117 af were recovered during the period October 2011 through January 2012. The recovered water was offset by reduced pumping by CAW from the Carmel River system during this period. It is noted that in this context, ASR recovery is essentially an accounting / allocation of CAW's various water rights and pumping from the SGB, and does not represent a “molecule-for-molecule” recovery of the injected water. Rather, the volume recharged essentially increases the operational yield of the SGB by the same amount and can be “recovered” by any of CAW's wells in the SGB and / or the ASR wells themselves. It is anticipated, however, that recovery



operations via SM ASR-1 and / or SM ASR-2 will occur more extensively in the future, once both wells are fully permitted for production into the CAW distribution system⁶.

WELL PERFORMANCE

Well performance is generally measured by specific capacity (pumping) and / or specific injectivity (injection), which is the ratio of flow rate (pumping or injection) to water-level change in the well (drawdown or drawup) over a specific elapsed time. The value is expressed as gpm per foot of water level change (gpm/ft). The value normalizes well performance by taking into account differing static water levels and flow rates. As such, specific capacity / injectivity data is useful for comparing well performance over time and at differing flow rates. Decreases in specific capacity / injectivity are indicative of decreases in the hydraulic efficiency of a well due to the effects of plugging. Both injection and production well performance was tracked at SM ASR-1 and SM ASR-2 during WY 2011, as discussed below.

Injection Performance

Injection performance has been tracked at SM ASR-1 since the inception of the ASR program in WY 2002 by measurement and comparison of 24-hour injection specific injectivities (a.k.a. injection specific capacity). Specific injectivity is the ratio of injection rate to water-level rise (drawup) in the well casing.

SM ASR-1. A summary of 24-hour specific injectivity for SM ASR-1 for WY 2002 through 2011 is presented in **Table 3** below.

Table 3. Injection Performance Summary - SM ASR-1

Water Year	Injection Rate (gpm)	24-hour DUP (feet)	Specific Injectivity (gpm/ft)	Water Year Change	Comments
WY2002					
Beginning Period	1,570	81.7	19.2	-67%	FCV not installed yet in WY2002. No recovery pumping performed.
Ending Period	1,164	199.8	6.4		
WY2003					
Beginning Period	1,070	70.0	15.5	+31%	Recovery pumping performed following WY2003 Injection
Ending Period	1,007	49.7	20.3		

⁶ SM ASR-1 was permitted by California Department of Public Health in October 2011 to produce water into the CAW distribution system, and 49.6 af were produced in October and November 2011. This well is also being utilized to produce water during WY 2012.



Water Year	Injection Rate (gpm)	24-hour DUP (feet)	Specific Injectivity (gpm/ft)	Water Year Change	Comments
WY2004					
Beginning Period	1,383	183.4	7.5	+112%	Recovery pumping performed following WY2004 Injection
Ending Period	1,072	67.4	15.9		
WY2005					
Beginning Period	1,045	46.6	22.4	-54%	Injectate dechlorinated in WY2005. No recovery pumping performed.
Ending Period	976	94.1	10.4		
WY2006					
Beginning Period	1,039	71.5	15.0	+17%	Injection procedures consistent and performance stable in WY2006. No recovery pumping performed.
Ending Period	1,008	62.2	17.5		
WY2007					
Beginning Period	1,098	92.4	11.9	--	Only one injection period in WY2007. No recovery pumping performed.
Ending Period	--	--	--		
WY2008					
Beginning Period	979	25.5	38.4	-17%	Formal rehabilitation performed prior to WY2008 injection
Ending Period	1,063	33.4	31.8		
WY 2009					
Beginning Period	1,119	56.1	19.9	+56%	Beginning period low specific injectivity due to high plugging rate during initial injection period. No recovery pumping performed.
Ending Period	1,069	34.3	31.1		
WY 2010					
Beginning Period	1,080	35.6	30.3	-19%	Observed decline in performance due to residual plugging.
Ending Period	1,326	54.0	24.6		
WY 2011					
Beginning Period	1,367	53.0	25.8	-10%	See discussion below.
Ending Period	1,454	63.7	22.8		

As shown in **Table 3**, the 24-hour specific injectivity at the beginning of WY 2011 (Injection Period No. 1) was 25.8 gpm/ft and at the end (Injection Period No. 20) it was 22.8 gpm/ft, an overall decline of approximately 10 percent, indicating that minor residual plugging occurred over the course of the WY 2011 injection season (discussed in a following section).

In reviewing the data in **Table 3**, it should also be noted that there have been differences in the injection methodologies that affected the well performance. The differences in methodologies are due to various tests that have been conducted over the years to determine the best operational parameters for the ASR well. As examples: in WY 2002 the FCV had not



yet been installed to control gas binding; recovery pumping was conducted only in WY 2003 and WY 2004; during WY 2005 the injectate was dechlorinated; and, ASR-1 underwent formal rehabilitation as part of the WY 2007 program (refer to the Summary of Operations Reports for those Water Years for additional details). Therefore, the well performance values and trends need to be viewed carefully within this context.

SM ASR-2. A summary of the beginning and ending injection performance at SM ASR-2 for WY 2010 and WY 2011 is presented in **Table 4** below.

Table 4. Injection Performance Summary - SM ASR-2

Water Year	Injection Rate (gpm)	24-hour DUP (feet)	Specific Injectivity (gpm/ft)	Water Year Change	Comments
WY 2010					
Beginning Period	1,017	156.5	6.5	-57%	See discussion below
Ending Period	237	85.0	2.8		
WY 2011					
Beginning Period	1,497	39.5	37.9	-0.5%	See discussion below
Ending Period	1,292	34.3	37.7		

WY 2010 was the first year that SM ASR-2 was in operation injecting Carmel River system water⁷. As shown in **Table 4**, SM ASR-2 experienced an overall decline in injection performance of approximately 57 percent during WY 2010, indicating that significant residual plugging had occurred at the well. Prior to injection in 2011, SM ASR-2 underwent downhole rehabilitation to remove residual plugging materials from the well screen / gravel pack / aquifer matrix (documented in **Appendix B**). As shown in **Table 4**, the 24-hour specific injectivity at the beginning of WY 2011 was 37.9 gpm/ft, representing an approximate order of magnitude improvement in performance compared to the WY 2010 performance. These results indicate that the well rehabilitation effort was very effective at removing residual plugging materials and restoring well performance. At the end of WY 2011, the 24-hr specific injectivity was 37.7 gpm/ft, an insignificant decline of approximately 0.5 percent, indicating that negligible residual plugging occurred at ASR-2 (discussed in a following section) over the course of the WY 2011 injection season.

Pumping Performance

Pumping performance has also been tracked at ASR-1 since the inception of the SMTIW testing program by measurement and comparison of specific capacity. Specific capacity is the ratio of pumping rate to water-level drawdown in the well casing. Following routine backflushing

⁷ Prior to WY 2010, only short-term injection testing had been performed utilizing source water from the Marina Coast Water District. Refer to the WY 2009 Summary of Operations Report for details.

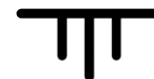


operations and periods of water-level recovery, controlled 10-minute specific-capacity tests are typically performed to track well pumping performance, similar to the tracking of injection performance from 24-hour specific injectivity.

SM ASR-1. A summary of injection season beginning and ending 10-minute specific capacity at ASR-1 for WY 2002 through 2010 is presented below in **Table 5**.

Table 5. Pumping Performance Summary - SM ASR-1

Water Year	Pumping Rate (gpm)	10-min DDN (feet)	Specific Capacity (gpm/ft)	Water Year Change	Comments
WY2002					
Pre-Injection	2,825	45.1	62.6	-53%	FCV not installed yet in WY2002
Post- Injection	2,800	95.3	29.4		
WY2003					
Pre-Injection	2,775	81.9	33.9	-16%	Recovery pumping performed following WY2003 Injection
Post- Injection	2,600	91.7	28.4		
WY2004					
Pre-Injection	2,000	51.8	38.6	-46%	Recovery pumping performed following WY2004 Injection
Post- Injection	1,700	81.2	20.9		
WY2005					
Pre-Injection	1,900	49.8	38.1	-55%	Injectate dechlorinated in WY2005. No recovery pumping performed.
Post- Injection	1,500	87.1	17.2		
WY2006					
Pre-Injection	1,500	82.4	18.2	+19%	Injection procedures consistent and performance stable in WY2006. No recovery pumping performed.
Post- Injection	1,600	74.1	21.6		
WY2007					
Pre-Injection	1,500	81.7	18.4	+3%	Only one injection period in WY2007. No recovery pumping performed.
Post- Injection	1,500	79.4	18.9		
WY2008					
Pre-Injection	1,980	31.0	63.8	-44%	Formal rehabilitation performed prior to WY2008 injection. No recovery pumping performed.
Post- Injection	2,000	55.6	36.0		
WY 2009					
Pre-Injection	2,000	52.0	38.5	-21%	No recovery pumping performed.
Post- Injection	1,900	62.7	30.3		



Water Year	Pumping Rate (gpm)	10-min DDN (feet)	Specific Capacity (gpm/ft)	Water Year Change	Comments
WY 2010					
Pre-Injection	1,900	62.5	30.4	+2%	Performance essentially stable.
Post- Injection	2,000	64.2	31.1		
WY 2011					
Pre-Injection	2,000	64.2	31.1	-3%	Performance essentially stable.
Post- Injection	2,000	64.6	30.1		

As shown in **Table 5**, the 10-minute production specific capacity overall was relatively stable over the course of WY 2011 (a negligible decline of approximately 3 percent), and has been relatively stable since the end of WY 2009. The relatively stable pumping performance results suggest that routine weekly backflush pumping has been generally effective at removing plugging materials at SM ASR-1 over the past few injection seasons.

Also shown in **Table 5**, the production specific capacity at ASR-1 declined from approximately 63 to 18 gpm/ft over the course of the six-year period of WY 2002 through WY 2007, an overall decline of approximately 70 percent. Following rehabilitation in 2007, the production specific capacity increased to 63.8 gpm/ft, slightly greater than the WY 2002 pre-injection specific capacity. These results are comparable to the injection performance, which similarly indicated the efficacy of rehabilitation in restoring the well's hydraulic performance. These findings regarding the effectiveness of rehabilitation of SM ASR-1 in 2007 are comparable to the results recently observed at SM ASR-2.

SM ASR-2. A summary of injection season beginning and ending 10-minute specific capacity for SM ASR-2 is presented below in **Table 6**.

Table 6. Pumping Performance Summary - SM ASR-2

Water Year	Pumping Rate (gpm)	10-min DDN (feet)	Specific Capacity (gpm/ft)	Water Year Change	Comments
WY 2010					
Pre-Injection	2,200	117.7	18.7	-10%	Pre-injection is after MCWD testing (refer to WY 2009 Summary of Operation report)
Post- Injection	2,300	136.9	16.8		
WY 2011					
Pre-Injection	3,100	83.9	36.9	-10%	See discussion below.
Post- Injection	3,100	93.5	33.2		

As shown in **Table 6**, the pumping performance of SM ASR-2 improved significantly in WY 2011 compared to WY 2010, with the production specific capacity nearly doubling. The improved performance is as a result of rehabilitation. During WY 2011, pumping performance



was relatively stable, but did experience an overall decrease of approximately 10 percent. This compares with the injection performance results, which showed essentially no change in performance over the course of WY 2011.

It is also noted that SM ASR-1 (and now SM ASR-2) has been operated largely as an injection-only well since its construction in 2001, with significant recovery pumping taking place thus far in only 2003 and 2004 (refer to Figure 2 and the WY 2003 and WY 2004 Summary of Operations Reports for details). As shown in **Table 5**, following recovery pumping events the production performance of SM ASR-1 improved prior to the onset of the following year's injection season. The improved well performance is attributable to the additional removal of fine particulates from the well and near-bore aquifer matrix as a result of the extended pumping. As such, it is anticipated that once SM ASR-1 and SM ASR-2 are operated as true ASR wells as planned (i.e., with seasonal recovery pumping following each injection season), the amount of residual plugging between injection seasons and the attendant frequency of rehabilitation will be reduced.

Plugging

Experience at injection well sites around the world shows that all injection wells are subject to some amount of plugging, because no water source is completely free of particulates, bionutrients, or oxidants, all of which can contribute to well plugging; the CAW source water is no exception. During injection, trace amounts of suspended solids are continually being deposited in the gravel pack and aquifer pore spaces, much as a media filter captures particulates in the filter bed. The effect of plugging is to impede the flow of water from the injection well into the aquifer, causing increased injection heads in the well to maintain a given injection rate, or reduced injection rates at a given head level. Well plugging reduces injection and extraction capacity, and consequently, well life.

Relative measurements of the particulate matter in the injectate have historically been made at the Santa Margarita site through silt density index (SDI) testing during injection. The SDI was originally developed to quantitatively assess particulate concentrations in reverse-osmosis feed waters. The SDI test involves pressure filtration of source water through a 0.45 micron membrane, and observation of the decrease in flow over time; the resulting value of SDI is dimensionless, and used as a comparative value for tracking relative well plugging rates during an injection season (i.e., plugging rates tend to vary with SDI). During WY 2011, SDI measurements ranged between approximately 0.8 to 1.1 the first day of injection and generally remained less than 1.0 for the remainder of the WY 2011 injection season.

Rates of plugging (measured in feet of head increase per day) during injection have historically been estimated at the Santa Margarita Facility ASR wells; however, most analytic methods for determining the rate of plugging are predicated on the injection rates at the subject well(s) being held constant. As discussed in detail in the WY 2010 Summary of Operations Report, injection rates at both SM ASR-1 and SM ASR-2 have varied significantly since the installation of the ASR Pipeline in Gen. Jim Moore Blvd. as a result of pressure fluctuations in the CAW system. These pressure fluctuations persisted throughout most of WY 2011 as well,



and as a result, plugging rates during the WY 2011 injection season cannot be reliably calculated⁸.

Residual plugging, however, can be measured from the WY 2011 data. Residual plugging is the plugging that occurs during injection and remains following backflush pumping. Residual plugging increases drawdown during pumping and drawup during injection, and is manifested as declining specific capacity / injectivity. The presence of residual plugging is indicative of incomplete removal of plugging particulates during backflushing and has the cumulative effect of reducing well performance through time.

As discussed previously, routine 10-minute specific capacity tests have been performed at SM ASR-1 and SM ASR-2 following backflushing events. Presented in **Tables 7 and 8** below are summaries of the residual plugging calculations for SM ASR-1 and SM ASR-2⁹, respectively, during WY 2011.

Table 7. Residual Plugging Summary - SM ASR-1

Test No.	Date	Pumping Rate (gpm)	10-min Drawdown (ft)	10-min Q/s ¹ (gpm/ft)	Normalized Drawdown ² (ft)	Residual Plugging (ft)	Cummulative Plugging (ft)
end WY10	6/2/10	2,000	64.2	31.1	64.2	--	--
1	12/22/10	1,900	65.7	28.9	69.1	4.9	4.9
2	12/29/10	1,800	63.1	28.5	70.1	1.0	5.9
3	1/4/11	1,700	64.8	26.2	76.3	6.1	12.0
4	1/13/11	1,800	67.8	26.6	75.3	-1.0	11.0
5	1/19/11	1,900	63.8	29.8	67.1	-8.2	2.9
7	2/24/11	1,900	67.2	28.3	70.8	3.6	6.5
8	3/11/11	2,000	67.7	29.5	67.7	-3.1	3.5
9	4/1/11	1,900	72.1	26.3	75.9	8.2	11.7
10	4/13/11	2,000	66.5	30.1	66.5	-9.4	2.3
11	5/24/11	1,800	64.6	27.9	71.8	5.3	7.5
Averages		1,870	66.3	28.2	71.1	0.8	--
						Cummulative	7.5

Notes:

1 - Specific Capacity. Ratio of pumping rate to drawdown.

2 - Normalized based on ratio of 2,000 gpm to actual test pumping rate.

⁸ This situation has been corrected for WY 2012 through the installation of pressure regulating valves (PRVs) in the injection piping at both SM ASR-1 and SM ASR-2.

⁹ Quantification of the amount of residual plugging (as measured in feet of drawdown) requires normalization of drawdown to a reference pumping rate, which allows for comparison of data that have different pumping rates. For SM ASR-1 and SM ASR-2, reference pumping rates of 2,000 and 3,000 gpm, respectively, are utilized as these are the typical maximum pumping rates for each well.

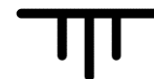


Table 8. Residual Plugging Summary – SM ASR-2

Test No.	Date	Pumping Rate (gpm)	10-min Drawdown (ft)	10-min Q/s ¹ (gpm/ft)	Normalized Drawdown ² (ft)	Residual Plugging (ft)	Cummulative Plugging (ft)	
1	2/10/11	3,100	83.9	36.9	81.2	--	--	
2	2/19/11	2,900	85.8	33.8	88.8	7.6	7.6	
3	2/24/11	2,400	91.3	26.3	114.1	25.4	32.9	
4	3/10/11	3,000	95.7	31.3	95.7	-18.4	14.5	
5	3/15/11	2,500	90.4	27.7	108.5	12.8	27.3	
6	3/26/11	3,000	94.9	31.6	94.9	-13.6	13.7	
7	4/1/11	3,000	92.0	32.6	92.0	-2.8	10.8	
8	5/24/11	3,100	93.5	33.2	90.5	-1.5	9.3	
Averages		2,875	90.9	31.7	95.7	1.3		
							Cummulative	9.3

Notes:

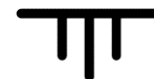
1 - Specific Capacity. Ratio of pumping rate to drawdown.

2 - Normalized based on ratio of 3,000 gpm to actual test pumping rate.

There is a general positive corollary relationship between maximum water-level drawup during injection and the accumulation of residual plugging, in that residual plugging tends to increase with increased drawup during injection. Water-level drawup during injection is a function of the injection rate, the duration of injection, and the rate of plugging. Identifying the amount of available draw-up for any given injection well and period is a useful guide to avoid over-pressurization and compression of plugging materials while balancing both the rate and duration of injection between backflushing events. As discussed in the Backflushing section of this report, the amount of water-level drawup during injection should not exceed the available drawdown in the well for backflushing in order to maximize the efficacy of backflushing and limit the amount of residual plugging.

As shown on **Figure 5**, the injecting water level was maintained at or below the recommended maximum available drawup at SM ASR-1 (100 feet) during WY 2011, and as shown in **Table 7**, the cumulative residual plugging was limited to 7.5 ft at the end of the season. The lack of significant residual plugging at SM ASR-1 during WY 2011 was manifested as relatively stable specific capacities and injectivities during the injection season (refer to **Tables 3 and 5**).

As shown on **Figure 6**, the injecting water level was maintained well below the recommended maximum available drawup at SM ASR-2 (140 feet) during WY 2011, and as shown in **Table 8**, the cumulative residual plugging was limited to 9.3 ft at the end of the season. Again, the lack of residual plugging at SM ASR-2 during WY 2011 was manifested as relatively stable specific capacities and injectivities during the injection season (refer to **Tables 4 and 6**).



AQUIFER RESPONSE TO INJECTION

The response of the regional aquifer system to injection at the Water Project 1 site has been monitored since the SMTIW project was initiated in WY 2002. Submersible water-level transducer/data logger units have been installed at eight existing offsite District monitoring well locations in the SGB. In addition, the recently constructed Seaside Middle School (SMS) monitoring wells (SMS Deep and Shallow) have been similarly instrumented. The locations of each offsite monitoring well are shown on Figure 1, and water-level hydrographs for the monitoring wells during WY 2011 are graphically presented on **Figures 7 through 15**. A summary of the regional water-level observations during the WY 2011 injection season is presented in **Table 9** below.

Table 9. Summary of WY 2011 Injection Season Monitoring Well Observations

Well ID	Distance from ASR Site (feet)	Aquifer Monitored	Pre-Injection DTW (ft btoc)	End of Injection DTW (ft btoc)	Net Change (ft)
MW-1	on-site	Tsm	370.7	337.6	+ 33.1
Paralta Test	660	QTp & Tsm	ND	ND	--
SMS (Deep)	1,350	Tsm	362.5	ND	--
Ord Grove Test	1,600	QTp & Tsm	ND	ND	--
Ord Terrace (Deep)	2,260	Tsm	ND	ND	
FO-7 (Deep)	3,420	Tsm	492.8	481.4	+ 11.4
FO-7 (Shallow)		QTp	ND	453.6	--
PCA East (Deep)	6,400	Tsm	89.1	80.9	+ 8.2
PCA East (Shallow)		QTp	63.3	62.6	+ 0.7
FO-9 (Deep)	7,280	Tsm	ND	ND	--
FO-8 (Deep)	7,580	Tsm	ND	ND	--

Table 9 Notes:
 QTp – Paso Robles aquifer
 Tsm – Santa Margarita Sandstone aquifer
 DTW – Depth to Water
 ND – No Data
 NA – Not Applicable
 NR – No Response

As shown on the water-level hydrographs, water levels in the Santa Margarita Sandstone (Tsm) aquifer at the start of the WY 2011 recharge season ranged between approximately 20 to 30 feet below sea level. Positive response to injection during WY 2011 was observed at 4 of the 9 monitoring wells completed in the Santa Margarita Sandstone aquifer; however, it is noted that several dataloggers malfunctioned for a variety of reasons during the



water year, making evaluation of the basin water-level response to WY 2011 injection difficult. For the 3 monitoring wells with sufficient data (see **Table 9** above), water-level responses ranged between approximately 8 to 33 feet, decreasing with distance from the ASR wells, as is the typical and expected aquifer response to hydraulic stresses (i.e., injection or pumping).

The available water-level data also show that at the near-coastal monitoring wells (PCA East and FO-9), water levels remained below sea level throughout the injection season. This suggests that the chronic water-level depression in the Tsm aquifer of the SGB was not overcome by response to the injection of 1,117 af of recharge during an approximate 6-month injection season and that the landward groundwater gradient was not completely reversed. Under these water-level conditions, little to no groundwater flow from the Tsm aquifer offshore would be expected to occur and any “losses” associated with ASR project operations from water potentially migrating offshore are highly unlikely.

The limited available data for wells completed in the Paso Robles Formation (QTp) show no discernible response to injection and water levels in this aquifer remained above the water level in the underlying Tsm aquifer during WY 2011. Under these water-level conditions, little to no vertically-upward flow of water from the Tsm to the QTp aquifer would be expected to occur.

WATER QUALITY

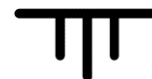
General

Source water for injection at the Santa Margarita ASR Facility wells is supplied from the CAW municipal water system, primarily from Carmel River system wells which are treated at the CAW Begonia Iron Removal Plant (BIRP) for iron and manganese removal. The BIRP water is also disinfected via free chlorine and a phosphate-based corrosion inhibitor is added to the filtered water before entering the CAW distribution system.

As in previous years, water quality was monitored at the Water Project 1 site during WY 2011 injection and aquifer storage operations. Far-field water quality was also monitored at the CAW Paralta production well and at the newly constructed Seaside Middle School ASR-3 well (SMS ASR-3)¹⁰. Summaries of the collected water-quality data during WY 2011 are presented in **Tables 10 through 14** below¹¹. Analytic laboratory reports are presented in **Appendix C**. A discussion of the water-quality data during WY 2011 is presented below.

¹⁰ SMS ASR-3 was utilized as a proxy for the SMS Deep Monitoring Well, which did not have a pump installed in WY2011. A pump has been subsequently installed and utilized for water-quality sampling during WY 2012.

¹¹ It is noted that both the Santa Margarita and Seaside Middle School ASR Facilities were undergoing various phases of facility construction during WY 2011. As a result, there were numerous power interruptions at the facilities that limited water-quality sampling such that the sampling frequency could not be performed at all wells in strict accordance with the Sampling and Analysis Plan for the project. It is anticipated that future sampling will not be so limited.



Mixing and Dilution

Because injection operations have occurred annually at SM ASR-1 over the past 9 Water Years (injection began at this well in WY 2002), the proximate groundwater quality has been altered from the natural subsurface conditions, making a clear distinction between “native” and “non-native” water quality both complex and subjective. In the past, the most illustrative basis for discussing water-quality changes for the ASR project was to consider groundwater conditions immediately prior to the injection season as a baseline. However, establishing baseline conditions is more complex now that injection is occurring at multiple wells and is further complicated as a result of the significant volume of injection that occurred in WY 2010 (approximately 1,111 af). The issue of precisely defining a baseline water-quality condition in the future will be increasingly difficult as injection occurs at multiple wells (e.g., SMS ASR-3 is planned to be operational by the commencement of WY 2012).

Essentially five different “baseline” water-quality conditions exist now, specifically at SM ASR-1, SM ASR-2, SM MW-1, Paralta and SMS ASR-3. To track the general mixing, dilution, and interaction between injected and native groundwaters, chloride ion (Cl⁻) has historically been used for the SGB ASR project as a natural tracer. Chloride ion is very stable, highly soluble and is present in both injected and native ground waters; albeit at a 400 percent concentration differential. The historical Cl⁻ concentration of the native groundwaters within the Tsm has averaged approximately 120 milligrams per liter (mg/L) in this area of the basin. Presented in **Table 10** below is a summary of the relative percentages of injection water at each of the monitored wells before WY 2011 injection operations and then at the end of the WY 2011 storage period. Calculation of the injected versus native groundwater (NGW) contribution in a given sample are calculated based on the historical NGW and injected water Cl⁻ concentrations.

Table 10. Percent Injectate at Monitor Wells During WY 2011

Well	Pre-Injection Conditions			End-Storage Conditions			WY 2011 Change (%)
	Sample	Cl	% Injectate	Sample	Cl	% Injectate	
	Date	(mg/l)	in Water	Date	(mg/l)	in Water	
SM ASR-1	11/15/10	34	91	11/11/11	40	85	-6
SM MW-1	11/12/10	26	100	8/24/11	29	97	-3
Paralta	11/9/10	--	--	7/27/11	86	36	--
SMS ASR-3	10/22/10	107	14	--	--	--	--

As **Table 10** shows, none of the four well locations had the same water quality prior to WY 2011 injection, and each represents a different mix of injectate and native groundwater (NGW) and water from the multiple previous injection seasons. These results range from 100 percent injectate water at SM MW-1 to 14 percent injectate water at SMS ASR-3 prior to the WY 2011 injection season. By the end of the WY 2011 storage period, concentration of injectate water at both SM ASR-1 and SM MW-1 had declined slightly compared to pre-injection conditions, which is likely the (unremarkable) result of groundwater migration westward towards active CAW production wells.



Table 11. Summary of WY 2011 Water Quality Data - Injectate

Parameter	Unit	PQL	Sampling Results					WY 2011 Injectate Averages	
			12/21/10	2/24/11	3/21/11	4/6/11	4/27/11		5/20/11
Sample Description			Injectate	Injectate	Injectate	Injectate	Injectate	Injectate	
Major Cations									
Calcium	mg/L	1	45	41		36		39	40
Magnesium	mg/L	1	13	7		9		12	10
Potassium	mg/L	0.5	3.1	2.8		2.7		2.8	2.9
Sodium	mg/L	1	44	42		41		42	42
Major Anions									
Bicarbonate (as HCO ₃ ⁻)	mg/L	10	167	160		154		155	159
Chloride	mg/L	1	26	27	27	25	27	26	26
Sulfate	mg/L	1	72	62		59		65	65
General Physical									
pH	Std Units	0.1	7.6	7.6		7.6		7.7	7.6
Specific Conductance (EC)	uS	10	527	468		474		468	484
Total Dissolved Solids	mg/L	10	313	283		283		308	297
Metals									
Arsenic (Total)	ug/L	1	ND	ND		ND		ND	0
Barium (Total)	ug/L	10	54	53		50		49	52
Iron (Dissolved)	ug/L	10	ND	ND		ND		ND	0
Iron (Total)	ug/L	10	15	ND		ND		ND	3.8
Lithium	ug/L	1	6	7		7			7
Manganese (Dissolved)	ug/L	20	ND	ND		ND		ND	0
Manganese (Total)	ug/L	20	ND	ND		ND		ND	0
Molybdenum	ug/L	1	3	3		3		3	3
Nickel	ug/L	1	2	ND		ND			0.7
Selenium	ug/L	2	ND	ND		ND		2	0.5
Strontium (Total)	ug/L	5	237	206		202		198	211
Uranium (by ICP/MS)	ug/L	1	ND	ND		ND		ND	0
Vanadium (Total)	ug/L	1	ND	ND		ND		ND	0
Zinc (Total)	ug/L	10	311	177		186		167	210
Miscellaneous									
Alkalinity, Total (as CaCO ₃)	mg/L	10	137	131		126		127	130
Ammonia-N	mg/L	0.05	ND	ND		ND		ND	0.00
Boron	mg/L	0.05	ND	ND		ND		ND	0.00
Chloramines	mg/L	0.05	0.06	0.05	0.07	0.16	0.15	ND	0.08
Fluoride	mg/L	0.1	0.17	0.22		0.14			0.18
Gross Alpha	pCi/L		2.14 +/- 1.23	1.00 +/- 1.57		2.97 +/- 2.23		0.39 +/- 1.31	
Kjeldahl Nitrogen (Total)	mg/L	0.5	ND	ND		ND		0.6	0.15
Methane	ug/L	0.4	0.43	ND		ND		ND	0.11
Nitrate (as NO ₃)	mg/L	1	ND	ND		ND		ND	0.0
Nitrite (as Nitrogen)	mg/L	0.1	ND	ND		ND		ND	0
Nitrogen (Total)	mg/L	0.2	ND	ND		ND		0.7	0.2
o-Phosphate-P	mg/L	0.05	0.23	0.17		0.18		0.17	0.19
Phosphorous (Total)	mg/L	0.03	0.46	0.28		0.38		0.35	0.37
Radium 226	pCi/L								
Organic Analyses									
Haloacetic Acids (Total)	ug/L	1.0	20	11	12	15	14	13	14
<i>Dibromoacetic Acid</i>	ug/L	1.0	3.9	2.2	2.1	2.4	3.0	2.2	2.6
<i>Dichloroacetic Acid</i>	ug/L	1.0	8.8	4.4	5.0	7	6.2	5.8	6.2
<i>Monobromoacetic Acid</i>	ug/L	1.0	ND	ND	ND	ND	ND	ND	0.00
<i>Monochloroacetic Acid</i>	ug/L	2.0	ND	ND	ND	ND	ND	ND	0.00
<i>Trichloroacetic Acid</i>	ug/L	1.0	7.2	4.0	4.5	6.1	4.9	4.5	5.2
Organic Carbon (Dissolved)	mg/L	0.2	1.6	1.1		1.2		1.2	1.3
Organic Carbon (Total)	mg/L	0.2	1.4	1.1		1.5		1.3	1.3
Trihalomethanes (Total)	ug/L	1.0	32	22	15	22	14	27	22
<i>Bromodichloromethane</i>	ug/L	0.5	11.0	7.9	4.9	9.0	5.2	9.3	7.9
<i>Bromoform</i>	ug/L	0.5	1.1	0.9	0.8	0.5	ND	1.0	0.71
<i>Chloroform</i>	ug/L	1.0	13.0	7.6	5.9	8.5	5.8	10.0	8.5
<i>Dibromochloromethane</i>	ug/L	0.5	7.4	5.8	3.4	3.9	3.1	6.7	5.1
Field Parameters									
Temperature	° C		15.5	16.2	15.7	15.8			15.8
Specific Conductance (EC)	uS		550	480	590	580.0			550
pH	Std Units		7.4	7.4	7.4	7.2			7.4
ORP	mV								0
Free Chlorine Residual	mg/L		0.9	0.7	0.8	0.7			0.8
Dissolved Oxygen	mg/L		5.2	4.3	5.4	5.8			5.2
Silt Density Index	Std Units		1.2	1.3	0.9	0.7			1.0
Gas Volume	mL								
H ₂ S	mg/L								

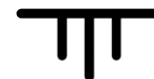


Table 12. Summary of WY 2011 Water-Quality Data - SM ASR-1

Parameter	Unit	PQL	Sampling Results				
			3/21/01	10/8/10	11/15/10	7/20/11	11/11/11
Sample Description			NGW	WY 2010 Storage	WY 2011 Storage		
Elapsed Storage Time	Days		--	130	168	57	171
Volume Purged at Sampling	1,000 gals		--				
Major Cations							
Calcium	mg/L	1	85		46	38	43
Magnesium	mg/L	1	19		13	12	14
Potassium	mg/L	0.5	5.3		2.9	2.7	3.0
Sodium	mg/L	1	88		45	41	46
Major Anions							
Bicarbonate (as HCO ₃ ⁻)	mg/L	10	273		172	159	173
Chloride	mg/L	1	120	34	34	27	40
Sulfate	mg/L	1	95		74	66	74
General Physical							
pH	Std Units	0.1	7.1		7.5	7.6	7.4
Specific Conductance (EC)	uS	10	1015		547	486	537
Total Dissolved Solids	mg/L	10	618		328		
Metals							
Arsenic (Total)	ug/L	1	ND	ND	1		ND
Barium (Total)	ug/L	10	52	55	63		64
Iron (Dissolved)	ug/L	10			ND	77	ND
Iron (Total)	ug/L	10	120		194	94	ND
Lithium	ug/L	1		6	7		6
Manganese (Dissolved)	ug/L	20			ND	ND	ND
Manganese (Total)	ug/L	20	40		23	ND	ND
Molybdenum	ug/L	1		5	6		7
Nickel	ug/L	1			ND		
Selenium	ug/L	2	ND	2	ND		2
Strontium (Total)	ug/L	5		226	240		254
Uranium (by ICP/MS)	ug/L	1		ND	ND		1
Vanadium (Total)	ug/L	1		ND	ND		ND
Zinc (Total)	ug/L	10	10	182	212		205
Miscellaneous							
Alkalinity, Total (as CaCO ₃)	mg/L	10	224		141	130	142
Ammonia-N	mg/L	0.05	0.33		ND	ND	ND
Boron	mg/L	0.05	0.14		ND	ND	ND
Chloramines	mg/L	0.05		ND	ND	ND	ND
Fluoride	mg/L	0.1	0.35		0.18		
Gross Alpha	pCi/L			1.09 +/- 1.58	1.10 +/- 1.60	0.54 +/- 1.54	2.17 +/- 1.81
Kjeldahl Nitrogen (Total)	mg/L	0.5			ND	ND	ND
Methane	ug/L	0.4		ND	0.5	ND	ND
Nitrate (as NO ₃)	mg/L	1	ND		ND	ND	ND
Nitrite (as Nitrogen)	mg/L	0.1			ND	ND	
Nitrogen (Total)	mg/L	0.2			ND	ND	ND
o-Phosphate-P	mg/L	0.05	0.46		0.19	ND	0.16
Phosphorous (Total)	mg/L	0.03			0.29	0.30	0.20
Radium 226	pCi/L			0.096 +/- 0.165	0.000 +/- 0.248	0.051 +/- 0.223	0.000 +/- 0.193
Organic Analyses							
Haloacetic Acids (Total)	ug/L	1.0		8	4	16	ND
<i>Dibromoacetic Acid</i>	ug/L	1.0		ND	ND	ND	ND
<i>Dichloroacetic Acid</i>	ug/L	1.0		2.3	1.8	2.3	ND
<i>Monobromoacetic Acid</i>	ug/L	1.0		ND	ND	ND	ND
<i>Monochloroacetic Acid</i>	ug/L	2.0		ND	ND	ND	ND
<i>Trichloroacetic Acid</i>	ug/L	1.0		5.6	2.2	14	ND
Organic Carbon (Dissolved)	mg/L	0.2			1.1	1.3	0.98
Organic Carbon (Total)	mg/L	0.2	6.3		1.1	1.2	0.95
Trihalomethanes (Total)	ug/L	1.0		65	54	92	31
<i>Bromodichloromethane</i>	ug/L	0.5		15.0	12.0	25.0	8.2
<i>Bromoform</i>	ug/L	0.5		0.6	ND	1.0	ND
<i>Chloroform</i>	ug/L	1.0		44.0	37.0	57.0	20.0
<i>Dibromochloromethane</i>	ug/L	0.5		5.8	4.5	9.6	2.8
Field Parameters							
Temperature	° C			18.2	18.5	15.9	16.9
Specific Conductance (EC)	uS			563	571	475	544
pH	Std Units			7.2	7.2	7.4	7.34
ORP	mV					+ 127	+ 81
Free Chlorine Residual	mg/L			ND	ND	0.32	0.02
Dissolved Oxygen	mg/L			1.5	1.8	2.4	1.35
Silt Density Index	Std Units						
Gas Volume	mL						
H ₂ S	mg/L						ND



Table 13. Summary of WY 2011 Water Quality Data – SM MW-1

Parameter	Unit	PQL	Sampling Results							
			10/8/10	11/12/10	2/14/11	2/25/11	4/6/11	5/20/11	7/20/11	8/24/11
Sample Description			WY 2010 Storage		WY 2011 Injection			WY 2011 Storage		
Elapsed Storage Time	Days		130	165	--	--	--	--	57	92
Volume Purged at Sampling	1,000 gals									
Major Cations										
Calcium	mg/L	1		48				44	44	
Magnesium	mg/L	1		9				10	11	
Potassium	mg/L	0.5		2.7				2.6	2.8	
Sodium	mg/L	1		44				41	43	
Major Anions										
Bicarbonate (as HCO ₃ ⁻)	mg/L	10		168				162	160	
Chloride	mg/L	1	30	29	29	29	26	26	28	29
Sulfate	mg/L	1		74				65	68	
General Physical										
pH	Std Units	0.1		7.6				7.9	7.6	
Specific Conductance (EC)	uS	10		524				483	491	
Total Dissolved Solids	mg/L	10		290				310		
Metals										
Arsenic (Total)	ug/L	1		2						
Barium (Total)	ug/L	10		21						
Iron (Dissolved)	ug/L	10		ND				ND	ND	
Iron (Total)	ug/L	10		ND				ND	114	
Lithium	ug/L	1		7						
Manganese (Dissolved)	ug/L	20		ND				ND	ND	
Manganese (Total)	ug/L	20		ND				ND	ND	
Molybdenum	ug/L	1		6						
Nickel	ug/L	1		ND						
Selenium	ug/L	2		ND						
Strontium (Total)	ug/L	5		249						
Uranium (by ICP/MS)	ug/L	1		ND						
Vanadium (Total)	ug/L	1		ND						
Zinc (Total)	ug/L	10		ND						
Miscellaneous										
Alkalinity, Total (as CaCO ₃)	mg/L	10		138				133	131	
Ammonia-N	mg/L	0.05		ND				ND	ND	
Boron	mg/L	0.05		ND				ND	ND	
Chloramines	mg/L	0.05	ND	ND	ND	ND	0.08	0.05	ND	ND
Fluoride	mg/L	0.1		0.19						
Gross Alpha	pCi/L			2.69 +/- 1.81					2.06 +/- 1.39	
Kjeldahl Nitrogen (Total)	mg/L	0.5		ND				ND	0.5	
Methane	ug/L	0.4		ND					ND	
Nitrate (as NO ₃)	mg/L	1		ND				ND	ND	
Nitrite (as Nitrogen)	mg/L	0.1		ND				ND	ND	
Nitrogen (Total)	mg/L	0.2		ND				ND	0.6	
o-Phosphate-P	mg/L	0.05		0.05				ND	ND	
Phosphorous (Total)	mg/L	0.03		0.05				0.08	0.11	
Radium 226	pCi/L			0.038 +/- 0.269					0.154 +/- 0.266	
Organic Analyses										
Haloacetic Acids (Total)	ug/L	1.0	ND	ND	7.1	20	18	19	5.6	ND
<i>Dibromoacetic Acid</i>	ug/L	1.0	ND	ND	ND	2.2	1.6		ND	ND
<i>Dichloroacetic Acid</i>	ug/L	1.0	ND	ND	1.5	9.8	8.7		ND	ND
<i>Monobromoacetic Acid</i>	ug/L	1.0	ND	ND	ND	ND	ND		ND	ND
<i>Monochloroacetic Acid</i>	ug/L	2.0	ND	ND	ND	ND	ND		ND	ND
<i>Trichloroacetic Acid</i>	ug/L	1.0	ND	ND	5.6	8.4	7.5		5.6	ND
Organic Carbon (Dissolved)	mg/L	0.2		1.1				1.1	1.1	
Organic Carbon (Total)	mg/L	0.2		1.1				1.2	1.1	
Trihalomethanes (Total)	ug/L	1.0	49	53	38	77	69	60	67	67
<i>Bromodichloromethane</i>	ug/L	0.5	12.0	13.0	12.0	21.0	22.0	18.0	18.0	17.0
<i>Bromoform</i>	ug/L	0.5	ND	ND	0.9	1.2	0.8	1.1	0.9	ND
<i>Chloroform</i>	ug/L	1.0	34.0	35.0	19.0	44.0	38.0	33.0	40.0	45.0
<i>Dibromochloromethane</i>	ug/L	0.5	4.0	4.5	6.4	10.0	7.6	8.2	8.2	5.4
Field Parameters										
Temperature	° C		21.3	21.5			19.8			17.9
Specific Conductance (EC)	uS		530	535			500		477	472
pH	Std Units		7.6	7.5			7.4		7.2	7.3
ORP	mV								+ 174	+ 126
Free Chlorine Residual	mg/L		ND	ND			ND		ND	ND
Dissolved Oxygen	mg/L		0.2	0.8			3.5		2.15	2.92
Silt Density Index	Std Units									
Gas Volume	mL									
H ₂ S	mg/L									ND



Table 14. Summary of WY 2011 Water Quality Data – Off-Site MWs

Parameter	Unit	PQL	Sampling Results		
			SMS	Paralta	
			10/22/10	11/9/10	7/27/11
Volume Pumped at Sampling	1,000 gals		4495		
Major Cations					
Calcium	mg/L	1	76		62
Magnesium	mg/L	1	18		15
Potassium	mg/L	0.5	4.5		ND
Sodium	mg/L	1	102		81
Major Anions					
Bicarbonate (as HCO ₃ ⁻)	mg/L	10	304		
Chloride	mg/L	1	107		86
Sulfate	mg/L	1	56		68
General Physical					
pH	Std Units	0.1	7.7		
Specific Conductance (EC)	uS	10	954		710
Total Dissolved Solids	mg/L	10	575		460
Metals					
Arsenic (Total)	ug/L	1	4	2	2
Barium (Total)	ug/L	10	50	53	ND
Iron (Dissolved)	ug/L	10	21		ND
Iron (Total)	ug/L	10	21	ND	ND
Lithium	ug/L	1	36	21	24
Manganese (Dissolved)	ug/L	20	27		21
Manganese (Total)	ug/L	20	27	26	22
Molybdenum	ug/L	1		6	ND
Nickel	ug/L	1	ND		ND
Selenium	ug/L	2	ND	3	3
Strontium (Total)	ug/L	5	403	313	300
Uranium (by ICP/MS)	ug/L	1		ND	ND
Vanadium (Total)	ug/L	1		ND	ND
Zinc (Total)	ug/L	10		ND	ND
Miscellaneous					
Alkalinity, Total (as CaCO ₃)	mg/L	10	249		192
Ammonia-N	mg/L	0.05	ND		ND
Boron	mg/L	0.05	0.08		0.08
Chloramines	mg/L	0.05		ND	ND
Fluoride	mg/L	0.1	0.14		
Gross Alpha	pCi/L			5.96 +/- 0.35	ND
Kjeldahl Nitrogen (Total)	mg/L	0.5	ND		0.31
Methane	ug/L	0.4	ND	1.4	1.2
Nitrate (as NO ₃)	mg/L	1	1		0.2
Nitrite (as Nitrogen)	mg/L	0.1	ND		ND
Nitrogen (Total)	mg/L	0.2	ND		
o-Phosphate-P	mg/L	0.05	ND		ND
Phosphorous (Total)	mg/L	0.03	0.03		ND
Radium 226	pCi/L			1.12 +/- 0.639	1.31 +/- 0.662
Organic Analyses					
Haloacetic Acids (Total)	ug/L	1.0	ND	1.2	ND
<i>Dibromoacetic Acid</i>	ug/L	1.0	ND	ND	ND
<i>Dichloroacetic Acid</i>	ug/L	1.0	ND	ND	ND
<i>Monobromoacetic Acid</i>	ug/L	1.0	ND	ND	ND
<i>Monochloroacetic Acid</i>	ug/L	2.0	ND	1.2	ND
<i>Trichloroacetic Acid</i>	ug/L	1.0	ND	ND	ND
Organic Carbon (Dissolved)	mg/L	0.2	0.71		0.77
Organic Carbon (Total)	mg/L	0.2	0.7		0.80
Trihalomethanes (Total)	ug/L	1.0	ND	5.2	9.8
<i>Bromodichloromethane</i>	ug/L	0.5	ND	1.1	2.0
<i>Bromoform</i>	ug/L	0.5	ND	ND	ND
<i>Chloroform</i>	ug/L	1.0	ND	4.1	7.8
<i>Dibromochloromethane</i>	ug/L	0.5	ND	ND	ND
Field Parameters					
Temperature	° C		26.2	22.3	22.7
Specific Conductance (EC)	uS		991	760	751
pH	Std Units		7.0	7.16	7.1
ORP	mV		-82		-94.9
Free Chlorine Residual	mg/L		ND	ND	0.05
Dissolved Oxygen	mg/L				0.69
Silt Density Index	Std Units				
Gas Volume	mL				
H ₂ S	mg/L		0.60		0.02



Although in past years the calculation of a “normalized concentration” of water-quality parameters based on injected and NGW Cl⁻ concentrations has been used to “back out” the dilution effects of this intermixing of waters, the substantial and repeated dilution/intermixing that has occurred now is more error prone due to the high dilutions and the spatial variations of Cl⁻ concentrations around the ASR project sites now extant. Normalized data are therefore not included in the current data presentations.

Injection Water Quality

Injection water quality from the CAW system during WY 2011 is presented in **Table 11** above. The data in **Table 11** show injection water quality was typical of recent years. Levels of Trihalomethane (THM) and Haloacetic Acid (HAA) compounds, as well as bionutrients (oxygen, nitrogen, phosphorous, and organic carbon), were all present at levels similar to previous years.

Water Quality During Aquifer Storage

Table 12 presents a summary of water-quality data collected at SM ASR-1, **Table 13** presents similar data collected at MW-1, and **Table 14** presents the limited water-quality data collected at the off-site monitoring wells (SMS and Paralta). Data for SM ASR-1 includes original 2001 native groundwater results obtained when the well was first constructed (3/21/01 sample), “baseline” water quality taken immediately prior to WY 2011 injection (11/15/10 sample), and “stored” water quality (WY 2011 Storage) collected periodically from the aquifer after injection operations were terminated.

Review of water-quality parameters gathered at SM ASR-1, including major anions and cations, redox potential (ORP), and conductivity all showed similar geochemical stability and a lack of dilution / intermixing with native groundwaters during aquifer storage. This is unremarkable when compared to years prior to WY 2010 due to the larger volume of water injected; although drift / gradient-induced migration was surely occurring, the injection bubble was sufficiently large to still encompass SM ASR-1 and SM MW-1¹².

As found in previous ASR operations at the site, the only significant water-quality changes observed during aquifer storage were redox-related (and likely biologically mediated) reactions; these were primarily evidenced by the degradation of HAA and THM compounds. Disinfection Byproducts (DBPs) parameters at SM ASR-1 and SM MW-1 during WY 2011 are graphically presented on **Figures 16 and 17**, respectively. The results showed the following:

- THMs showed their typical initial and significant ingrowth at SM ASR-1 resulting from the presence of free chlorine in the injected water and peaked in concentration at 92 micrograms per liter (ug/L) approximately 60 days after the cessation of injection, followed by a gradual decline during the storage period. After approximately 90 days of storage, THMs had degraded to below the

¹² SM ASR-2 was not sampled during WY 2011 storage period due to a lack of permanent power supply. Permanent power has since been established and is in place for WY 2012.



Maximum Contaminant Level (MCL) of 80 ug/L. THMs at SM MW-1 showed similar ingrowth, but a much lower rate of degradation.

- HAAs showed the typical limited amount of ingrowth after the cessation of injection and they degraded completely during storage within a period of approximately 170 days at SM MW-1.

Decline in THMs at SM ASR-1 followed the characteristic process: rapid degradation of Bromoform and the highly brominated species with much slower decline in Chloroform. The slower than historically-observed degradation of THM's at SM MW-1 may be a result of the large volume of water injected and the more thorough displacement of native groundwaters; this phenomena will need to be observed closely in subsequent operations to further assess the change in degradation rates.

Water Quality at Far-Field Monitor Wells

Samples from the closest CAW SGB production well (Paralta) were collected in November 2010 prior to the WY 2011 injection season and July 2011 following the injection season. The samples were analyzed for DBP's and trace minerals which might indicate influence from the operation of the ASR wells. In addition, a sample was collected from SMS ASR-3 in October 2010.

As discussed previously and as shown in **Table 10**, evaluation of chloride ion (Cl⁻), concentrations indicate that some previously injected water had reached the far-field wells prior to the WY 2011 injection season. The presence of low levels of THM compounds at the Paralta well further confirms the presence of CAW Injectate at the site, with THM levels of approximately 5 to 10 micrograms per liter (ug/L); however, the Paralta well penetrates both the QTp and Tsm formations; therefore, the precise quantification of injectate capture is not possible due to the significant and variable contribution of QTp water in the Paralta production. As related to potable water-quality standards, the THM levels detected at the Paralta Well are less than 13 percent of the MCL of 80 ug/L.

The next closest well is SMS ASR-3, which was constructed and test pumped in 2010. SMS ASR-3 is perforated solely in the Tsm formation and is, therefore, a good data source for water quality and mixing. Calculations based on chloride ion concentrations at SMS ASR-3 show a mixture of approximately 14 percent CAW Injectate and 86 percent native Tsm groundwater. No THM's were observed at SMS ASR-3 prior to the WY 2011 injection season. Unfortunately, due to the previously noted power supply issues, SMS ASR-3 could not be sampled during the WY 2011 storage period to monitor the presence / influence of WY 2011 injectate at this well.

Overall, water-quality data from WY 2011 showed no significant deviations from previous years; however, the determination of precisely where the injected waters travel will likely be more challenging as multiple wells become operational and injection quantities increase. The most important factors are that: (a) no adverse geochemical reactions are occurring during aquifer storage, and; (b) that injection is showing direct and measurable benefit to the extant basin water quality vis-à-vis reductions in salinity and dissolved solids, hardness, and aesthetic



parameters such as manganese and sulfide ions, which impart color and odor to the consumers' drinking water. These improvements are likely to continue as ASR operations continue and expand in the future.

CONCLUSIONS

Based on the findings from operation of Water Project 1 (Phase 1 ASR Project) during WY 2011, we conclude the following:

WY 2011 Recharge Operations

WY 2011 was an "Above Normal" hydrologic year, and was the second year that Carmel River system water was simultaneously injected at both SM ASR-1 and SM ASR-2. These factors resulted in a total of approximately 1,117 af of water recharged into the Seaside Groundwater Basin at the Santa Margarita ASR Facility. The volume injected during WY 2011 was slightly greater than that injected during WY 2010 (1,111 af) and was the highest single-year injection volume and is also greater than the operational average annual yield for the project of 920 afy. For comparison, the volume injected during WY 2007 was only 8.2 af, and during WY 2006 was 408 af, which were "Critically Dry" and "Wet" hydrologic years, respectively. The total volumes injected each year reflect the relative availability of excess Carmel River flows, as well as the number of ASR wells in operation and conveyance capacity of the CAW system. A graphical presentation showing a summary of annual injection and recovery volumes since operations began at the Santa Margarita ASR Facility site is shown on **Figure 2**.

Well Performance

SM ASR-1. During WY 2011, SM ASR-1 was operated at injection rates ranging between approximately 400 to 1,950 gpm (1.8 to 8.6 afd), averaging approximately 1,190 gpm (5.3 afd). The 24-hour specific injectivity at SM ASR-1 at the beginning of WY 2011 was approximately 26 gpm/ft and at the end it was 23 gpm/ft, a decline of approximately 10 percent, indicating that a small amount residual plugging occurred at the well over the course of the WY 2011 injection season. These values are comparable to the specific injectivity at the end of WY 2010 of approximately 25 gpm/ft. The pumping specific capacity was relatively stable over the course of WY 2011, at approximately 31 to 30 gpm/ft prior to and following the injection season, respectively. The maintenance of specific capacity following the injection season suggests that backflushing operations were successful at removing residual plugging that had accumulated during the injection season at SM ASR-1.

SM ASR-2. Prior to injection in WY 2011, SM ASR-2 underwent rigorous downhole rehabilitation to restore lost hydraulic performance. During WY 2011, SM ASR-2 was operated at average injection rates ranging between approximately 1,290 to 1,890 gpm (5.7 to 8.4 afd), averaging approximately 1,580 gpm (7.0 afd). The 24-hour specific injectivity at ASR-2 the beginning and ending of WY 2011 was stable at approximately 38 gpm/ft, indicating that no discernible residual plugging occurred at this well over the course of the WY 2011 injection season. These values are significantly greater than the specific injectivity at the end of WY



2010 of approximately 3 gpm/ft. The pumping specific capacity declined slightly over the course of WY 2011, from approximately 37 gpm/ft prior to injection to 33 gpm/ft at the end of the injection season, suggesting that backflushing did not completely remove the accumulated residual plugging during WY 2011.

Water Quality

Significant conclusions regarding the water-quality investigation during WY 2011 include the following:

- Consistent with previous observations, no significant ion exchange, acid-base, or precipitation reactions were observed at the site.
- THMs at SM ASR-1 showed characteristic and significant initial “ingrowth” that peaked at approximately 60 days of storage, followed by a gradual decline over the next 90 to 120 days of storage.
- THM data from the on-site SM MW-1 monitor well also supports the finding that THM adsorption is not occurring during aquifer storage and transport; therefore, observed THM reductions during storage are likely being controlled by bioactivity.
- HAAs showed little “ingrowth” following the cessation of injection and degraded completely during aquifer storage.

RECOMMENDATIONS

Based on the WY 2011 ASR program results and our experience with similar ASR projects, we offer the following recommendations for continued and future operations of Water Project 1:

SM ASR-1 Well Operational Parameters

- Water-Level Drawup: Under the present local water-level conditions, the amount of water-level drawup should be limited to approximately 100 feet. This amount of water-level drawup during injection equals the typical available drawdown in the well for backflushing. This helps to avoid over-pressurization and compression of plugging materials, thereby maximizing the efficiency of backflushing and limiting the amount of residual plugging.
- Injection Rate: Based on the lack of overall residual plugging during WY 2011, SM ASR-1 can be operated at an injection rate up to approximately 1,500 gpm (6.6 afd) to avoid excessive plugging during injection. This represents a 50 percent increase in the design injection rate of 1,000 gpm.
- Backflushing Frequency: During the recharge season, routine backflushing should continue to be performed on an approximate weekly basis, or when the amount of water-level drawup in the casing reaches approximately 100 feet, whichever occurs first.



SM ASR-2 Well Operational Parameters

- Water-Level Drawup: Under the present local water-level conditions, the amount of water-level drawup should be limited to approximately 140 feet, which is equal to the typical amount of available drawdown in the well for backflushing. Again, this helps to avoid over-pressurization and compression of plugging materials and limiting the amount of residual plugging.
- Injection Rate: Based on the success of well rehabilitation and the lack of significant residual plugging during WY 2011, SM ASR-2 can be operated at an injection rate up to approximately 2,000 gpm (8.8 afd) to avoid excessive plugging during injection. This represents a 33 percent increase in the design injection rate of 1,500 gpm.
- Backflushing Frequency: During the recharge season, routine backflushing should continue to be performed on an approximate weekly basis, or when the amount of water-level drawup in the casing reaches approximately 140 feet, whichever occurs first.

It is important to note that water-level drawup during injection is a function of several factors, including specific injectivity, injection rate, plugging rates, and duration of continuous injection. Therefore, establishing a maximum drawup level is a useful guide for triggering backflushing of the ASR wells under variable conditions. For example, injecting at lower injection rates and / or with an injection source water with lower plugging potential (as measured by SDI), the amount of water level drawup per unit time will be lower and the duration of continuous injection between backflushing may be extended before the drawup limitation is reached. Conversely, injecting at a higher rate and / or with injection source water having a higher plugging potential, the rate of drawup will increase and the duration between backflushing would need to be shortened.

CLOSURE

This report has been prepared exclusively for the Monterey Peninsula Water Management District for the specific application to the ASR Project on the Monterey Peninsula. The findings and conclusions presented herein were prepared in accordance with generally accepted hydrogeologic and engineering practices. No other warranty, express or implied, is made.



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FIGURES

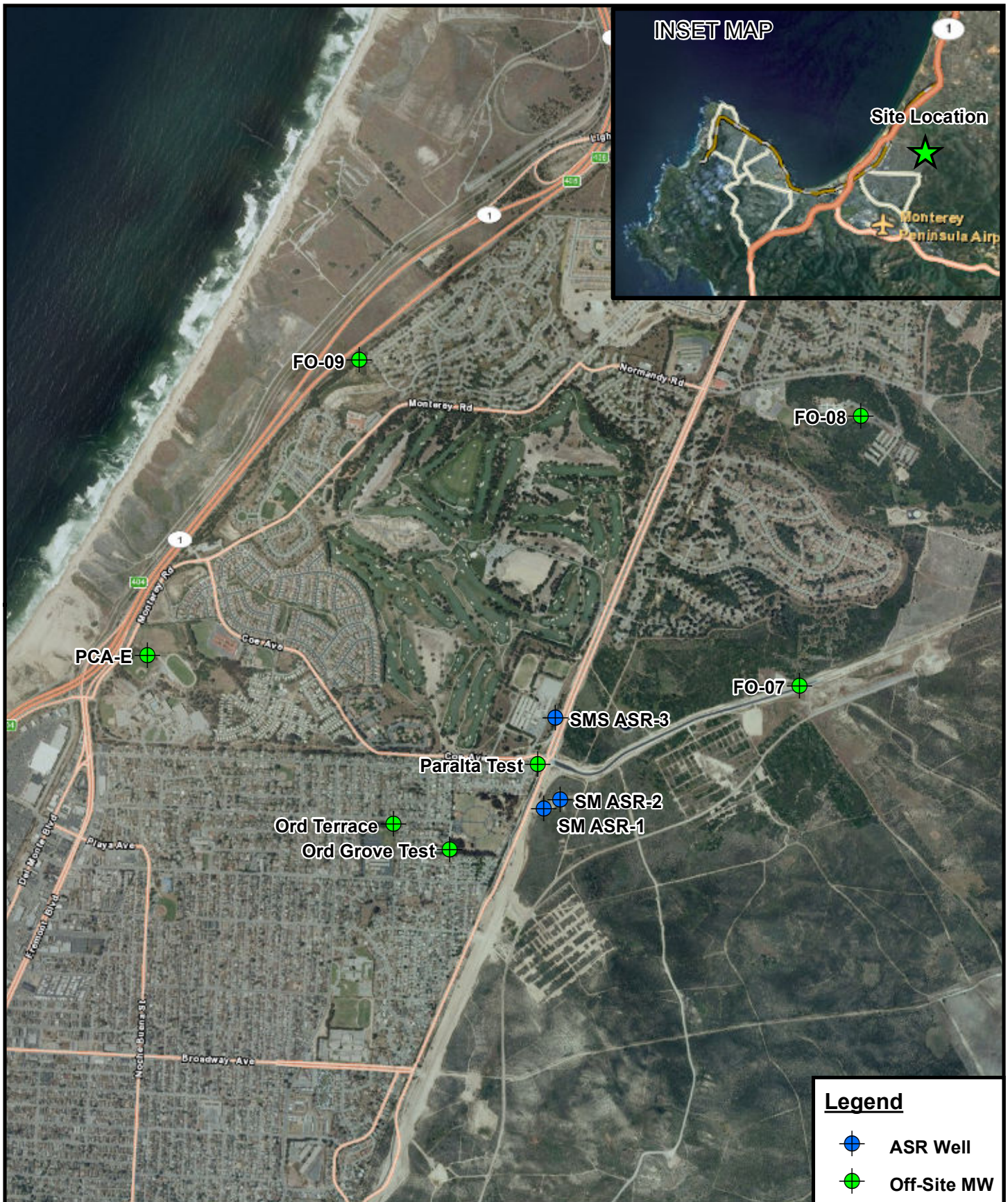


FIGURE 1. SITE LOCATION MAP
WY 2011 ASR Program
Water Project 1 (Phase 1 ASR)

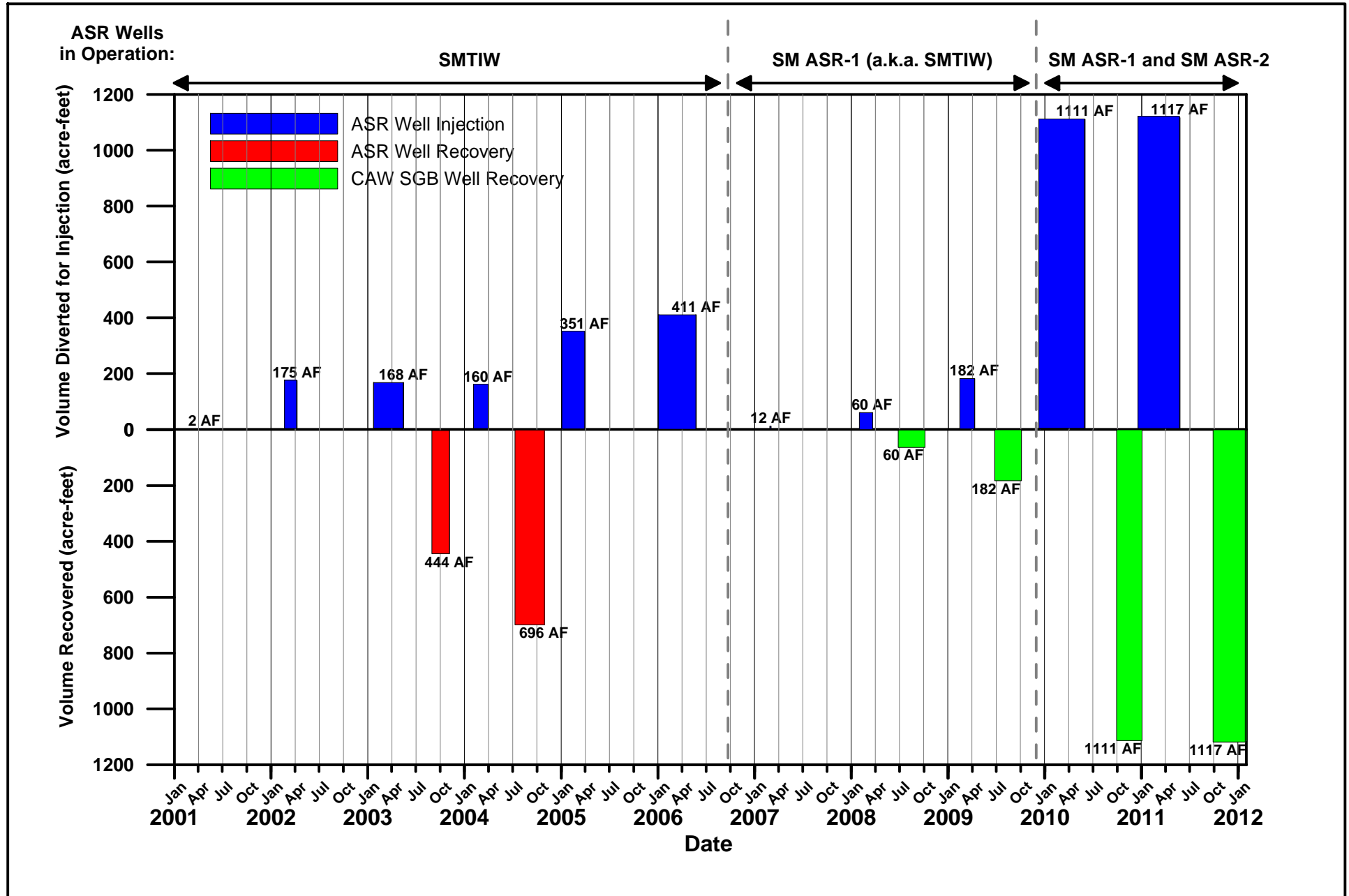
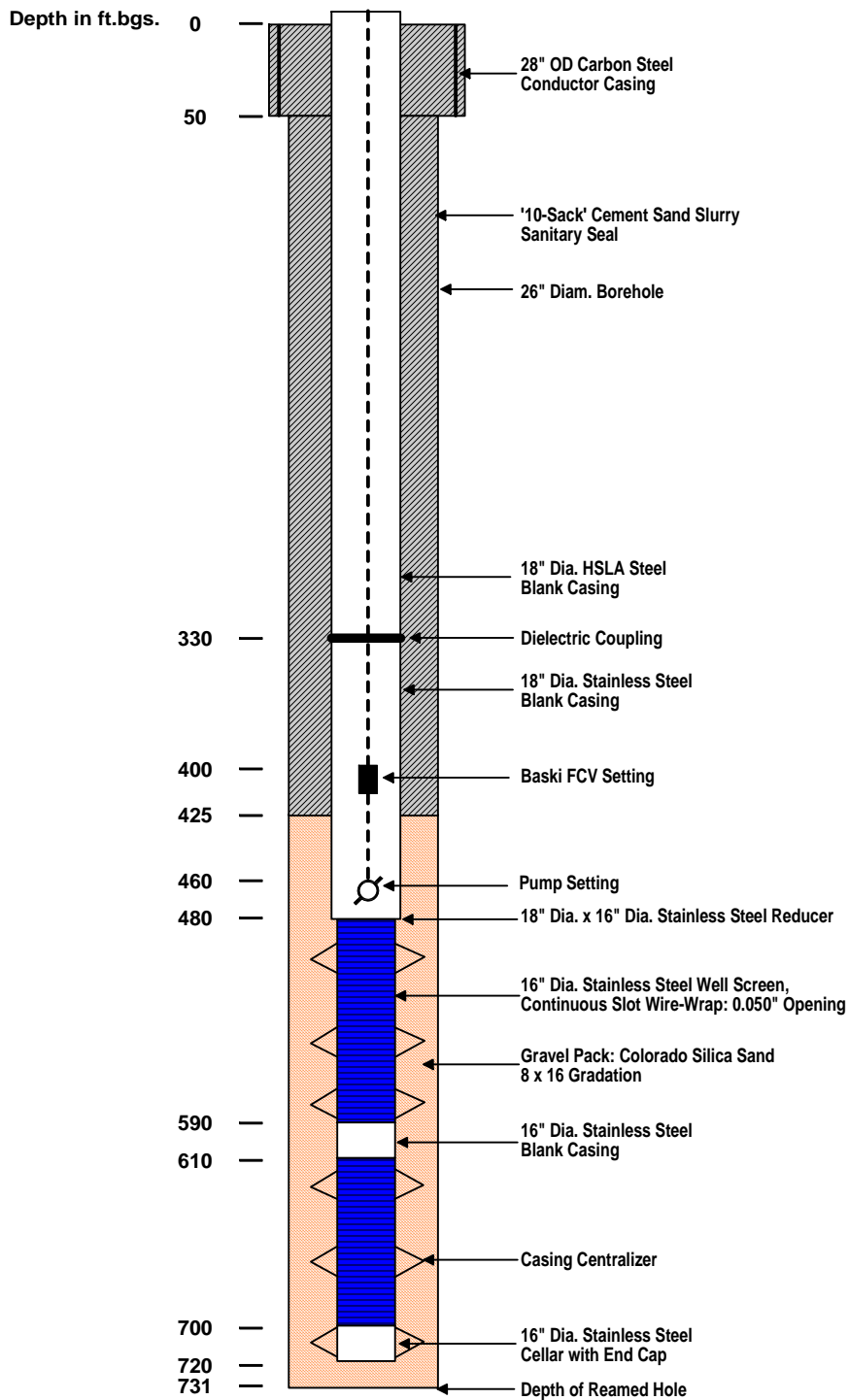


FIGURE 2. SUMMARY OF ASR OPERATIONS (WY 2001 - 2011)
 WY 2011 ASR Program
 Water Project 1 (Phase 1 ASR)





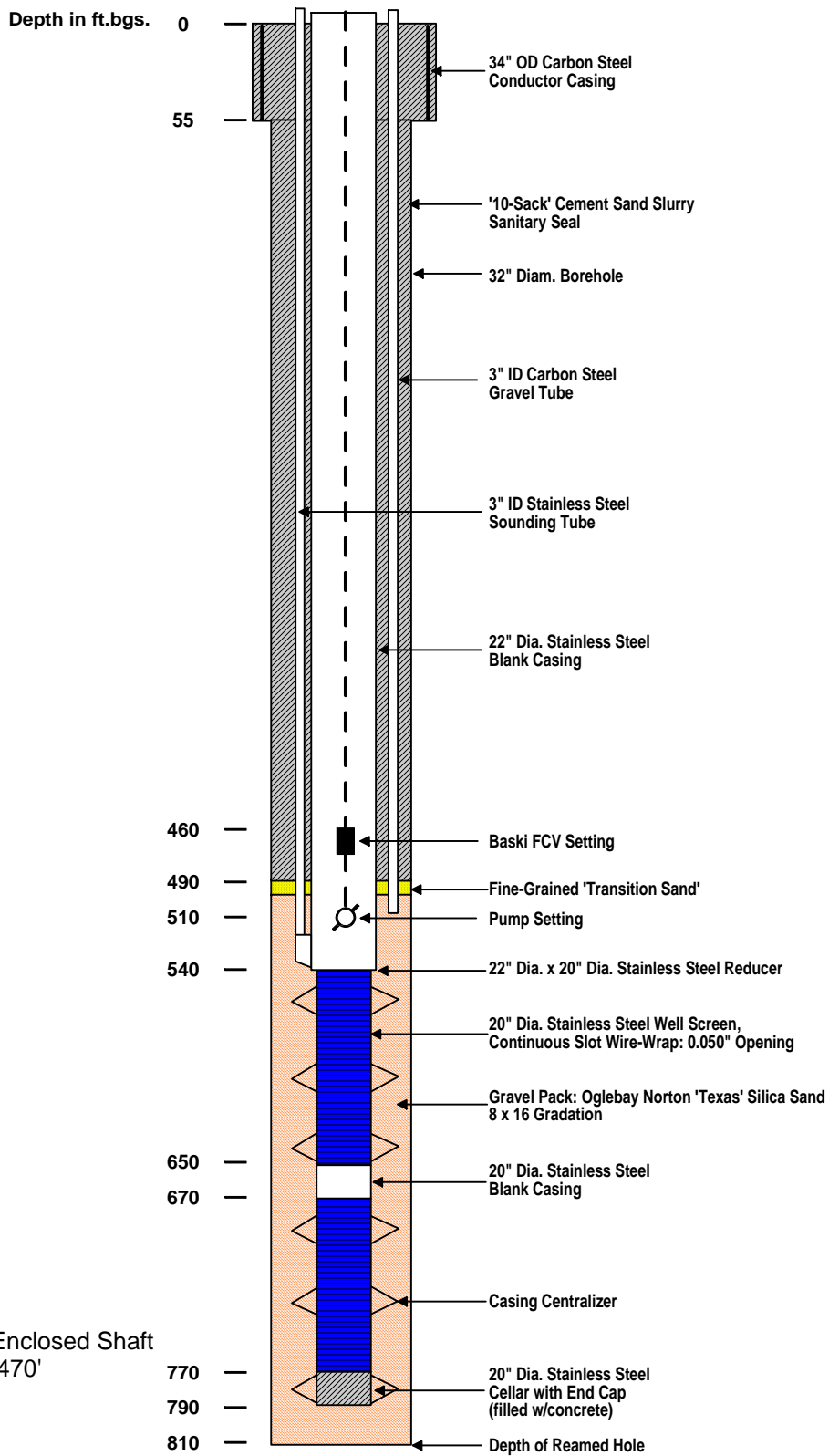
Pump Assembly Notes:

Hp: 400
 Bowls: 14ENL, 8 stage
 Col. Pipe Dia: 10"
 Col. Pipe Length: 10'
 Assy. Type: Water Lube/Open Shaft
 Baski FCV Setting: 400' - 410'
 Top of Bowls: 460'
 Bowl Length: 11.5'
 Suction Length: 10'
 Intake: 481.5'

NOT TO SCALE

**FIGURE 3. SM ASR-1 AS-BUILT SCHEMATIC
 WY 2011 ASR Program
 Water Project 1 (Phase 1 ASR)**





NOT TO SCALE

Pump Assembly Notes:

Hp: 600
 Bowls: 16ENL, 7 stage
 Col. Pipe Dia: 12"
 Col. Pipe Length: 20'
 Assy. Type: Water Flush/Enclosed Shaft
 Baski FCV Setting: 460' - 470'
 Top of Bowls: 510'
 Bowl Length: 10.5'
 Suction Length: 10'
 Intake: 540.5'

**FIGURE 4. SM ASR-2 AS-BUILT SCHEMATIC
 WY 2011 ASR Program
 Water Project 1 (Phase 1 ASR)**



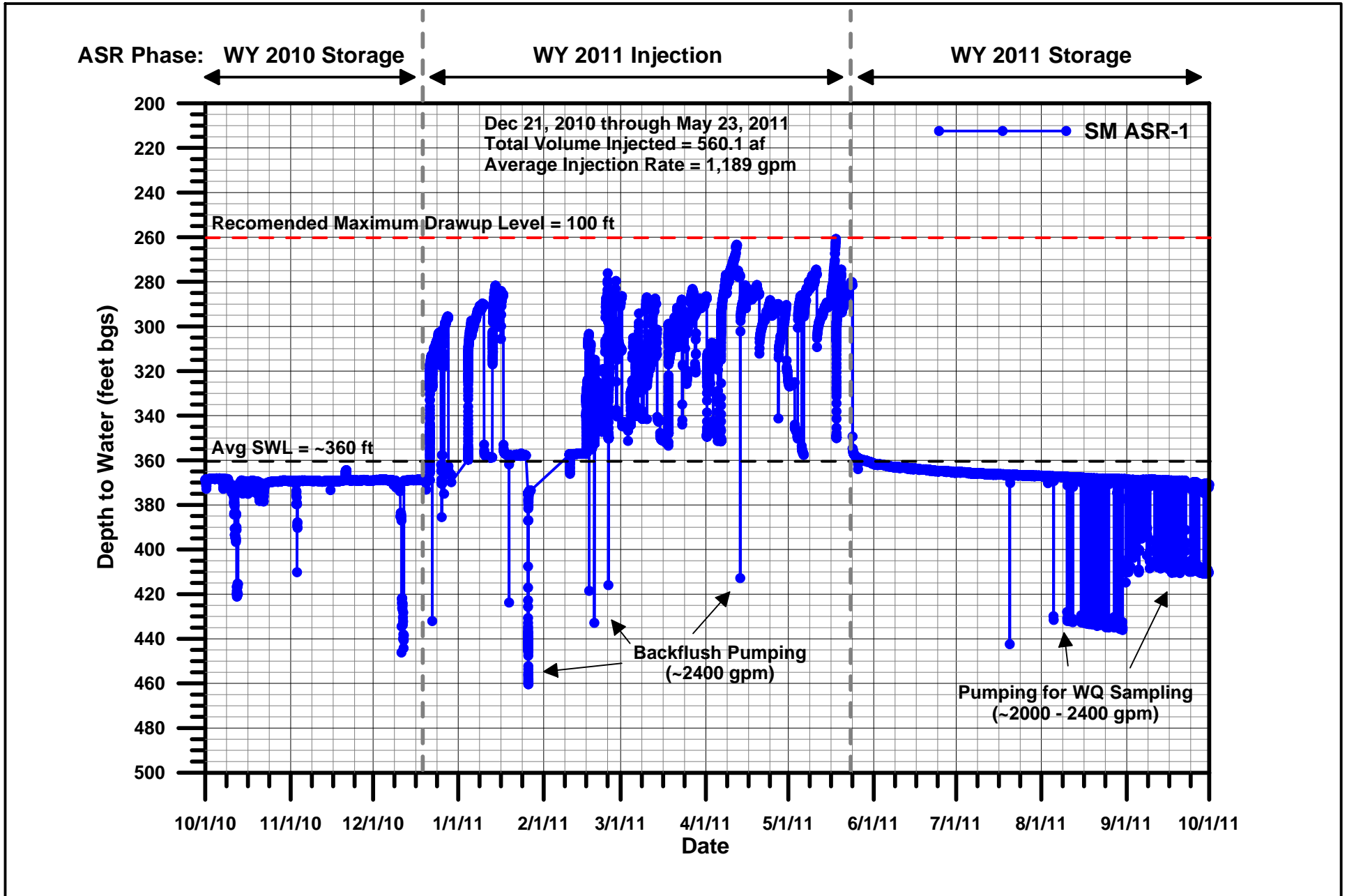


FIGURE 5. SM ASR-1 WATER-LEVEL DATA
WY 2011 ASR Program
Water Project 1 (Phase 1 ASR)

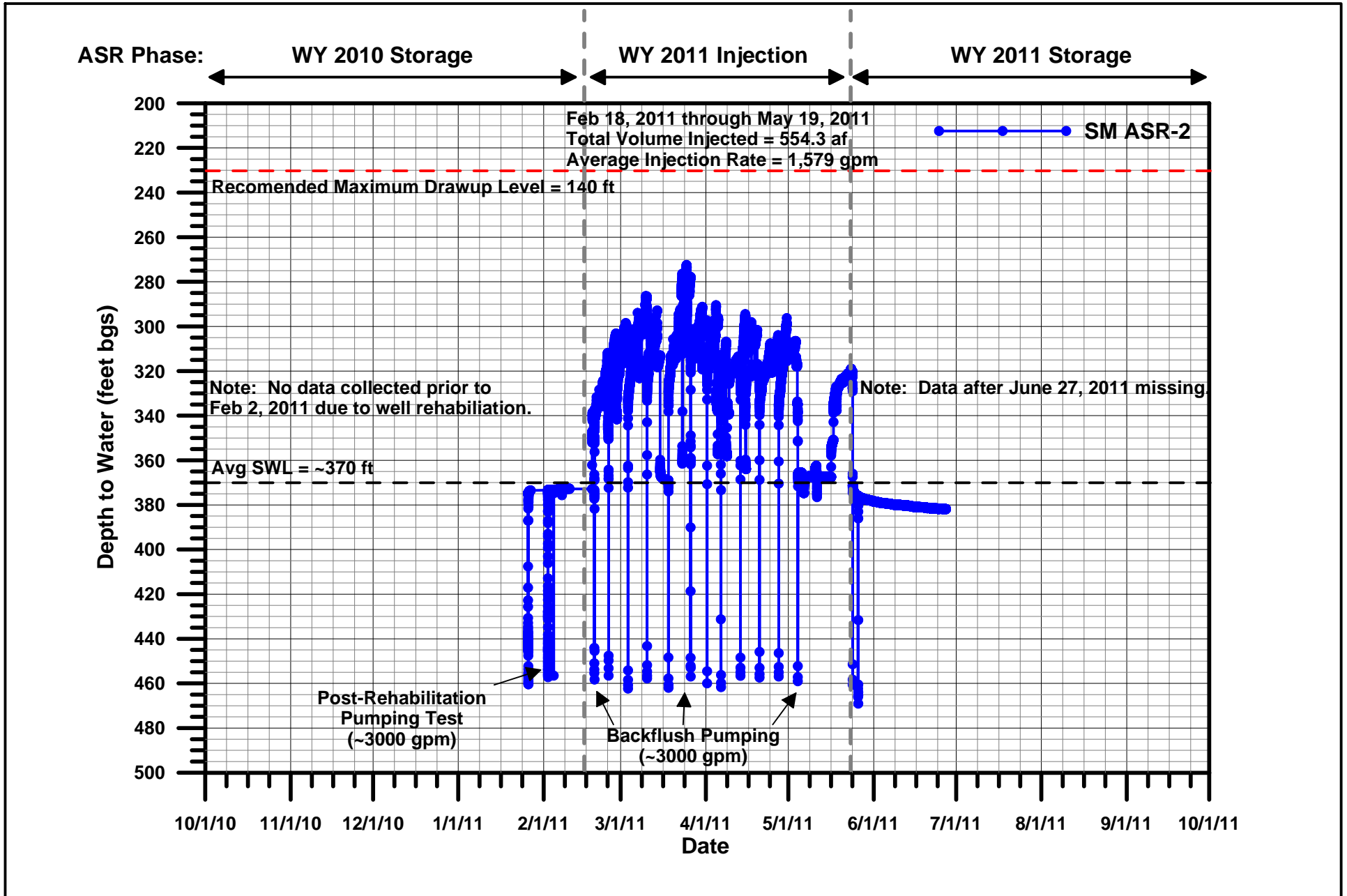


FIGURE 6. SM ASR-2 WATER-LEVEL DATA
WY 2011 ASR Program
Water Project 1 (Phase 1 ASR)

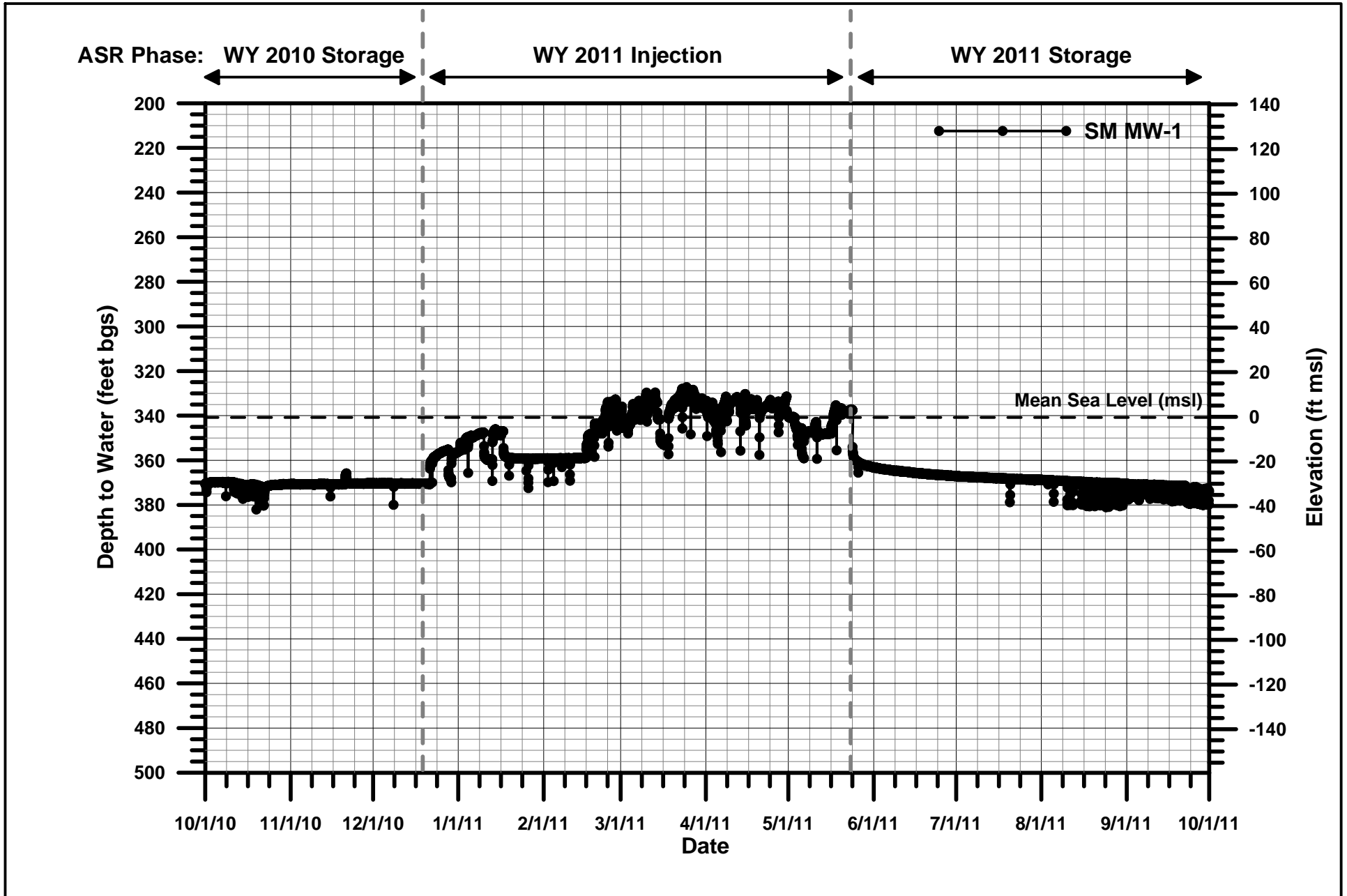


FIGURE 7. SM MW-1 WATER-LEVEL DATA
WY 2011 ASR Program
Water Project 1 (Phase 1 ASR)

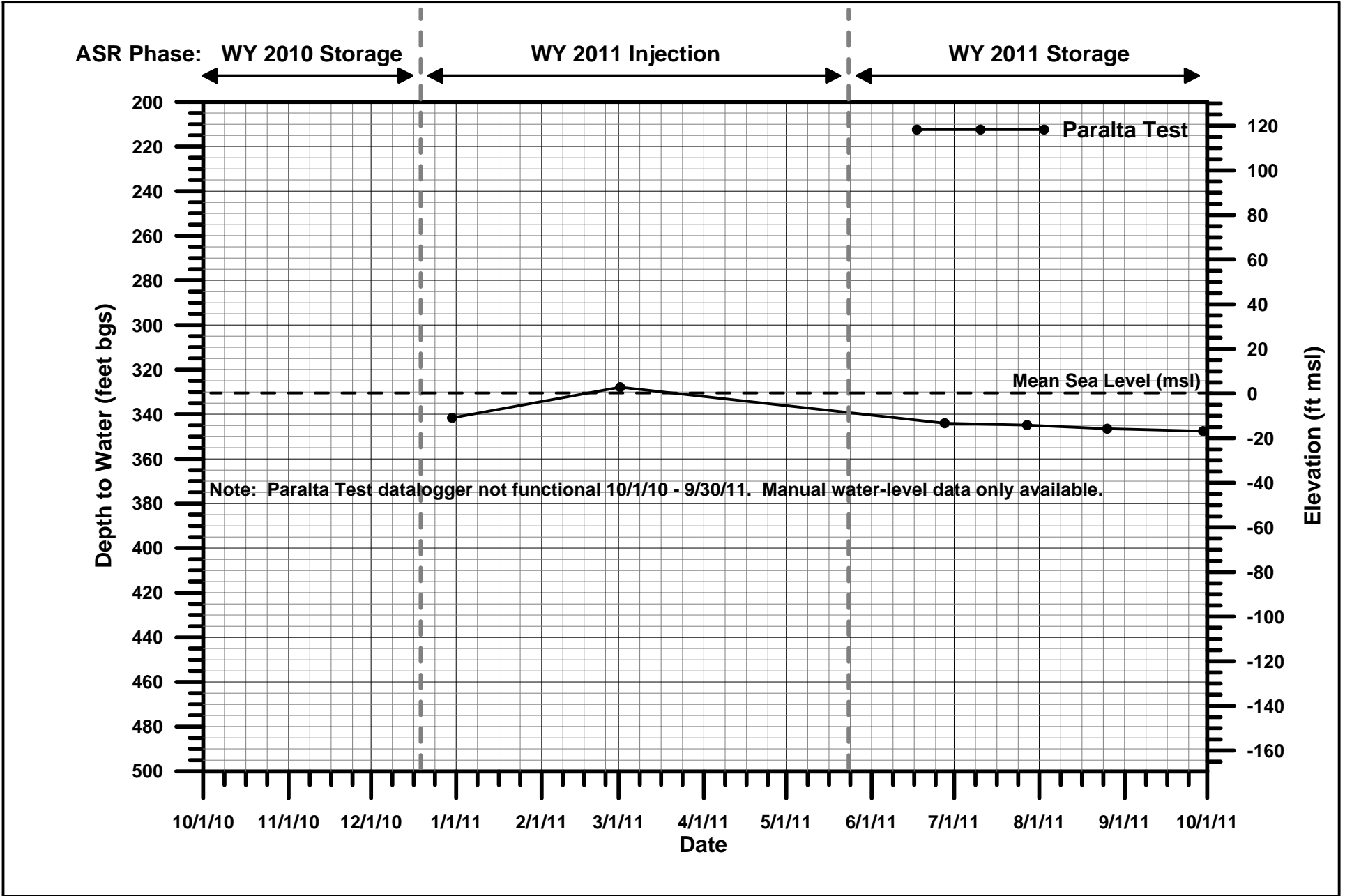


FIGURE 8. PARALTA TEST WATER-LEVEL DATA
 WY 2011 ASR Program
 Water Project 1 (Phase 1 ASR)

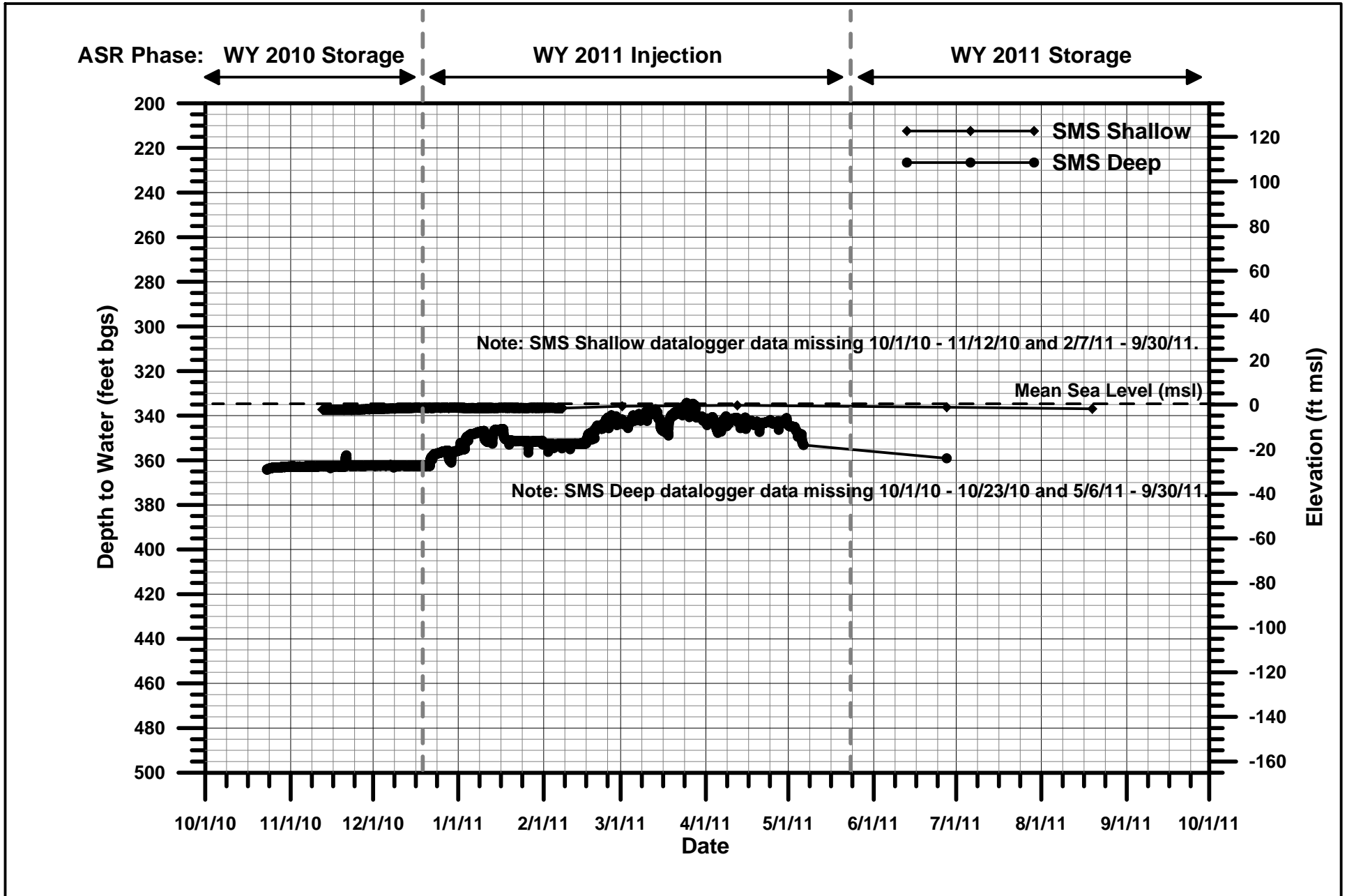


FIGURE 9. SEASIDE MIDDLE SCHOOL WATER-LEVEL DATA
WY 2011 ASR Program
Water Project 1 (Phase 1 ASR)

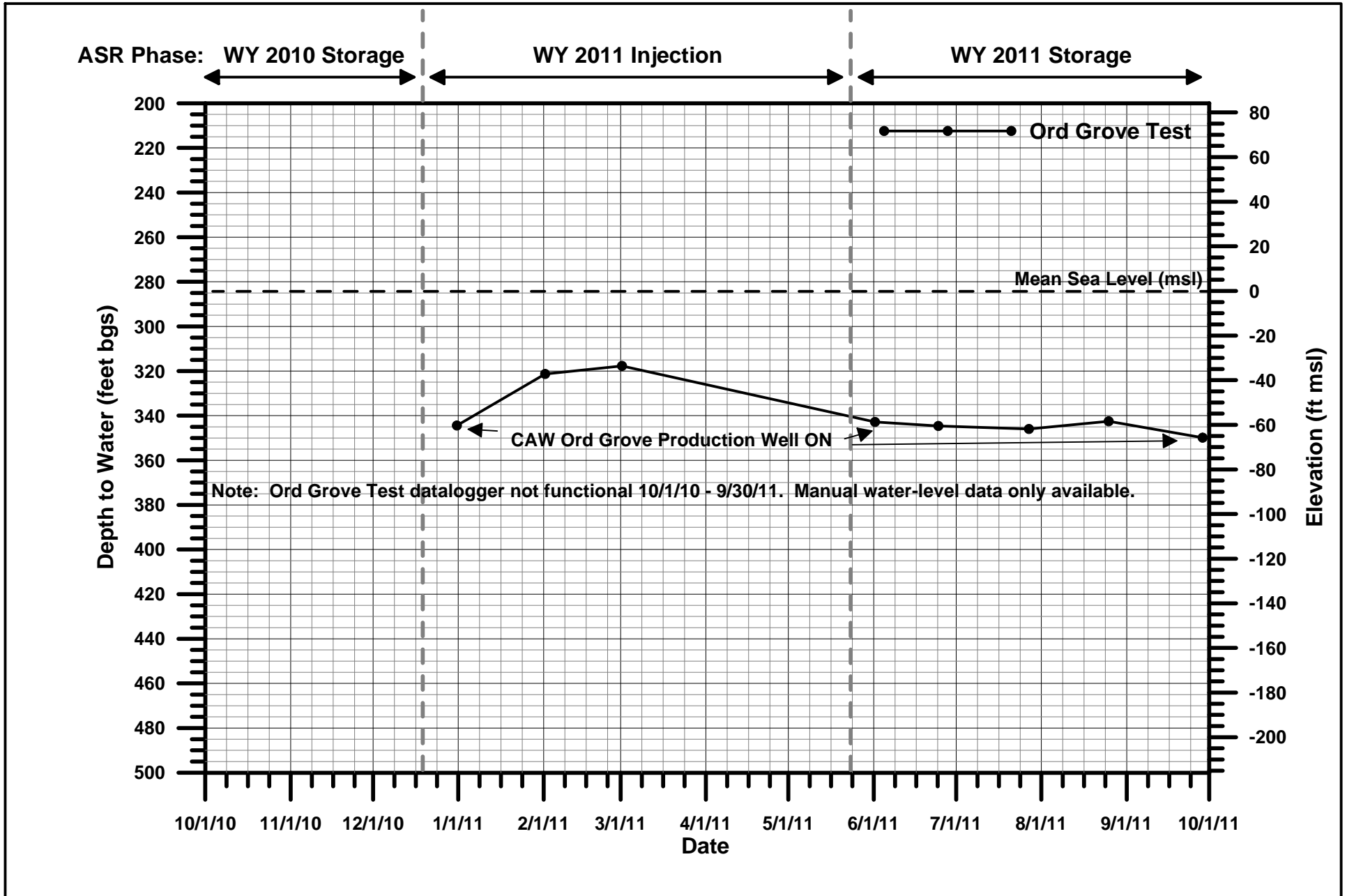
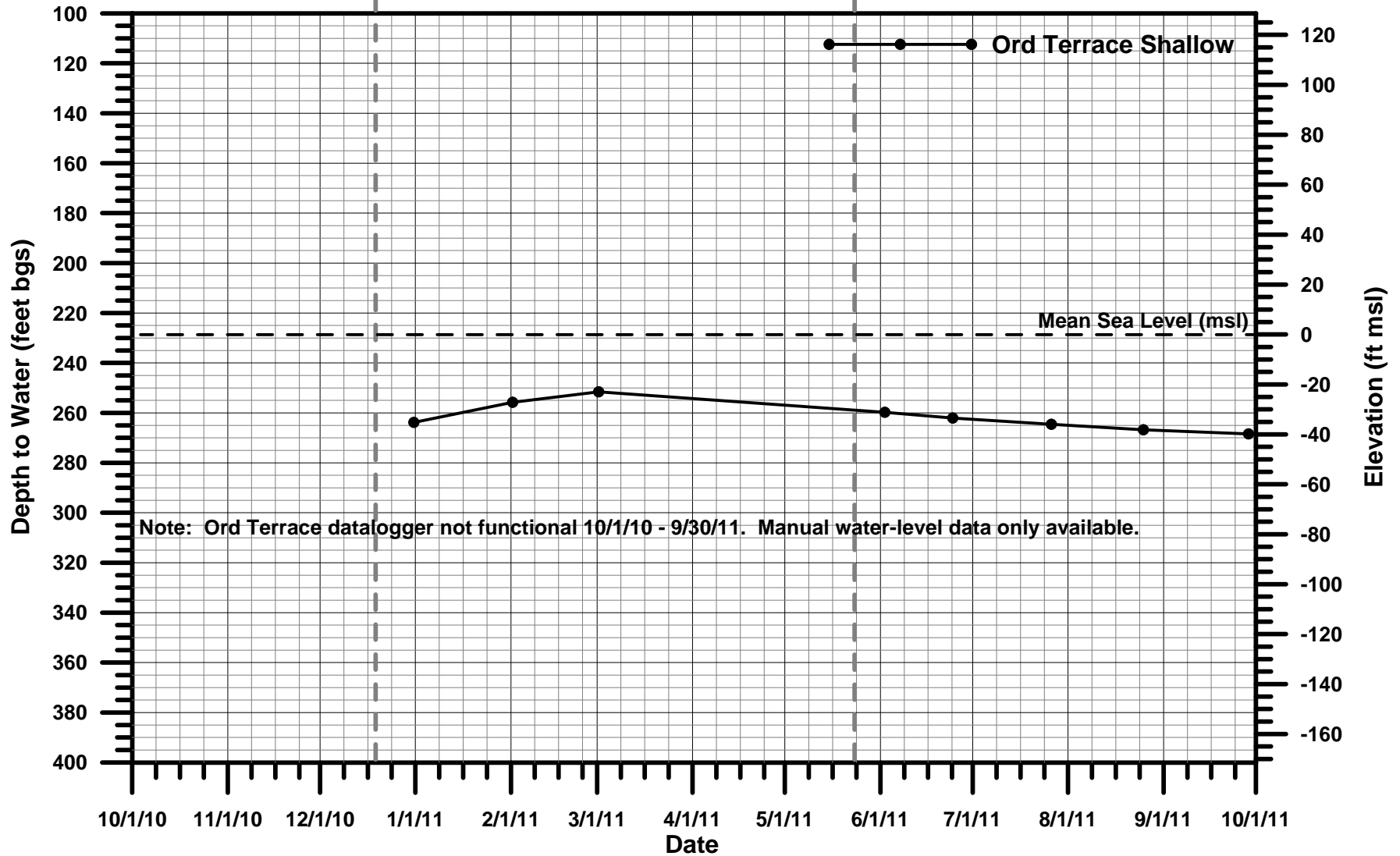


FIGURE 10. ORD GROVE TEST WATER-LEVEL DATA
WY 2011 ASR Program
Water Project 1 (Phase 1 ASR)

ASR Phase: WY 2010 Storage WY 2011 Injection WY 2011 Storage



Note: Ord Terrace datalogger not functional 10/1/10 - 9/30/11. Manual water-level data only available.



FIGURE 11. ORD TERRACE WATER-LEVEL DATA
 WY 2011 ASR Program
 Water Project 1 (Phase 1 ASR)

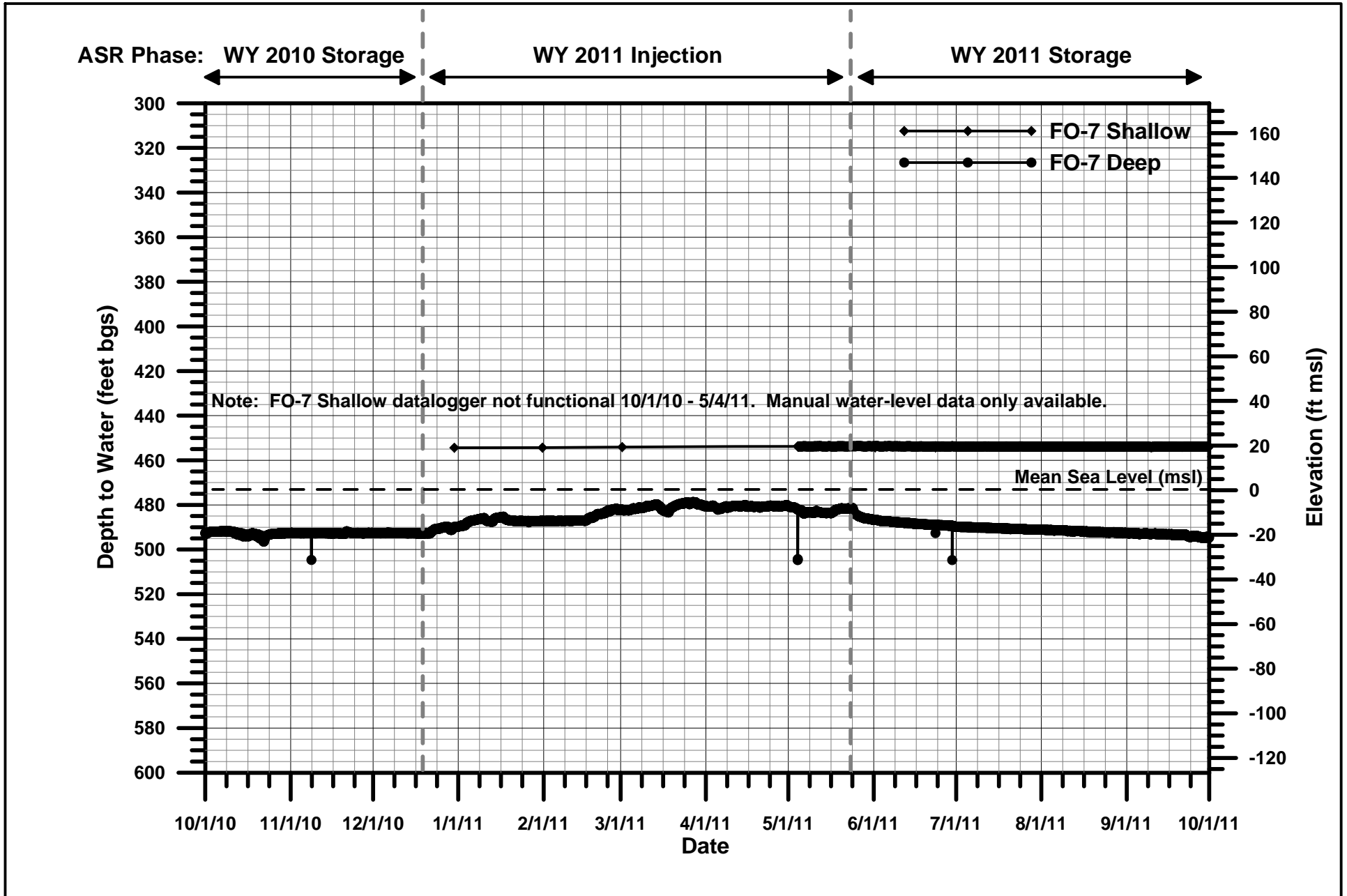


FIGURE 12. FO-7 WATER-LEVEL DATA
WY 2011 ASR Program
Water Project 1 (Phase 1 ASR)

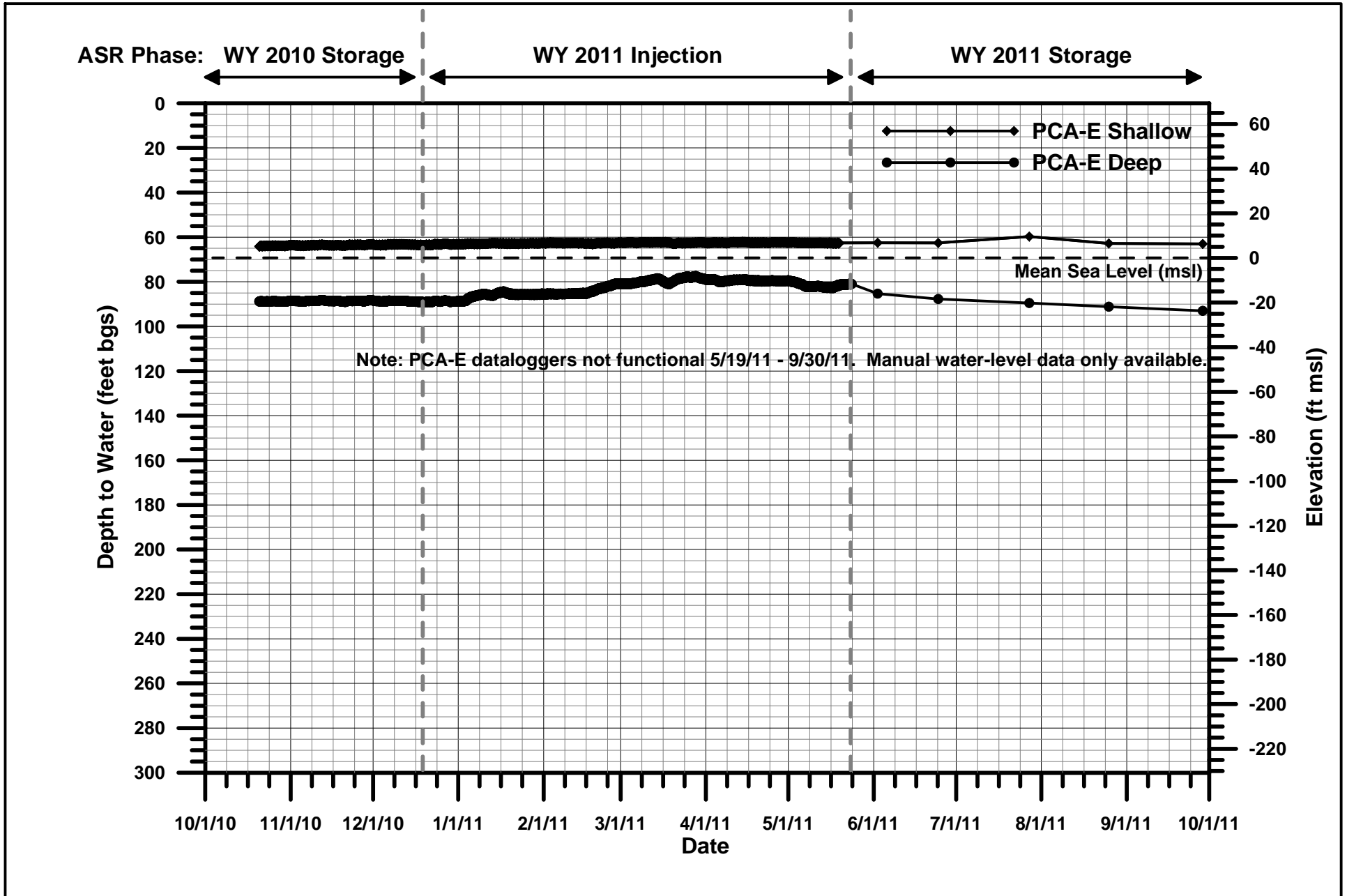
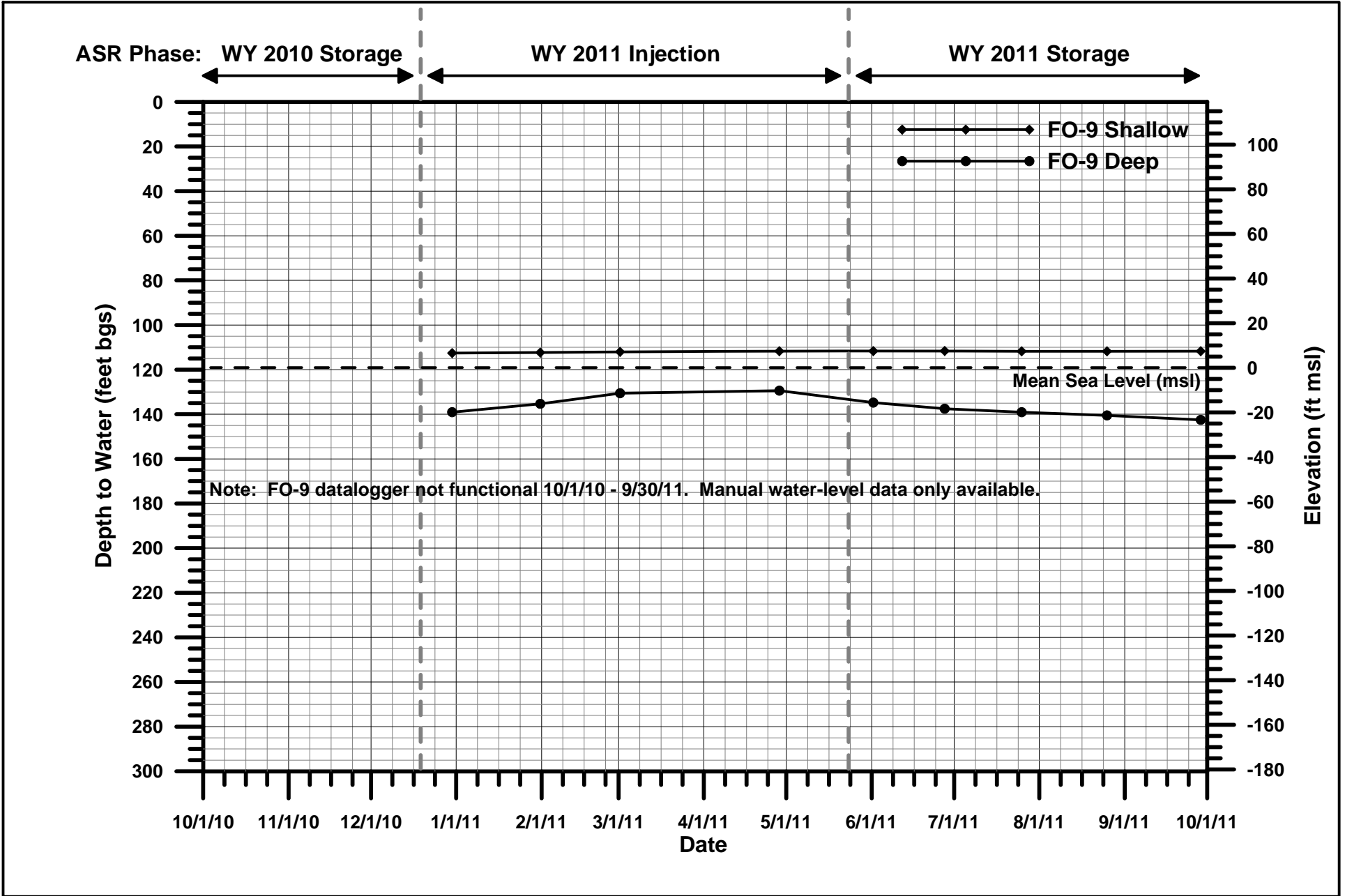
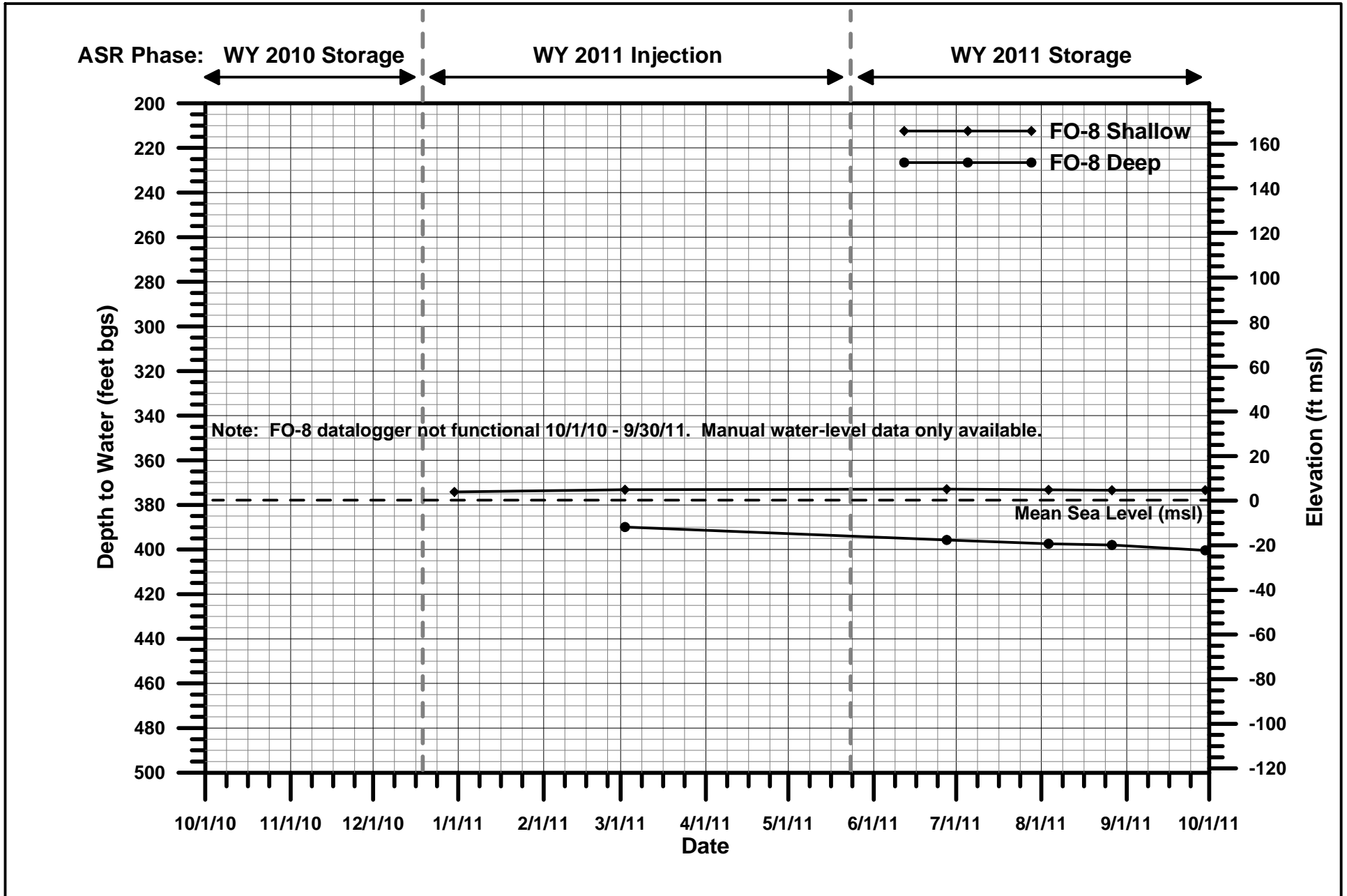


FIGURE 13. PCA-EAST WATER-LEVEL DATA
 WY 2011 ASR Program
 Water Project 1 (Phase 1 ASR)



**FIGURE 14. FO-9 WATER-LEVEL DATA
 WY 2011 ASR Program
 Water Project 1 (Phase 1 ASR)**



**FIGURE 15. FO-8 WATER-LEVEL DATA
 WY 2011 ASR Program
 Water Project 1 (Phase 1 ASR)**

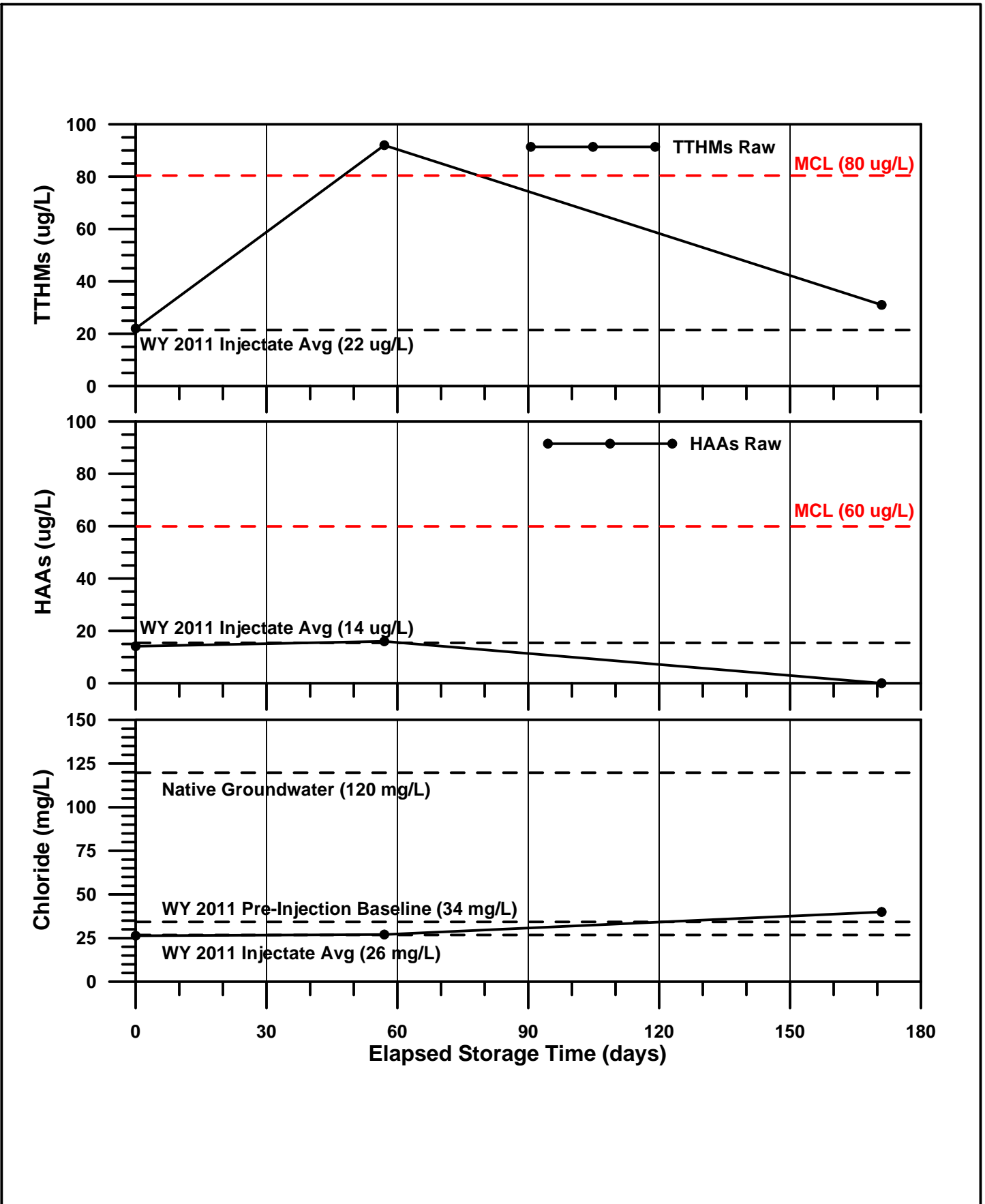
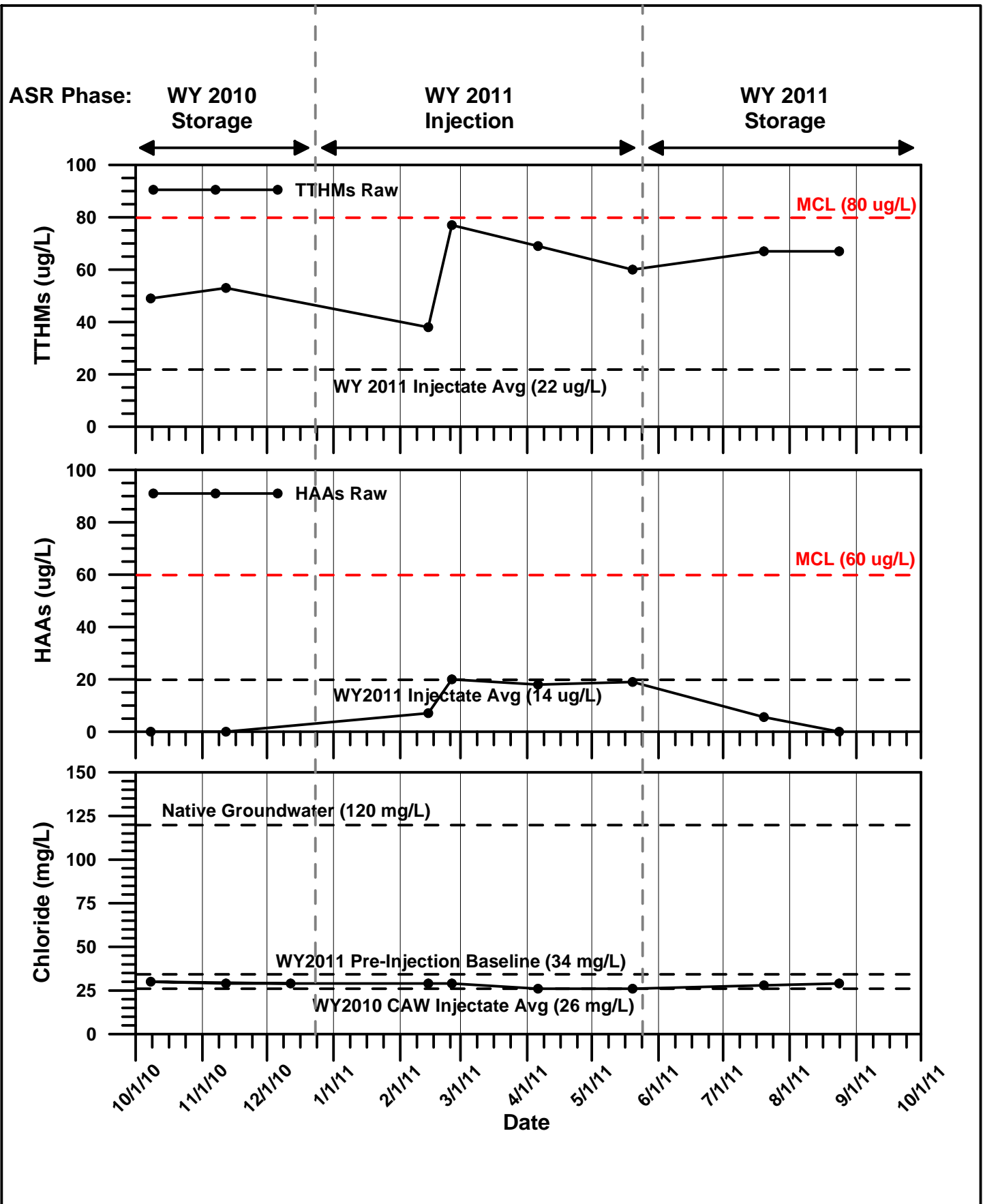


FIGURE 16. SM ASR-1 DISINFECTION BYPRODUCTS PARAMETERS
 WY 2011 ASR Program - Storage Period
 Water Project 1 (Phase 1 ASR)





**FIGURE 17. SM MW- 1 DISINFECTION BYPRODUCTS PARAMETERS
 WY 2011 ASR Program
 Water Project 1 (Phase 1 ASR)**





APPENDIX A - FIELD DATA

**MPWMD
PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT**

Well: ASR 1

Test: _____

WY 2011 Test #1

Sheet No. 1 of _____

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft blst)	Drawup (ft)	Comments/Other
				Line	Head			
12/21/10 16:13	0	1350	376680	92	22	365.77		Tank = 21200 psi
12/21/10 16:14	1					332.93		
12/21/10 16:15	2					320.15		Drained CAW line before injection
12/21/10 16:16	3					320.29		Inj Start = 376122000 @ 08303 before
12/21/10 16:17	4					327.20		BF meter = 045961000 @ 08303 drawup
12/21/10 16:18	5					327.85		residual change = 0.4
12/21/10 16:19	6					327.67		SDI = 0.8 prior to injection @ 1500 gpm
12/21/10 16:20	7					327.13		
12/21/10 16:21	8					326.84		
12/21/10 16:22	9					326.66		
12/21/10 16:23	10					326.27		
12/21/10 16:25	12					326.02		
12/21/10 16:28	15					325.24		
12/21/10 16:33	20							
12/21/10 16:38	25							
12/21/10 16:43	30							
12/21/10 16:48	35							
12/21/10 16:53	40					322.41		
12/21/10 16:58	45							
12/21/10 17:03	50							
12/21/10 17:08	55							
12/21/10 17:13	60							
12/21/10 17:23	70							
12/21/10 17:33	80							
12/21/10 17:43	90							
12/21/10 17:53	100							
12/21/10 18:13	120					318.90		
12/21/10 18:33	140							
12/21/10 18:53	160							
12/21/10 19:13	180							
12/21/10 19:33	210							
12/21/10 20:03	240							
12/21/10 20:33	270							
12/21/10 21:03	300							
12/21/10 21:33	330							
12/21/10 22:03	360							
12/21/10 22:33	390							
12/21/10 23:03	420							
12/21/10 23:33	450							
12/22/10 0:03	480							

**MPWMD
PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT**



**SILT DENSITY INDEX (SDI)
TESTING DATA SHEET**

Sheet _____ of _____

$$SDI = 100 * (1 - \frac{T_i}{T_f}) \div T_t$$

Date: 12/24/10 Sampler: JWO

Time	Rate (gpm)	Elapsed time (min)	Fill Vol. (ml)	Fill Time (sec)	Comments
		0	500	27 (Ti)	
		5	500	30	
		10	500	30	
		15(Tt)	500	30 (Tf)	
					SDI= 0.67

Date: _____ Sampler: _____

Time	Rate (gpm)	Elapsed time (min)	Fill Vol. (ml)	Fill Time (sec)	Comments
		0	500	(Ti)	
		5	500		
		10	500		
		15(Tt)	500	(Tf)	
					SDI=

Date: _____ Sampler: _____

Time	Rate (gpm)	Elapsed time (min)	Fill Vol. (ml)	Fill Time (sec)	Comments
		0	500	(Ti)	
		5	500		
		10	500		
		15(Tt)	500	(Tf)	
					SDI=

Date: _____ Sampler: _____

Time	Rate (gpm)	Elapsed time (min)	Fill Vol. (ml)	Fill Time (sec)	Comments
		0	500	(Ti)	
		5	500		
		10	500		
		15(Tt)	500	(Tf)	
					SDI=

**MPWMD
PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT**

Well: ASR 1

Test: _____

WY 2011 Test #2

Sheet No. 1 of _____

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft. bbst)	Drawup (ft)	Comments/Other
				Line	Head			
12/22/10 13:11	0	1475	378334000	92		327.02		DTW before Test = 365.77 SDI = 0.27
12/22/10 13:12	1							
12/22/10 13:13	2							
12/22/10 13:14	3							
12/22/10 13:15	4							
12/22/10 13:16	5							
12/22/10 13:17	6							
12/22/10 13:18	7							
12/22/10 13:19	8							
12/22/10 13:20	9							
12/22/10 13:21	10					323.98		
12/22/10 13:23	12							
12/22/10 13:26	15							
12/22/10 13:31	20							
12/22/10 13:36	25							
12/22/10 13:41	30							
12/22/10 13:46	35							
12/22/10 13:51	40							
12/22/10 13:56	45							
12/22/10 14:01	50							
12/22/10 14:06	55							
12/22/10 14:11	60							
12/22/10 14:21	70							
12/22/10 14:31	80							
12/22/10 14:41	90							
12/22/10 14:51	100					317.54		
12/22/10 15:11	120							
12/22/10 15:31	140							
12/22/10 15:51	160							
12/22/10 16:11	180							
12/22/10 16:31	210							
12/22/10 17:01	240							
12/22/10 17:31	270							
12/22/10 18:01	300							
12/22/10 18:31	330							
12/22/10 19:01	360							
12/22/10 19:31	390							
12/22/10 20:01	420							
12/22/10 20:31	450							
12/22/10 21:01	480							

**MPWMD
PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT**

Starting Water Level
365.77 Sheet No. 2 of

Well: ASR_1

Test: WY 2011 Test #2

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft bdst)	Drawup (ft)	Comments/Other
				Line	Head			
12/22/10 21:31	510					313.20	52.57	
12/22/10 22:01	540							
12/22/10 22:31	570							
12/22/10 23:01	600							
12/22/10 23:31	630							
12/23/10 0:01	660							
12/23/10 0:31	690							
12/23/10 1:01	720							
12/23/10 1:31	750							
12/23/10 2:01	780							
12/23/10 2:31	810							
12/23/10 3:01	840							
12/23/10 3:31	870					310.30	55.47	
12/23/10 4:11	900							
12/23/10 4:51	940							
12/23/10 5:51	1000					309.91	55.86	
12/23/10 6:51	1060					310.59	55.18	
12/23/10 7:51	1120	1450	380086000	89	221	311.20	54.57	
12/23/10 8:51	1180					311.09	54.68	
12/23/10 9:51	1240							
12/23/10 10:51	1300							
12/23/10 11:51	1360							
12/23/10 12:51	1420							
12/23/10 13:51	1480							
12/23/10 15:51	1600							
12/24/10 08:51		1475	382336000	92	218	307.33	58.44	Tank = 2120 psi SDI 0.67 SDI = 0.67
12/25 0800 (Projected)		→	384485000					
12/25/10 1200		1500	384845000	92	218	305.65	60.12	Raining lightly, very windy. Otherwise, looking good! Merry Xmas! JWB
12/26/10 1320		→	386804000					
12/26/10 1320	575	1525	387201000	90	218	314.35	51.42	SDI 0.26 SDI = 27 10 = 27 15 = 28 SDI = 1.1
12/27/10 0800	Projected	→	388947000					
12/27/10 1121	7070	1500	389244000	90	218	294.13	66.44	TL Tank = 2190
12/28/10 0926		1500	391301000	90	218	295.76		TL NR CARMIEL < 176 cfs this morning - shutdown
12/28/10 0932		∅	391305000	97	300			ADS FCV to 300 @ 0932 Tank = 2125

1/4/11

BF 1 046627 RAN FOR 20 MIN @ 60 Hz
 BF 2 046670 WL 1 100.73 SET TO 54.4 Hz FOR 10 MIN TEST
 BF 3 046667 WL 2 35.91 1950 GPM

**MPWMD
 PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT**

Well: ASR 1

Starting Water Level

1700
64.82 = 76.2

(MAY 2011 Test #3)

369.81

Sheet No. 2 of _____

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft. btst)	Drawup (ft)	Comments/Other
				Line	Head FCV			
12/29/10 19:38	510							
12/29/10 20:08	540							
12/29/10 20:38	570							
12/29/10 21:08	600							
12/29/10 21:38	630							
12/29/10 22:08	660							
12/29/10 22:38	690							
12/29/10 23:08	720							
12/29/10 23:38	750							
12/30/10 0:08	780							
12/30/10 0:38	810							
12/30/10 1:08	840							
12/30/10 1:38	870							
12/30/10 2:18	900							
12/30/10 2:58	940							
12/30/10 3:58	1000							
12/30/10 4:58	1060							
12/30/10 5:58	1120							
12/30/10 6:58	1180							
12/30/10 7:58	1240	1450	393190000	90	219	312.56	57.25	tried to adjust to 1500, 218 on FCV
12/30/10 8:58	1300							
12/30/10 9:58	1360							
12/30/10 10:58	1420							
12/30/10 11:58	1480							
12/30/10 13:58	1600							
12/31/10 08:10		1450	395395000	89	219	309.91	59.40	Adj FCV to 218
1/1/2011 11:00		1500	397804000	90	217	303.64	66.17	no adj
1/2/2011 14:00		1525	400332000	89	216	300.56	69.25	no adj
1-3-11 0813		1500	402013000	89	217	300.45	68.36	no adj
1-4-11 0830		1500	404267000	90	221	293.58	73.23	no adj 33-37 SDI 0.72
1-4-11 1305		0	404674000	99	300			SATUR DOWN FOR BF

$$\frac{(1 - 33/37) \cdot 100}{15} =$$

MPWMD

PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT

ON HERBY
#5 Test # 23

Well: ASR 1

Test: WY 2011 Test #3

Sheet No. 1 of ____

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft. btst)	Drawup (ft)	Comments/Other
				Line	Head FCV			
12/29/10 11:18	0	1450	391305000	90	218	369.81	0	
12/29/10 11:19	1							
12/29/10 11:20	2							
12/29/10 11:21	3							
12/29/10 11:22	4							
12/29/10 11:23	5							
12/29/10 11:24	6							
12/29/10 11:25	7							
12/29/10 11:26	8							
12/29/10 11:27	9							
12/29/10 11:28	10							
12/29/10 11:30	12							
12/29/10 11:33	15	1450	391316000	90	218	325.38	44.43	
12/29/10 11:38	20	1500	391323000	90	217			
12/29/10 11:43	25							
12/29/10 11:48	30							
12/29/10 11:53	35							
12/29/10 11:58	40							
12/29/10 12:03	45							
12/29/10 12:08	50							
12/29/10 12:13	55							
12/29/10 12:18	60							
12/29/10 12:28	70							
12/29/10 12:38	80							
12/29/10 12:48	90							
12/29/10 12:58	100							
12/29/10 13:18	120							
12/29/10 13:38	140							
12/29/10 13:58	160							
12/29/10 14:18	180							
12/29/10 14:38	210							
12/29/10 15:08	240							
12/29/10 15:38	270							
12/29/10 16:08	300							
12/29/10 16:38	330							
12/29/10 17:08	360							
12/29/10 17:38	390							
12/29/10 18:08	420							
12/29/10 18:38	450							
12/29/10 19:08	480							

* Test #24 (Hermit Test #4) is out of sequence in the "stock"

**MPWMD
PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT**

Well: ASR 1

Starting Water Level

Test: Hermit test #5 (Test #23)*

WY 2011 Test # 3

-365.77
369.81

Sheet No. 3 of

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft bbst)	Drawup (ft)	Comments/Other
				Line	Head FCV			
12/29/10		077	391305000	97	219			open BF valve = 0.46583000 BF 10 min @ 60 Hz 23-2400 gpm then 10 min @ 54 Hz 0.46 62000 = BF 10 XD: 91.67 0.46 608000 = BF 1 XD: 28.53 18000 = BF 1 XD: 63.12 = 28.5 g/m/ft JL Set valves for SDI prior to next test T ₀ = 27 T ₁₅ = 29 SDI = 0.5 0.46 620000 = BF
1115			391305000			367.73		
1133		1450	391310000	90	218	325.38		
1137		1500	391323000	90	217			
12/30/10 0805		1450	393190000	90	219	312.56		

Well: ASR1

Test:

WY 2011 Test #

WY11 #4

Starting Water Level

359.545 Sheet No. 3 of 4

MPWMD PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft btst)	Drawup (ft)	Comments/Other
				Line	Head FCV			
4/11/11 14:25		1450	404687	90	90	359.56		Began new test.
4/12/11 08:30		1600	406348	88	88	301.44		
1/5/11 17:25		1500	407254	90	104	298.78		Note: Adjusted FCV Regulator to 219 psi * Opened valve to tank, Tank psi = 2000 (RCM)
1/6/11 08:15		1500	408500	89	66	300.99	58.56	Tank ~ 2000 psi TL
1-7-11 08:02		1550	410781	89	216	296.44	63.11	Tank ~ 1975 psi TL
1-7-11 16:30		1500	411610	90	90	297.43		Left settings
1/8/11 09:05		1550	413161	90	214	293.58	65.97	Tank ~ 2000 psi RM
1/9/11 09:05		1525	415469	88	214	292.00		Tank ~ 2000 psi RM
1/10/11 09:00		1525	417721	89	220	290.2		STOPPED IN SECTION @ 0900

0930 1:13:11 BACKFLUSH
 046689
 BF1 046741 000
 BF2 046741 000
 BF3 046759 000
 100.94 DRW
 33.18

$$\frac{1800}{67.76} = 26.56$$

Sec
28
28
31
32

1030 1:13:11 SPI
 0
 5
 10
 15

MPWMD
 PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT

Well: SM #1
 Test: TEST 6

HERMIT #8 VII

Sheet No. 1 of

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft birst)	Drawup (ft)	Comments/Other
				Line	Head			
1-13-11 1010		0	417724	100	—	358		BEGAN NEW TEST
1-14-11 0830		1700		90				initial flow settings
1-15-11 1230		1800	420221	88		282.6	76'	
		1300	422698	80		285.55	63'	Left setting increase pressure inks
								1-14-11 missed call from Aring Emmons to turn down to 1500 GPM.
1-16-11 1400		1350	425013	80		294.72	63.28	Check FCV, regulator was at 200 psi. d reset to 244 psi - achieve 1500 gpm
1-16-11 1420		1500		84		211		HERMIT battery = 57% JWO
1-17-11 0925		1400		91		286.30	71.70	CR / low minimum requirements met - must stop injection
0930		0	426795	100				Check FCV, regulator was set at 213 psi. Flow stops @ FCV = 270 psi. Set to 300 psi. JWO
1-19-11 1005		0	426795	80	85	357.58		046700000 BF before opening BF 10 min @ 60 Hz (~2450 gpm) - TLL rest, then 10 min @ 54.4 Hz
								BF1004 6804000 XD1 = 101.61 B1 = 046785000 XD10 = 37.83 19,000 = 29.8 gpm/ft 63.78 TLL
								Kept BF while waiting for Soggy Seabiscuit - Cal-Sun 046894000 when she started (134,000 gal) XD = 36.1 046905000 off Call SJ when ARZ is ready

**MPWMD
PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT**

Well: SM #1
Test: TEST #8

Sheet No. 1 of

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft bst)	Drawup (ft)	Comments/Other
				Line	Head			
2/17/11 1600		1000		60		355.31		
was stopped to start ASR-2 on 2/18								
2-19-11 @ 1138			430071000	98		349.55		Tank = 1800 PSI FCV = 308 RF = 0.47 @ 0.59 800 p/min to BF @ 17 0.63 800 after 10 min BF @ 60 Hz (2000g/m) more solar ~ 5 m/s - slight upflow Go sent ASR-2, then came back to INJ lines INJ
@ 1252 = first reading on test								
2/19/11 1255	0	-	430071000	92	305	352.72		Hermit Test #4. Begin opening FCV
1305	10	1000	430080000	78	217	326.52		
1315	20					324.43		
1330	35					323.14		
1345	50					321.53		
Not sure why FCV is so different - Adj to 232 PSI @ 80 line) = 750 GPM set tank to 233 PSI								
2/20/11 0940		550	430501000	82	240	324.97	27.34	
1010		750		80	232			
1015		725		79	233			after stopping @ ASR-2 (no adj there) - TLL
1255	1440			81	240			After thinking about this, decided to turn the psi up
1455	1560					325.64		on FCV in case system pressure shot up > 100 kPa.
1655	1680					324.24		-? 20' jump @ 1555 ready
1455	1800					346.58		
Why is FCV so high? Revert set tank to 239								
2/21/11 1335		~100	430679000	90	260	344.68		
1435		550		82	239			
1635						324.85		? WTF
1835						346.26		watched FCV drop from 269 to 257 in a few secs.
2/22/11 @ 0815		~100	430769000	88	232	347.14		set reg + FCV back to 237
		525		83				
5/1256		550	430970000	83	239	326.97	25.45	Adj ASR-2 from 1500 to 1700, low re-set this
		700		80	233			to 233 (understand 2800 total due to low psi.)
2/23/11 @ 0880		88		88				Set to 1300 GPM
		1100 GPM	431075000		255			
					220			

146 ABOVE RD.

74

MPWMD

PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT

Well: SM #7

Test: TEST B

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft bst)	Drawup (ft)	Comments/Other
				Line	Head			
2/23/11 12:35		1475	7	71				set water to 203 psi CE gaining approval for 3000 gpm combined
2/24/11 08:00		1450	432676	68		184.77		ASR2 running @ 1575
2/24/11 13:50		∅	433058	66	194			Close FCU + V-1, open V-2 for BF BF = 047064 [000] 10 mins @ 60% ~ 2400 g/m BF @ 54.4 Hz 10 min BF @ 54.4 Hz 10 min X 2; 112.09 BF @ 54.4 Hz 10 min X 10 44.86 BF @ 54.4 Hz 10 min X 10 = 282.3 spm/ft
2/24/11 14:40		∅	433058	65	305			Field Perm TH 7.7 TPS 500 us/cm @ 14.6° REP MIS CMV
2/24/11 15:45		750		40	194			pressure very low & left for further pressure ↑ to limit for recovery.
2/25/11 09:10		1700	434090	64	204			∅ 11890 MW-1 start supply
2/26/11 10:15		800	435570	39	192	306.85	42.98	PM 7.4 TOS 476 us ORP 450
2/26/11 23:18						283.92		
2/27/11 01:18						303.19		← Sample of Hermit olester to document bioreaction
2/27/11 03:18						283.06		
2/27/11 05:15						302.98		
2/27/11 07:18						301.87		
2/27/11 08:18						279.67	70.07	1st ready on test is 349.83

CRAIG -
646-3250

MPWMD
PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT

Well: SA #1
 Test: ~~Test #8~~
 Sheet No. 3 of

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft bfst)	Drawup (ft)	Comments/Other
				Line	Head			
2/27/11 09:18		~150	436956	17	-	302.09		
010:15						324.71		
11:18						337.99		
13:18						339.14		
15:18						340.14		
17:18						310.82		
18:18						297.62		
19:18						314.90		
20:18								
2/28/11 08:08		600	437609	42	-	307.96		
3/2/11 08:50		-	438833	60				saw pressure drop from 80-60

19.4' BF = 047133

Sheet No. 1 of

MPWMD PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT

Well: SMA # 1

Test: TEST 9

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Line	Pressure (psi) Head	FCV	DTW (ft. brst)	Drawup (ft.)	Comments/Other
3-4-11 1544	48		4388	48	201	344.00			low pressure set @ 500 gpm
0725						326.20			
0424						314.15			
0645						325.14			
0738						325.28			
0824						315.47			
0433						324.07			
3-5-11 1140		960	4394	70	216	309.10	34.90		set and opened tank valve for FCV
1315		950	4395	72	217				
3-6-11 1045		650	4399	78	234	317.95			Backed off FCV to 227 psi
		800		78	227				
3-7-11 0800		800	4401	80		323.5			set FCV @ 220
3-8-11 0820		375	4405	36	215	329.76	14.24		Tank @ 1700
3-8-11 1705		~775	4413	82	232	309.53			Adjust a bit to increase flow
		~800		80	227	329.10			combined @ 2,600 gpm
3-9-11 0810		~160	4414	47	230	340.50			DTW dramatically and right after 1 left.
		~575		40	197				Adj FCV - rate bouncy 375-525
3-10-11 0830		~700	4428	38	191	308.92			stopped for back flush.
3-11-11 0850		1050	4436	71					BF rate = 047133 [000] 10 min @ 60 Hz
									BF @ 047147 xp; 19.4' then 10 min @ 64.4 Hz
									BF; 047157 [000] xp; 19.4' then 10 min @ 64.4 Hz

SDI
 21sec
 5
 31sec
 10

TOTAL COMBINE @

MPWMD
 PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT

Sheet No. 1 of

Well: SM # 1 TEST # 10

Test: 1 remember pursue "start test" but did not check pressure after start on 3/10

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft btst)	Drawup (ft)	Comments/Other
				Line	Head			
3-11-11 0830		1050	443671	71	203	345.3	*	Left settings for 2500gpm combined @ high pressure
3-11-11 1645		650	4444073	44	199	316.23		Tank ~ 1650
3/12 0830		650	447752	40	199	311.61		Tank ~ 1600
3/13 0935 PST		725	446040	39	196			
3/14 0830		1100	447246	64	204			Rate was 700 gpm at 0815! Turn off ASR-1 per early am request from C Evans to J. Lear. Will use this opportunity to retract ASR-1 by MPE crew.
3/18/11 1120 - PST DST 1025 First reading		MAG-Meter 1000 GPM	447248	91	204			* MORE WATER WILL RUN THROUGH METER AS MPE EXCEEDS THE VALVE IN THE STREET lined meter read will need to be re-ordered for meter ground replacement. 04720 (1000) F 2(100) R=75 (X100)
3/19 1000 - PST		860	448406	78	159	304.57	48.96	Rate ~ 1250 drilled #1 to 1000, #2 @ 600
3/20 1225 - PST		890	448514	76	163	297.53	55.95	Fairly noisy - turbulence at CU-VL + turn in valve No ADS line to lower P. MPE arrive ~ 1250 - talking w/ ST on phone After bleeding air out of CV at various points W.S. = 77 d.s. = 10 psi Q = 900 gpm
3/21 0815		870	448731	78	164	298.15		380 + 180 = 2580 After add FCV
1235		880	448857	76	171	297.21		
1250		1005	449076	76	157			
1655		1000	449296	72	156			
		910	449620	42	157			

* RC-ADJ. after ADS @ #2, rate had dropped to ~ 880

TOP OF BOWLS

1150
2000

$(3150 \times 60 \times 20) / 315351$
 $4,536,000 / 325851 = 13.9$
 * turn down #1 more

MPWMD PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT

Well: ASK #1
 Test: WY2011

353.48

Hermit test #7

Sheet No. 2 of

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft btst)	Drawup (ft)	Comments/Other
				Line	Head FCV			
3/22/11 0815		805	49884.00	74	10	294.73	58.65	Previous hour rate was 305.92
3-23-11 0820		795	6,190.5	68	11	288.86		shut FCV so we can start test for testing of Cla-val / JUTL Paul Kasst
0950			6,259.0					BF = 04720 (600) start
1145	Resume TMS		6,279.8			313.97		047222 (600) after testing after Cla-val testing
1315		1,300	63,989	70	35			0472430007 after BF see note below regarding BF procedure
1349		1,240		72	39			Adj FCV to reduce Q
1401		1,160		73	45			* went up to check #2, sudden drop in p 1420
1430		620		72	36			
1640		915	65312.00	76	58			2.815 total
3/24 0820		895	7,382.9	72	57	300.90	43.07	2920 total
1716		870	71,849,400	69	59	300.71		2150 + 870 = 3,020 TOTAL Seems like #2 is increasing in rate as #1 is dropping slightly ADS FCV at #1 to cut back rate.
1730		850						Blow off FCV pressure to increase flow
3/25 0815		405	8,279,600	75	72.5			860 + 1450 = 2810 total
1235		800		70	57			Adj FCV
		860	8,545.2	72.5	58			I decrease FCV from 204 to 201 psi; rate goes from 908 up to 938 gpm.
1550		900		72.5	57			JMO.
		938		73	57			
3/26 1050		965	9,871.5	72.5	55	293.27		Reset FCV after BF of ASR-2. It is likely that FCV press will rise overnight and will need to be reset tomorrow to maintain goal inj rate. < adj after power surge
1345		1200	← GOAL	73	44			
3/27 1315		1160	11739.2	68	41	285.71		
1415		950		72	55			

→ TO BACKFLUSH - OPEN RED KNOBS TO OVERRIDE P-CONTROL @ CLA-VAL, THEN, AFTER BF STARTS, CLOSE INLET VALVE TO GET HIGHER BF RATE ISOLATION

JMO

**MPWMD
PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT**

Well: #1
 Test: W42011 Hermit Test #7
 Sheet No. _____ of _____

343.97

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft blst)	Drawup (ft)	Comments/Other
				Line	Head FCV			
3-28-11 0815		460 725	126202	47 42.5	43 32			Adj #1 to 185 FCV
11 " 1130		745 775	127570	42.5 42.5	32 32			re-Adj to 185 on FCV
3-28 1700		1,000	130950	72.5	48			
3-29 0810		1,100	140913	72.5	47.5	288.40	55.57	from JO Book, TL
1100		1180		69	46			TOTAL WAP 3,050, ∴ adj FCV here to 195
1645		1,100	146560	71	46			
1700		1,055		72	50			
3-30 0825		985	15,605.4	72	52	291.84	52.13	left readings - SL
3-31 0830		1080	17,142.2	71	52			
4/1/11 0836		1050	18,498	71	51			047243600 of prior to open 047265000 after 10 min @ 66 Hz rest, then 10 min @ 54.4 Hz
1015		∅	187538					047284600 XP, 114.93 - 047265000 42.9 C 19000 72.13 = 26.34 g/m/H
NEW TEST						349.37		start new test
4-1 1110		1,000	187538	75	53			
4-2 1100		460 545 950	187579 198431	42.5	40	328.08	21.29	460+1750=2210 -ADJ Line ADS to increase from 550 to 950 g/m
1800				72	59			
4-3 1045		940 580	210689	69 75	52 54			ADJ @ #2 980+1800=2780 also total start ADJ on Crawl F.S. request When the p is 785 - Crawl starts @ 60 ft
1700		970 ∅	214507	75	52	308.10		NOTE: CLOSED VALVE #1 TO REDUCE LEAKING and but only wind-tight pressure on FCV

W B F
 value #1 - discharge submerg
 value #2 engine submerg

#1 #2
 2381
 268
 83

MPWMD
 PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT

Well: SM #1
 Test: TEST B

HERMIT TEST #10

Sheet No. of

351.4 INITIAL

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft btst)	Drawup (ft)	Comments/Other
				Line	Head FCV			
4-5-11		8	24997		300			augments +
4-6-11		950			198			47309 BF
4-7-11 0800		1185	228620	75	46			
4-8-11 0830		1500	246546	75	46			
4-9-11 1100		1550	268459	61	46			
4-10-11 1055		1570	292798	80	46	279.8	72	left settings
4-11-11 0830		1600	315235	72	46	274.13	77.3	FCV tank = 1350 psi; HERMIT = 85%; since yesterday injected 222,370 gal = 6.82 AF No adjustments made.
4-11-11 1700		1635	336818	72	46		79.2	NO ADS
4-12-11 0955		1635	34882	72	46	268	83	
4-12-11 1535		1720	362284	88	46	263.59	89	slightly turned up FCV 1470 + 1400 = 2870 gcu NO ADS
4-13-11 0820		1470	367315	72	45			
4-13-11 1250		1380	381492	75	45	278.04	73.4	BF 047312 [000] BF note 047335 [000] after 10 min @ 60 Hz
4-13-11 1325		1250	385223	after BF	reuma m.j.			
4-14-11 0810		1250	399401	77.5	45			114.61 48.12 66.49 FCV tank = 620 [000] 20 [000] = 30.1 g/m/ft
4-15-11 0930		1275	418174	67	45			
4-15-11 0930		1306		67	45			

**MPWMD
PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT**

Well: SM#1

Test:

WATERLEVEL 351.4

Sheet No. of

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft bdst)	Drawup (ft)	Comments/Other
				Line	Head			
4-15-11 1600		1330		92	44			HA setting
4-16-11 1140		1355	439676.00	75	46	283.27	68.1	1230 + 1700 = 2930 g/m + 100
		1230			187			
4-17-11 1210		1176	457698.00	67	46	286.5	64.9	
4-18-11 0830		1200	472259.00	80	44			
4-18-11 1640		1215	478297.00	80	46			
4-19-11 0807		1220	485549.00	72.5	47	282.3	69.1	1700 + 1220 = 2920 g/m total, NOT 05
4-20-11 630		1200	507934.00	78	46			Left setting
								474959.00
4-20-11 1130		0	509384.00					1-BF 47358.00 1150
								CAL-AM SAMPLED ASR-1 @ 1145
4-21-11 0830		1280	524937.00	76	46			2400 gpm @ 60.0 Hz
								EMAG 620
4-22-11 0830		1280	543521.00	76	46			

**MPWMD
SANTA MARGARITA AQUIFER STORAGE AND RECOVERY PROJECT**

Well: SM#1

Test: _____

INITIAL WL 351.4

Sheet No. _____ of _____

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft btst)	Drawup (ft)	Comments/Other
				Line	Head			
4-23-11 0902		1315	562543 00	71	45	293.81	57.6	
4-24-11 1055		1250 1260	583161 00	66	46	288.29	63.1	ADS water wells TL
4-25-11 0830		1215	599026 00	66	46			
4-25-11 1705		1230	605385 00	78	46			
4-26-11 0830		1200	616612 00	72	46	298.33		
4-27-11 1000		1200	635031 00					well is shutting down for backflush.
4-27-11 1115			635219 00 635219 00	72	47			BF 047454 00 047526 00 047527 00
4-28-11 0830		1200	650665 00	72	46			new injector cycle.
4-29-11 0830		1250	665860 00	71	46			

534

503

**MPWMD
PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT**

Well: SM #1

Test:

INDIAN WL 351.4

Sheet No. of

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft btst)	Drawup (ft)	Comments/Other
				Line	Head FCV			
4-30-11 0900		900	080512.155	60	47	290.4	61	recruited call from. going to turn down injection gate by 500 gpm at FCV to 206
5-1-11 1500		490	000 697765.00	83	49	326.6	24.8	HERMIT = 87% bath; FCV tank = 1210 psi. make no adjustments, per C. Evans request to reduce rate.
5-2-11 0830		500	702951.155		47			
5-3-11 0830			709989.155					cut down pm night request @ 0630 5-3-11
5-4-11 1055		1575		72	44			
5-5-11		1600 2030	720605.155 741962.155	56 56	48 48			0475771000 BF meter before BF 047573800 after BF Resume inj. @ low rate @ 1055 @ 2030 shut down injection at request of CF - TL
5-7-11 1130		1350 1500	757231.155	92.5	46			ADS - TL
5-8-11 10:00		1425 1500	776947.155	92	47			ADS - TL
5-9-11 1130		1430 1500	799004.155	80	47.5	288.3	69.2	ADS - TL - NO ADS
5-9-11 1655		1515	803912	92	47.5			
5-10-11 0830 1700		1425 1430 1490	817658.00 824749.00	79	48			ADS, TL
5-11-11 0805 0930		1450	867695.155 838935.155	90 80-110	48	276.4	75	NO ADS Before BF meter = 0475741000 BF @ 0805 20 min 047626000 after BF NO ADS, NO ADS.
" 1620		1500		92	47.5	resume injection		
" 1656		1515	845032.155	91	47.5			
5-12-11 0920		1530	859890.155	93	47	288.8	72	

ON A CARD

MPWMD
PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT

Well: SM AER-1

Test:

initial WL 351.4

Sheet No. ___ of ___

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft. btst)	Drawup (ft)	Comments/Other
				Line	Head			
5/13/11			88	178	292.7	58.7	- TRANSCRIBED FROM JL FIELD NOTES	
5/14/11 1230		1575	90781.7	91	47	291.4	60.0	FCV tank = 1010 psi; HERMIT = 84% bat HERMIT Test #10 running; no adj. JWO
5/15/11 1330		1550	931323	92	47	291.2	60.2	no adj. JWO
5-16-11 0830		1571	449149	91	46	290.4	+61.0	NO ADJ
5-16-11			452731					
5-17-11		1625	972155	82	47	294.4		NO ADJ
5-18-11		1880	997453	72	52			
1250		1500	999751	74	47	349.4	*	prepare for BF 047656 BFD 047626 BFD CF 22 hrs * before start of test 060+1/2 ~2500 JWO
5-19-11 0830		1600	1017603	72	49			
5-20-11 0830		1800	1041878	68	48			reset to 182
5-21-11 1020		1340	1062704	75	52			NO ADJ
5-22-11 1140		1380	1083439	77	52	285.14	64.59	NO ADS.
5-23-11 0825		1400	1100786	74	52.5			
5-24-11 0830			1121158					shut down because of flow SHW = 80cfs.
								47656 BFD BFD 47681 BFD BFD 47699 BFD BFD

NOTES
2

2000 GPM RATE
WITH 10 PSI ON BF LINE
DUE TO CLAUVAL
WL 112.30
WL 2 47.7

**MPWMD
PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT**

Well: ASR-2

Test: wy 2011 #1

Sheet No. of

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft bbst)	Drawup (ft)	Comments/Other
				Line	Head FCV			
2/2/11 1430						373.31		BF @ 3000 gpm
2/4/11 1515			096703 <u>000</u>			373.23		82423 CF on lube line (on) 43/40 psi on filter Reg. size @ 1523 3000 gpm 1533 xD = 46.95 1543 xD = 94.27 1549 20 min BF @ 1555 @ 3,000 gpm meter = 096615 <u>000</u> 123.30 meter = 096644 <u>000</u> - 43.38 29 <u>000</u> 79.92 36.29 g/m ft H2S - ND (oil + low mag. S) Cl2 - ND
2/7/11 0151			096567 <u>000</u> 096506 <u>000</u> 096447 <u>000</u>			373.10		83471 CF lube line 20 min @ 3000 gpm 123.30 gpm
2/9/11 1245								I did not have lube line at 0127 23725 CF off - no lube line, ads to 0.33 cfm psi = 44/43
2/10/11 1730			096447 <u>000</u> 096389 <u>000</u> 096359 <u>000</u>					1530 10-min a/s after 3 "Surges" Meter ₁₀ = 096274 <u>000</u> xD ₁₀ = 123.6 Meter ₁₀ = 096273 <u>000</u> xD ₁₀ = 39.7 Avg Q = 3100 PDM = 83.9 10-min a/s = 1600 gpm / 83.9' = 36.9 gpm/ft

004999 CF on meter by Parallels 2-10-11 1430

16261000

MPWMD
PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT

Well: ASR-2 Sheet No. 1 of
 Test: WY 2011 #1 (Hermit SM2-Test4)

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft. btst)	Drawup (ft)	Comments/Other
				Line	Head			
2/18/11 15:00	0	-	096319000	58	44	372.95	0	15 th Begin bleeding/opening FCU
2/18/11 15:22	10	-1475	096327000	58	44	362.70	10.65	
2/18/11 15:30	20							16 th SDIG ASR-1 P.P.V. 26 sec
2/18/11 15:40	30							5:28
2/18/11 15:50	40							10:29
2/18/11 16:00	50							15:29
2/18/11 16:10	60							SDI = 0.69
2/18/11 16:20	70							
2/18/11 16:42	80							100-min @/s
2/18/11 16:52	90	-1475	096458000	58	44	347.9	25.05	Avg Q = 1390 gpm ± 25.05 @/s = 55.5 gpm/ft
2/18/11 19:45	153	-1800	096753000	86	72	359.4	33.6	DRU Reg sta must have closed, Proc/s. up to High.
2/18/11 20:15	20	-1300		60	32			19 th Turn (la-val) PPV Adj. stem OUT
2/19/11 7:12	960							2 full turns → 1700 gpm
2/19/11 7:52	1000							20 th Pressure / slow sudd only (Proc. 92 psi)
2/19/11 9:12	1080	-1250	097772000	72	30	347.32	25.63	1300 gpm. Line Proc (ASR-1) = 60 psi
2/19/11 9:40	910	-1500		92	44			DRU Reg sta must have opened again.
2/19/11 10:50	1050		097913000	-	-			20 th Leave settings, aiming for 1500 gpm Avg.
								9 th on site
								Avg Q = 1345 gpm @/s = 52.5 gpm/ft
								9 th Adj PPV stem IN to inc. rate.
								10 th Begin closing FCU/stopping inj.
								Backflushing: 4000 gals @ 500 gpm
								Totalizer = 85508 cf
								Pop 52, Pop 52 psi
								11 th Backflushing 1000 gals/20 sec = 3000 gpm for 20 mins.
								10. min @/s: Tot = 097854000 DTW =
								Tot = 097913000 DTW =
								460.3 10 min DTW
								374.5 10 min DTW
								55.5
								Q/s = 33.8 gpm/ft

**MPWMD
PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT**

Well: AS2-2

Test: WY 2011 #2 (no hermit, Level Troll Runny continuously) 5 MIN INTERVAL.

Sheet No. 1 of

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft. btst)	Drawup (ft)	Comments/Other
				Line	Head			
2/19/11 12:35	0	-	097825 (000)	107	48	374.85	0	12:35 Begin opening FCV
12:45	10	~1450	097837 (000)	78	36	352.81	22.04	13:00 AS2-1 overglt on line @ ~1600 gpm
13:05	30	~1450		78	36	348.1		13:00 Slight Adj. to FCV
13:10	35	~1525	097875 (000)	78	37	345.8	29.05	Adj. @ 50,000 gals. + 35 min = 1429 gpm
2/20/11 10:00	12:25	~1525	099765 (000)	80	37	334.23	40.62	No ADS. Highest AS2-2 TL
2/21/11 12:55	14:00	~1600 ~1600	102327 (000)	82	36 36	331.48	43.37	ADS tracking to 214 - still ~1600 gpm
2/22/11 08:30		~1475	104035 (000)	83	36	335.33	39.62	4502000 / 1900 = 2,369 gpm (?) TL Adj. to 213 on page + FCV
12:38		~1500 ~1700	104402 (000)	83	36 37	331.82	43.03	Adj. to 210 on FCV + Reg.
2/23/11 08:30		1600	106283 (000)	74	38	325.90		Left settings.

If not underlined, then reading in this column is taken from upstream reading at ASR-1. JWO

1750
890
2640

Well: SM 2 Sheet No. 1 of
 Test: WY 2011 #4 INITIAL DTW 364.5 =>

**MPWMD
 PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT**

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft btst)	Drawup (ft)	Comments/Other
				Line	Head			
3/11/11 0830		1700	141732 [600]	38	34			left wellings, line pressure was 700 #1
3/11/11 1645		1700	14754 [600]	29	27			
3/2 0845		1650	144148 [600]	40	27	314.80	-50	30 @ C.V. 40 @ ASR-1
3/12 0940 PST		1600	146708 [600]	39	27	310.10		30 @ C.V.
3/14 0830		2000	148947 [600]	51	48	302.2		At 0830, shut down ASR-1 per C. Evans. After shut down of ASR-1, line pressure at ASR-2 actually dropped! JWO
0845		1850		30	35			shut down for ramp down period,
3/15/11 0530		1500	151024 [600]	36	32			
			151027 [600]			369.96		BACKFLUSH.
			151001 [600]			460.4		
			150976 [600]					
3/18						364.5		estimated initial DTW INITIAL DATA MISSING! ← data on JWO's basis (?)
3/19 1010 PST	1	1650	153174 [600]	34	37	316.20		
3/20 1235 PST		1750	155860 [600]	33	35	308.68		21640 combined no. 22
3/21/11 085		1650	157751 [600]	36	35	299.95		2570 combined
1230		1700	159277 [600]	37	35	308.40		Adj @ ASR-1 + 800 = 1000
1250		1700		37	36			Adj @ ASR-1800 + 1000 = 2800 total
1700		1700	158743 [600]	30	28			1700 + 900 = 2600
3/22/11 0825		2000	160446 [600]	38	35	297.60	606.4e	2000 + 300 = 2300

$$\frac{1750}{50} = 35 \text{ IN/S}$$

2-24-11

Sheet No. 2 of 2

MPWMD
PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT

Well: ASR-2

Test: WY 2011 #2

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft birst)	Drawup (ft)	Comments/Other
				Line	Head			
2/23/11 1215		1575		36	212			TURNED ON CURB 855 37
2-24-11 0800		1750	108486	51	200	316.8		Hummer TURNED FCV TO 226
2/24/11 1455			108811	41				Set for BF, BF under open 10min
2/24/11 1540		1450	108811	31	206	307.		16 min test DTW @ 458.72 Pumping 108779 000 ; DTW: 367.40 108750 000 ; DTW: 367.40 24 000 * *FCV was only closed to 305 psi
2/25/11 0655		1800	110418	50	220			RAIN TUNED 180,000
2/26/11 1025		1500	112943	39	206	321.57		CLA. URL = 29 1500 * 2.60 = 3900
2/27/11 1057		950	115300	17	205	--		
2/28/11 0818		1175	116722	48	227	323.93		CLA. URL = 44
3/2/11 0830		1450	120801	44	222	315.5		saw pressure drop @ wellhead.
3/3/11 0830		1500	123007	44	216	308.6		Left settings
3/3/11 1600		1500	123701	44	216	306.5		86385 cr calculate 306.6 of m
					330			shut down for backflush

364.52 WL 1 123701503
 460.2 WL 2 123671600
 30000

1500
 1900 = 25% S.M.I. of 7 days production.
 $\frac{1900}{75} = 25\%$
 3000 GPM = 30
 100' SECTION

1600
 600
 2700

3-10-11

MPWMD
 PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT
 20 Mar 2011 (464.2) 123637600

Well: SMZ

Test: wy 2011 #3

Sheet No. 1 of

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft btst)	Drawup (ft)	Comments/Other
				Line	Head FCV			
3/3/11	1645 1450	1500	123637600		330 210	364.5		CLA-VAL 52 psi downstroke
3/4/11 0830		1600	125128600	38	209	346.5		LEFT SETTINGS
3-4-11 1630		1600	125868600	32	206			LEFT SETTINGS
3-5-11 1150		1975	127901600	70	207			CLA-VAL = 37 d.s. Tank to FCV was closed Adj to 208
11-11 1325		2000 ~1800	128090600	72	207	304.32	60.2	CV = 37 Adj to 210
3-6-11 1050		1625	130155600	78	210	311.90		C.V. = 37 No Adj. here TL
3-7-11 0830		1800	132443600	80	207	309.17		NO ADJ COMBINE RATE @ 2:00 PM
3-8-11 0825		1250 1300	134507600	36	222 217	322.77	41.7	CV = 37 Adj FCV accordingly
3-8-11 1655		1325 1800	135184600	82	217 206	302.80		CV = 37 (2000 #1) Head = 212.5 Adj FCV here to 206
3-9-11 0845 0420		1900	136940600	47	204	300.47	~64	CV = 35
3-10-11 0830		1500	140142600	78				BEGAN NEW CYCLE INITIAL WL 365.2
3-11-11 0830		1700	141732600	34				Left settings

MPWMD
PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT

Well: SMZ

Test: WY 2011 Test #15

after bring down ~ 1HR
Sheet No. 2 of

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft btst)	Drawup (ft)	Comments/Other
				Line	Head FCV			
3-23-11 0825		2350	163455000	68	48	280.6	53.40	51 @ CV 60 (68 @ 60 gal line) 70 @ 1200 3145 @ 1100 @ 1005 @ 900 @ 800 @ 700 @ 600 @ 500 @ 400 @ 300 @ 200 @ 100 @ 0
1105			163647000					Steps (1600 @ 1005 @ 900 @ 800 @ 700 @ 600 @ 500 @ 400 @ 300 @ 200 @ 100 @ 0)
1115		4000			35 35	281.9		35 @ 1000 @ 900 @ 800 @ 700 @ 600 @ 500 @ 400 @ 300 @ 200 @ 100 @ 0
1400		2005	164011000	38	37			(1.7 @ 1000 @ 900 @ 800 @ 700 @ 600 @ 500 @ 400 @ 300 @ 200 @ 100 @ 0)
		1700		28	28			2 @ 1000 @ 900 @ 800 @ 700 @ 600 @ 500 @ 400 @ 300 @ 200 @ 100 @ 0
1650		1900	164330000	37	35	298.45	64.5	(Line @ ASR-1 = 76)
3/21 0825		2025	166156000	35	35	297.7	74.2	
1715		2150	167211000	43	40	281.55		(69 @ 100 @ #1)
2/25 0540		2020	169185000	58	56	284.0		(45 @ 100 @ #1)
1215		2025	169680000	57	54	280.6		begin to shut down for BF of water table below 200 ft
		1950						87 @ 200 @ 100 @ 0
1530		1975		57	56	282.86		~ 1975 after 250 #1.
3-26-11 1100		1950	172327000	57	52	273.6		Q increase FCV from 224 to 235 psi, rate 2025 to 1975
1115		0	172353000			281.2		~ 1975 after 250 #1.
								Q increase FCV from 224 to 235 psi, rate 2025 to 1975
1210			172277000					Q increase FCV from 224 to 235 psi, rate 2025 to 1975
1255								Q increase FCV from 224 to 235 psi, rate 2025 to 1975
1345		1750	* GOAL	35	200			Q increase FCV from 224 to 235 psi, rate 2025 to 1975
3/27 1320		1690	175025000	38	36	267.10		Q increase FCV from 224 to 235 psi, rate 2025 to 1975
		1900						Q increase FCV from 224 to 235 psi, rate 2025 to 1975
1400		1600	177011000	36	32	312.68		Q increase FCV from 224 to 235 psi, rate 2025 to 1975

← Pumping

172305000 @ 1500 gpm
BF finished. Total BF volume 172350000
172277000 @ 1750 gpm
41000
Restart Inj @ 6 BF ~ 1300 hr.
It is likely that FCV press will climb overnight
as WL rises. Will likely need adjustment in
ASR FCV

no AFDs here - AFD used #1 after major test conduct on a back following pump average.
1-10 028-110820
3-28-11 0820

MPWMD PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT

Well: #2 Test: W42011 Test #s: 361.1 Sheet No. of
STATIC

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft. btst)	Drawup (ft)	Comments/Other
				Line	Head			
3-28-11 1135		1800	177315	34	28			No ADS base, slightly no seal made at #1
3/28 1707		1750	177875	38	35	309.3	51.8	1750 + 1100 = 2850 - NO ADS
3/29 0811		1850	179510	37	36	302.75	58.35	1850 + 1100 = 2950 - NO ADS
	1100	1900		37	36			from 20 look
1650		1950		38	35			TOTAL = 31050 - slightly off at #1
3/30 0830		21000	182402	38	35	295.7	65.4	
3/31 0830		1850	184706	38	35			ADS TO 1850 FROM 1400 = JC
4/1/11 0830		1850	187297	38	34			shut down for BF. - JC
			187523					after BF STARTED INJ.
4-2 003		1750	190155	31	38	315.8		
1800		1900						ADS @ #1 to increase rate. (from all through comp.)
4-3 1050		2150	193000	37	35			ADS base
		1800						Abandon into #1 from 69 to 74, get 69
		1850	193676	38	35			980 + 1800 = 2780 total
		1800						abandon #1, NO ADS base
4-4 0820		2000	195472	39	34	312.50		Turned up flow for ADS FCV
		2500						46 on line at #1
4-5-11 0815		1750	196516	72	68	295.5		ADS FCV to get 1750, line = 89 after ADV
		500	197523	52	48			46 on line at #1
		1750						ADS FCV to get 1750, line = 50 after ADV

4-6-11 1140 1500 199903 52 4B 207 24 309.56 PUMPING

4-7-11 0830 1500 199852 52 4B 207 24 309.56 SAVE DOWN FOR BF

205 169 200

$\frac{3000 \text{ gpm}}{92'} = > 32.6$

Th + tw

**MPWMD
SANTA MARGARITA AQUIFER STORAGE AND RECOVERY PROJECT**

Well: SM #2

Test: INITIAL WL 366.8

Sheet No. of

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft. btst)	Drawup (ft)	Comments/Other
				Line	Head			
4-6-11 1140		1500	199852	52	48			Beginning of new cycle
4-7-11 0830		1500	201693	52	48	337.4	29.4	left settings
4-8-11 0830		900	204153	69	48	340.8		CHANGED FCV TO 235 @ 1450 gpm
4-9-11 1100		900	205267	69	48			wells needed to have a combined rate of 2500 gpm for 24 hours. Fall back into acceptable pressure regimes. Flow occurs from 0830 4/8/11 to 1100 4/9/11. Adjust the flow back to 1500 gpm.
4-9-11 1130		1500		69	46			cla val: 38 psi; FCV = 1190 psi; since yesterday have injected: 207144000 205267000
4/10/2011 1030		1380	207144	30	35	320.8	46.0	1877000 = 5.76 AF (ASP-2) 6.8 AF (ASP-1) 12.6 AF OK!
4-10-11 0830		1400	208958	38	35			No adjustments made, as flow in ASP-2 would increase if system pressure rises. left settings JWB
4-12 1000		1400	211051	38	35	315.5		1720 (140) = 370 - 0.6 AF (140) -LINE = 72 @ ASP-1 - 1000 - 0.6 AF (140) = 85.6 AF (140)
4-12 1520		1400	211524	38	35			ADJ. FCV to ~213 to increase rate
4-13-11 0823		1380	212968	38	35			
4-13-11 1415		1450	213419					
4-13-11 1419		1750	213561	38	35			88997 CF on Lake Line 89204 CF off Lake SF
4-14 0845		1825	215791	38	35			
4-15-11 0830		2200	218262	44	44			TURNED TO 1100 gpm FCV 255

**MPWMD
PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT**

Well: SM #2

Test: INITIAL WATER LEVEL 365.4

Sheet No. of

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft btst)	Drawup (ft)	Comments/Other
				Line	Head			
4-15-10 1400		Ø						well was shut down for 7 hours to get back into double surge mode
					255			is OK to Run @ 3000 gpm combined for rest of weekend - JL
		1500			215			set for 1500 in case water keeps opening. (FCV valve was closed for Adj. FCV)
4-16 1115		1400	220047600	38	35			Adj. FCV
		1700			211			
4-17 1215		2000	112751800	46	43			1750-1100-2100 gpm 3:15
		1750			213			
					220			left for submer pressure increases.
4-18 0830		1350	224402400	38	36			1215 @ 12-1 - 155 head
4-18 1646		1350	225613400	38	35			Adj. head to 1700 gpm
		1700			218			
4-19 0810		1700	216508800	38	35			1700-1100-1700 gpm
4-20-11 0830		1500	228698200	38	35			set for 1500 gpm
4-20-11 1230		1300	229025000					set for 1500 gpm
		Ø			330			shut down for backflow
					328.59			
4-20-11 1300		1500	229973000	34	37			INITIAL WL
					215			
4-21-11 0830		1400	237582000	36	38			
4-22-11 0830			232800000	38	36			
					211			

**MPWMD
SANTA MARGARITA AQUIFER STORAGE AND RECOVERY PROJECT**

Well: SM #2

Test: INITIAL WL 365.4

Sheet No. of

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft blst)	Drawup (ft)	Comments/Other
				Line	Head			
4-23-11 0915		1600	235172 1000	32	35	318.9	46.5	1600+1315 = 2915 - No ADJ
4-24-11 1100		1850 1750	237834 1000	42	40	308.8	56.6	ADS both wells
4-25-11 0830		1500	239758 1000		214			left to check on Daily totals.
4-25-11 1710		1525 1650	240542 1000	38	35	317.9	47.5	1230+1515 = 1755 4.5J here
4-26-11 0830		1400	242028 1000	38	36			stopped for backflush.
4-26-11 1130		16	244815 1000					restored.
4-26-11 1150			244754 1000					left settings
4-27-11 0830		1600	246534 1000	38	36			
4-29-11 0830		1750	248999 1000	38	36			

**MPWMD
PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT**

Well: SM #2

Test:

INITIAL WL 365.4

Sheet No. ___ of ___

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft bst)	Drawup (ft)	Comments/Other
				Line	Head			
4.30.11 0900		2200	251934000		56	301.6	63.4	reset flow to 1500
		1600			236			we need to set the injection rate @ 2500 for about for the higher injection rate then the initial. It seems the cla-val is killing ~ 10 psi more than spray through to the next head?
5-1-11 1515		1875	255048000	claval 70	67	310.50	54.9	FCV tank = 1000 psi. Combined rate: ASR-1 490 ASR-2 1875 2365 gpm
5-2-11 0830		1800	256965000					a make no adjustments, per 4/30 request from C. Evans to reduce flow by 500 gpm TWO
5-3-11 0830		1600	259408000	75		239		let settling S Cla-VA - NOT working properly.
		1100	261790000	82		269		CAVAL NOT WORKING
			261955000					flow to BF
5/16/11 1245		0	261913000	86	0	342	367.47	Reset valves prior to beginning injection. Will shoot for 2000 gpm.
5-17-11 0900		700		37	33	320	N/A	act @ 700 ; TURNS UP TO
		1300	262687000	37	33	214		delay and monitoring
		1350	264582000	37	34	215		
5-18-11 0100		1350	264955000	37	34	215		#1 @ 1500 gpm #2 @ 1500 = 2850 gpm
5-19-11 0830		1350	266499000	37	35	214	333.9	
5-20-11 0830		1350	268492000	37	35	211	334.7	

**MPWMD
PHASE 1 AQUIFER STORAGE AND RECOVERY PROJECT**

Well: ASR-2

Test:

Sheet No. ___ of ___

Date/Time	ET (min)	Rate (gpm)	Totalizer (gallons)	Pressure (psi)		DTW (ft b1st)	Drawup (ft)	Comments/Other
				Line	Head			
5-21-11 1025		1400	270620 <u>600</u>	37	35			No ADS
5-22-11 1145		1400	272729 <u>600</u>	37	35	322.8		No ADS
5-23-11 0828		1375 1409	274498 <u>600</u>	37	34			No ADS
5-24-11 0900			276510 <u>600</u>		330	320		Shut down for Backflush and test.
								276510 <u>600</u> will 367.7' 93.5
								276479 <u>600</u> 461.2
								FINAL 276467 <u>600</u> 33.3 gpm/ft Pumping



**APPENDIX B – SUMMARY OF OPERATIONS
SM ASR-2 REHABILITAION**



SM ASR-2 REHABILITATION

Well rehabilitation activities at SM ASR-2 occurred during the period December 13, 2010 through January 26, 2011 and were performed by Zim Industries, Inc. of Fresno, California. Development of the technical specifications and contractor oversight were provided by Pueblo Water Resources, Inc. (PWR). Rehabilitation consisted of both mechanical and chemical techniques. A summary of the rehabilitation of SM ASR-2 is presented below:

Pump Assembly Removal and FCV Testing

The contractor mobilized to the site on December 13, 2010 and began removal of the existing pump/motor and FCV assembly. While the FCV was above ground, leak testing was performed by pressurizing the FCV, then inspecting all pressurized connections for leaks with a leak-detector solution¹. The leak testing identified a leak at the control hose fitting connection on the FCV body. The fitting was removed, cleaned, and replaced utilizing manufacturer recommended thread sealant². Subsequent testing performed at 400 psi pressurization of the FCV showed no leaks or pressure losses over 27.5 hours of testing.

Pre-Rehabilitation Video Survey

A pre-rehabilitation video survey was performed on December 16, 2010. The video survey revealed that the perforations were uniformly approximately 40 percent plugged throughout the entire length with orange-brown colored biomass (a copy of the video survey was provided to the District under separate cover).

Nylon Brushing and Bailing

Following the video survey and mobilization of additional equipment and supplies, mechanical rehabilitation was initiated on December 20, 2010 with brushing of the well screen. A 20-inch diameter nylon brush assembly was utilized, and each 20-foot section of screen was brushed for approximately 30 minutes. Total brushing time was approximately 5 hours.

Following brushing, bailing of the well was performed with approximately 4 vertical feet of fill material removed from the well. The bailed material consisted predominantly of an approximate 50/50 mixture of dark orange brown pipe scale/rust and fine grained gravel pack material, with minor amounts of very fine formation sand.

Pre-Chemical Dual-Swab Airlifting

Dual-swab isolation zone airlift pumping of the screen was performed to remove as much material from the screen/gravel pack/near bore aquifer materials as possible prior to

¹ "RectorSeek Better Bubble" manufactured by Rector.

² V2 Thread Sealant, manufactured by Jet Lube.



injection of the chemicals. The dual-swab assembly consisted of two 20-inch outside diameter rubber swabs separated by approximately 9 feet on a perforated spindle. The tool was placed on the end of 5-inch diameter eductor pipe with a 1.25-inch diameter air-line.

Dual-swab airlifting operations were initiated on December 21, 2010 from the top of the screen and worked progressively to bottom. Each 20-foot interval of screen was generally worked for periods of approximately 30 to 120 minutes until the discharge from each interval was relatively clear. Initial discharge from each interval was typically extremely turbid and of a dark orange-brown color. Upon reaching bottom, a second pass was performed to the top until each section was clear. Of note is that the lower most section of the screen required relatively greater time to become clean. This is consistent with the pre-injection production downhole velocity survey performed on the well following construction, which showed that approximately 75 percent of the total contribution to the well derives from the lowermost 50 feet of perforations (refer to the Water Year 2009 Summary of Operations Report for a discussion of SM ASR-2 plugging).

Chemical Treatment

Chemical injection was initiated on January 4, 2011. 220 gallons of glycolic acid and 1,320 gallons of hydrochloric acid (with inhibitor) were mixed into solution in an approximate 1,500 gallon tank. The solution was proportionally injected into each 20-foot interval of screen via the dual-swab assembly and then chased with clear water to displace the solution from the assembly into the screen. Each 20-foot section was then “dry” swabbed for a period of 30 minutes to work the solution into the gravel pack and formation. Following introduction of the chemicals and the initial overnight idle period, each 20-foot section of screen was line-swabbed for 20 minutes. This procedure was repeated once. The well was then allowed to stand idle overnight, and the line swabbing procedure was repeated.

Post-Chemical Dual-Swab Airlifting

Following chemical swabbing operations, approximately 30 feet of fill material had accumulated in the bottom of the well. The fill material was removed via open-ended airlifting. Following removal of fill, dual-swab airlifting was initiated on January 8, 2011 from the top of the screen and working progressively to bottom. Each section was worked for a period of approximately 30 minutes until reaching a depth of approximately 745 feet. The discharge from each interval was generally initially very turbid, of a deep orange brown color and containing minor amounts of fine gray formation sand, becoming relatively clear to cloudy within 15 to 30 minutes. From a depth of approximately 745 to 770 feet (i.e., the bottom 25 feet of screen), the initial discharge was extremely turbid and sandy. After approximately 4.5 hours of dual-swab airlifting, the lower 25 feet of screen the discharge became clear.

Chlorination

Chlorination of the well was performed on January 10, 2011. An approximate 1,200 gallon solution of 5,000 parts per million (ppm) available chlorine was prepared and incrementally introduced into the screen section with the dual-swab assembly from the bottom



of the screen working to top. Each interval was “dry” swabbed for a period of approximately 30 minutes following introduction of the chlorine solution prior to moving up to the next interval. Following introduction of the chlorine solution to the entire screen, the assembly was raised to the top of the screen and the solution allowed to remain in the well overnight. A final dual-swab airlifting pass of the screen was made from the top of the screen to bottom to remove the chlorine solution.

Post-Rehabilitation Video Survey

A post-rehabilitation video survey was performed on January 13, 2011. The video survey revealed that the stainless steel screen was clean and all of the perforations were open with gravel pack visible behind the well screen slots from the top to bottom (a copy of the video survey was provided to the District under separate cover).

Performance Testing Results

As discussed in the main body of this report, ASR well performance is measured by specific capacity (pumping) and / or specific injectivity (injection). Pumping performance has been tracked by measurement and comparison of 10-minute specific capacity, whereas injection performance has been tracked by measurement and comparison of 24-hour injection specific injectivities (a.k.a. injection specific capacity). At the end of WY 2010 and prior to rehabilitation, SM ASR-2 displayed a 10-minute specific capacity of 16.8 gpm/ft and a 24-hour specific injectivity of 2.8 gpm/ft. Following rehabilitation in WY 2011, the well displayed a specific capacity of 36.9 gpm/ft and a specific injectivity of 37.9 gpm/ft, representing approximate 2 to 14 times improvements in the specific capacity and injectivity, respectively, as a result of rehabilitation.



APPENDIX C – WATER-QUALITY DATA



4 Justin Court Suite D, Monterey, CA 93940
 831.375.MBAS
 montereybayanalytical@usa.net
 ELAP Certification Number: 2385

MPWMD
 Joe Oliver
 P.O. Box 85
 Monterey, CA 93442-0085

Lab Number: AA82568

Collection Date/Time: 11/18/2011 15:15 Sample Collector: LINDBERG T
 Submittal Date/Time: 11/18/2011 15:25 Sample ID

Sample Description: ASR 1

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Alkalinity, Total (as CaCO3)	2320B	mg/L	142		2		11/22/2011
Ammonia-N	4500NH3 D	mg/L	Not Detected		0.05		11/23/2011
Arsenic, Total	EPA200.8	ug/L	Not Detected		1	10	12/2/2011
Barium, Total	EPA200.8	ug/L	64		10	1000	12/2/2011
Boron	EPA200.7	mg/L	Not Detected		0.05		11/18/2011
Calcium	EPA200.7	mg/L	43		0.5		11/18/2011
Chloramines	SM4500-Cl G	mg/L	Not Detected		0.05		11/18/2011
Chloride	EPA300.0	mg/L	40		1	250	11/18/2011
Copper, Total	EPA200.8	ug/L	5		4	1300	12/2/2011
Dissolved Organic Carbon	SM5310-C	mg/L	0.98	E	0.2		11/28/2011
Gross Alpha	EPA900.0	pCi/L	2.17 ± 1.81	E		15	12/16/2011
Haloacetic Acids	EPA552	ug/L	Not Detected	E		60	11/30/2011
Iron	EPA200.7	ug/L	Not Detected		10	300	11/18/2011
Iron, Dissolved	EPA 200.7	ug/L	Not Detected		10	300	11/18/2011
Kjeldahl Nitrogen	4500-NH3 B,C,E	mg/L	Not Detected		0.2		11/23/2011
Lithium	EPA200.8	ug/L	6		1		12/2/2011
Magnesium	EPA200.7	mg/L	14		0.5		11/18/2011
Manganese, Dissolved	EPA 200.7	ug/L	Not Detected		10	50	11/18/2011
Manganese, Total	EPA 200.7	ug/L	Not Detected		10	50	11/18/2011
Methane	EPA174/175	ug/L	Not Detected	E	5		11/28/2011
Molybdenum, Total	EPA200.8	ug/L	7		1	1000	12/2/2011
Nitrate as NO3	EPA300.0	mg/L	Not Detected		1	45	11/18/2011
o-Phosphate-P	EPA300.0	mg/L	0.16		0.05		11/18/2011
pH (Laboratory)	4500-H+B	STD. Units	7.4				11/18/2011
Phosphorus, Total	HACH 8190	mg/L	0.20		0.03		11/21/2011
Potassium	EPA200.7	mg/L	3.0		0.1		11/18/2011
QC Anion Sum x 100	Calculation	%	103%				11/23/2011
QC Anion-Cation Balance	Calculation	%	-1				11/23/2011
QC Cation Sum x 100	Calculation	%	100%				11/23/2011

mg/L: Milligrams per liter ug/L : Micrograms per liter PQL : Practical Quantitation Limit MCL: Maximum Contamination Level
 H = Analyzed outside of hold time E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

Lab Number: AA82568

Collection Date/Time: 11/18/2011 15:15

Sample Collector: LINDBERG T

Submittal Date/Time: 11/18/2011 15:25

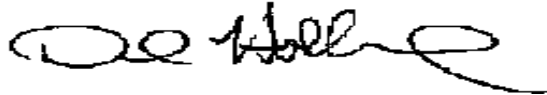
Sample ID

Sample Description: ASR 1

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Selenium, Total	EPA200.8	ug/L	2		2	50	12/2/2011
Sodium	EPA200.7	mg/L	46		0.5		11/18/2011
Specific Conductance (E.C)	2510B	umhos/cm	537		1	900	11/21/2011
Strontium, Total	EPA200.8	ug/L	254		5		12/2/2011
Sulfate	EPA300.0	mg/L	74		1	250	11/18/2011
Total Nitrogen	Calculation	mg/L	Not Detected		0.2		11/23/2011
Total Organic Carbon	SM5310C	mg/L	0.95	E	0.20		11/28/2011
Total Radium 226	EPA903.0	pCi/L	0.000 ± 0.193	E		3	12/7/2011
Trihalomethanes	EPA524.2	ug/L	31	E		80	11/30/2011
Uranium by ICP/MS	EPA200.8	ug/L	1		1	30	12/2/2011
Vanadium, Total	EPA200.8	ug/L	Not Detected		1	1000	12/2/2011
Zinc, Total	EPA200.8	ug/L	205		10	5000	12/2/2011

Sample Comments:

Report Approved by:



David Holland, Laboratory Director

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Dear David Holland,

Thank you for selecting BSK Analytical Laboratories for your analytical testing needs. We have prepared this report in response to your request for analytical services. Enclosed are the results of analyses for samples received by the laboratory on 11/23/2011 07:40.

If additional clarification of any information is required, please contact your Client Services Representative, John Montierth at (800) 877-8310 or (559) 497-2888.

BSK ANALYTICAL LABORATORIES



John Montierth
Client Services Representative

Case Narrative

Work Order Information

Client Name: Monterey Bay Analytical
Client Code: Monte6227
Work Order: A1K1711
Project: MPWMD

Submitted by: David Holland
Shipped by: ONTRAC
COC Number:
TAT: 10
PO #:

Sample Receipt Conditions

Cooler: Default Cooler **Temp. °C:** 2
Containers Intact
COC/Labels Agree
Received On Wet Ice
Packing Material - Other
Sample(s) were received in temperature range.
Initial receipt at BSK-FAL

Report Manager

David Holland

Report Format

Final.rpt



Certificate of Analysis

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Report Issue Date: 12/02/2011 10:44
Received Date: 11/23/2011
Received Time: 07:40

Lab Sample ID: A1K1711-01
Sample Date: 11/18/2011 15:15
Sample Type: Grab

Sampled by: T Lindberg
Matrix: Drinking Water

Sample Description: ASR-1 // 82568

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Dissolved Organic Carbon	SM 5310 C	0.98	0.20	mg/L	1	A114001	11/28/11	11/28/11	
Total Organic Carbon	SM 5310 C	0.95	0.20	mg/L	1	A114002	11/28/11	11/28/11	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	8.2	0.50	ug/L	1	A114043	11/29/11	11/30/11	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A114043	11/29/11	11/30/11	
Chloroform	EPA 524.2	20	0.50	ug/L	1	A114043	11/29/11	11/30/11	
Dibromochloromethane	EPA 524.2	2.8	0.50	ug/L	1	A114043	11/29/11	11/30/11	

Surrogate: Bromofluorobenzene EPA 524.2 93 % *Acceptable range: 70-130 %*

*Total Trihalomethanes, EPA 524.2 **31** 0.50 ug/L

Haloacetic Acids by GC-ECD

Dibromoacetic Acid (DBAA)	EPA 552.2	ND	1.0	ug/L	1	A114067	11/29/11	11/30/11	
Dichloroacetic Acid (DCAA)	EPA 552.2	ND	1.0	ug/L	1	A114067	11/29/11	11/30/11	
Monobromoacetic Acid (MBAA)	EPA 552.2	ND	1.0	ug/L	1	A114067	11/29/11	11/30/11	
Monochloroacetic Acid (MCAA)	EPA 552.2	ND	2.0	ug/L	1	A114067	11/29/11	11/30/11	
Trichloroacetic Acid (TCAA)	EPA 552.2	ND	1.0	ug/L	1	A114067	11/29/11	11/30/11	

Surrogate: 2,3-Dibromopropionic Acid EPA 552.2 95 % *Acceptable range: 70-130 %*

*Total Haloacetic Acids, EPA 552.2 ND 2.0 ug/L



General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limit	RPD	Limit	Date Analyzed	Qual
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Batch: A114001

Analyst: SMP

Prepared: 11/28/2011

Blank (A114001-BLK1) SM 5310 C - Quality Control

Dissolved Organic Carbon	ND	0.20	mg/L							11/28/11	
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Blank Spike (A114001-BS1) SM 5310 C - Quality Control

Dissolved Organic Carbon	10	0.20	mg/L	10		100	80-120			11/28/11	
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Blank Spike Dup (A114001-BSD1) SM 5310 C - Quality Control

Dissolved Organic Carbon	10	0.20	mg/L	10		100	80-120	0	20	11/28/11	
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Matrix Spike (A114001-MS1) SM 5310 C - Quality Control

Source: A1K1711-01

Dissolved Organic Carbon	11	0.20	mg/L	10	0.98	100	80-120			11/28/11	
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Matrix Spike Dup (A114001-MSD1) SM 5310 C - Quality Control

Source: A1K1711-01

Dissolved Organic Carbon	11	0.20	mg/L	10	0.98	100	80-120	0	20	11/28/11	
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Batch: A114002

Analyst: SMP

Prepared: 11/28/2011

Blank (A114002-BLK1) SM 5310 C - Quality Control

Total Organic Carbon	ND	0.20	mg/L							11/28/11	
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Blank Spike (A114002-BS1) SM 5310 C - Quality Control

Total Organic Carbon	10	0.20	mg/L	10		101	80-120			11/28/11	
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Blank Spike Dup (A114002-BSD1) SM 5310 C - Quality Control

Total Organic Carbon	10	0.20	mg/L	10		101	80-120	0	20	11/28/11	
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Matrix Spike (A114002-MS1) SM 5310 C - Quality Control

Source: A1K1711-01

Total Organic Carbon	11	0.20	mg/L	10	0.95	101	80-120			11/28/11	
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Matrix Spike Dup (A114002-MSD1) SM 5310 C - Quality Control

Source: A1K1711-01

Total Organic Carbon	11	0.20	mg/L	10	0.95	102	80-120	1	20	11/28/11	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limit	RPD	Limit	Date Analyzed	Qual
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Batch: A114043

Analyst: JGB

Prepared: 11/29/2011

Blank (A114043-BLK1) EPA 524.2 - Quality Control

Bromodichloromethane	ND	0.50	ug/L							11/29/11	
Bromoform	ND	0.50	ug/L							11/29/11	
Chloroform	ND	0.50	ug/L							11/29/11	
Dibromochloromethane	ND	0.50	ug/L							11/29/11	
<i>Surrogate: Bromofluorobenzene</i>	4.5			5.0		90	70-130			11/29/11	

Blank Spike (A114043-BS1) EPA 524.2 - Quality Control

Bromodichloromethane	9.8	0.50	ug/L	10		98	70-130			11/29/11	
Bromoform	10	0.50	ug/L	10		103	70-130			11/29/11	
Chloroform	11	0.50	ug/L	10		105	70-130			11/29/11	
Dibromochloromethane	10	0.50	ug/L	10		100	70-130			11/29/11	
<i>Surrogate: Bromofluorobenzene</i>	5.2			5.0		104	70-130			11/29/11	

Blank Spike Dup (A114043-BSD1) EPA 524.2 - Quality Control

Bromodichloromethane	9.1	0.50	ug/L	10		91	70-130	7	30	11/29/11	
Bromoform	8.8	0.50	ug/L	10		88	70-130	15	30	11/29/11	
Chloroform	9.9	0.50	ug/L	10		99	70-130	6	30	11/29/11	
Dibromochloromethane	8.8	0.50	ug/L	10		88	70-130	12	30	11/29/11	
<i>Surrogate: Bromofluorobenzene</i>	4.6			5.0		91	70-130			11/29/11	

Batch: A114067

Analyst: RJB

Prepared: 11/29/2011

Blank (A114067-BLK1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							11/30/11	
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							11/30/11	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							11/30/11	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							11/30/11	
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							11/30/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	23			25		94	70-130			11/30/11	

Blank Spike (A114067-BS1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10		100	70-130			11/30/11	
Dichloroacetic Acid (DCAA)	10	1.0	ug/L	10		103	70-130			11/30/11	
Monobromoacetic Acid (MBAA)	10	1.0	ug/L	10		101	70-130			11/30/11	
Monochloroacetic Acid (MCAA)	20	2.0	ug/L	20		100	70-130			11/30/11	
Trichloroacetic Acid (TCAA)	9.8	1.0	ug/L	10		98	70-130			11/30/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	23			25		91	70-130			11/30/11	

Blank Spike Dup (A114067-BSD1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	9.8	1.0	ug/L	10		98	70-130	2	30	11/30/11	
Dichloroacetic Acid (DCAA)	9.4	1.0	ug/L	10		94	70-130	9	30	11/30/11	
Monobromoacetic Acid (MBAA)	9.4	1.0	ug/L	10		94	70-130	7	30	11/30/11	
Monochloroacetic Acid (MCAA)	19	2.0	ug/L	20		95	70-130	5	30	11/30/11	
Trichloroacetic Acid (TCAA)	9.6	1.0	ug/L	10		96	70-130	2	30	11/30/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	23			25		90	70-130			11/30/11	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A114067

Analyst: RJB

Prepared: 11/29/2011

Matrix Spike (A114067-MS1) EPA 552.2 - Quality Control

Source: A1K1825-01

Dibromoacetic Acid (DBAA)	17	1.0	ug/L	10	6.9	97	70-130			11/30/11	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10	ND	109	70-130			11/30/11	
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	101	70-130			11/30/11	
Monochloroacetic Acid (MCAA)	20	2.0	ug/L	20	ND	98	70-130			11/30/11	
Trichloroacetic Acid (TCAA)	9.9	1.0	ug/L	10	ND	92	70-130			11/30/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	24			25		96	70-130			11/30/11	

Matrix Spike Dup (A114067-MSD1) EPA 552.2 - Quality Control

Source: A1K1825-01

Dibromoacetic Acid (DBAA)	16	1.0	ug/L	10	6.9	95	70-130	1	30	11/30/11	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10	ND	107	70-130	2	30	11/30/11	
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	101	70-130	1	30	11/30/11	
Monochloroacetic Acid (MCAA)	20	2.0	ug/L	20	ND	101	70-130	3	30	11/30/11	
Trichloroacetic Acid (TCAA)	9.9	1.0	ug/L	10	ND	92	70-130	0	30	11/30/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	25			25		98	70-130			11/30/11	

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
- Sample(s) received, prepared, and analyzed within the method specified criteria unless otherwise noted within this report.
- The results relate only to the samples analyzed in accordance with test(s) requested by the client on the Chain of Custody document. Any analytical quality control exceptions to method criteria that are to be considered when evaluating these results have been flagged and are defined in the data qualifiers section.
- All results are expressed on wet weight basis unless otherwise specified.
- All positive results for EPA Methods 504.1, 502.2, and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Results contained in this analytical report must be reproduced in its entirety.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- BSK Analytical Laboratories certifies that the test results contained in this report meet all requirements of the NELAC Standards for applicable certified drinking water chemistry analyses unless qualified or noted in the Case Narrative.
- Analytical data contained in this report may be used for regulatory purposes to meet the requirements of the Federal or State drinking water, wastewater, and hazardous waste programs.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- * - This is not a NELAP accredited analyte.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- (2) The digestion used to produce this result deviated from EPA 200.2 by excluding hydrochloric acid in order to produce acceptable recoveries for affected metals.
- (2C) Result reported from secondary analytical column.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.

Certifications:

State of California - CDPH - ELAP	1180
State of California - CDPH - NELAP	04227CA
State of New Mexico - NMED-DWB	
State of Nevada - NDEP	CA000792009A

Definitions and Flags for Data Qualifiers

mg/L:	Milligrams/Liter (ppm)	M:	Method Detection Limit	MDA:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)		:DL x Dilution	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	ND:	None Detected at RL	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	pCi/L:	Picocuries per Liter	Present:	1 or more CFU/100mLs
		NR:	Non-Reportable	RL Mult:	RL Multiplier

A1K1711

Monterey Bay Analytical

Monte6227

11232011

Turnaround: Standard

Due Date: 12/09/2011



* Required Fields

Client/Company Name * **Monterey Bay Analytical**
 Report Attention * **David Holland**
 Address * **4 Justin Ct. Monterey CA 93940**
 City * **Monterey** State * **CA** Zip * **93940**
 Project Information: **MPWMD** PO # **464** Quote # **464**

Phone * # (831)-357-6227 FAX * # (831)-641-0734
 E-mail: **4MBAS@Sbcglobal.net**
 TEMP: _____

How would you like your completed results sent? E-Mail Fax EDD Mail Only
 QC Request Result Request ** Surcharge
 STD Level II STD 5 Day** 2 Day** 1 Day**
 Matrix Types: RSW = Raw Surface Water CFW = Chlorinated Finished Water CFW = Chlorinated Waste Water BW = Bottled Water
 RGW = Raw Ground Water FW = Finished Water WW = Waste Water SW = Storm Water DW = Drinking Water SO = Solid
 Carbon Copies: CDHS Fresno Co EPA
 Merced Co Talara Co
 Regulatory Compliance Electronic Data Transfer System No. * Y N

Sample #	Bottles	Date	Sampled Time	Sample Description / Location *	Matrix *	Comments / Station Code	DOC/ TOC	TTHM/HAA5			
1	1	11/18	1515	ASR-1	DW	82568	✓	✓			

Relinquished by: (Signature and Printed Name) **David Holland MBAS**
 Date: **11/22** Time: **16:30**
 Relinquished by: (Signature and Printed Name) _____
 Date: _____ Time: _____
 Received by: (Signature and Print Name) _____
 Date: _____ Time: _____
 Company: _____

Received for Lab by: (Signature and Print Name) _____
 Date: **11/23/11** Time: **7:40**
 Shipping Method: **CAO PPS GSO WALK-IN SVC FED EX OTHER**
 Cooling Method: **WFT BLUE NONE**
 Packing Material: _____

Notice: Payment for services rendered as noted herein due date a full within 30 days from when invoice. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service-charging charges and interest calculated at 1 1/2 % per month, 18% per annum. BSK & Associates shall be entitled to receive on delinquent accounts, costs of collection, including attorney's fees incurred prior to or at litigation, whether concluded by judgment, settlement, compromise or otherwise. The person signing for the client/Company expressly acknowledges that they are either the Client or authorized agent to the Client, and the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any modification of the analysis requested, either type or quantity, will be noted and agreed upon this Chain of Custody. The turn around time for any samples received after 3:00 pm will begin the next business day.

Sample Integrity

Pg. 1 of 2

AIK1711
Monte6227

11/23/2011

10



Date Received 11/23/11

Section 1- Receiving Information

Sample Transport: ONTRAC UPS PMS Walk-In BSK-Courier GSO Fed Exp. Other: _____

Samples arrived at lab on same day sampled: Yes ___ No ^ Has Chilling Process Begun: Yes X No ___

Coolers/Ice Chests Description/Temperature(s): (If more than 5 received, list information in comment section)

1) 2 2) _____ 3) ~~_____~~ 5) _____

Was Temperature In Range: Y N N/A Received On Ice: Wet Blue Received Ambient: Y (N)

Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other: _____

Initial Receipt: BSK-Visalia BSK-Bakersfield BSK-SAC BSK-FAL

Were ice chest custody seals present? Y (N) Intact: Y (N)

Section 2- COC Info.

	Completed		Info From Container	Completed		Info From Container
	Yes	No		Yes	No	
Was COC Received	<u>---</u>					Analysis Requested
Date Sampled	<u>---</u>					Hold times less than 72hr
Time Sampled	<u>---</u>					Client Name
Sample ID	<u>---</u>					Address
Special Storage/Handling Ins.		<u>---</u>				Telephone #

Section 3- Bottles / Analysis

	Yes	No	N/A	Comment
Did all bottles arrive unbroken and intact?	<u>---</u>			
Were bottle custody seals present?		<u>---</u>		
Were bottle custody seals intact?		<u>---</u>		
Did all bottle labels agree with COC?	<u>---</u>			
Were correct containers used for the tests requested?	<u>---</u>			
Were correct preservations used for the tests requested?	<u>---</u>			
Was a sufficient amount of sample sent for tests indicated?	<u>---</u>			
Were bubbles present in VOA Vials? (Volatile Methods Only)		<u>---</u>		
Were Ascorbic Acid Bottles received with the VOAs?			<u>---</u>	

Section 4- Comments / Discrepancies

Sample(s) Split/Preserve: Yes (No) Container: _____ Preservation: _____ Dt/Time/Init _____

Container: _____ Preservation: _____ Dt/Time/Init _____

Was Client Service Rep. notified of discrepancies: Yes No N/A CSR: _____ Notified By/Time: _____

Explanations / Comments

Report Comment Entered:

Labeled by: RZ @ 1120 Labels checked by: SLB @ 1205 RUSH Paged by: _____ @ _____

Sample Integrity Pg 2 of 2

BSK Bottles (Yes) N



250ml (A) 500ml (B) 1Liter (C) Amber Glass (AG)

Container(s) Received	1						
Bacti Na ₂ S ₂ O ₃							
None (p) ^{White Cap}							
None (p) ^{Blue Cap} w/NH ₄ + Buffer							
HNO ₃ (p) ^{Red Cap}							
H ₂ SO ₄ (p) ^{Yellow Cap}							
NaOH (p) ^{Green Cap}							
EDA (p) ^{Brown Cap/Label}							
Other:							
Dissolved Oxygen 300ml (g)							
250ml (AG) None							
250ml (AG) H ₂ SO ₄ COD ^{Yellow Label}							
250ml (AG) Na ₂ S ₂ O ₃ 515,547 ^{Blue Label}							
250ml (AG) Na ₂ S ₂ O ₃ + MCAA 531.1 ^{Orange Label}							
250ml (AG) NH ₄ Cl 552 ^{Purple Label}	1						
250ml (AG) EDA DBPs ^{Brown Label}							
250ml (AG) Other:							
500ml (AG) None							
500ml (AG) H ₂ SO ₄ ^{Yellow Label}							
1 Liter (AG) None							
1 Liter (AG) H ₂ SO ₄ O&G / TPH-Diesel ^{Yellow Label}							
1 Liter (AG) Na ₂ S ₂ O ₃ 548 / 525 / 521 ^{Blue Label}							
1 Liter (P) Na ₂ S ₂ O ₃ + H ₂ SO ₄ 549							
1 Liter (AG) NaOH+ZnAc Sulfide							
40ml VOA Vial Clear - HCL							
40ml VOA Vial Clear - Buffer pH 4							
40ml VOA Vial Clear - None							
40ml VOA Vial Amber - Na ₂ S ₂ O ₃	3						
40ml VOA Vial Clear - Na ₂ S ₂ O ₃ 504, 505	3						
40ml VOA Vial Clear - H ₃ PO ₄	3						
40ml VOA Amber w/ None	3						
Other:							
1/2 Gallon (p)							
Asbestos 1Liter Plastic/Foil							
Radon 200ml Clear (g)							
Low Level Hg/Metals Double Baggie							
Bioassay Jug							
Ampule							
PT Sample Bottle							
250 Clear Glass Jar							
500 Clear Glass Jar							
1 Liter Clear Glass Jar							
Plastic Bag							
Soil Tube Brass / Steel / Plastic							
Tedlar Bags							

MA
11/23/11

Client: **Monterey Bay Analytical Services**
 Customer Number:
 Address:
4 Justin Court, Suite D. Monterey CA 93940

Phone: **831-375-6227** Fax: **831-641-0734**

Email Address: **4mbas@sbcglobal.net**

Contact Person: **David Holland**

Project Name: **MPWMD**

Purchase Order Number

Quote Number:

Sampler(s): **Lindberg, T.**

Sampling Fee: _____ Pickup Fee: _____

Compositor Setup Date: _____ Time: _____

Samp Num	Location Description	Date Sampled	Time Sampled
82568	ASR-1	11/18/11	1515

Lab Number: **1192107-11**
2407

Method of Sampling: Composite (C) Grab (G)
 Number of Containers
 Type of Containers: Glass (G) Plastic (P) VOA (V) Metal Tube (MT)
 Potable (P) Non-Potable (NP) Ag Water (AgW)
 Surface Water (SW) Monitoring Well (MW) Ground Water (GW)
 Travel Blank (TB) Waste Water (WW) Drinking Water (DW)
 Soil (S) Sludge (SLG) Solid (SLD) Oil (O)

TEST DESCRIPTION AND ANALYSES REQUESTED

Bact: System (Sys) Source (SRC) Waste (W)
 Bact: Routine (ROUT) Repeat (RPT) Other (OTH) Replace (RPL)
 Special (SPL)
 Leaf Tissue (LT) Petiole Tissue (PET) Produce (PRD)
 Preservative: (1) NaOH + ZnAc, (2) NaOH, (3) HCl
 (4) H2SO4, (5) HNO3, (6) Na2S2O3, (7) Other
Gross Alpha / Ra 226

Remarks:
72079 RL

Relinquished DON Date: 11/29/11 Time: 15:00	Relinquished UPS Date: 12/02/11 Time: 1030
Received By: DON Date: _____ Time: _____	Received By: UPS Date: 12/02/11 Time: 1030

Corporate Offices & Laboratory
 853 Corporation Street
 Santa Paula, CA 93080
 TEL: 805/392-2000
 X: 805/525-4172
 CA NELAP Certification No. 01110CA

Office & Laboratory
 2500 Stagecoach Road
 Stockton, CA 95215
 TEL: 209/942-0182
 FAX: 209/942-0423
 CA ELAP Certification No. 1563

Office & Laboratory
 563 E. Lindo Avenue
 Chico, CA 95926
 TEL: 530/343-5818
 FAX: 530/343-3807
 CA ELAP Certification No. 2670

Field Office
 Visalia, California
 TEL: 559/734-9473
 Mobile: 559/737-2399
 FAX: 559/734-8435

Santa Paula - Condition Upon Receipt (Attach to COC)

Sample Receipt:

- Number of ice chests/packages received: 1 PR7
- Were samples received in a chilled condition? Temps: PR7 / / /
Acceptable is above freezing to 6° C. Also acceptable is received on ice (ROI) for the same day of sampling or received at room temperature (RRT) if sampled within one hour of receipt. Client contact for temperature failures must be documented below. If many packages are received at one time check for tests/H.T.'s/rushes/Bacti's to prioritize further review. Please notify Microbiology personnel immediately of bacti samples received.
Acceptable is above freezing to 6.
- Do the number of bottles received agree with the COC? Yes No N/A
- Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No
- Were sample custody seals intact? Yes No N/A

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

- Were all requested analyses understood and acceptable? Yes No
- Did bottle labels correspond with the client's ID's? Yes No
- Were all bottles requiring sample preservation properly preserved? Yes No N/A FGL
- VOAs checked for Headspace? Yes No N/A
- Were all analyses within holding times at time of receipt? Yes No
- Have rush or project due dates been checked and accepted? N/A Yes No

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt, Login and Verification completed by (initials):

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

- Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

- Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

(3-19144)
Monterey Bay Analytical Services
SP 1112407



December 20, 2011

Monterey Bay Analytical Services
4 Justin Court
Monterey, CA 93940

Lab ID : SP 1112407
Customer : 2-19144

Laboratory Report

Introduction: This report package contains total of 3 pages divided into 3 sections:

- Case Narrative (1 pages) : An overview of the work performed at FGL.
- Sample Results (1 page) : Results for each sample submitted.
- Quality Control (1 page) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
ASR-1	11/18/2011	12/02/2011	SP 1112407-001	DW

Sampling and Receipt Information: The sample was received, prepared and analyzed within the method specified holding times. All samples arrived at room temperature. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Radio QC

900.0	12/16/2011:218628 All analysis quality controls are within established criteria
	12/14/2011:213856 All preparation quality controls are within established criteria
903.0	12/07/2011:218063 All analysis quality controls are within established criteria
	12/06/2011:213504 All preparation quality controls are within established criteria

Certification:: I certify that this data package is in compliance with NELAC standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.**



Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2011-12-20



December 20, 2011

Lab ID : SP 1112407-001

Customer ID : 2-19144

Monterey Bay Analytical Services

4 Justin Court
Monterey, CA 93940

Sampled On : November 18, 2011-15:15

Sampled By : Lindberg, T.

Received On : December 2, 2011-10:30

Matrix : Drinking Water

Description : ASR-1

Project : MPWMD

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Radio Chemistry ^{P:15}								
Gross Alpha	2.17 ± 1.81	1.72	pCi/L	15/5	900.0	12/14/11:213856	900.0	12/16/11:218628
Total Alpha Radium (226)	0.000 ± 0.193	0.439	pCi/L	3	903.0	12/06/11:213504	903.0	12/07/11:218063

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: HNO3 pH < 2 * PQL adjusted for dilution.

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference.
MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV).
AV = Assigned Value(Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following
If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:

Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L

Uranium is less than or equal to 20 pCi/L

Radium 226 + Radium 228 is less than or equal to 5 pCi/L

Note: Samples are held for 3-6 months prior to disposal.



December 20, 2011
Monterey Bay Analytical Services

Lab ID : SP 1112407
Customer : 2-19144

Quality Control - Radio

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Radio								
Alpha	900.0	12/16/11:218628fhh	CCV CCB	cpm cpm	9947	40.7 % 0.0400	40 - 48 0.11	
Gross Alpha	900.0	12/14/11:213856jmb (SP 1112423-002)	Blank LCS MS MSD MSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	150.4 150.4 150.4 150.4	0.16 104 % 89.6 % 103 % 13.5%	3 75-125 60-140 60-140 ≤30	
Alpha	903.0	12/07/11:218063FHH	CCV CCB	cpm cpm	9955	40.1 % 0.100	39 - 47 0.15	
Total Alpha Radium (226)	903.0	12/06/11:213504FHH	RgBlk LCS BS BSD BSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	17.85 17.85 17.85 17.85	0.06 59.9 % 42.6 % 53.0 % 21.6%	2 52-89 43-92 43-92 ≤35.5	
Definition								
CCV	: Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.							
CCB	: Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.							
Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.							
RgBlk	: Method Reagent Blank - Prepared to correct for any reagent contributions to sample result.							
LCS	: Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.							
MS	: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.							
MSD	: Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.							
BS	: Blank Spikes - A blank is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.							
BSD	: Blank Spike Duplicate of BS/BSD pair - A blank duplicate is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.							
MSRPD	: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.							
BSRPD	: BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation and analysis.							
DQO	: Data Quality Objective - This is the criteria against which the quality control data is compared.							



Analytical Report

Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940	Client Project ID: MPWMD; Regional	Date Sampled: 11/18/11
		Date Received: 11/22/11
	Client Contact: David Holland	Date Reported: 11/30/11
	Client P.O.:	Date Completed: 11/30/11

WorkOrder: 111729

November 30, 2011

Dear David:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **MPWMD; Regional**,
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
 Laboratory Manager
 McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.

1111729

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701

Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

GeoTracker EDF PDF Excel Write On (DW)

Report To: David Holland Bill To:
Company: Monterey Bay Analytical Services
4 Justin Ct. Suite D
Monterey, Ca 93940 E-Mail: 4mbas@sbcglobal.net
Tele: (831) 641 - 0734 Fax: (831) 375 - 6227
Project #: MPWMD Project Name: Regional
Project Location:
Sampler Signature: Lindberg T

Analysis Request															Other	Comments	
MTBE / BTEX & TPH as Gas (602 / 8021 + 8015)	MTBE / BTEX ONLY (EPA 602 / 8021)	TPH as Diesel / Motor Oil (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HIVOCs)	EPA 505/ 608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic CI Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Methane	Filter Samples for Metals analysis: Yes / No
ASR-1																X	82568

REC'D SEALED & INTACT VIA JPS

Relinquished By: David Holland <i>[Signature]</i>	Date: 11/21	Time: 16:00	Received By:
Relinquished By:	Date: 11/22/11	Time: 14:00	Received By: <i>[Signature]</i>
Relinquished By:	Date:	Time:	Received By:

ICE# 9.8 Blue log
GOOD CONDITION _____
HEAD SPACE ABSENT _____
DECHLORINATED IN LAB _____
APPROPRIATE CONTAINERS _____
PRESERVED IN LAB _____

VOAS O&G METALS OTHER
PRESERVATION pH<2

COMMENTS:

McC Campbell Analytical, Inc.

1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1111729

ClientCode: MBAS

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:

David Holland
 Monterey Bay Analytical
 4 Justin Court, Suite D
 Monterey, CA 93940
 831-375-6227 FAX: 831-641-0734

Email: 4mbas@sbcglobal.net
 cc:
 PO:
 ProjectNo: MPWMD; Regional

Bill to:

Accounts Payable
 Monterey Bay Analytical
 4 Justin Court, Suite D
 Monterey, CA 93940

Requested TAT: 5 days

Date Received: 11/22/2011
Date Printed: 11/22/2011

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)													
					1	2	3	4	5	6	7	8	9	10	11	12		
1111729-001	ASR-1	Water	11/18/2011 15:15	<input type="checkbox"/>	A													

Test Legend:

1	RSK174_W	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Ana Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Monterey Bay Analytical**

Date and Time Received: **11/22/2011 2:11:55 PM**

Project Name: **MPWMD; Regional**

Checklist completed and reviewed by: **Ana Venegas**

WorkOrder N°: **1111729** Matrix: Water

Carrier: UPS

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
- Container/Temp Blank temperature Cooler Temp: NA
- Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
- Sample labels checked for correct preservation? Yes No
- Metal - pH acceptable upon receipt (pH<2)? Yes No NA
- Samples Received on Ice? Yes No

(Ice Type: BLUE ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
 http://www.mccampbell.com / E-mail: main@mccampbell.com

Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940	Client Project ID: MPWMD; Regional	Date Sampled: 11/18/11
		Date Received: 11/22/11
	Client Contact: David Holland	Date Extracted 11/28/11
	Client P.O.:	Date Analyzed 11/28/11

Light Gas Hydrocarbons*

Extraction method: RSK 174/175

Analytical methods: RSK174/175

Work Order: 1111729

Lab ID	Client ID	Matrix	Methane	DF	% SS	Comments
1111729-001A	ASR-1	W	ND	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.4	µg/L
	S	NA	NA

* water samples are reported in µg/L.
 %SS = Percent Recovery of Surrogate Standard
 DF = Dilution Factor

DHS ELAP Certification 1644

 Angela Rydelius, Lab Manager



QC SUMMARY REPORT FOR RSK174/175

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 62966

WorkOrder: 1111729

EPA Method: RSK174/175		Extraction: RSK 174/175							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Methane	N/A	1.17	N/A	N/A	N/A	99.8	102	2.01	N/A	N/A	80 - 120	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 62966 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1111729-001A	11/18/11 3:15 PM	11/28/11	11/28/11 5:30 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 $\% \text{ Recovery} = 100 * (\text{MS-Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

MPWMD
 Joe Oliver
 P.O. Box 85
 Monterey, CA 93442-0085

Lab Number: AA70142

Collection Date/Time: 10/8/2010 13:15 Sample Collector: LEAR J
 Submittal Date/Time: 10/8/2010 13:50 Sample ID

Sample Description: ASR-1

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Arsenic, Total	EPA200.8	ug/L	Not Detected		1	10	10/18/2010
Barium, Total	EPA200.8	ug/L	55		10	1000	10/18/2010
Chloramines	SM4500-Cl G	mg/L	Not Detected		0.05		10/8/2010
Chloride	EPA300.0	mg/L	34		1	250	10/8/2010
Gross Alpha	EPA900.0	pCi/L	1.09 ± 1.58	E		15	10/18/2010
Haloacetic Acids	EPA552	ug/L	7.9	E		60	10/16/2010
Lithium	EPA200.8	ug/L	6		1		10/18/2010
Methane	EPA174/175	ug/L	Not Detected	E	5		10/14/2010
Molybdenum, Total	EPA200.8	ug/L	5		1	1000	10/18/2010
Selenium, Total	EPA200.8	ug/L	2		2	50	10/18/2010
Strontium, Total	EPA200.8	ug/L	226		5		10/18/2010
Total Radium 226	EPA903.0	pCi/L	0.096 ± 0.165	E		3	10/22/2010
Trihalomethanes	EPA524.2	ug/L	65	E		80	10/15/2010
Uranium by ICP/MS	EPA200.8	ug/L	Not Detected		1		10/18/2010
Vanadium, Total	EPA200.8	ug/L	Not Detected		1	1000	10/18/2010
Zinc, Total	EPA200.8	ug/L	182		10	5000	10/18/2010

Sample Comments:

Lab Number: AA70143

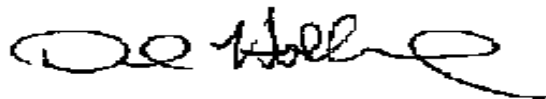
Collection Date/Time: 10/8/2010 12:50 Sample Collector: LEAR J
 Submittal Date/Time: 10/8/2010 13:50 Sample ID

Sample Description: MW-1

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Chloramines	SM4500-Cl G	mg/L	Not Detected		0.05		10/8/2010
Chloride	EPA300.0	mg/L	30		1	250	10/8/2010
Haloacetic Acids	EPA552	ug/L	Not Detected	E		60	10/17/2010
Trihalomethanes	EPA524.2	ug/L	49	E		80	10/15/2010

Sample Comments:

Report Approved by:



David Holland, Laboratory Director



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940	Client Project ID: MPWMD (ASR 1)	Date Sampled: 10/08/10
		Date Received: 10/13/10
	Client Contact: David Holland	Date Reported: 10/15/10
	Client P.O.:	Date Completed: 10/15/10

WorkOrder: 1010354

October 15, 2010

Dear David:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **MPWMD (ASR 1)**,
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

1010354

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME
RUSH 24 HR 48 HR 72 HR 5 DAY
 GeoTracker EDF PDF Excel Write On (DW)

Report To: David Holland Bill To:
Company: Monterey Bay Analytical Services
4 Justin Ct. Suite D
Monterey, Ca 93940 E-Mail: 4mbas@sbeglobal.net
Tele: (831) 641 - 0734 Fax: (831) 375 - 6227
Project #: Project Name: MPWMD (ASR 1)
Project Location:
Sampler Signature: Lear, J.

Analysis Request

Other

Comments

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				Other	Comments	
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other			
ASR 1		10/8/10	13:15	1 set		X										X	70142

MTBE / BTEX & TPH as Gas (602 / 8021 + 8015)
MTBE / BTEX ONLY (EPA 602 / 8021)
TPH as Diesel / Motor Oil (8015)
Total Petroleum Oil & Grease (1664 / 5520 E/B&F)
Total Petroleum Hydrocarbons (418.1)
EPA 502.2 / 601 / 8010 / 8021 (HVOCs)
EPA 505 / 608 / 8081 (CI Pesticides)
EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners
EPA 507 / 8141 (NP Pesticides)
EPA 515 / 8151 (Acidic CI Herbicides)
EPA 524.2 / 624 / 8260 (VOCs)
EPA 525.2 / 625 / 8270 (SVOCs)
EPA 8270 SIM / 8310 (PAHs / PNAs)
CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)
LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)
Lead (200.7 / 200.8 / 6010 / 6020)
Methane

Filter Samples for Metals analysis: Yes / No

Relinquished By: David Holland/	Date: 10/12/10	Time: 1600	Received By: <i>Joe Vall</i> 10/13/10 10:40am
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/r 7.8 ✓
 GOOD CONDITION ✓
 HEAD SPACE ABSENT ✓
 DECHLORINATED IN LAB ✓
 APPROPRIATE CONTAINERS ✓
 PRESERVED IN LAB ✓

VOAS O&G METALS OTHER
 PRESERVATION pH<2

COMMENTS:

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1010354

ClientCode: MBAS

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

David Holland
 Monterey Bay Analytical
 4 Justin Court, Suite D
 Monterey, CA 93940
 831-375-6227 FAX 831-641-0734

Email: 4mbas@sbcglobal.net
 cc:
 PO:
 ProjectNo: MPWMD (ASR 1)

Bill to:

Accounts Payable
 Monterey Bay Analytical
 4 Justin Court, Suite D
 Monterey, CA 93940

Requested TAT: 5 days

Date Received: 10/13/2010

Date Printed: 10/13/2010

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)													
					1	2	3	4	5	6	7	8	9	10	11	12		
1010354-001	ASR 1	Water	10/8/2010 13:15	<input type="checkbox"/>	A													

Test Legend:

1	RSK174 W	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Monterey Bay Analytical**

Date and Time Received: **10/13/2010 12:33:21 PM**

Project Name: **MPWMD (ASR 1)**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **1010354** Matrix Water

Carrier: UPS

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
 - Container/Temp Blank temperature Cooler Temp: 7.8°C NA
 - Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 - Sample labels checked for correct preservation? Yes No
 - Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 - Samples Received on Ice? Yes No
- (Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
 Web: www.mcccampbell.com E-mail: main@mcccampbell.com
 Telephone: 877-252-9262 Fax: 925-252-9269

Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940	Client Project ID: MPWMD (ASR 1)	Date Sampled: 10/08/10
		Date Received: 10/13/10
	Client Contact: David Holland	Date Extracted: 10/14/10
	Client P.O.:	Date Analyzed 10/14/10

Light Gas Hydrocarbons*

Extraction method RSK 174/175

Analytical methods RSK174/175

Work Order: 1010354

Lab ID	Client ID	Matrix	Methane	DF	% SS	Comments
1010354-001A	ASR 1	W	ND	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.4	µg/L
	S	NA	NA

* water samples are reported in µg/L.
 %SS = Percent Recovery of Surrogate Standard
 DF = Dilution Factor



QC SUMMARY REPORT FOR RSK174/175

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 53773

WorkOrder 1010354

EPA Method RSK174/175		Extraction RSK 174/175							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Methane	N/A	1.17	N/A	N/A	N/A	103	99.8	2.74	N/A	N/A	80 - 120	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 53773 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1010354-001A	10/08/10 1:15 PM	10/14/10	10/14/10 2:06 PM	1010354-001A	10/08/10 1:15 PM	10/14/10	10/14/10 2:06 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Lab Number: 1010562

TEST DESCRIPTION AND ANALYSES REQUESTED

Client: Monterey Bay Analytical Services
 Customer Number:
 Address: 4 Justin Court, Suite D. Monterey CA 93940
 Phone: 831-375-6227 Fax: 831-641-0734
 Email Address: 4mbas@sbcglobal.net
 Contact Person: David Holland
 Project Name: MPWMD
 Purchase Order Number:
 Quote Number:
 Sampler(s): Lear, J.

Sampling Fee: _____ Pickup Fee: _____
 Compositor Setup Date: _____ Time: _____

Samp Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite (C) Grab (G)	Number of Containers	Type of Containers: Glass (G) Plastic (P) VOA (V) Metal Tube (MT)	Potable (P) Non-Potable (NP) Ag Water (AgW)	Surface Water (SW) Monitoring Well (MW) Ground Water (GW)	Travel Blank (TB) Waste Water (WW) Drinking Water (DW)	Soil (S) Sludge (SLG) Solid (SLD) Oil (O)	Bact: System (Sys) Source (SRC) Wastes (W)	Bact: Routine (ROUT) Repeat (RPT) Other (OTH) Replace (RPL) Special (SPL)	Leaf Tissue (LT) Petiole Tissue (PET) Produce (PRD)	Preservative: (1) NaOH + ZnAc, (2) NaOH, (3) HCl (4) H2SO4, (5) HNO3, (6) Na2S2O3, (7) Other _____
1	ASR-1	10/8/10	13:15	G	1L	P	P	DW						7 X
1	ASR-1	10/8/10	13:15	G	2L	P	P	DW						7 X

Gross Alpha
Radium 226

Remarks: 70142

Relinquished	Date:	Time:	Relinquished	Date:	Time:
Holland, D.	10/12/10	1600			
Received By:	Date:	Time:	Received By:	Date:	Time:
				10/14/10	1415

Corporate Offices & Laboratory
 853 Corporation Street
 Santa Paula, CA 93060
 TEL: 805/392-2000
 FAX: 805/525-4172
 CA NELAP Certification No. 01110CA

Office & Laboratory
 2500 Stagecoach Road
 Stockton, CA 95215
 TEL: 209/942-0182
 FAX: 209/942-0423
 CA ELAP Certification No. 1563

Office & Laboratory
 563 E. Lindo Avenue
 Chico, CA 95926
 TEL: 530/343-5818
 FAX: 530/343-3807
 CA ELAP Certification No. 2670

Field Office
 Visalia, California
 TEL: 559/734-8473
 Mobile: 559/737-2388
 FAX: 559/734-8435

[Handwritten signatures and initials]

Santa Paula - Condition Upon Receipt (Attach to COC)

Sample Receipt:

1. Number of ice chests/packages received: _____
Note as OTC if received over the counter unpackaged.
2. Were samples received in a chilled condition? Temps: RT / _____ / _____ / _____ / _____
Acceptable is 2° to 6° C. Also acceptable is received on ice (ROI) for the same day of sampling or received at room temperature (RRT) if sampled within one hour of receipt. Client contact for temperature failures must be documented below. If many packages are received at one time check for tests/H.T.'s/rushes/Bacti's to prioritize further review. Please notify Microbiology personnel immediately of bacti samples received.
3. Do the number of bottles received agree with the COC? Yes No N/A
4. Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No
5. Were sample custody seals intact? N/A Yes No

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

1. Were all requested analyses understood and acceptable? Yes No
2. Did bottle labels correspond with the client's ID's? Yes No
3. Were all bottles requiring sample preservation properly preserved? Yes No N/A FGL
4. VOAs checked for Headspace? Yes No N/A
5. Were all analyses within holding times at time of receipt? Yes No
6. Have rush or project due dates been checked and accepted? N/A Yes No

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt, Login and Verification completed by (initials): _____

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

2. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

(2-19144)
Monterey Bay Analytical Services

SP 1010582

SRP-10/14/2010-14:40:31



Analytical Chemists
October 25, 2010

Monterey Bay Analytical Services
4 Justin Court
Monterey, CA 93940

Lab ID : SP 1010582
Customer : 2-19144

Laboratory Report

Introduction: This report package contains total of 3 pages divided into 3 sections:

- Case Narrative (1 pages) : An overview of the work performed at FGL.
- Sample Results (1 page) : Results for each sample submitted.
- Quality Control (1 page) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
ASR-1	10/08/2010	10/14/2010	SP 1010582-001	DW

Sampling and Receipt Information: The sample was received, prepared and analyzed within the method specified holding times. All samples arrived at room temperature. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Radio QC

900.0	10/18/2010:213438 All analysis quality controls are within established criteria
	10/15/2010:210778 All preparation quality controls are within established criteria
903.0	10/22/2010:213432 All analysis quality controls are within established criteria
	10/18/2010:210864 All preparation quality controls are within established criteria

Certification:: I certify that this data package is in compliance with NELAC standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.**



Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2010-10-26



Analytical Chemists
October 25, 2010

Lab ID : SP 1010582-001
Customer ID : 2-19144

Monterey Bay Analytical Services
4 Justin Court
Monterey, CA 93940

Sampled On : October 8, 2010-13:15
Sampled By : J. Lear
Received On : October 14, 2010-14:15
Matrix : Drinking Water

Description : ASR-1
Project : MPWMD

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Radio Chemistry^{P-1}								
Gross Alpha	1.09 ± 1.58	2.01	pCi/L	15/5	900.0	10/15/10:210778	900.0	10/18/10:213438
Total Alpha Radium (226)	0.096 ± 0.165	0.471	pCi/L	3	903.0	10/18/10:210864	903.0	10/22/10:213432

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference.
MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV).
AV = (Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following
If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:
Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L
Uranium is less than or equal to 20 pCi/L
Radium 226 + Radium 228 is less than or equal to 5 pCi/L

Note: Samples are held for 3-6 months prior to disposal.



Analytical Chemists

October 25, 2010
Monterey Bay Analytical Services

Lab ID : SP 1010582
Customer : 2-19144

Quality Control - Radio

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Radio								
Alpha	900.0	10/18/2010:213438	CCV CCB	cpm cpm	10310	40.9 % 0.0800	38 - 47 0.11	
Gross Alpha	900.0	10/15/2010:210778 (SP 1010441-001)	Blank LCS MS MSD MSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	 149.4 149.4 149.4 149.4	-0.15 102 % 120 % 118 % 1.0%	3 75-125 60-140 60-140 ≤30	
Alpha	903.0	10/22/2010:213432	CCV CCB	cpm cpm	10310	41.2 % 0.0500	37 - 46 0.15	
Total Alpha Radium (226)	903.0	10/18/2010:210864	RgBlk LCS BS BSD BSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	 18.17 18.17 18.17 18.17	0.01 61.3 % 54.5 % 53.0 % 2.7%	2 52-89 43-92 43-92 ≤35.5	
Definition								
CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.								
CCB : Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.								
Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.								
RgBlk : Method Reagent Blank - Prepared to correct for any reagent contributions to sample result.								
LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.								
MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
BS : Blank Spikes - A blank is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.								
BSD : Blank Spike Duplicate of BS/BSD pair - A blank duplicate is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.								
MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.								
BSRPD : BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation and analysis.								
DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.								

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Dear David Holland,

Thank you for selecting BSK Analytical Laboratories for your analytical testing needs. We have prepared this report in response to your request for analytical services. Enclosed are the results of analyses for samples received by the laboratory on 10/13/2010 08:00.

If additional clarification of any information is required, please contact your Client Services Representative, Paul Erickson at (800) 877-8310 or (559) 497-2888.

BSK ANALYTICAL LABORATORIES



Paul Erickson
Client Services Representative

Case Narrative

Work Order Information

Client Name: Monterey Bay Analytical
Client Code: Monte6227
Work Order: A0J0916
Project: General Chemistry
Client Project: MPWMD

Submitted by: David Holland
Shipped by: ONTRAC
COC Number:
TAT: 10
PO #:

Sample Receipt Conditions

Cooler: Default Cooler **Temp. °C:** 3
Containers Intact
COC/Labels Agree
Received On Blue Ice
Packing Material - Bubble Wrap
Sample(s) were received in temperature range.
Initial receipt at BSK-FAL

Report Manager
David Holland

Report Format
FAL Final Report.rpt



Certificate of Analysis

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Report Issue Date: 10/25/2010 14:30
Received Date: 10/13/2010
Received Time: 08:00

Lab Sample ID: A0J0916-01
Sample Date: 10/08/2010 13:15
Sample Type: Grab

Client Project: MPWMD
Sampled by: J Lear
Matrix: Drinking Water

Sample Description: ASR-1 // 70142

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qualifiers
<u>Total Trihalomethanes by EPA 524.2</u>									
Bromodichloromethane	EPA 524.2	15	0.50	ug/L	1	A010029	10/14/10	10/15/10	
Bromoform	EPA 524.2	0.60	0.50	ug/L	1	A010029	10/14/10	10/15/10	
Chloroform	EPA 524.2	44	0.50	ug/L	1	A010029	10/14/10	10/15/10	
Dibromochloromethane	EPA 524.2	5.8	0.50	ug/L	1	A010029	10/14/10	10/15/10	
<u>Total Trihalomethanes by EPA 524.2</u>									
Total Trihalomethanes	EPA 524.2	65		ug/L					
<u>Haloacetic Acids</u>									
Dibromoacetic Acid (DBAA)	EPA 552.2	ND	1.0	ug/L	1	A010058	10/14/10	10/16/10	
Dichloroacetic Acid (DCAA)	EPA 552.2	2.3	1.0	ug/L	1	A010058	10/14/10	10/16/10	
Monobromoacetic Acid (MBAA)	EPA 552.2	ND	1.0	ug/L	1	A010058	10/14/10	10/16/10	
Monochloroacetic Acid (MCAA)	EPA 552.2	ND	2.0	ug/L	1	A010058	10/14/10	10/16/10	
Trichloroacetic Acid (TCAA)	EPA 552.2	5.6	1.0	ug/L	1	A010058	10/14/10	10/16/10	
<u>Haloacetic Acids</u>									
Total Haloacetic Acids (HAA)	EPA 552.2	7.9		ug/L					

	<u>Method</u>	<u>Result</u>	
Surrogate: Bromofluorobenzene	EPA 524.2	105 %	Acceptable range: 70-130 %
Surrogate: 2,3-Dibromopropionic Acid	EPA 552.2	86 %	Acceptable range: 70-130 %



Certificate of Analysis

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Report Issue Date: 10/25/2010 14:30
Received Date: 10/13/2010
Received Time: 08:00

Lab Sample ID: A0J0916-02
Sample Date: 10/08/2010 12:50
Sample Type: Grab

Client Project: MPWMD
Sampled by: J Lear
Matrix: Drinking Water

Sample Description: MW-1 // 70143

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qualifiers
Total Trihalomethanes by EPA 524.2									
Bromodichloromethane	EPA 524.2	12	0.50	ug/L	1	A010029	10/14/10	10/15/10	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A010029	10/14/10	10/15/10	
Chloroform	EPA 524.2	34	0.50	ug/L	1	A010029	10/14/10	10/15/10	
Dibromochloromethane	EPA 524.2	4.0	0.50	ug/L	1	A010029	10/14/10	10/15/10	
Total Trihalomethanes by EPA 524.2									
Total Trihalomethanes	EPA 524.2	49		ug/L					
Haloacetic Acids									
Dibromoacetic Acid (DBAA)	EPA 552.2	ND	1.0	ug/L	1	A010058	10/14/10	10/17/10	
Dichloroacetic Acid (DCAA)	EPA 552.2	ND	1.0	ug/L	1	A010058	10/14/10	10/17/10	
Monobromoacetic Acid (MBAA)	EPA 552.2	ND	1.0	ug/L	1	A010058	10/14/10	10/17/10	
Monochloroacetic Acid (MCAA)	EPA 552.2	ND	2.0	ug/L	1	A010058	10/14/10	10/17/10	
Trichloroacetic Acid (TCAA)	EPA 552.2	ND	1.0	ug/L	1	A010058	10/14/10	10/17/10	
Haloacetic Acids									
Total Haloacetic Acids (HAA)	EPA 552.2	ND		ug/L					

	<u>Method</u>	<u>Result</u>	
Surrogate: Bromofluorobenzene	EPA 524.2	93 %	Acceptable range: 70-130 %
Surrogate: 2,3-Dibromopropionic Acid	EPA 552.2	91 %	Acceptable range: 70-130 %



Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifiers
---------	--------	----	-------	-------------	---------------	------	--------	-----	-------	------------

Batch: A010029

Analyst: JGB

Prepared & Analyzed: 10/14/2010

Blank (A010029-BLK1) EPA 524.2 - Quality Control

Bromodichloromethane	ND	0.50	ug/L							
Bromoform	ND	0.50	ug/L							
Chloroform	ND	0.50	ug/L							
Dibromochloromethane	ND	0.50	ug/L							
<i>Surrogate: Bromofluorobenzene</i>		5.2		5.0		104	70-130			

Blank Spike (A010029-BS1) EPA 524.2 - Quality Control

Bromodichloromethane	4.6	0.50	ug/L	5.0		92	70-130			
Bromoform	4.7	0.50	ug/L	5.0		93	70-130			
Chloroform	5.8	0.50	ug/L	5.0		116	70-130			
Dibromochloromethane	4.5	0.50	ug/L	5.0		89	70-130			
<i>Surrogate: Bromofluorobenzene</i>		5.5		5.0		109	70-130			

Blank Spike Dup (A010029-BSD1) EPA 524.2 - Quality Control

Bromodichloromethane	4.5	0.50	ug/L	5.0		90	70-130	2	30	
Bromoform	4.2	0.50	ug/L	5.0		83	70-130	12	30	
Chloroform	5.4	0.50	ug/L	5.0		108	70-130	7	30	
Dibromochloromethane	4.2	0.50	ug/L	5.0		84	70-130	6	30	
<i>Surrogate: Bromofluorobenzene</i>		4.8		5.0		96	70-130			

Batch: A010058

Analyst: KHH

Prepared: 10/14/2010 Analyzed: 10/16/2010

Blank (A010058-BLK1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							
Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		24		25		97	70-130			
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		25		25		101	70-130			

Blank Spike (A010058-BS1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10		104	70-130			
Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10		103	70-130			
Dichloroacetic Acid (DCAA)	9.8	1.0	ug/L	10		98	70-130			
Dichloroacetic Acid (DCAA)	9.7	1.0	ug/L	10		97	70-130			
Monobromoacetic Acid (MBAA)	9.6	1.0	ug/L	10		96	70-130			
Monobromoacetic Acid (MBAA)	9.4	1.0	ug/L	10		94	70-130			
Monochloroacetic Acid (MCAA)	11	2.0	ug/L	10		106	70-130			

A0J0916 FINAL 10252010 1430

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
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Batch: A010058

Analyst: KHH

Prepared: 10/14/2010 Analyzed: 10/16/2010

Blank Spike (A010058-BS1) EPA 552.2 - Quality Control

Monochloroacetic Acid (MCAA)	9.8	2.0	ug/L	10		98	70-130			
Trichloroacetic Acid (TCAA)	10	1.0	ug/L	10		100	70-130			
Trichloroacetic Acid (TCAA)	10	1.0	ug/L	10		100	70-130			
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		25		25		101	70-130			
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		25		25		102	70-130			

Blank Spike Dup (A010058-BSD1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		106	70-130	3	30	
Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		106	70-130	3	30	
Dichloroacetic Acid (DCAA)	10	1.0	ug/L	10		101	70-130	3	30	
Dichloroacetic Acid (DCAA)	10	1.0	ug/L	10		102	70-130	5	30	
Monobromoacetic Acid (MBAA)	9.8	1.0	ug/L	10		98	70-130	3	30	
Monobromoacetic Acid (MBAA)	10	1.0	ug/L	10		101	70-130	6	30	
Monochloroacetic Acid (MCAA)	11	2.0	ug/L	10		109	70-130	3	30	
Monochloroacetic Acid (MCAA)	10	2.0	ug/L	10		104	70-130	6	30	
Trichloroacetic Acid (TCAA)	10	1.0	ug/L	10		102	70-130	3	30	
Trichloroacetic Acid (TCAA)	10	1.0	ug/L	10		104	70-130	4	30	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		25		25		100	70-130			
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		26		25		102	70-130			

Duplicate (A010058-DUP1) EPA 552.2 - Quality Control

Source: A0J0950-05

Dibromoacetic Acid (DBAA)	7.9	1.0	ug/L	8.6				8	30	
Dichloroacetic Acid (DCAA)	2.8	1.0	ug/L	2.8				1	30	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L	ND					30	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L	ND					30	
Trichloroacetic Acid (TCAA)	1.2	1.0	ug/L	1.2				4	30	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		23		25		92	70-130			

Matrix Spike (A010058-MS1) EPA 552.2 - Quality Control

Source: A0J0916-01

Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10	0.35	99	70-130			
Dichloroacetic Acid (DCAA)	12	1.0	ug/L	10	2.3	93	70-130			
Monobromoacetic Acid (MBAA)	9.6	1.0	ug/L	10	ND	96	70-130			
Monochloroacetic Acid (MCAA)	10	2.0	ug/L	10	ND	100	70-130			
Trichloroacetic Acid (TCAA)	14	1.0	ug/L	10	5.6	86	70-130			
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		24		25		94	70-130			

Matrix Spike Dup (A010058-MSD1) EPA 552.2 - Quality Control

Source: A0J0916-01

Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10	0.35	100	70-130	0.6		
Dichloroacetic Acid (DCAA)	12	1.0	ug/L	10	2.3	93	70-130	0.3		
Monobromoacetic Acid (MBAA)	9.3	1.0	ug/L	10	ND	93	70-130	2		
Monochloroacetic Acid (MCAA)	9.4	2.0	ug/L	10	ND	94	70-130	6		

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
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Batch: A010058

Analyst: KHH

Prepared: 10/14/2010 Analyzed: 10/16/2010

Matrix Spike Dup (A010058-MSD1) EPA 552.2 - Quality Control

Source: A0J0916-01

Trichloroacetic Acid (TCAA)	14	1.0	ug/L	10	5.6	87	70-130	0.5		
Surrogate: 2,3-Dibromopropionic Acid		23		25		92	70-130			

Certificate of Analysis

10/25/2010

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
- Sample(s) received, prepared, and analyzed within the method specified criteria unless otherwise noted within this report.
- The results relate only to the samples analyzed in accordance with test(s) requested by the client on the Chain of Custody document. Any analytical quality control exceptions to method criteria that are to be considered when evaluating these results have been flagged and are defined in the data qualifiers section.
- All results are expressed on wet weight basis unless otherwise specified.
- All positive results for EPA Methods 504.1, 502.2, and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Results contained in this analytical report must be reproduced in its entirety.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- BSK Analytical Laboratories certifies that the test results contained in this report meet all requirements of the NELAC Standards for applicable certified drinking water chemistry analyses unless qualified or noted in the Case Narrative.
- Analytical data contained in this report may be used for regulatory purposes to meet the requirements of the Federal or State drinking water, wastewater, and hazardous waste programs.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals. Samples submitted to the laboratory have been analyzed outside of this holding time requirement.
- * - This is not a NELAP accredited analyte.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- (2) The digestion used to produce this result deviated from EPA 200.2 by excluding hydrochloric acid in order to produce acceptable recoveries for affected metals.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.

Certifications:

State of California - CDPH - ELAP	1180
State of California - CDPH - NELAP	04227CA
State of New Mexico - NMED-DWB	
State of Nevada - NDEP	CA000792009A

Definitions and Flags for Data Qualifiers

mg/L:	Milligrams/Liter (ppm)	M:	Method Detection Limit	MDA:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)		:DL x Dilution	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	ND:	None Detected at RL	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	pCi/L:	Picocuries per Liter	Present:	1 or more CFU/100mLs
				RL Mult:	RL Multiplier

A0J0916

Monterey Bay Analytical

Monte6227

10132010

Monterey Bay Analytical
No Project

Turnaround: Standard
Duc Date: 10/27/2010

Sample ID	Sample Description	Date Sampled	Lab Notes
A0J0916-01	ASR-1	10/08/2010	
A0J0916-02	MW-1	10/08/2010	



* Required Fields

Client/Company Name * **Monterey Bay Analytical** Report Attention * **David Holland** Phone * #: **831-375-6227** FAX * #: **(831)-641-0734**

Address * **4 Justin Court Suite D** City * **Monterey** State * **CA** Zip * **93940**

Project Information: **MPWMD** PO # **Quote # 464**

How would you like your completed results sent? E-Mail Fax FDD Mail Only

QC Request: STD Level II Result Request ** Surecharge: STD 5 Day** 2 Day** Day**

Matrix Types: **Leat, J.**
 RSW = Raw Surface Water CFW = Chlorinated Finished Water CWW = Chlorinated Waste Water BW = Bottled Water
 RGW = Raw Ground Water FW = Finished Water WW = Waste Water SW = Storm Water DW = Drinking Water SO = Solid

Carbon Copies: CDHS Fresno Co EPA Merced Co Tulare Co Other

Regulatory Compliance: Y N
 Electronic Data Transfer System No. *

Sample #	Bottles	Sampled Date	Time	Sample Description / Location *	Matrix *	Comments / Station Code
3		10/8/10	13:15	ASR-1	DW	70142 ✓ ✓
4		10/6/10	12:50	MW-1	DW	70143 ✓ ✓

Retinquished by: (Signature and Printed Name) **Holland, D. [Signature]** Company **M.B.A.S.** Date **10/12/10** Time **14:37**

Received by: (Signature and Print Name) _____ Date _____ Time _____

Received for Lab by: (Signature and Printed Name) **[Signature] Samantha Bar** Date **10/15/11** Time **gnd**

Payment Received at Delivery: Date _____ Amount _____

Shipping Method: **CAD URS GSO WALK-IN SVC FEED EX OTHER**

Cooling Method: **WET [Blue]** NONE

Packing Material: _____

Notice: Payment for services rendered is not due until within 30 days from when invoice. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service-calling charges and interest calculated at 1.12% per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, costs of collection, including attorney's fees incurred prior to or in litigation whether concluded by judgment, settlement, compromise or otherwise. The person signing for the client/Company expressly acknowledges that they are either the Client or authorized agent to the Client, and the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any modification of the analysis requested, either type or quantity, will be noted and agreed upon this Chain of Custody. The turn around time for any samples received after 3:00 pm will begin the next business day.

Sample Integrity Pg. 1 of 2 WOI



Date Received 10/13/10

Section 1- Receiving Information

Sample Transport: ONTRAC UPS PMS Walk-In BSK-Courier GSO Fed Exp. Other: _____
 Samples arrived at lab on same day sampled: Yes _____ No X (If Yes- Temperature is not needed)
 Coolers/Ice Chests Description/Temperature(s): (If more than 4 received, list information in comment section)
 1) 3' 2) _____ 3) _____ 4) _____
 Was Temperature In Range: Y N N/A Received On Ice: Wet Blue Received Ambient: Y N
 Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other: _____
 Initial Receipt: BSK-Visalia BSK-Bakersfield BSK-SAC BSK-FDL BSK-FAL
 Were ice chest custody seals present? Y N Intact: Y N

Section 2- COC Info.

	Completed		Info From Container	Completed		Info From Container
	Yes	No		Yes	No	
Was COC Received	<u>—</u>			<u>—</u>		
Date Sampled	<u>—</u>				<u>—</u>	
Time Sampled	<u>—</u>				<u>—</u>	
Sample ID	<u>—</u>				<u>—</u>	
Special Storage/Handling Ins.		<u>—</u>			<u>—</u>	
			Analysis Requested			
			Any hold times less than 72hr			
			Client Name			
			Address			
			Telephone #			

Section 3- Bottles / Analysis

	Yes	No	N/A	Comment
Did all bottles arrive unbroken and intact?	<u>—</u>			
Were bottle custody seals present?		<u>—</u>		
Were bottle custody seals intact?		<u>—</u>		
Did all bottle labels agree with COC?	<u>—</u>			
Were correct containers used for the tests requested?	<u>—</u>			
Were correct preservations used for the tests requested?	<u>—</u>			
Was a sufficient amount of sample sent for tests indicated?	<u>—</u>			
Were bubbles present in VOA Vials? (Volatile Methods Only)		<u>—</u>		
Were Ascorbic Acid Bottles received with the VOAs?		<u>—</u>		

Section 4- Comments / Discrepancies

Sample(s) Split/Preserve: Yes No Container: _____ Preservation: _____ Dt/Time/Init _____
 Container: _____ Preservation: _____ Dt/Time/Init _____
 Was Client Service Rep. notified of discrepancies: Yes No N/A CSR: _____ Notified By: _____
 Explanations / Comments

 Report Comment Entered:

Labeled by: AK @ 1553 Labels checked by: AAA @ 1555

Sample Integrity Pg 2 of 3

BSK Bottles Yes WO N



250ml (A) 500ml (B) 1Liter (C) Amber Glass (AG)

Container(s) Received	1-2				
Bacti Na ₂ S ₂ O ₃					
None (p) ^{White Cap}					
None (p) ^{Blue Cap} w/NII4 + Buffer					
HNO ₃ (p) ^{Red Cap}					
H ₂ SO ₄ (p) ^{Yellow Cap}					
NaOH (p) ^{Green Cap}					
Other:					
Dissolved Oxygen 300ml (g)					
Centrifuge Tube HNO ₃					
250ml (AG) None					
250ml (AG) H ₂ SO ₄ COD ^{Yellow Label}					
250ml (AG) Na ₂ S ₂ O ₃ 515,547 ^{Blue Label}					
250ml (AG) Na ₂ S ₂ O ₃ + MCAA 531.1 ^{Orange Label}					
250ml (AG) NH ₄ Cl 552 ^{Purple Label}	1				
250ml (AG) EDA DBPs ^{Brown Label}					
250ml (AG) Other:					
500ml (AG) None					
500ml (AG) H ₂ SO ₄ TPH-Diesel ^{Yellow Label}					
1 Liter (AG) None					
1 Liter (AG) H ₂ SO ₄ O&G ^{Yellow Label}					
1 Liter (AG) Na ₂ S ₂ O ₃ 548 / 525 / 521 ^{Blue Label}					
1 Liter (P) Na ₂ S ₂ O ₃ + H ₂ SO ₄ 549					
1 Liter (AG) NaOH+ZnAc Sulfide					
1 Liter (AG) Ascorbic/EDTA/Pot Citrate 527 ^{Grey Label}					
1 Liter (AG) CuSO ₄ /Trizma 529 ^{Turquoise Label}					
1 Liter (AG) Na ₂ SO ₃ / HCL 525 UCMR ^{Neon Green Label}					
1 Liter (AG) Ammonium Chloride 535 ^{Purple Label}					
40ml VOA Vial Clear - HCL					
40ml VOA Vial Amber Na ₂ S ₂ O ₃	3				
40ml VOA Vial Clear - None					
40ml VOA Vial Clear - Na ₂ S ₂ O ₃ 504, 505					
40ml VOA Vial Clear - H ₃ PO ₄					
Other:					
Asbestos 1Liter Plastic/Foil					
Radon 200ml Clear (g)					
Low Level Hg/Metals Double Baggie					
Bioassay Jug					
250 Clear Glass Jar					
500 Clear Glass Jar					
1 Liter Clear Glass Jar					
Plastic Bag					
Soil Tube Brass / Steel / Plastic					
Tedlar Bags					

S

10/13/10
S



4 Justin Court Suite D, Monterey, CA 93940
831.375.MBAS

montereybayanalytical@usa.net
ELAP Certification Number: 2385

Wednesday, December 08, 2010

MPWMD
Joe Oliver
P.O. Box 85
Monterey, CA 93442-0085

Lab Number: AA71039

Collection Date/Time: 11/12/2010 14:00 Sample Collector: LEAR, J
Submittal Date/Time: 11/12/2010 14:40 Sample ID

Sample Description: MW1

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Alkalinity, Total (as CaCO3)	2320B	mg/L	138		2		11/12/2010
Ammonia-N	4500NH3 D	mg/L	Not Detected		0.05		11/24/2010
Arsenic, Total	EPA200.8	ug/L	2		1	10	11/23/2010
Barium, Total	EPA200.8	ug/L	21		10	1000	11/23/2010
Bicarbonate (as HCO3-)	2320B	mg/L	168		10		11/12/2010
Boron	EPA200.7	mg/L	Not Detected		0.05		11/16/2010
Calcium	EPA200.7	mg/L	48		0.5		11/16/2010
Carbonate as CaCO3	2320B	mg/L	Not Detected		10		11/12/2010
Chloramines	SM4500-Cl G	mg/L	Not Detected		0.05		11/12/2010
Chloride	EPA300.0	mg/L	29		1	250	11/12/2010
Dissolved Organic Carbon	SM5310-C	mg/L	1.1	E	0.2		11/23/2010
Fluoride	EPA300.0	mg/L	0.19		0.10	2.0	11/12/2010
Gross Alpha	EPA900.0	pCi/L	2.69±1.81	E		15	11/24/2010
Haloacetic Acids	EPA552	ug/L	Not Detected	E		60	11/23/2010
Hardness (as CaCO3)	2340B	mg/L	157		10		11/17/2010
Iron	EPA 200.7	ug/L	Not Detected		10		11/16/2010
Iron, Dissolved	EPA 200.7	ug/L	Not Detected		10	300	11/16/2010
Kjeldahl Nitrogen	4500-NH3 B,C,E	mg/L	Not Detected		0.2		11/17/2010
Langlier Index (15 deg. C)	2330B		-0.07				11/18/2010
Langlier Index (60 deg. C)	2330B		0.53				11/18/2010
Lithium	EPA200.8	ug/L	7		1		11/23/2010
Magnesium	EPA200.7	mg/L	9		0.5		11/16/2010
Manganese, Dissolved	EPA 200.7	ug/L	Not Detected		10	50	11/16/2010
Manganese, Total	EPA 200.7	ug/L	Not Detected		10	50	11/16/2010
Methane	EPA174/175	ug/L	Not Detected	E	5		11/17/2010
Molybdenum, Total	EPA200.8	ug/L	6		1	1000	11/23/2010
Nickel, Total	EPA200.8	ug/L	Not Detected		10	100	11/23/2010

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed outside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD



4 Justin Court Suite D, Monterey, CA 93940
831.375.MBAS

montereybayanalytical@usa.net
ELAP Certification Number: 2385

Wednesday, December 08, 2010

MPWMD
Joe Oliver
P.O. Box 85
Monterey, CA 93442-0085

Lab Number: AA71039

Collection Date/Time: 11/12/2010 14:00 Sample Collector: LEAR, J
Submittal Date/Time: 11/12/2010 14:40 Sample ID

Sample Description: MW1

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Nitrate as NO3	EPA300.0	mg/L	Not Detected		1	45	11/16/2010
Nitrate as NO3-N	EPA300.0	mg/L	0.06		0.05	10	11/12/2010
Nitrite as Nitrogen	EPA300.0	mg/L	Not Detected		0.05	1.00	11/12/2010
Nitrite as NO2-N	EPA300.0	mg/L	Not Detected		0.05	1.00	11/12/2010
o-Phosphate-P	EPA300.0	mg/L	0.05		0.05		11/12/2010
pH (Laboratory)	4500-H+B	STD. Units	7.6				11/12/2010
Phosphorus, Total	HACH 8190	mg/L	0.05		0.03		11/13/2010
Potassium	EPA200.7	mg/L	2.7		0.1		11/16/2010
QC Anion Sum x 100	Calculation	%	98%				11/17/2010
QC Anion-Cation Balance	Calculation	%	0				11/17/2010
QC Cation Sum x 100	Calculation	%	98%				11/17/2010
QC Ratio TDS/SEC	Calculation		0.55				11/18/2010
Radium 226	EPA903.1	pCi/L	0.038±0.269	E		3	12/5/2010
Selenium, Total	EPA200.8	ug/L	Not Detected		2	50	11/23/2010
Sodium	EPA200.7	mg/L	44		0.5		11/16/2010
Specific Conductance (E.C)	2510B	umhos/cm	524		1	900	11/12/2010
Strontium, Total	EPA200.8	ug/L	249		5		11/23/2010
Sulfate	EPA300.0	mg/L	74		1	250	11/12/2010
Total Diss. Solids	2540C	mg/L	290		10	500	11/16/2010
Total Nitrogen	Calculation	mg/L	Not Detected		0.2		11/18/2010
Total Organic Carbon	SM5310C	mg/L	1.1	E	0.20		11/23/2010
Trihalomethanes	EPA524.2	ug/L	53	E		80	11/19/2010
Uranium by ICP/MS	EPA200.8	ug/L	Not Detected		1	30	11/23/2010
Vanadium, Total	EPA200.8	ug/L	Not Detected		1	1000	11/23/2010
Zinc, Total	EPA200.8	ug/L	Not Detected		10	5000	11/23/2010

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed outside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD



4 Justin Court Suite D, Monterey, CA 93940
831.375.MBAS

montereybayanalytical@usa.net
ELAP Certification Number: 2385

Wednesday, December 08, 2010

MPWMD
Joe Oliver
P.O. Box 85
Monterey, CA 93442-0085

Lab Number: AA71062

Collection Date/Time: 11/15/2010 13:14 Sample Collector: LEAR, J
Submittal Date/Time: 11/15/2010 13:10 Sample ID

Sample Description: ASR-1

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Alkalinity, Total (as CaCO3)	2320B	mg/L	141		2		11/17/2010
Ammonia-N	4500NH3 D	mg/L	Not Detected		0.05		11/24/2010
Arsenic, Total	EPA200.8	ug/L	1		1	10	11/23/2010
Barium, Total	EPA200.8	ug/L	63		10	1000	11/23/2010
Bicarbonate (as HCO3-)	2320B	mg/L	172		10		11/17/2010
Boron	EPA200.7	mg/L	Not Detected		0.05		11/16/2010
Calcium	EPA200.7	mg/L	46		0.5		11/16/2010
Carbonate as CaCO3	2320B	mg/L	Not Detected		10		11/17/2010
Chloramines	SM4500-Cl G	mg/L	Not Detected		0.05		11/15/2010
Chloride	EPA300.0	mg/L	34		1	250	11/15/2010
Dissolved Organic Carbon	SM5310-C	mg/L	1.1	E	0.2		11/19/2010
Fluoride	EPA300.0	mg/L	0.18		0.10	2.0	11/15/2010
Gross Alpha	EPA900.0	pCi/L	1.10±1.60	E		15	11/24/2010
Haloacetic Acids	EPA552	ug/L	4.0	E		60	11/23/2010
Hardness (as CaCO3)	2340B	mg/L	168		10		11/17/2010
Iron	EPA 200.7	ug/L	194		10		11/16/2010
Iron, Dissolved	EPA 200.7	ug/L	Not Detected		10	300	11/16/2010
Kjehldahl Nitrogen	4500-NH3 B,C,E	mg/L	Not Detected		0.2		11/17/2010
Langlier Index (15 deg. C)	2330B		-0.19				11/18/2010
Langlier Index (60 deg. C)	2330B		0.41				11/18/2010
Lithium	EPA200.8	ug/L	7		1		11/23/2010
Magnesium	EPA200.7	mg/L	13		0.5		11/16/2010
Manganese, Dissolved	EPA 200.7	ug/L	Not Detected		10	50	11/16/2010
Manganese, Total	EPA 200.7	ug/L	23		10	50	11/16/2010
Methane	EPA174/175	ug/L	0.54	E	5		11/17/2010
Molybdenum, Total	EPA200.8	ug/L	6		1	1000	11/23/2010
Nickel, Total	EPA200.8	ug/L	Not Detected		10	100	11/23/2010
Nitrate as NO3	EPA300.0	mg/L	Not Detected		1	45	11/16/2010
Nitrate as NO3-N	EPA300.0	mg/L	0.08		0.05	10	11/15/2010
Nitrite as Nitrogen	EPA300.0	mg/L	Not Detected		0.05	1.00	11/15/2010
Nitrite as NO2-N	EPA300.0	mg/L	Not Detected		0.05	1.00	11/15/2010

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed outside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD



4 Justin Court Suite D, Monterey, CA 93940
831.375.MBAS

montereybayanalytical@usa.net
ELAP Certification Number: 2385

Wednesday, December 08, 2010

MPWMD
Joe Oliver
P.O. Box 85
Monterey, CA 93442-0085

Lab Number: AA71062

Collection Date/Time: 11/15/2010 13:14 Sample Collector: LEAR, J
Submittal Date/Time: 11/15/2010 13:10 Sample ID

Sample Description: ASR-1

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
o-Phosphate-P	EPA300.0	mg/L	0.19		0.05		11/15/2010
pH (Laboratory)	4500-H+B	STD. Units	7.5				11/15/2010
Phosphorus, Total	HACH 8190	mg/L	0.29		0.03		12/3/2010
Potassium	EPA200.7	mg/L	2.9		0.1		11/16/2010
QC Anion Sum x 100	Calculation	%	97%				11/17/2010
QC Anion-Cation Balance	Calculation	%	1				11/17/2010
QC Cation Sum x 100	Calculation	%	99%				11/17/2010
QC Ratio TDS/SEC	Calculation		0.60				11/18/2010
Radium 226	EPA903.1	pCi/L	0.000±0.248	E		3	12/5/2010
Selenium, Total	EPA200.8	ug/L	Not Detected		2	50	11/23/2010
Sodium	EPA200.7	mg/L	45		0.5		11/16/2010
Specific Conductance (E.C)	2510B	umhos/cm	547		1	900	11/15/2010
Strontium, Total	EPA200.8	ug/L	240		5		11/23/2010
Sulfate	EPA300.0	mg/L	74		1	250	11/15/2010
Total Diss. Solids	2540C	mg/L	328		10	500	11/16/2010
Total Nitrogen	Calculation	mg/L	Not Detected		0.2		11/18/2010
Total Organic Carbon	SM5310C	mg/L	1.1	E	0.20		11/19/2010
Trihalomethanes	EPA524.2	ug/L	54	E		80	11/19/2010
Uranium by ICP/MS	EPA200.8	ug/L	Not Detected		1	30	11/23/2010
Vanadium, Total	EPA200.8	ug/L	Not Detected		1	1000	11/23/2010
Zinc, Total	EPA200.8	ug/L	212		10	5000	11/23/2010

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed outside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD

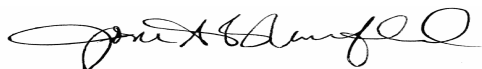
David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Dear David Holland,

Thank you for selecting BSK Analytical Laboratories for your analytical testing needs. We have prepared this report in response to your request for analytical services. Enclosed are the results of analyses for samples received by the laboratory on 11/17/2010 07:09.

If additional clarification of any information is required, please contact your Client Services Representative, Joni Blankfield at (800) 877-8310 or (559) 497-2888.

BSK ANALYTICAL LABORATORIES



Joni Blankfield
Client Services Representative

Case Narrative

Work Order Information

Client Name: Monterey Bay Analytical
Client Code: Monte6227
Work Order: AOK1161
Project: General Chemistry
Client Project: MPWMD

Submitted by: David Holland
Shipped by: ONTRAC
COC Number:
TAT: 10
PO #:

Sample Receipt Conditions

Cooler: Default Cooler **Temp. °C:** 6
Containers Intact
COC/Labels Agree
Received On Wet Ice
Packing Material - Bubble Wrap
Packing Material - Paper
Sample(s) were received in temperature range.
Initial receipt at BSK-FAL

Report Manager

David Holland

Report Format

FAL Final Report.rpt



Certificate of Analysis

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Report Issue Date: 11/30/2010 11:55
Received Date: 11/17/2010
Received Time: 07:09

Lab Sample ID: AOK1161-01
Sample Date: 11/12/2010 14:00
Sample Type: Grab

Client Project: MPWMD
Sampled by: J Lear
Matrix: Drinking Water

Sample Description: MW1 // 71039

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Dissolved Organic Carbon	SM 5310 C	1.1	0.20	mg/L	1	A011701	11/23/10	11/23/10	
Total Organic Carbon	SM 5310 C	1.1	0.20	mg/L	1	A011702	11/23/10	11/23/10	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	13	0.50	ug/L	1	A011417	11/17/10	11/19/10	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A011417	11/17/10	11/19/10	
Chloroform	EPA 524.2	35	0.50	ug/L	1	A011417	11/17/10	11/19/10	
Dibromochloromethane	EPA 524.2	4.5	0.50	ug/L	1	A011417	11/17/10	11/19/10	
Trihalomethanes by GC-MS									
Total Trihalomethanes	EPA 524.2	53		ug/L					
Haloacetic Acids by GC-ECD									
Dibromoacetic Acid (DBAA)	EPA 552.2	ND	1.0	ug/L	1	A011599	11/20/10	11/23/10	
Dichloroacetic Acid (DCAA)	EPA 552.2	ND	1.0	ug/L	1	A011599	11/20/10	11/23/10	
Monobromoacetic Acid (MBAA)	EPA 552.2	ND	1.0	ug/L	1	A011599	11/20/10	11/23/10	
Monochloroacetic Acid (MCAA)	EPA 552.2	ND	2.0	ug/L	1	A011599	11/20/10	11/23/10	
Trichloroacetic Acid (TCAA)	EPA 552.2	ND	1.0	ug/L	1	A011599	11/20/10	11/23/10	
Haloacetic Acids by GC-ECD									
Total Haloacetic Acids (HAA)	EPA 552.2	ND		ug/L					

	<u>Method</u>	<u>Result</u>	
Surrogate: Bromofluorobenzene	EPA 524.2	103 %	Acceptable range: 70-130 %
Surrogate: 2,3-Dibromopropionic Acid	EPA 552.2	101 %	Acceptable range: 70-130 %



General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A011701

Analyst: SAB

Prepared: 11/23/2010

Blank (A011701-BLK1) SM 5310 C - Quality Control

Dissolved Organic Carbon	ND	0.20	mg/L							11/23/10	
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Blank Spike (A011701-BS1) SM 5310 C - Quality Control

Dissolved Organic Carbon	10	0.20	mg/L	10		101	80-120			11/23/10	
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Blank Spike Dup (A011701-BSD1) SM 5310 C - Quality Control

Dissolved Organic Carbon	10	0.20	mg/L	10		101	80-120	1	20	11/23/10	
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Batch: A011702

Analyst: SAB

Prepared: 11/23/2010

Blank (A011702-BLK1) SM 5310 C - Quality Control

Total Organic Carbon	ND	0.20	mg/L							11/23/10	
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Blank Spike (A011702-BS1) SM 5310 C - Quality Control

Total Organic Carbon	10	0.20	mg/L	10		103	80-120			11/23/10	
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Blank Spike Dup (A011702-BSD1) SM 5310 C - Quality Control

Total Organic Carbon	10	0.20	mg/L	10		102	80-120	0	20	11/23/10	
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Matrix Spike (A011702-MS1) SM 5310 C - Quality Control

Source: A0K1211-01

Total Organic Carbon	11	0.20	mg/L	10	0.73	102	80-120			11/23/10	
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Matrix Spike (A011702-MS2) SM 5310 C - Quality Control

Source: A0K1417-03

Total Organic Carbon	11	0.20	mg/L	10	0.60	102	80-120			11/23/10	
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Matrix Spike Dup (A011702-MSD1) SM 5310 C - Quality Control

Source: A0K1211-01

Total Organic Carbon	11	0.20	mg/L	10	0.73	102	80-120	0	20	11/23/10	
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Matrix Spike Dup (A011702-MSD2) SM 5310 C - Quality Control

Source: A0K1417-03

Total Organic Carbon	11	0.20	mg/L	10	0.60	102	80-120	0	20	11/23/10	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A011417

Analyst: JGB

Prepared: 11/18/2010

Blank (A011417-BLK1) EPA 524.2 - Quality Control

Bromodichloromethane	ND	0.50	ug/L							11/18/10	
Bromoform	ND	0.50	ug/L							11/18/10	
Chloroform	ND	0.50	ug/L							11/18/10	
Dibromochloromethane	ND	0.50	ug/L							11/18/10	
<i>Surrogate: Bromofluorobenzene</i>	4.6			5.0		93	70-130			11/18/10	

Blank Spike (A011417-BS1) EPA 524.2 - Quality Control

Bromodichloromethane	4.8	0.50	ug/L	5.0		95	70-130			11/18/10	
Bromoform	4.4	0.50	ug/L	5.0		87	70-130			11/18/10	
Chloroform	5.1	0.50	ug/L	5.0		102	70-130			11/18/10	
Dibromochloromethane	4.6	0.50	ug/L	5.0		93	70-130			11/18/10	
<i>Surrogate: Bromofluorobenzene</i>	4.7			5.0		95	70-130			11/18/10	

Blank Spike Dup (A011417-BSD1) EPA 524.2 - Quality Control

Bromodichloromethane	4.6	0.50	ug/L	5.0		93	70-130	3	30	11/18/10	
Bromoform	4.1	0.50	ug/L	5.0		81	70-130	7	30	11/18/10	
Chloroform	4.9	0.50	ug/L	5.0		99	70-130	3	30	11/18/10	
Dibromochloromethane	4.3	0.50	ug/L	5.0		86	70-130	8	30	11/18/10	
<i>Surrogate: Bromofluorobenzene</i>	4.4			5.0		88	70-130			11/18/10	

Batch: A011599

Analyst: KHH

Prepared: 11/20/2010

Blank (A011599-BLK1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							11/23/10	
Dibromoacetic Acid (DBAA) (2C)	ND	1.0	ug/L							11/23/10	
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							11/23/10	
Dichloroacetic Acid (DCAA) (2C)	ND	1.0	ug/L							11/23/10	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							11/23/10	
Monobromoacetic Acid (MBAA) (2C)	ND	1.0	ug/L							11/23/10	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							11/23/10	
Monochloroacetic Acid (MCAA) (2C)	ND	2.0	ug/L							11/23/10	
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							11/23/10	
Trichloroacetic Acid (TCAA) (2C)	ND	1.0	ug/L							11/23/10	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	24			25		98	70-130			11/23/10	
<i>Surrogate: 2,3-Dibromopropionic Acid (2C)</i>	25			25		100	70-130			11/23/10	

Blank Spike (A011599-BS1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		110	70-130			11/23/10	
Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10		110	70-130			11/23/10	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		107	70-130			11/23/10	
Dichloroacetic Acid (DCAA) (2C)	11	1.0	ug/L	10		108	70-130			11/23/10	
Monobromoacetic Acid (MBAA)	10	1.0	ug/L	10		101	70-130			11/23/10	
Monobromoacetic Acid (MBAA) (2C)	10	1.0	ug/L	10		100	70-130			11/23/10	
Monochloroacetic Acid (MCAA)	11	2.0	ug/L	10		110	70-130			11/23/10	
Monochloroacetic Acid (MCAA) (2C)	11	2.0	ug/L	10		110	70-130			11/23/10	

A0K1161 FINAL 11302010 1155

1414 Stanislaus Street

Fresno, CA 93706

(559) 497-2888

FAX (559) 485-6935

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Environmental Engineering | Geotechnical Engineering | Materials Testing

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limit	RPD	Limit	Date Analyzed	Qual
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Batch: A011599

Analyst: KHH

Prepared: 11/20/2010

Blank Spike (A011599-BS1) EPA 552.2 - Quality Control

Trichloroacetic Acid (TCAA)	10	1.0	ug/L	10		101	70-130			11/23/10	
Trichloroacetic Acid (TCAA) (2C)	11	1.0	ug/L	10		105	70-130			11/23/10	
Surrogate: 2,3-Dibromopropionic Acid	23			25		91	70-130			11/23/10	
Surrogate: 2,3-Dibromopropionic Acid (2C)	24			25		96	70-130			11/23/10	

Blank Spike Dup (A011599-BSD1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		109	70-130	0	30	11/23/10	
Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10		112	70-130	2	30	11/23/10	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		109	70-130	2	30	11/23/10	
Dichloroacetic Acid (DCAA) (2C)	11	1.0	ug/L	10		108	70-130	1	30	11/23/10	
Monobromoacetic Acid (MBAA)	10	1.0	ug/L	10		101	70-130	0	30	11/23/10	
Monobromoacetic Acid (MBAA) (2C)	10	1.0	ug/L	10		100	70-130	0	30	11/23/10	
Monochloroacetic Acid (MCAA)	10	2.0	ug/L	10		104	70-130	6	30	11/23/10	
Monochloroacetic Acid (MCAA) (2C)	11	2.0	ug/L	10		108	70-130	2	30	11/23/10	
Trichloroacetic Acid (TCAA)	10	1.0	ug/L	10		105	70-130	4	30	11/23/10	
Trichloroacetic Acid (TCAA) (2C)	11	1.0	ug/L	10		108	70-130	2	30	11/23/10	
Surrogate: 2,3-Dibromopropionic Acid	24			25		98	70-130			11/23/10	
Surrogate: 2,3-Dibromopropionic Acid (2C)	27			25		106	70-130			11/23/10	

Duplicate (A011599-DUP1) EPA 552.2 - Quality Control

Source: A0K1197-03

Dibromoacetic Acid (DBAA)	5.1	1.0	ug/L		5.1			1	30	11/23/10	
Dichloroacetic Acid (DCAA)	1.6	1.0	ug/L		1.6			2	30	11/23/10	
Monobromoacetic Acid (MBAA) (2C)	ND	1.0	ug/L		ND				30	11/23/10	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L		ND				30	11/23/10	
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L		ND				30	11/23/10	
Surrogate: 2,3-Dibromopropionic Acid	24			25		96	70-130			11/23/10	

Matrix Spike (A011599-MS1) EPA 552.2 - Quality Control

Source: A0K1148-22

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10	ND	108	70-130			11/23/10	
Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10	ND	112	70-130			11/23/10	
Dichloroacetic Acid (DCAA)	46	1.0	ug/L	10	38	78	70-130			11/23/10	
Dichloroacetic Acid (DCAA) (2C)	48	1.0	ug/L	10	40	84	70-130			11/23/10	
Monobromoacetic Acid (MBAA)	23	1.0	ug/L	10	15	78	70-130			11/23/10	
Monobromoacetic Acid (MBAA) (2C)	11	1.0	ug/L	10	ND	105	70-130			11/23/10	
Monochloroacetic Acid (MCAA)	23	2.0	ug/L	10	15	80	70-130			11/23/10	
Monochloroacetic Acid (MCAA) (2C)	18	2.0	ug/L	10	4.9	134	70-130			11/23/10	MS01 High
Trichloroacetic Acid (TCAA)	51	1.0	ug/L	10	46	52	70-130			11/23/10	MS02 Low
Trichloroacetic Acid (TCAA) (2C)	52	1.0	ug/L	10	45	71	70-130			11/23/10	
Surrogate: 2,3-Dibromopropionic Acid	23			25		92	70-130			11/23/10	
Surrogate: 2,3-Dibromopropionic Acid (2C)	25			25		99	70-130			11/23/10	

Matrix Spike Dup (A011599-MSD1) EPA 552.2 - Quality Control

Source: A0K1148-22

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10	ND	110	70-130	2	30	11/23/10	
Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10	ND	114	70-130	2	30	11/23/10	

A0K1161 FINAL 11302010 1155

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A011599

Analyst: KHH

Prepared: 11/20/2010

Matrix Spike Dup (A011599-MSD1)	EPA 552.2 - Quality Control				Source: A0K1148-22						
Dichloroacetic Acid (DCAA)	47	1.0	ug/L	10	38	85	70-130	2	30	11/23/10	
Dichloroacetic Acid (DCAA) (2C)	49	1.0	ug/L	10	40	93	70-130	2	30	11/23/10	
Monobromoacetic Acid (MBAA)	23	1.0	ug/L	10	15	83	70-130	2	30	11/23/10	
Monobromoacetic Acid (MBAA) (2C)	11	1.0	ug/L	10	ND	106	70-130	1	30	11/23/10	
Monochloroacetic Acid (MCAA)	23	2.0	ug/L	10	15	83	70-130	1	30	11/23/10	
Monochloroacetic Acid (MCAA) (2C)	19	2.0	ug/L	10	4.9	137	70-130	2	30	11/23/10	MS01 High
Trichloroacetic Acid (TCAA)	53	1.0	ug/L	10	46	69	70-130	3	30	11/23/10	MS02 Low
Trichloroacetic Acid (TCAA) (2C)	54	1.0	ug/L	10	45	93	70-130	4	30	11/23/10	
Surrogate: 2,3-Dibromopropionic Acid	24				25	95	70-130			11/23/10	
Surrogate: 2,3-Dibromopropionic Acid (2C)	26				25	102	70-130			11/23/10	

Certificate of Analysis

11/30/2010

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
- Sample(s) received, prepared, and analyzed within the method specified criteria unless otherwise noted within this report.
- The results relate only to the samples analyzed in accordance with test(s) requested by the client on the Chain of Custody document. Any analytical quality control exceptions to method criteria that are to be considered when evaluating these results have been flagged and are defined in the data qualifiers section.
- All results are expressed on wet weight basis unless otherwise specified.
- All positive results for EPA Methods 504.1, 502.2, and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Results contained in this analytical report must be reproduced in its entirety.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- BSK Analytical Laboratories certifies that the test results contained in this report meet all requirements of the NELAC Standards for applicable certified drinking water chemistry analyses unless qualified or noted in the Case Narrative.
- Analytical data contained in this report may be used for regulatory purposes to meet the requirements of the Federal or State drinking water, wastewater, and hazardous waste programs.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals. Samples submitted to the laboratory have been analyzed outside of this holding time requirement.
- * - This is not a NELAP accredited analyte.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- (2) The digestion used to produce this result deviated from EPA 200.2 by excluding hydrochloric acid in order to produce acceptable recoveries for affected metals.
- (2C) Result reported from secondary analytical column.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.

Certifications:

State of California - CDPH - ELAP	1180
State of California - CDPH - NELAP	04227CA
State of New Mexico - NMED-DWB	
State of Nevada - NDEP	CA000792009A

Definitions and Flags for Data Qualifiers

mg/L:	Milligrams/Liter (ppm)	M:	Method Detection Limit	MDA:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)		:DL x Dilution	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	ND:	None Detected at RL	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	pCi/L:	Picocuries per Liter	Present:	1 or more CFU/100mLs
		NR:	Non-Reportable	RL Mult:	RL Multiplier

MS02 Matrix spike recovery was low; the associated blank spike recovery was acceptable.

MS01 Matrix spike recovery was high; the associated blank spike recovery was acceptable.

A0K1161

Monterey Bay Analytical

Monte6227

11172010

David Holland
General Chemistry

Turnaround: Standard
Due Date: 12/03/2010

Sample ID	Sample Description	Date Sampled	Lab Notes
A0K1161-01	MW1	11/12/2010	

BSK ANALYTICAL LABORATORIES

1414 Stanislaus Street, Fresno, CA 93706-1623
 (559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

AOK1161
 Monte6227

11/17/20
 10

* Required Fields

TEMP: 4

Client/Company Name: **Monterey Bay Analytical** Report Attention: **David Holland** Phone #: (831)-357-6227 FAX #: (831)-641-0734
 Address: **4 Justin Ct.** City: **Monterey** State: **CA** Zip: **93940** Email: **4MBAS@Sbsglobal.net**

ANALYSIS REQUESTED

Project Information: **MPWMD** TO # **484** Quote # **484**
 How would you like your completed results sent? E-Mail Fax EDD Mail Only
 Carbon Copies: CDS Fresno Co EPA Merced Co Tulare Co Other:


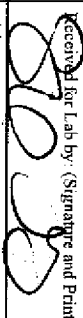
QC Request: STD Level II STD 5 Day** 2 Day** Day**
 Result Request: Surcharge
 Regulatory Compliance: Y N
 Electronic Data Transfer System No. *

Matrix Types: RSW - Raw Surface Water CFW - Chlorinated Finished Water CWW - Chlorinated Waste Water BW - Bottled Water
 RGW - Raw Ground Water FW - Finished Water W - Waste Water SW - Storm Water DW - Drinking Water SO - Solid

TTHM
 HAA5
 Dissolved Methane
 TOC
 DOC

Sample #	Bottles	Date	Time	Sample Description / Location *	Matrix *	Comments / Station Code										
							1	2	3	4	5	6	7	8	9	10

1	8	11/12/10	14:00	MW1	DW	71039	✓	✓	✓	✓	✓								
---	---	----------	-------	-----	----	-------	---	---	---	---	---	--	--	--	--	--	--	--	--

Retiquished by: (Signature and Printed Name) David Holland  MBAS Date: 11/18/10 Time: 1600 Company: MBAS																			
Retiquished by: (Signature and Printed Name)  Simontha Garcia Date: 11/17/10 Time: 704 Company:																			

Received for Lab by: (Signature and Printed Name)
 Shipping Method: **CAO UPS GSO WALK-IN SVC FED EX OTHER**
 Cooling Method: **WET BLUE NONE**
 Packing Material: **BLW POKX**

*Note: Payment for services rendered as noted herein are due in full within 30 days from when invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service-billing charges and interest calculated at 1 1/2% per month, 18% per annum. RSK & Associates shall be entitled to recover on delinquent accounts, costs of collection, including attorney's fees incurred prior to or in litigation, whether calculated by judgment, settlement, compromise or otherwise. The person signing for the client/Company expressly acknowledges that they are either the Client or authorized agent to the Client, and the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any modification of the analysis requested, either type or quantities, will be noted and agreed upon this Chain of Custody. The run amount time for any samples received after 3:00 pm will begin the next business day.

Sample Integrity Pg. 1 of 2 WORK



Date Received 11/17/10

Section 1- Receiving Information

Sample Transport: CONTRAC UPS PMS Walk-In BSK-Courier GSO Fed Exp. Other: _____

Samples arrived at lab on same day sampled: Yes _____ No X (If Yes- Temperature is not needed)

Coolers/Ice Chests Description/Temperature(s): (If more than 4 received, list information in comment section)

1) 6 2) _____ 3) _____ 4) _____

Was Temperature In Range: Y N N/A Received On Ice: Wet Blue Received Ambient: Y N

Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other: _____

Initial Receipt: BSK-Visalia BSK-Bakersfield BSK-SAC BSK-FDL BSK-EAL

Were ice chest custody seals present? Y N Intact: Y N

Section 2- COC Info.	Completed		Info From Container	Completed		Info From Container
	Yes	No		Yes	No	
Was COC Received	<u>—</u>					Analysis Requested
Date Sampled	<u>—</u>				<u>—</u>	Any hold times less than 72hr
Time Sampled	<u>—</u>					Client Name
Sample ID	<u>—</u>					Address
Special Storage/Handling Ins.		<u>—</u>				Telephone #

Section 3- Bottles / Analysis	Yes	No	N/A	Comment
Did all bottles arrive unbroken and intact?	<u>—</u>			
Were bottle custody seals present?	<u>—</u>			
Were bottle custody seals intact?	<u>—</u>			
Did all bottle labels agree with COC?	<u>—</u>			
Were correct containers used for the tests requested?	<u>—</u>			
Were correct preservations used for the tests requested?	<u>—</u>			
Was a sufficient amount of sample sent for tests indicated?	<u>—</u>			
Were bubbles present in VOA Vials? (Volatile Methods Only)		<u>—</u>		
Were Ascorbic Acid Bottles received with the VOAs?		<u>—</u>		

Section 4- Comments / Discrepancies

Sample(s) Split/Preserve: Yes No Container: _____ Preservation: _____ Dt/Time/Init _____

Container: _____ Preservation: _____ Dt/Time/Init _____

Was Client Service Rep. notified of discrepancies: Yes No N/A CSR: _____ Notified By: _____

Explanations / Comments

Report Comment Entered:

Labeled by: NA @ 1031 Labels checked by: SS @ 1110

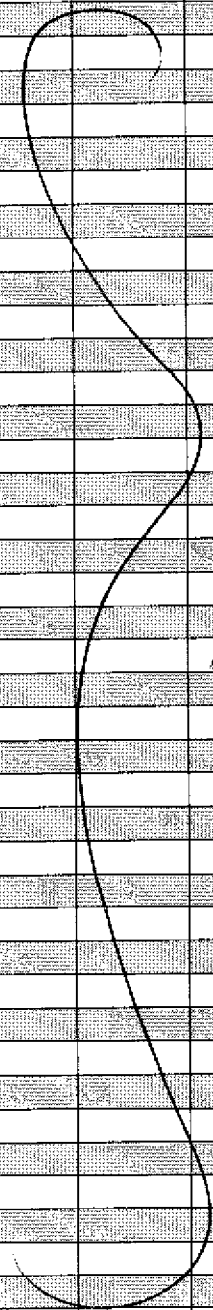
BSK Bottles

WORK
Yes No



250ml (A) 500ml (B) 1Liter (C) Amber Glass (AG)

Container(s) Received					
Bacti Na ₂ S ₂ O ₃					
None (p) ^{White Cap}	1				
None (p) ^{Blue Cap} w/NH ₄ + Buffer					
HNO ₃ (p) ^{Red Cap}					
H ₂ SO ₄ (p) ^{Yellow Cap}					
NaOH (p) ^{Green Cap}					
Other:					
Dissolved Oxygen 300ml (g)					
Centrifuge Tube HNO ₃					
250ml (AG) None					
250ml (AG) H ₂ SO ₄ COD ^{Yellow Label}					
250ml (AG) Na ₂ S ₂ O ₃ 515, 547 ^{Blue Label}					
250ml (AG) Na ₂ S ₂ O ₃ + MCAA 531.1 ^{Orange Label}					
250ml (AG) NH ₄ Cl 552 ^{Purple Label}	1				
250ml (AG) EDA DBPs ^{Brown Label}					
250ml (AG) Other:					
500ml (AG) None					
500ml (AG) H ₂ SO ₄ TPH-Diesel ^{Yellow Label}					
1 Liter (AG) None					
1 Liter (AG) H ₂ SO ₄ O&G ^{Yellow Label}					
1 Liter (AG) Na ₂ S ₂ O ₃ 548 / 525 / 521 ^{Blue Label}					
1 Liter (P) Na ₂ S ₂ O ₃ + H ₂ SO ₄ 549					
1 Liter (AG) NaOH+ZnAc Sulfide					
1 Liter (AG) Ascorbic/EDTA/Pot Citrate 527 ^{Grey Label}					
1 Liter (AG) CuSO ₄ /Trizma 529 ^{Turquoise Label}					
1 Liter (AG) Na ₂ SO ₃ / HCL 525 UCMR ^{Neon Green Label}					
1 Liter (AG) Ammonium Chloride 535 ^{Purple Label}					
40ml VOA Vial Clear - HCL					
40ml VOA Vial Amber - Na ₂ S ₂ O ₃	3				
40ml VOA Vial Clear - None					
40ml VOA Vial Clear - Na ₂ S ₂ O ₃ 504, 505					
40ml VOA Vial Clear - H ₃ PO ₄	3				
Other:					
Asbestos 1Liter Plastic/Foil					
Radon 200ml Clear (g)					
Low Level Hg/Metals Double Baggie					
Bioassay Jug					
250 Clear Glass Jar					
500 Clear Glass Jar					
1 Liter Clear Glass Jar					
Plastic Bag					
Soil Tube Brass / Steel / Plastic					
Tedlar Bags					



11/17/10
88



	Lab Number: <i>1011903</i>	TEST DESCRIPTION AND ANALYSES REQUESTED
--	--------------------------------------	--

Client: Monterey Bay Analytical Services
 Customer Number:
 Address:
 4 Justin Court, Suite D. Monterey CA 93940
 Phone: 831-375-6227 Fax: 831-641-0734
 Email Address: 4mbas@sbcglobal.net
 Contact Person: David Holland
 Project Name: MPWMD
 Purchase Order Number:
 Quote Number:
 Sampler(s): Lear, J.

Sampling Fee: _____ Pickup Fee: _____
 Compositor Setup Date: _____ Time: _____

Samp Num	Location Description	Date Sampled	Time Sampled
	MW 1	11/12/10	14:00

Method of Sampling: Composite (C) Grab (G)	Number of Containers	Type of Containers: Glass (G) Plastic (P) VOA (V) Metal Tube (MT)	Potable (P) Non-Potable (NP) Ag Water (AgW)	Surface Water (SW) Monitoring Well (MW) Ground Water (GW)	Travel Blank (TB) Waste Water (WW) Drinking Water (DW)	Soil (S) Sludge (SLG) Solid (SLD) Oil (O)	Bact: System (Sys) Source (SRC) Waste (W)	Bact: Routine (ROUT) Repeat (RPT) Other (OTH) Replace (RPL) Special (SPL)	Leaf Tissue (LT) Petiole Tissue (PET) Produce (PRD)	Preservative: (1) NaOH + ZnAc, (2) NaOH, (3) HCl (4) H2SO4, (5) HNO3, (6) Na2S2O3, (7) Other, _____
G	<i>2</i>	P	P	DW						7 X X

*Gross Alpha
Radium 226*

Remarks <i>71039</i>	Relinquished <i>[Signature]</i> Date: <i>11/17/10</i> Time: _____ Holland, D.	Relinquished <i>[Signature]</i> Date: <i>11/19/10</i> Time: <i>1100</i>	Relinquished Date: _____ Time: _____
	Received By: <i>[Signature]</i> Date: _____ Time: _____	Received By: <i>[Signature]</i> Date: <i>11/19/10</i> Time: <i>1100</i>	Received By: Date: _____ Time: _____

Corporate Offices & Laboratory
 853 Corporation Street
 Santa Paula, CA 93060
 TEL: 805/392-2000
 FAX: 805/525-4172
 CA NELAP Certification No. 01110CA

Office & Laboratory
 2500 Stagecoach Road
 Stockton, CA 95215
 TEL: 209/942-0182
 FAX: 209/942-0423
 CA ELAP Certification No. 1563

Office & Laboratory
 563 E. Lindo Avenue
 Chico, CA 95926
 TEL: 530/343-5818
 FAX: 530/343-3807
 CA ELAP Certification No. 2670

Field Office
 Visalia, California
 TEL: 559/734-9473
 Mobile: 559/737-2399
 FAX: 559/734-8435

Santa Paula - Condition Upon Receipt (Attach to COC)

Sample Receipt:

- Number of ice chests/packages received: 1
Note as OTC if received over the counter unpackaged.
- Were samples received in a chilled condition? Temps: 22.1 / _____ / _____ / _____ / _____
Acceptable is 2° to 6° C. Also acceptable is received on ice (ROI) for the same day of sampling or received at room temperature (RRT) if sampled within one hour of receipt. Client contact for temperature failures must be documented below. If many packages are received at one time check for tests/H.T.'s/rushes/Bacti's to prioritize further review. Please notify Microbiology personnel immediately of bacti samples received.
- Do the number of bottles received agree with the COC? Yes No N/A
- Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No
- Were sample custody seals intact? N/A Yes No

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

- Were all requested analyses understood and acceptable? Yes No
- Did bottle labels correspond with the client's ID's? Yes No
- Were all bottles requiring sample preservation properly preserved? Yes No N/A FGL
- VOAs checked for Headspace? Yes No N/A
- Were all analyses within holding times at time of receipt? Yes No
- Have rush or project due dates been checked and accepted? N/A Yes No

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt, Login and Verification completed by (initials): _____

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be received.

- Person Contacted: Masch Phone Number: _____
Initiated By: Inez Cwamurus Date: 11/22/10
Problem: CO says 3 bottles only received 2
Resolution: _____

OK per Masch.

- Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____
Resolution: _____

(2-19144)
Monterey Bay Analytical Services

SP 1011903

IV-11/19/2010-11:05:48



Analytical Chemists
December 7, 2010

Monterey Bay Analytical Services
4 Justin Court
Monterey, CA 93940

Lab ID : SP 1011903
Customer : 2-19144

Laboratory Report

Introduction: This report package contains total of 3 pages divided into 3 sections:

Case Narrative (1 pages) : An overview of the work performed at FGL.
Sample Results (1 page) : Results for each sample submitted.
Quality Control (1 page) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
MW 1	11/12/2010	11/19/2010	SP 1011903-001	DW

Sampling and Receipt Information: The sample was received, prepared and analyzed within the method specified holding times. All samples arrived at room temperature. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Radio QC

900.0	11/24/2010:215142 All analysis quality controls are within established criteria
	11/22/2010:212185 All preparation quality controls are within established criteria
903.0	12/05/2010:215571 All analysis quality controls are within established criteria
	12/03/2010:212563 All preparation quality controls are within established criteria

Certification:: I certify that this data package is in compliance with NELAC standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.**



Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2010-12-07



Analytical Chemists
December 7, 2010

Lab ID : SP 1011903-001
Customer ID : 2-19144

Monterey Bay Analytical Services
4 Justin Court
Monterey, CA 93940

Sampled On : November 12, 2010-14:00
Sampled By : Lear, J.
Received On : November 19, 2010-11:00
Matrix : Drinking Water

Description : MW 1
Project : MPWMD

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Radio Chemistry ^{P:15}								
Gross Alpha	2.69 ± 1.81	1.68	pCi/L	15/5	900.0	11/22/10:212185	900.0	11/24/10:215142
Total Alpha Radium (226)	0.038 ± 0.269	0.412	pCi/L	3	903.0	12/03/10:212563	903.0	12/05/10:215571

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: HNO3 pH < 2

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference.
MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV).
AV = (Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following
If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:
Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L
Uranium is less than or equal to 20 pCi/L
Radium 226 + Radium 228 is less than or equal to 5 pCi/L

Note: Samples are held for 3-6 months prior to disposal.



Analytical Chemists

December 7, 2010
Monterey Bay Analytical Services

Lab ID : SP 1011903
Customer : 2-19144

Quality Control - Radio

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Radio								
Alpha	900.0	11/24/2010:215142	CCV CCB	cpm cpm	10280	40.8 % 0.0600	38 - 47 0.12	
Gross Alpha	900.0	11/22/2010:212185 (CH 1077808-001)	Blank LCS MS MSD MSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	 149.4 149.4 149.4 149.4	 0.32 121 % 84.7 % 65.8 % 25.0%	 3 75-125 60-140 60-140 ≤30	
Alpha	903.0	12/05/2010:215571	CCV CCB	cpm cpm	10270	40.9 % 0.100	38 - 46 0.15	
Total Alpha Radium (226)	903.0	12/03/2010:212563	RgBlk LCS BS BSD BSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	 18.17 18.17 18.17 18.17	 0.17 66.0 % 64.4 % 72.4 % 11.8%	 2 52-89 43-92 43-92 ≤35.5	
Definition								
CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.								
CCB : Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.								
Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.								
RgBlk : Method Reagent Blank - Prepared to correct for any reagent contributions to sample result.								
LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.								
MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
BS : Blank Spikes - A blank is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.								
BSD : Blank Spike Duplicate of BS/BSD pair - A blank duplicate is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.								
MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.								
BSRPD : BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation and analysis.								
DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.								



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940	Client Project ID: MPWMD	Date Sampled: 11/12/10
		Date Received: 11/17/10
	Client Contact: David Holland	Date Reported: 11/22/10
	Client P.O.:	Date Completed: 11/18/10

WorkOrder: 1011504

November 22, 2010

Dear David:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **MPWMD**,
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

1011504

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701

Website: www.mccampbell.com Email: main@mccampbell.com

Telephone: (877) 252-9262

Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH
 24 HR
 48 HR
 72 HR
 5 DAY

GeoTracker EDF

PDF

Excel

Write On (DW)

Report To: David Holland

Bill To:

Company: Monterey Bay Analytical Services

4 Justin Ct. Suite D

Monterey, Ca 93940

E-Mail: 4mbas@sbcglobal.net

Tele: (831) 641 - 0734

Fax: (831) 375 - 6227

Project #:

Project Name: **MPWMD**

Project Location: MW 1

Sampler Signature:

Analysis Request

Other

Comments

- MTBE / BTEX & TPH as Gas (602 / 8021 + 8015)
- MTBE / BTEX ONLY (EPA 602 / 8021)
- TPH as Diesel / Motor Oil (8015)
- Total Petroleum Oil & Grease (1664 / 5520 E/B&F)
- Total Petroleum Hydrocarbons (418.1)
- EPA 502.2 / 601 / 8010 / 8021 (HIVOCs)
- EPA 505/608 / 8081 (CI Pesticides)
- EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners
- EPA 507 / 8141 (NP Pesticides)
- EPA 515 / 8151 (Acidic CI Herbicides)
- EPA 524.2 / 624 / 8260 (VOCs)
- EPA 525.2 / 625 / 8270 (SVOCs)
- EPA 8270 SIM / 8310 (PAHs / PNAs)
- CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)
- LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)
- Lead (200.7 / 200.8 / 6010 / 6020)

Dissolved Methane

Filter Samples for Metals analysis: Yes / No

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED								
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other					
	MW 1	11/12/10	14:00	3	Voa	X					X								

Relinquished By: *S. McGinnis for David Holland*

Date: 11/16/10

Time: 1545

Received By: *Me*

Valle 11/17/10 12:45p

Relinquished By:

Date:

Time:

Received By:

Relinquished By:

Date:

Time:

Received By:

- ICE/T *6.0*
 GOOD CONDITION ✓
 HEAD SPACE ABSENT ✓
 DECHLORINATED IN LAB ✓
 APPROPRIATE CONTAINERS ✓
 PRESERVED IN LAB ✓

COMMENTS:

VOAS ✓ O&G METALS OTHER
 PRESERVATION ✓ pH<2

REC'D SEALED & INTACT VIA UPS 11/17/10

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1011504

ClientCode: MBAS

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

David Holland
 Monterey Bay Analytical
 4 Justin Court, Suite D
 Monterey, CA 93940
 831-375-6227 FAX 831-641-0734

Email: 4mbas@sbcglobal.net
 cc:
 PO:
 ProjectNo: MPWMD

Bill to:

Accounts Payable
 Monterey Bay Analytical
 4 Justin Court, Suite D
 Monterey, CA 93940

Requested TAT: 5 days

Date Received: 11/17/2010

Date Printed: 11/17/2010

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1011504-001	MW 1	Water	11/12/2010 14:00	<input type="checkbox"/>	A	A											

Test Legend:

1	PRDISSOLVED	2	RSK174 DISS	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Monterey Bay Analytical**

Date and Time Received: **11/17/2010 1:16:04 PM**

Project Name: **MPWMD**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **1011504** Matrix Water

Carrier: UPS

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
- Container/Temp Blank temperature Cooler Temp: 6°C NA
- Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
- Sample labels checked for correct preservation? Yes No
- Metal - pH acceptable upon receipt (pH<2)? Yes No NA
- Samples Received on Ice? Yes No

(Ice Type: BLUE ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940	Client Project ID: MPWMD	Date Sampled: 11/12/10
		Date Received: 11/17/10
	Client Contact: David Holland	Date Extracted: 11/17/10
	Client P.O.:	Date Analyzed 11/17/10

Light Gas Hydrocarbons*

Extraction method RSK 174/175

Analytical methods RSK174/175

Work Order: 1011504

Lab ID	Client ID	Matrix	Methane	DF	% SS	Comments
001A	MW 1	W	ND	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.4	µg/L
	S	NA	NA

* water samples are reported in µg/L.

%SS = Percent Recovery of Surrogate Standard
DF = Dilution Factor



QC SUMMARY REPORT FOR RSK174/175

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 54410

WorkOrder 1011504

EPA Method RSK174/175	Extraction RSK 174/175								Spiked Sample ID: N/A			
	Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Ethane	N/A	2.38	N/A	N/A	N/A	88.6	89.8	1.38	N/A	N/A	80 - 120	20
Ethene	N/A	3.08	N/A	N/A	N/A	88.8	89.7	0.985	N/A	N/A	80 - 120	20
Methane	N/A	1.17	N/A	N/A	N/A	108	107	0.884	N/A	N/A	80 - 120	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 54410 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1011504-001A	11/12/10 2:00 PM	11/17/10	11/17/10 5:19 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

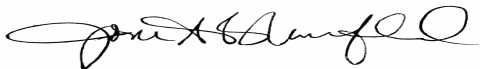
David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Dear David Holland,

Thank you for selecting BSK Analytical Laboratories for your analytical testing needs. We have prepared this report in response to your request for analytical services. Enclosed are the results of analyses for samples received by the laboratory on 11/17/2010 07:09.

If additional clarification of any information is required, please contact your Client Services Representative, Joni Blankfield at (800) 877-8310 or (559) 497-2888.

BSK ANALYTICAL LABORATORIES



Joni Blankfield
Client Services Representative

Case Narrative

Work Order Information

Client Name: Monterey Bay Analytical
Client Code: Monte6227
Work Order: AOK1158
Project: General Chemistry
Client Project: MPWMD

Submitted by: David Holland
Shipped by: ONTRAC
COC Number:
TAT: 10
PO #:

Sample Receipt Conditions

Cooler: Default Cooler **Temp. °C:** 6
Containers Intact
COC/Labels Agree
Received On Wet Ice
Packing Material - Bubble Wrap
Packing Material - Paper
Sample(s) were received in temperature range.
Initial receipt at BSK-FAL

Report Manager

David Holland

Report Format

FAL Final Report.rpt



Certificate of Analysis

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Report Issue Date: 11/30/2010 12:13
Received Date: 11/17/2010
Received Time: 07:09

Lab Sample ID: AOK1158-01
Sample Date: 11/15/2010 12:00
Sample Type: Grab

Client Project: MPWMD
Sampled by: J Lear
Matrix: Drinking Water

Sample Description: ASR-1 // 71062

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Dissolved Organic Carbon	SM 5310 C	1.1	0.20	mg/L	1	A011573	11/19/10	11/19/10	
Total Organic Carbon	SM 5310 C	1.1	0.20	mg/L	1	A011574	11/19/10	11/19/10	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	12	0.50	ug/L	1	A011417	11/17/10	11/19/10	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A011417	11/17/10	11/19/10	
Chloroform	EPA 524.2	37	0.50	ug/L	1	A011417	11/17/10	11/19/10	
Dibromochloromethane	EPA 524.2	4.5	0.50	ug/L	1	A011417	11/17/10	11/19/10	
Trihalomethanes by GC-MS									
Total Trihalomethanes	EPA 524.2	54		ug/L					
Haloacetic Acids by GC-ECD									
Dibromoacetic Acid (DBAA)	EPA 552.2	ND	1.0	ug/L	1	A011599	11/20/10	11/23/10	
Dichloroacetic Acid (DCAA)	EPA 552.2	1.8	1.0	ug/L	1	A011599	11/20/10	11/23/10	
Monobromoacetic Acid (MBAA)	EPA 552.2	ND	1.0	ug/L	1	A011599	11/20/10	11/23/10	
Monochloroacetic Acid (MCAA)	EPA 552.2	ND	2.0	ug/L	1	A011599	11/20/10	11/23/10	
Trichloroacetic Acid (TCAA)	EPA 552.2	2.2	1.0	ug/L	1	A011599	11/20/10	11/23/10	
Haloacetic Acids by GC-ECD									
Total Haloacetic Acids (HAA)	EPA 552.2	4.0		ug/L					

	<u>Method</u>	<u>Result</u>	
Surrogate: Bromofluorobenzene	EPA 524.2	86 %	Acceptable range: 70-130 %
Surrogate: 2,3-Dibromopropionic Acid	EPA 552.2	101 %	Acceptable range: 70-130 %



General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A011573

Analyst: SAB

Prepared: 11/19/2010

Blank (A011573-BLK1) SM 5310 C - Quality Control

Dissolved Organic Carbon	ND	0.20	mg/L							11/19/10
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Blank Spike (A011573-BS1) SM 5310 C - Quality Control

Dissolved Organic Carbon	10	0.20	mg/L	10		102	80-120			11/19/10
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Blank Spike Dup (A011573-BSD1) SM 5310 C - Quality Control

Dissolved Organic Carbon	10	0.20	mg/L	10		102	80-120	0	20	11/19/10
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Matrix Spike (A011573-MS1) SM 5310 C - Quality Control

Source: A0K1158-01

Dissolved Organic Carbon	11	0.20	mg/L	10	1.1	99	80-120			11/19/10
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Matrix Spike Dup (A011573-MSD1) SM 5310 C - Quality Control

Source: A0K1158-01

Dissolved Organic Carbon	11	0.20	mg/L	10	1.1	99	80-120	1	20	11/19/10
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Batch: A011574

Analyst: SAB

Prepared: 11/19/2010

Blank (A011574-BLK1) SM 5310 C - Quality Control

Total Organic Carbon	ND	0.20	mg/L							11/19/10
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Blank Spike (A011574-BS1) SM 5310 C - Quality Control

Total Organic Carbon	10	0.20	mg/L	10		103	80-120			11/19/10
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Blank Spike Dup (A011574-BSD1) SM 5310 C - Quality Control

Total Organic Carbon	10	0.20	mg/L	10		103	80-120	0	20	11/19/10
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Matrix Spike (A011574-MS1) SM 5310 C - Quality Control

Source: A0K1183-01

Total Organic Carbon	11	0.20	mg/L	10	0.89	100	80-120			11/19/10
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Matrix Spike Dup (A011574-MSD1) SM 5310 C - Quality Control

Source: A0K1183-01

Total Organic Carbon	11	0.20	mg/L	10	0.89	100	80-120	0	20	11/19/10
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A011417

Analyst: JGB

Prepared: 11/18/2010

Blank (A011417-BLK1) EPA 524.2 - Quality Control

Bromodichloromethane	ND	0.50	ug/L							11/18/10	
Bromoform	ND	0.50	ug/L							11/18/10	
Chloroform	ND	0.50	ug/L							11/18/10	
Dibromochloromethane	ND	0.50	ug/L							11/18/10	
<i>Surrogate: Bromofluorobenzene</i>	4.6			5.0		93	70-130			11/18/10	

Blank Spike (A011417-BS1) EPA 524.2 - Quality Control

Bromodichloromethane	4.8	0.50	ug/L	5.0		95	70-130			11/18/10	
Bromoform	4.4	0.50	ug/L	5.0		87	70-130			11/18/10	
Chloroform	5.1	0.50	ug/L	5.0		102	70-130			11/18/10	
Dibromochloromethane	4.6	0.50	ug/L	5.0		93	70-130			11/18/10	
<i>Surrogate: Bromofluorobenzene</i>	4.7			5.0		95	70-130			11/18/10	

Blank Spike Dup (A011417-BSD1) EPA 524.2 - Quality Control

Bromodichloromethane	4.6	0.50	ug/L	5.0		93	70-130	3	30	11/18/10	
Bromoform	4.1	0.50	ug/L	5.0		81	70-130	7	30	11/18/10	
Chloroform	4.9	0.50	ug/L	5.0		99	70-130	3	30	11/18/10	
Dibromochloromethane	4.3	0.50	ug/L	5.0		86	70-130	8	30	11/18/10	
<i>Surrogate: Bromofluorobenzene</i>	4.4			5.0		88	70-130			11/18/10	

Batch: A011599

Analyst: KHH

Prepared: 11/20/2010

Blank (A011599-BLK1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							11/23/10	
Dibromoacetic Acid (DBAA) (2C)	ND	1.0	ug/L							11/23/10	
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							11/23/10	
Dichloroacetic Acid (DCAA) (2C)	ND	1.0	ug/L							11/23/10	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							11/23/10	
Monobromoacetic Acid (MBAA) (2C)	ND	1.0	ug/L							11/23/10	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							11/23/10	
Monochloroacetic Acid (MCAA) (2C)	ND	2.0	ug/L							11/23/10	
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							11/23/10	
Trichloroacetic Acid (TCAA) (2C)	ND	1.0	ug/L							11/23/10	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	24			25		98	70-130			11/23/10	
<i>Surrogate: 2,3-Dibromopropionic Acid (2C)</i>	25			25		100	70-130			11/23/10	

Blank Spike (A011599-BS1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		110	70-130			11/23/10	
Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10		110	70-130			11/23/10	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		107	70-130			11/23/10	
Dichloroacetic Acid (DCAA) (2C)	11	1.0	ug/L	10		108	70-130			11/23/10	
Monobromoacetic Acid (MBAA)	10	1.0	ug/L	10		101	70-130			11/23/10	
Monobromoacetic Acid (MBAA) (2C)	10	1.0	ug/L	10		100	70-130			11/23/10	
Monochloroacetic Acid (MCAA)	11	2.0	ug/L	10		110	70-130			11/23/10	
Monochloroacetic Acid (MCAA) (2C)	11	2.0	ug/L	10		110	70-130			11/23/10	

A0K1158 FINAL 11302010 1213

1414 Stanislaus Street

Fresno, CA 93706

(559) 497-2888

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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limit	RPD	Limit	Date Analyzed	Qual
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Batch: A011599

Analyst: KHH

Prepared: 11/20/2010

Blank Spike (A011599-BS1) EPA 552.2 - Quality Control

Trichloroacetic Acid (TCAA)	10	1.0	ug/L	10		101	70-130			11/23/10	
Trichloroacetic Acid (TCAA) (2C)	11	1.0	ug/L	10		105	70-130			11/23/10	
Surrogate: 2,3-Dibromopropionic Acid	23			25		91	70-130			11/23/10	
Surrogate: 2,3-Dibromopropionic Acid (2C)	24			25		96	70-130			11/23/10	

Blank Spike Dup (A011599-BSD1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		109	70-130	0	30	11/23/10	
Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10		112	70-130	2	30	11/23/10	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		109	70-130	2	30	11/23/10	
Dichloroacetic Acid (DCAA) (2C)	11	1.0	ug/L	10		108	70-130	1	30	11/23/10	
Monobromoacetic Acid (MBAA)	10	1.0	ug/L	10		101	70-130	0	30	11/23/10	
Monobromoacetic Acid (MBAA) (2C)	10	1.0	ug/L	10		100	70-130	0	30	11/23/10	
Monochloroacetic Acid (MCAA)	10	2.0	ug/L	10		104	70-130	6	30	11/23/10	
Monochloroacetic Acid (MCAA) (2C)	11	2.0	ug/L	10		108	70-130	2	30	11/23/10	
Trichloroacetic Acid (TCAA)	10	1.0	ug/L	10		105	70-130	4	30	11/23/10	
Trichloroacetic Acid (TCAA) (2C)	11	1.0	ug/L	10		108	70-130	2	30	11/23/10	
Surrogate: 2,3-Dibromopropionic Acid	24			25		98	70-130			11/23/10	
Surrogate: 2,3-Dibromopropionic Acid (2C)	27			25		106	70-130			11/23/10	

Duplicate (A011599-DUP1) EPA 552.2 - Quality Control

Source: A0K1197-03

Dibromoacetic Acid (DBAA)	5.1	1.0	ug/L	5.1				1	30	11/23/10	
Dichloroacetic Acid (DCAA)	1.6	1.0	ug/L	1.6				2	30	11/23/10	
Monobromoacetic Acid (MBAA) (2C)	ND	1.0	ug/L	ND					30	11/23/10	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L	ND					30	11/23/10	
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L	ND					30	11/23/10	
Surrogate: 2,3-Dibromopropionic Acid	24			25		96	70-130			11/23/10	

Matrix Spike (A011599-MS1) EPA 552.2 - Quality Control

Source: A0K1148-22

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10	ND	108	70-130			11/23/10	
Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10	ND	112	70-130			11/23/10	
Dichloroacetic Acid (DCAA)	46	1.0	ug/L	10	38	78	70-130			11/23/10	
Dichloroacetic Acid (DCAA) (2C)	48	1.0	ug/L	10	40	84	70-130			11/23/10	
Monobromoacetic Acid (MBAA)	23	1.0	ug/L	10	15	78	70-130			11/23/10	
Monobromoacetic Acid (MBAA) (2C)	11	1.0	ug/L	10	ND	105	70-130			11/23/10	
Monochloroacetic Acid (MCAA)	23	2.0	ug/L	10	15	80	70-130			11/23/10	
Monochloroacetic Acid (MCAA) (2C)	18	2.0	ug/L	10	4.9	134	70-130			11/23/10	MS01 High
Trichloroacetic Acid (TCAA)	51	1.0	ug/L	10	46	52	70-130			11/23/10	MS02 Low
Trichloroacetic Acid (TCAA) (2C)	52	1.0	ug/L	10	45	71	70-130			11/23/10	
Surrogate: 2,3-Dibromopropionic Acid	23			25		92	70-130			11/23/10	
Surrogate: 2,3-Dibromopropionic Acid (2C)	25			25		99	70-130			11/23/10	

Matrix Spike Dup (A011599-MSD1) EPA 552.2 - Quality Control

Source: A0K1148-22

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10	ND	110	70-130	2	30	11/23/10	
Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10	ND	114	70-130	2	30	11/23/10	

A0K1158 FINAL 11302010 1213

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A011599

Analyst: KHH

Prepared: 11/20/2010

Matrix Spike Dup (A011599-MSD1)	EPA 552.2 - Quality Control				Source: A0K1148-22						
Dichloroacetic Acid (DCAA)	47	1.0	ug/L	10	38	85	70-130	2	30	11/23/10	
Dichloroacetic Acid (DCAA) (2C)	49	1.0	ug/L	10	40	93	70-130	2	30	11/23/10	
Monobromoacetic Acid (MBAA)	23	1.0	ug/L	10	15	83	70-130	2	30	11/23/10	
Monobromoacetic Acid (MBAA) (2C)	11	1.0	ug/L	10	ND	106	70-130	1	30	11/23/10	
Monochloroacetic Acid (MCAA)	23	2.0	ug/L	10	15	83	70-130	1	30	11/23/10	
Monochloroacetic Acid (MCAA) (2C)	19	2.0	ug/L	10	4.9	137	70-130	2	30	11/23/10	MS01 High
Trichloroacetic Acid (TCAA)	53	1.0	ug/L	10	46	69	70-130	3	30	11/23/10	MS02 Low
Trichloroacetic Acid (TCAA) (2C)	54	1.0	ug/L	10	45	93	70-130	4	30	11/23/10	
Surrogate: 2,3-Dibromopropionic Acid	24				25	95	70-130			11/23/10	
Surrogate: 2,3-Dibromopropionic Acid (2C)	26				25	102	70-130			11/23/10	

Certificate of Analysis

11/30/2010

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
- Sample(s) received, prepared, and analyzed within the method specified criteria unless otherwise noted within this report.
- The results relate only to the samples analyzed in accordance with test(s) requested by the client on the Chain of Custody document. Any analytical quality control exceptions to method criteria that are to be considered when evaluating these results have been flagged and are defined in the data qualifiers section.
- All results are expressed on wet weight basis unless otherwise specified.
- All positive results for EPA Methods 504.1, 502.2, and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Results contained in this analytical report must be reproduced in its entirety.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- BSK Analytical Laboratories certifies that the test results contained in this report meet all requirements of the NELAC Standards for applicable certified drinking water chemistry analyses unless qualified or noted in the Case Narrative.
- Analytical data contained in this report may be used for regulatory purposes to meet the requirements of the Federal or State drinking water, wastewater, and hazardous waste programs.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals. Samples submitted to the laboratory have been analyzed outside of this holding time requirement.
- * - This is not a NELAP accredited analyte.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- (2) The digestion used to produce this result deviated from EPA 200.2 by excluding hydrochloric acid in order to produce acceptable recoveries for affected metals.
- (2C) Result reported from secondary analytical column.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.

Certifications:

State of California - CDPH - ELAP	1180
State of California - CDPH - NELAP	04227CA
State of New Mexico - NMED-DWB	
State of Nevada - NDEP	CA000792009A

Definitions and Flags for Data Qualifiers

mg/L:	Milligrams/Liter (ppm)	M:	Method Detection Limit	MDA:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)		:DL x Dilution	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	ND:	None Detected at RL	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	pCi/L:	Picocuries per Liter	Present:	1 or more CFU/100mLs
		NR:	Non-Reportable	RL Mult:	RL Multiplier

MS02 Matrix spike recovery was low; the associated blank spike recovery was acceptable.

MS01 Matrix spike recovery was high; the associated blank spike recovery was acceptable.

A0K1158

Monterey Bay Analytical

Monte6227

11172010

David Holland
General Chemistry

Turnaround: Standard
Due Date: 12/03/2010

Sample ID	Sample Description	Date Sampled	Lab Notes
A0K1158-01	ASR-1	11/15/2010	

BSK ANALYTICAL LABORATORIES

1414 Stanislaus Street, Fresno, CA 93706-1623
 (559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

AOK1158
 Monte6227

11/17/20
 10

* Required Fields

Client/Company Name * **Monterey Bay Analytical** Report Attention * **David Holland** Phone * # (831)-357-6227 FAX * # (831)-641-0734
Monterey Bay Analytical **David Holland** E-mail: **4MBAS@Sbcglobal.net**

Address * **4 Justin Ct.** City * **Monterey** State * **CA** Zip * **93940**

Project Information: **MPWMD** PO # **484** Quote # **484**

How would you like your completed results sent? E-Mail Fax EDD Mail Only

Sampler Name Printed / Signature **Leaf, J.** STD Level II STD 5 Day** 2 Day** 1 Day**

Matrix Types: **RSW** - Raw Surface Water **CHW** - Chlorinated Finished Water **CW** - Chlorinated Waste Water **BW** - Bottled Water **SO** - Solid
RCW - Raw Ground Water **PW** - Finished Water **WW** - Waste Water **SW** - Storm Water **DW** - Drinking Water

TTHM	HAA5	Dissolved Methane	TOC	DOC
------	------	-------------------	-----	-----

Sample #	Bottles	Date	Sampled Time	Sample Description / Location *	Matrix *	Comments / Station Code	✓	✓	✓	✓	✓
1	8	11/15/10	13:14	ASR-1 <i>is correct STE w/1/10</i>	DW	71062	✓	✓	✓	✓	✓

Retrieved by: (Signature and Printed Name) **David Holland** Company **MBAS** Date **11/16/10** Time **1600**

Retrieved by: (Signature and Printed Name) *[Signature]* Company **MBAS** Date **11/16/10** Time **1600**

Received for Lab by: (Signature and Printed Name) *[Signature]* **Simantha Garcia** Date **11/16/10** Time **7:09**

Shipping Method: UPS GSO WALK-IN SVC FEDEX OTHER

Cooling Method: WET BLUE NONE Packing Material: **air paper**

Notes: Payment for services rendered as noted herein is due in full within 30 days from when invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service-charging charges and interest calculated at 1.12% per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, costs of collections, including attorney's fees incurred prior to or in litigation, whether concluded by judgment, settlement, compromise or otherwise. The person signing for the client/Company expressly acknowledges that they are either the Client or authorized agent to the Client, and the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any modification of the analysis requested, and/or type or quantities, will be noted and agreed upon the Chain of Custody. The turn around time for any samples received after 3:00 pm will begin the next business day.

Sample Integrity Pg. 1 of 2 WORK OR



Date Received 11/17/10

Section 1- Receiving Information

Sample Transport: CONTRAC UPS PMS Walk-In BSK-Courier GSO Fed Exp. Other: _____

Samples arrived at lab on same day sampled: Yes _____ No X (If Yes- Temperature is not needed)

Coolers/Ice Chests Description/Temperature(s): (If more than 4 received, list information in comment section)

1) 6 2) _____ 3) _____ 4) _____

Was Temperature In Range: Y N N/A Received On Ice: Wet Blue Received Ambient: Y N

Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other: _____

Initial Receipt: BSK-Visalia BSK-Bakersfield BSK-SAC BSK-FDL BSK-FAL

Were ice chest custody seals present? Y N Intact: Y N

Section 2- COC Info.

	Completed		Info From Container	Completed		Info From Container
	Yes	No		Yes	No	
Was COC Received	<u>—</u>					Analysis Requested
Date Sampled	<u>—</u>				<u>—</u>	Any hold times less than 72hr
Time Sampled	<u>—</u>					Client Name
Sample ID	<u>—</u>					Address
Special Storage/Handling Ins.		<u>—</u>			<u>—</u>	Telephone #

Section 3- Bottles / Analysis

	Yes	No	N/A	Comment
Did all bottles arrive unbroken and intact?	<u>—</u>			
Were bottle custody seals present?	<u>—</u>			
Were bottle custody seals intact?	<u>—</u>			
Did all bottle labels agree with COC?	<u>—</u>			
Were correct containers used for the tests requested?	<u>—</u>			
Were correct preservations used for the tests requested?	<u>—</u>			
Was a sufficient amount of sample sent for tests indicated?	<u>—</u>			
Were bubbles present in VOA Vials? (Volatile Methods Only)		<u>—</u>		
Were Ascorbic Acid Bottles received with the VOAs?		<u>—</u>		

Section 4- Comments / Discrepancies

Sample(s) Split/Preserve: Yes No Container: _____ Preservation: _____ Dt/Time/Init _____

Container: _____ Preservation: _____ Dt/Time/Init _____

Was Client Service Rep. notified of discrepancies: Yes No N/A CSR: Paul Notified By: sj

Explanations / Comments

Montreys station code matches # sample id & date but the time sample on sample containers says

12:00 please confirm 11/17/10 sj

Report Comment Entered:

Labeled by: NA @ 1031 Labels checked by: S @ 1110

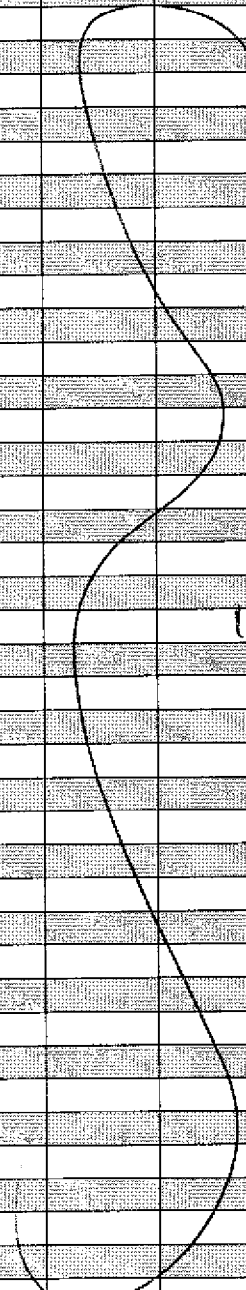
Sample Integrity Pg 2 of 2

BSK Bottles Yes No WORK



250ml (A) 500ml (B) 1Liter (C) Amber Glass (AG)

Container(s) Received	1						
Bacti Na ₂ S ₂ O ₃							
None (p) <small>White Cap</small>	<u>16</u>						
None (p) <small>Blue Cap</small> w/NH ₄ + Buffer							
HNO ₃ (p) <small>Red Cap</small>							
H ₂ SO ₄ (p) <small>Yellow Cap</small>							
NaOH (p) <small>Green Cap</small>							
Other:							
Dissolved Oxygen 300ml (g)							
Centrifuge Tube HNO ₃							
250ml (AG) None							
250ml (AG) H ₂ SO ₄ COD <small>Yellow Label</small>							
250ml (AG) Na ₂ S ₂ O ₃ 515.547 <small>Blue Label</small>							
250ml (AG) Na ₂ S ₂ O ₃ + MCAA 531.1 <small>Orange Label</small>							
250ml (AG) NH ₄ Cl 552 <small>Purple Label</small>	<u>1</u>						
250ml (AG) EDA DBPs <small>Brown Label</small>							
250ml (AG) Other:							
500ml (AG) None							
500ml (AG) H ₂ SO ₄ TPH-Diesel <small>Yellow Label</small>							
1 Liter (AG) None							
1 Liter (AG) H ₂ SO ₄ O&G <small>Yellow Label</small>							
1 Liter (AG) Na ₂ S ₂ O ₃ 548 / 525 / 521 <small>Blue Label</small>							
1 Liter (P) Na ₂ S ₂ O ₃ + H ₂ SO ₄ 549							
1 Liter (AG) NaOH+ZnAc Sulfide							
1 Liter (AG) Ascorbic/EDTA/Pot Citrate 527 <small>Grey Label</small>							
1 Liter (AG) CuSO ₄ /Trizma 529 <small>Turquoise Label</small>							
1 Liter (AG) Na ₂ SO ₃ / HCL 525 UCMR <small>Neon Green Label</small>							
1 Liter (AG) Ammonium Chloride 535 <small>Purple Label</small>							
40ml VOA Vial Clear - HCL							
40ml VOA Vial Amber - Na ₂ S ₂ O ₃	<u>3</u>						
40ml VOA Vial Clear - None							
40ml VOA Vial Clear - Na ₂ S ₂ O ₃ 504, 505							
40ml VOA Vial Clear - H ₃ PO ₄	<u>3</u>						
Other:							
Asbestos 1Liter Plastic/Foil							
Radon 200ml Clear (g)							
Low Level Hg/Metals Double Baggie							
Bioassay Jug							
250 Clear Glass Jar							
500 Clear Glass Jar							
1 Liter Clear Glass Jar							
Plastic Bag							
Soil Tube Brass / Steel / Plastic							
Tedlar Bags							



11/17/10
88



CHAIN OF CUSTODY
AND ANALYSIS REQUEST DOCUMENT

	Lab Number: 1011907	TEST DESCRIPTION AND ANALYSES REQUESTED
--	-------------------------------	---

Client: Monterey Bay Analytical Services
 Customer Number:
 Address:
 4 Justin Court, Suite D. Monterey CA 93940
 Phone: 831-375-6227 Fax: 831-641-0734
 Email Address: 4mbas@sbcglobal.net
 Contact Person: David Holland
 Project Name: MPWMD
 Purchase Order Number:
 Quote Number:
 Sampler(s): Lear, J.

Sampling Fee: _____ Pickup Fee: _____
 Compositor Setup Date: _____ Time: _____

Samp Num	Location Description	Date Sampled	Time Sampled
	ASR-1	11/15/10	13:14

Method of Sampling: Composite (C) Grab (G)
 Number of Containers
 Type of Containers: Glass (G) Plastic (P) VOA (V) Metal Tube (MT)
 Potable (P) Non-Potable (NP) Ag Water (AgW)
 Surface Water (SW) Monitoring Well (MW) Ground Water (GW)
 Travel Blank (TB) Waste Water (WW) Drinking Water (DW)
 Soil (S) Sludge (SLG) Solid (SLD) Oil (O)
 Bact: System (Sys) Source (SRC) Waste (W)
 Bact: Routine (ROUT) Repeat (RPT) Other (OTH) Replace (RPL)
 Special (SPL)
 Leaf Tissue (LT) Petiole Tissue (PET) Produce (PRD)
 Preservative: (1) NaOH + ZnAc, (2) NaOH, (3) HCl
 (4) H2SO4, (5) HNO3, (6) Na2S2O3, (7) Other _____
Gross Alpha
Radium 226

Samp Num	Location Description	Date Sampled	Time Sampled	G	P	DW	7	X	X
	ASR-1	11/15/10	13:14	G	P	DW	7	X	X

Remarks 71062	Relinquished By: <i>[Signature]</i>	Date: 11/17/10	Time:	Relinquished By: <i>[Signature]</i>	Date: 11/19/10	Time: 1100	Relinquished	Date:	Time:
	Received By: <i>[Signature]</i>	Date: 11/17/10	Time:	Received By: <i>[Signature]</i>	Date: 11/19/10	Time: 1100	Received By:	Date:	Time:

Corporate Offices & Laboratory
 853 Corporation Street
 Santa Paula, CA 93060
 TEL: 805/392-2000
 FAX: 805/525-4172
 CA NELAP Certification No. 01110CA

Office & Laboratory
 2500 Stagecoach Road
 Stockton, CA 95215
 TEL: 209/942-0182
 FAX: 209/942-0423
 CA ELAP Certification No. 1563

Office & Laboratory
 563 E. Lindo Avenue
 Chico, CA 95926
 TEL: 530/343-5818
 FAX: 530/343-3807
 CA ELAP Certification No. 2670

Field Office
 Visalia, California
 TEL: 559/734-9473
 Mobile: 559/737-2389
 FAX: 559/734-8435

Santa Paula - Condition Upon Receipt (Attach to COC)

Sample Receipt:

- Number of ice chests/packages received: 1
Note as OTC if received over the counter unpackaged.
- Were samples received in a chilled condition? Temps: PP7 / / /
Acceptable is 2° to 6° C. Also acceptable is received on ice (ROI) for the same day of sampling or received at room temperature (RRT) if sampled within one hour of receipt. Client contact for temperature failures must be documented below. If many packages are received at one time check for tests/H.T.'s/rushes/Bacti's to prioritize further review. Please notify Microbiology personnel immediately of bacti samples received.
- Do the number of bottles received agree with the COC? Yes No N/A
- Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No
- Were sample custody seals intact? N/A Yes No

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

- Were all requested analyses understood and acceptable? Yes No
- Did bottle labels correspond with the client's ID's? Yes No
- Were all bottles requiring sample preservation properly preserved? Yes No N/A FGL
- VOAs checked for Headspace? Yes No N/A
- Were all analyses within holding times at time of receipt? Yes No
- Have rush or project due dates been checked and accepted? N/A Yes No

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt, Login and Verification completed by (initials): JW

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

- Person Contacted: Mason Phone Number: (631) 375-6227
Initiated By: Inez Curran Date: 11/22/10
Problem: COC said 3 bottles. Only received only 2
Resolution:

OK per Mason.

- Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____
Resolution: _____

(2-19144)
Monterey Bay Analytical Services

SP 1011902



Analytical Chemists
December 7, 2010

Monterey Bay Analytical Services
4 Justin Court
Monterey, CA 93940

Lab ID : SP 1011902
Customer : 2-19144

Laboratory Report

Introduction: This report package contains total of 3 pages divided into 3 sections:

- Case Narrative (1 pages) : An overview of the work performed at FGL.
- Sample Results (1 page) : Results for each sample submitted.
- Quality Control (1 page) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
ASR-1	11/15/2010	11/19/2010	SP 1011902-001	DW

Sampling and Receipt Information: The sample was received, prepared and analyzed within the method specified holding times. All samples arrived at room temperature. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Radio QC

900.0	11/24/2010:215141 All analysis quality controls are within established criteria
	11/22/2010:212185 All preparation quality controls are within established criteria
903.0	12/05/2010:215571 All analysis quality controls are within established criteria
	12/03/2010:212563 All preparation quality controls are within established criteria

Certification:: I certify that this data package is in compliance with NELAC standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.**



Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2010-12-07



Analytical Chemists
December 7, 2010

Lab ID : SP 1011902-001
Customer ID : 2-19144

Monterey Bay Analytical Services
4 Justin Court
Monterey, CA 93940

Sampled On : November 15, 2010-13:14
Sampled By : Lear, J.
Received On : November 19, 2010-11:00
Matrix : Drinking Water

Description : ASR-1
Project : MPWMD

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Radio Chemistry ^{P:15}								
Gross Alpha	1.10 ± 1.60	2.03	pCi/L	15/5	900.0	11/22/10:212185	900.0	11/24/10:215141
Total Alpha Radium (226)	0.000 ± 0.248	0.412	pCi/L	3	903.0	12/03/10:212563	903.0	12/05/10:215571

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: HNO3 pH < 2

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference.
MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV).
AV = (Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following
If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:
Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L
Uranium is less than or equal to 20 pCi/L
Radium 226 + Radium 228 is less than or equal to 5 pCi/L

Note: Samples are held for 3-6 months prior to disposal.



Analytical Chemists

December 7, 2010
Monterey Bay Analytical Services

Lab ID : SP 1011902
Customer : 2-19144

Quality Control - Radio

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Radio								
Alpha	900.0	11/24/2010:215141	CCV CCB	cpm cpm	10280	41.1 % 0.0400	38 - 47 0.11	
Gross Alpha	900.0	11/22/2010:212185 (CH 1077808-001)	Blank LCS MS MSD MSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	 149.4 149.4 149.4 149.4	 0.32 121 % 84.7 % 65.8 % 25.0%	 3 75-125 60-140 60-140 ≤30	
Alpha	903.0	12/05/2010:215571	CCV CCB	cpm cpm	10270	40.9 % 0.100	38 - 46 0.15	
Total Alpha Radium (226)	903.0	12/03/2010:212563	RgBlk LCS BS BSD BSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	 18.17 18.17 18.17 18.17	 0.17 66.0 % 64.4 % 72.4 % 11.8%	 2 52-89 43-92 43-92 ≤35.5	
Definition								
CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.								
CCB : Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.								
Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.								
RgBlk : Method Reagent Blank - Prepared to correct for any reagent contributions to sample result.								
LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.								
MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
BS : Blank Spikes - A blank is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.								
BSD : Blank Spike Duplicate of BS/BSD pair - A blank duplicate is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.								
MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.								
BSRPD : BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation and analysis.								
DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.								



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940	Client Project ID: MPWMD	Date Sampled: 11/15/10
		Date Received: 11/17/10
	Client Contact: David Holland	Date Reported: 11/22/10
	Client P.O.:	Date Completed: 11/18/10

WorkOrder: 1011503

November 22, 2010

Dear David:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **MPWMD**,
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1011503

ClientCode: MBAS

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:	David Holland	Email: 4mbas@sbcglobal.net	Bill to:	Accounts Payable	Requested TAT:	5 days
	Monterey Bay Analytical	cc:		Monterey Bay Analytical	Date Received:	11/17/2010
	4 Justin Court, Suite D	PO:		4 Justin Court, Suite D	Date Printed:	11/17/2010
	Monterey, CA 93940	ProjectNo: MPWMD		Monterey, CA 93940		
	831-375-6227 FAX 831-641-0734					

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1011503-001	ASR 1	Water	11/15/2010 13:14	<input type="checkbox"/>	A	A											

Test Legend:

1	PRDISSOLVED	2	RSK174 DISS	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Monterey Bay Analytical**

Date and Time Received: **11/17/2010 1:12:13 PM**

Project Name: **MPWMD**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **1011503** Matrix Water

Carrier: UPS

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
- Container/Temp Blank temperature Cooler Temp: 6°C NA
- Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
- Sample labels checked for correct preservation? Yes No
- Metal - pH acceptable upon receipt (pH<2)? Yes No NA
- Samples Received on Ice? Yes No

(Ice Type: BLUE ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940	Client Project ID: MPWMD	Date Sampled: 11/15/10
		Date Received: 11/17/10
	Client Contact: David Holland	Date Extracted: 11/17/10
	Client P.O.:	Date Analyzed 11/17/10

Light Gas Hydrocarbons*

Extraction method RSK 174/175

Analytical methods RSK174/175

Work Order: 1011503

Lab ID	Client ID	Matrix	Methane	DF	% SS	Comments
001A	ASR 1	W	0.54	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.4	µg/L
	S	NA	NA

* water samples are reported in µg/L.

%SS = Percent Recovery of Surrogate Standard
DF = Dilution Factor



QC SUMMARY REPORT FOR RSK174/175

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 54410

WorkOrder 1011503

EPA Method RSK174/175		Extraction RSK 174/175							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Ethane	N/A	2.38	N/A	N/A	N/A	88.6	89.8	1.38	N/A	N/A	80 - 120	20
Ethene	N/A	3.08	N/A	N/A	N/A	88.8	89.7	0.985	N/A	N/A	80 - 120	20
Methane	N/A	1.17	N/A	N/A	N/A	108	107	0.884	N/A	N/A	80 - 120	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 54410 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1011503-001A	11/15/10 1:14 PM	11/17/10	11/17/10 5:08 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



4 Justin Court Suite D, Monterey, CA 93940
831.375.MBAS

montereybayanalytical@usa.net

ELAP Certification Number: 2385

Tuesday, August 30, 2011

MPWMD
Joe Oliver
P.O. Box 85
Monterey, CA 93442-0085

Lab Number: AA78437

Collection Date/Time: 7/20/2011 13:45 Sample Collector: LEAR J
Submittal Date/Time: 7/20/2011 16:30 Sample ID

Sample Description: MW1

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Alkalinity, Total (as CaCO3)	2320B	mg/L	131		2		7/22/2011
Ammonia-N	4500NH3 D	mg/L	Not Detected		0.05		7/21/2011
Boron	EPA200.7	mg/L	Not Detected		0.05		7/29/2011
Calcium	EPA200.7	mg/L	44		0.5		7/29/2011
Chloramines	SM4500-Cl G	mg/L	Not Detected		0.05		7/20/2011
Chloride	EPA300.0	mg/L	28		1	250	7/21/2011
Dissolved Organic Carbon	SM5310-C	mg/L	1.1	E	0.2		7/29/2011
Gross Alpha	EPA900.0	pCi/L	2.06 ± 1.39	E		15	8/23/2011
Haloacetic Acids	EPA552	ug/L	5.6	E		60	8/4/2011
Iron	EPA 200.7	ug/L	114		10		7/29/2011
Iron, Dissolved	EPA 200.7	ug/L	Not Detected		10	300	7/29/2011
Kjeldahl Nitrogen	4500-NH3 B,C,E	mg/L	0.5	E	0.2		7/21/2011
Magnesium	EPA200.7	mg/L	11		0.5		7/29/2011
Manganese, Dissolved	EPA 200.7	ug/L	Not Detected		10	50	7/29/2011
Manganese, Total	EPA 200.7	ug/L	Not Detected		10	50	7/29/2011
Methane	EPA174/175	ug/L	Not Detected		0.4		7/25/2011
Nitrate as NO3	EPA300.0	mg/L	Not Detected		1	45	7/21/2011
Nitrate as NO3-N	EPA300.0	mg/L	0.08		0.05	10	7/21/2011
Nitrite as NO2-N	EPA300.0	mg/L	Not Detected		0.05	1.00	7/21/2011
o-Phosphate-P	EPA300.0	mg/L	Not Detected		0.05		7/21/2011
pH (Laboratory)	4500-H+B	STD. Units	7.6				7/20/2011
Phosphorus, Total	HACH 8190	mg/L	0.11		0.03		8/4/2011
Potassium	EPA200.7	mg/L	2.8		0.1		7/29/2011
QC Anion Sum x 100	Calculation	%	98%				8/1/2011

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed outside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD



4 Justin Court Suite D, Monterey, CA 93940
 831.375.MBAS
 montereybayanalytical@usa.net
 ELAP Certification Number: 2385

Tuesday, August 30, 2011

MPWMD
 Joe Oliver
 P.O. Box 85
 Monterey, CA 93442-0085

Lab Number: AA78437

Collection Date/Time: 7/20/2011 13:45 Sample Collector: LEAR J
 Submittal Date/Time: 7/20/2011 16:30 Sample ID

Sample Description: MW1

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
QC Anion-Cation Balance	Calculation	%	2				8/1/2011
QC Cation Sum x 100	Calculation	%	103%				8/1/2011
Sodium	EPA200.7	mg/L	43		0.5		7/29/2011
Specific Conductance (E.C)	2510B	umhos/cm	491		1	900	7/20/2011
Sulfate	EPA300.0	mg/L	68		1	250	7/21/2011
Total Nitrogen	Calculation	mg/L	0.6		0.5		8/15/2011
Total Organic Carbon	SM5310C	mg/L	1.1		0.20		8/1/2011
Total Radium 226	EPA903.0	pCi/L	0.154±.266	E		3	8/24/2011
Trihalomethanes	EPA524.2	ug/L	67	E		80	7/28/2011

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed outside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD



MONTEREY BAY ANALYTICAL SERVICES

PRECISION • ACCURACY • DEPENDABILITY

4 Justin Court Suite D, Monterey, CA 93940
831.375.MBAS

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ELAP Certification Number: 2385

Tuesday, August 30, 2011

MPWMD
Joe Oliver
P.O. Box 85
Monterey, CA 93442-0085

Lab Number: AA78438

Collection Date/Time: 7/20/2011 13:30 Sample Collector: LEAR J
Submittal Date/Time: 7/20/2011 16:30 Sample ID

Sample Description: ASR1

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Alkalinity, Total (as CaCO ₃)	2320B	mg/L	130		2		7/22/2011
Ammonia-N	4500NH3 D	mg/L	Not Detected		0.05		7/21/2011
Boron	EPA200.7	mg/L	Not Detected		0.05		7/29/2011
Calcium	EPA200.7	mg/L	38		0.5		7/29/2011
Chloramines	SM4500-Cl G	mg/L	Not Detected		0.05		7/20/2011
Chloride	EPA300.0	mg/L	27		1	250	7/21/2011
Dissolved Organic Carbon	SM5310-C	mg/L	1.3	E	0.2		7/29/2011
Gross Alpha	EPA900.0	pCi/L	0.540 ± 1.54	E		15	8/23/2011
Haloacetic Acids	EPA552	ug/L	16	E		60	8/4/2011
Iron	EPA 200.7	ug/L	94		10		7/29/2011
Iron, Dissolved	EPA 200.7	ug/L	77		10	300	7/29/2011
Kjehldahl Nitrogen	4500-NH3 B,C,E	mg/L	Not Detected	E	0.2		7/21/2011
Magnesium	EPA200.7	mg/L	12		0.5		7/29/2011
Manganese, Dissolved	EPA 200.7	ug/L	Not Detected		10	50	7/29/2011
Manganese, Total	EPA 200.7	ug/L	Not Detected		10	50	7/29/2011
Methane	EPA174/175	ug/L	Not Detected		0.4		7/25/2011
Nitrate as NO ₃	EPA300.0	mg/L	Not Detected		1	45	7/21/2011
Nitrate as NO ₃ -N	EPA300.0	mg/L	0.09		0.05	10	7/21/2011
Nitrite as NO ₂ -N	EPA300.0	mg/L	Not Detected		0.05	1.00	7/21/2011
o-Phosphate-P	EPA300.0	mg/L	Not Detected		0.05		7/21/2011
pH (Laboratory)	4500-H+B	STD. Units	7.6				7/20/2011
Phosphorus, Total	HACH 8190	mg/L	0.30		0.03		8/4/2011
Potassium	EPA200.7	mg/L	2.7		0.1		7/29/2011
QC Anion Sum x 100	Calculaltion	%	97%				8/15/2011
QC Anion-Cation Balance	Calculaltion	%	0				8/1/2011
QC Cation Sum x 100	Calculaltion	%	97%				8/1/2011
Sodium	EPA200.7	mg/L	41		0.5		7/29/2011

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

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D = Method deviates from standard method due to insufficient sample for MS/MSD



MONTEREY BAY ANALYTICAL SERVICES

PRECISION • ACCURACY • DEPENDABILITY

4 Justin Court Suite D, Monterey, CA 93940

831.375.MBAS

montereybayanalytical@usa.net

ELAP Certification Number: 2385

Tuesday, August 30, 2011

MPWMD
Joe Oliver
P.O. Box 85
Monterey, CA 93442-0085

Lab Number: AA78438

Collection Date/Time: 7/20/2011 13:30 Sample Collector: LEAR J
Submittal Date/Time: 7/20/2011 16:30 Sample ID

Sample Description: ASR1

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Specific Conductance (E.C)	2510B	umhos/cm	486		1	900	7/20/2011
Sulfate	EPA300.0	mg/L	66		1	250	7/21/2011
Total Nitrogen	Calculation	mg/L	Not Detected		0.5		8/15/2011
Total Organic Carbon	SM5310C	mg/L	1.2	E	0.20		8/2/2011
Total Radium 226	EPA903.0	pCi/L	0.051 ± 0.223	E		3	8/24/2011
Trihalomethanes	EPA524.2	ug/L	92	E		80	7/28/2011

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed outside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Dear David Holland,

Thank you for selecting BSK Analytical Laboratories for your analytical testing needs. We have prepared this report in response to your request for analytical services. Enclosed are the results of analyses for samples received by the laboratory on 07/22/2011 08:15.

If additional clarification of any information is required, please contact your Client Services Representative, John Montierth at (800) 877-8310 or (559) 497-2888.

BSK ANALYTICAL LABORATORIES



John Montierth
Client Services Representative

Case Narrative

Work Order Information

Client Name: Monterey Bay Analytical
Client Code: Monte6227
Work Order: A1G1817
Project: MPWMD

Submitted by: David Holland
Shipped by: ONTRAC
COC Number:
TAT: 10
PO #:

Sample Receipt Conditions

Cooler: Default Cooler **Temp. °C:** 6
Containers Intact
COC/Labels Agree
Received On Wet Ice
Packing Material - Bubble Wrap
Sample(s) were received in temperature range.
Initial receipt at BSK-FAL

Report Manager
David Holland

Report Format
Final.rpt



Certificate of Analysis

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Report Issue Date: 08/05/2011 16:15
Received Date: 07/22/2011
Received Time: 08:15

Lab Sample ID: A1G1817-01
Sample Date: 07/20/2011 13:30
Sample Type: Grab

Sampled by: J Lear
Matrix: Water

Sample Description: MW1 // 78437

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Dissolved Organic Carbon	SM 5310 C	1.1	0.20	mg/L	1	A108864	07/29/11	07/29/11	
Total Organic Carbon	SM 5310 C	1.1	0.20	mg/L	1	A109086	08/01/11	08/01/11	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	18	0.50	ug/L	1	A108894	07/28/11	07/28/11	
Bromoform	EPA 524.2	0.88	0.50	ug/L	1	A108894	07/28/11	07/28/11	
Chloroform	EPA 524.2	40	0.50	ug/L	1	A108894	07/28/11	07/28/11	
Dibromochloromethane	EPA 524.2	8.2	0.50	ug/L	1	A108894	07/28/11	07/28/11	

Surrogate: Bromofluorobenzene EPA 524.2 107 % *Acceptable range: 70-130 %*

*Total Trihalomethanes, EPA 524.2 67 0.50 ug/L

Haloacetic Acids by GC-ECD

Dibromoacetic Acid (DBAA)	EPA 552.2	ND	1.0	ug/L	1	A109135	08/02/11	08/04/11	
Dichloroacetic Acid (DCAA)	EPA 552.2	ND	1.0	ug/L	1	A109135	08/02/11	08/04/11	
Monobromoacetic Acid (MBAA)	EPA 552.2	ND	1.0	ug/L	1	A109135	08/02/11	08/04/11	
Monochloroacetic Acid (MCAA)	EPA 552.2	ND	2.0	ug/L	1	A109135	08/02/11	08/04/11	
Trichloroacetic Acid (TCAA)	EPA 552.2	5.6	1.0	ug/L	1	A109135	08/02/11	08/04/11	

Surrogate: 2,3-Dibromopropionic Acid EPA 552.2 117 % *Acceptable range: 70-130 %*

*Total Haloacetic Acids, EPA 552.2 5.6 2.0 ug/L



Certificate of Analysis

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Report Issue Date: 08/05/2011 16:15
Received Date: 07/22/2011
Received Time: 08:15

Lab Sample ID: A1G1817-02
Sample Date: 07/20/2011 13:45
Sample Type: Grab

Sampled by: J Lear
Matrix: Water

Sample Description: ASR 1 // 78438

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Dissolved Organic Carbon	SM 5310 C	1.3	0.20	mg/L	1	A108864	07/29/11	07/29/11	
Total Organic Carbon	SM 5310 C	1.2	0.20	mg/L	1	A109154	08/02/11	08/02/11	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	25	0.50	ug/L	1	A108894	07/28/11	07/28/11	
Bromoform	EPA 524.2	0.98	0.50	ug/L	1	A108894	07/28/11	07/28/11	
Chloroform	EPA 524.2	57	0.50	ug/L	1	A108894	07/28/11	07/28/11	
Dibromochloromethane	EPA 524.2	9.6	0.50	ug/L	1	A108894	07/28/11	07/28/11	

Surrogate: Bromofluorobenzene EPA 524.2 107 % *Acceptable range: 70-130 %*

*Total Trihalomethanes, EPA 524.2 92 0.50 ug/L

Haloacetic Acids by GC-ECD

Dibromoacetic Acid (DBAA)	EPA 552.2	ND	1.0	ug/L	1	A109135	08/02/11	08/04/11	
Dichloroacetic Acid (DCAA)	EPA 552.2	2.3	1.0	ug/L	1	A109135	08/02/11	08/04/11	
Monobromoacetic Acid (MBAA)	EPA 552.2	ND	1.0	ug/L	1	A109135	08/02/11	08/04/11	
Monochloroacetic Acid (MCAA)	EPA 552.2	ND	2.0	ug/L	1	A109135	08/02/11	08/04/11	
Trichloroacetic Acid (TCAA)	EPA 552.2	14	1.0	ug/L	1	A109135	08/02/11	08/04/11	

Surrogate: 2,3-Dibromopropionic Acid EPA 552.2 108 % *Acceptable range: 70-130 %*

*Total Haloacetic Acids, EPA 552.2 16 2.0 ug/L



General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limit	RPD	Limit	Date Analyzed	Qual
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Batch: A108864

Analyst: AJT

Prepared: 07/29/2011

Blank (A108864-BLK1) SM 5310 C - Quality Control

Dissolved Organic Carbon	ND	0.20	mg/L							07/29/11	
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Blank Spike (A108864-BS1) SM 5310 C - Quality Control

Dissolved Organic Carbon	10	0.20	mg/L	10		104	80-120			07/29/11	
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Blank Spike Dup (A108864-BSD1) SM 5310 C - Quality Control

Dissolved Organic Carbon	10	0.20	mg/L	10		104	80-120	1	20	07/29/11	
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Batch: A109086

Analyst: SMP

Prepared: 08/01/2011

Blank (A109086-BLK1) SM 5310 C - Quality Control

Total Organic Carbon	ND	0.20	mg/L							08/01/11	
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Blank Spike (A109086-BS1) SM 5310 C - Quality Control

Total Organic Carbon	10	0.20	mg/L	10		103	80-120			08/01/11	
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Blank Spike Dup (A109086-BSD1) SM 5310 C - Quality Control

Total Organic Carbon	10	0.20	mg/L	10		103	80-120	0	20	08/01/11	
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Matrix Spike (A109086-MS1) SM 5310 C - Quality Control

Source: A1G1680-02

Total Organic Carbon	12	0.20	mg/L	10	1.6	100	80-120			08/01/11	
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Matrix Spike Dup (A109086-MSD1) SM 5310 C - Quality Control

Source: A1G1680-02

Total Organic Carbon	12	0.20	mg/L	10	1.6	100	80-120	0	20	08/01/11	
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Batch: A109154

Analyst: SMP

Prepared: 08/02/2011

Blank (A109154-BLK1) SM 5310 C - Quality Control

Total Organic Carbon	ND	0.20	mg/L							08/02/11	
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Blank Spike (A109154-BS1) SM 5310 C - Quality Control

Total Organic Carbon	11	0.20	mg/L	10		105	80-120			08/02/11	
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Blank Spike Dup (A109154-BSD1) SM 5310 C - Quality Control

Total Organic Carbon	11	0.20	mg/L	10		105	80-120	0	20	08/02/11	
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Matrix Spike (A109154-MS1) SM 5310 C - Quality Control

Source: A1G1752-04

Total Organic Carbon	12	0.20	mg/L	10	2.0	99	80-120			08/02/11	
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Matrix Spike (A109154-MS2) SM 5310 C - Quality Control

Source: A1G1859-03

Total Organic Carbon	15	0.20	mg/L	10	4.8	99	80-120			08/02/11	
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Matrix Spike Dup (A109154-MSD1) SM 5310 C - Quality Control

Source: A1G1752-04

Total Organic Carbon	12	0.20	mg/L	10	2.0	98	80-120	1	20	08/02/11	
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Matrix Spike Dup (A109154-MSD2) SM 5310 C - Quality Control

Source: A1G1859-03

Total Organic Carbon	15	0.20	mg/L	10	4.8	99	80-120	0	20	08/02/11	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A108894

Analyst: JGB

Prepared: 07/28/2011

Blank (A108894-BLK1) EPA 524.2 - Quality Control

Bromodichloromethane	ND	0.50	ug/L							07/28/11	
Bromoform	ND	0.50	ug/L							07/28/11	
Chloroform	ND	0.50	ug/L							07/28/11	
Dibromochloromethane	ND	0.50	ug/L							07/28/11	
<i>Surrogate: Bromofluorobenzene</i>	5.6			5.0		111	70-130			07/28/11	

Blank Spike (A108894-BS1) EPA 524.2 - Quality Control

Bromodichloromethane	9.9	0.50	ug/L	10		99	70-130			07/28/11	
Bromoform	9.9	0.50	ug/L	10		99	70-130			07/28/11	
Chloroform	11	0.50	ug/L	10		108	70-130			07/28/11	
Dibromochloromethane	9.4	0.50	ug/L	10		94	70-130			07/28/11	
<i>Surrogate: Bromofluorobenzene</i>	4.9			5.0		98	70-130			07/28/11	

Blank Spike Dup (A108894-BSD1) EPA 524.2 - Quality Control

Bromodichloromethane	10	0.50	ug/L	10		100	70-130	0	30	07/28/11	
Bromoform	9.8	0.50	ug/L	10		98	70-130	2	30	07/28/11	
Chloroform	11	0.50	ug/L	10		112	70-130	4	30	07/28/11	
Dibromochloromethane	9.6	0.50	ug/L	10		96	70-130	2	30	07/28/11	
<i>Surrogate: Bromofluorobenzene</i>	4.9			5.0		98	70-130			07/28/11	

Batch: A109135

Analyst: KHH/X

Prepared: 08/02/2011

Blank (A109135-BLK1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							08/04/11	
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							08/04/11	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							08/04/11	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							08/04/11	
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							08/04/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	27			25		110	70-130			08/04/11	

Blank Spike (A109135-BS1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10		104	70-130			08/04/11	
Dichloroacetic Acid (DCAA)	8.0	1.0	ug/L	10		80	70-130			08/04/11	
Monobromoacetic Acid (MBAA)	9.8	1.0	ug/L	10		98	70-130			08/04/11	
Monochloroacetic Acid (MCAA)	19	2.0	ug/L	20		96	70-130			08/04/11	
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		110	70-130			08/04/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	31			25		125	70-130			08/04/11	

Blank Spike Dup (A109135-BSD1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10		100	70-130	5	30	08/04/11	
Dichloroacetic Acid (DCAA)	7.5	1.0	ug/L	10		75	70-130	6	30	08/04/11	
Monobromoacetic Acid (MBAA)	9.9	1.0	ug/L	10		99	70-130	1	30	08/04/11	
Monochloroacetic Acid (MCAA)	20	2.0	ug/L	20		99	70-130	3	30	08/04/11	
Trichloroacetic Acid (TCAA)	10	1.0	ug/L	10		104	70-130	6	30	08/04/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	28			25		111	70-130			08/04/11	



Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A109135

Analyst: KHH/X

Prepared: 08/02/2011

Matrix Spike (A109135-MS1) EPA 552.2 - Quality Control				Source: A1G1706-05							
Dibromoacetic Acid (DBAA)	9.9	1.0	ug/L	10	ND	99	70-130			08/04/11	
Dichloroacetic Acid (DCAA)	10	1.0	ug/L	10	ND	103	70-130			08/04/11	
Monobromoacetic Acid (MBAA)	9.2	1.0	ug/L	10	ND	92	70-130			08/04/11	
Monochloroacetic Acid (MCAA)	19	2.0	ug/L	20	ND	97	70-130			08/04/11	
Trichloroacetic Acid (TCAA)	10	1.0	ug/L	10	ND	104	70-130			08/04/11	
Surrogate: 2,3-Dibromopropionic Acid	31			25		123	70-130			08/04/11	

Matrix Spike Dup (A109135-MSD1) EPA 552.2 - Quality Control				Source: A1G1706-05							
Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10	ND	107	70-130	8	30	08/04/11	
Dichloroacetic Acid (DCAA)	8.2	1.0	ug/L	10	ND	82	70-130	23	30	08/04/11	
Monobromoacetic Acid (MBAA)	10	1.0	ug/L	10	ND	102	70-130	11	30	08/04/11	
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20	ND	110	70-130	12	30	08/04/11	
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10	ND	111	70-130	6	30	08/04/11	
Surrogate: 2,3-Dibromopropionic Acid	28			25		112	70-130			08/04/11	

Certificate of Analysis

08/05/2011

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
- Sample(s) received, prepared, and analyzed within the method specified criteria unless otherwise noted within this report.
- The results relate only to the samples analyzed in accordance with test(s) requested by the client on the Chain of Custody document. Any analytical quality control exceptions to method criteria that are to be considered when evaluating these results have been flagged and are defined in the data qualifiers section.
- All results are expressed on wet weight basis unless otherwise specified.
- All positive results for EPA Methods 504.1, 502.2, and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Results contained in this analytical report must be reproduced in its entirety.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- BSK Analytical Laboratories certifies that the test results contained in this report meet all requirements of the NELAC Standards for applicable certified drinking water chemistry analyses unless qualified or noted in the Case Narrative.
- Analytical data contained in this report may be used for regulatory purposes to meet the requirements of the Federal or State drinking water, wastewater, and hazardous waste programs.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals. Samples submitted to the laboratory have been analyzed outside of this holding time requirement.
- * - This is not a NELAP accredited analyte.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- (2) The digestion used to produce this result deviated from EPA 200.2 by excluding hydrochloric acid in order to produce acceptable recoveries for affected metals.
- (2C) Result reported from secondary analytical column.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.

Certifications:

State of California - CDPH - ELAP	1180
State of California - CDPH - NELAP	04227CA
State of New Mexico - NMED-DWB	
State of Nevada - NDEP	CA000792009A

Definitions and Flags for Data Qualifiers

mg/L:	Milligrams/Liter (ppm)	M:	Method Detection Limit	MDA:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)		:DL x Dilution	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	ND:	None Detected at RL	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	pCi/L:	Picocuries per Liter	Present:	1 or more CFU/100mLs
		NR:	Non-Reportable	RL Mult:	RL Multiplier

A1G1817

Monterey Bay Analytical

Monte6227

07222011

Turnaround: Standard

Due Date: 08/05/2011

BSK ANALYTICAL LABORATORIES

1414 Stanislaus Street, Fresno, CA 93706-1623
 (559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com


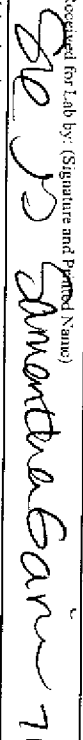
AI61817
 Montec227
 07/22/2011
 10

* Required Fields

Client/Company Name * **Monterey Bay Analytical** Report Attention * **David Holland** Phone * # (831)-357-6227 FAX * # (831)-641-0734
 Address * **4 Justin Ct.** City * **Monterey** State * **CA** Zip * **93940** E-mail **4MBAS@Sbcglobal.net**

Project Information: **Monterey Peninsula Water Management District** PO # **464** Quote # **464**
 How would you like your completed results sent? E-Mail Fax EDD Mail Only
 Sampler Name Printed / Signature: **Lear, J.** QC Request Result Request ** Surcharge STD Level II STD 3 Day** 2 Day** 1 Day**

Matrix Types: **RSW = Raw Surface Water** **CFW = Chlorinated Finished Water** **CVW = Chlorinated Waste Water** **RW = Bottled Water**
RGW = Raw Ground Water **FW = Finished Water** **WW = Waste Water** **SW = Storm Water** **DW = Drinking Water** **SO = Solid**
 Carbon Cuples: CDHS Fresno Co EPA Merced Co Tulare Co Other: _____
 Regulatory Compliance Electronic Data Transfer: Y N

Sample #	Boiles #	Sampled Date	Sampled Time	Sample Description / Location *	Matrix *	Comments / Station Code	HAA5	TTHM	DOC	TOC	
1		7/20/11	13:30	KAW 1	FW	78437	✓	✓	✓	✓	
2		7/20/11	13:45	ASR 1	FW	78438	✓	✓	✓	✓	
Relinquished by: (Signature and Printed Name) David Holland  MBAS Company Date: 7/21/11 Time: 16:00 Received by: (Signature and Print Name) _____ Company _____											
Received for Lab by: (Signature and Printed Name)  Smarta Barin Date: 7/22/11 Time: 8:15 Payment Received at Delivery: _____ Date: _____ Amount: _____ Check/Cash/ Card PIA # _____ Int _____											
Shipping Method: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> GSO <input type="checkbox"/> WALK-IN <input type="checkbox"/> SINC <input type="checkbox"/> FED EX <input type="checkbox"/> OTHER Cooling Method: <input checked="" type="checkbox"/> WET <input type="checkbox"/> BLUE <input type="checkbox"/> NONE Packing Material: _____											

ANALYSIS REQUESTED



Notice: Payment for services rendered as noted herein are due in full within 30 days from when invoiced. If you so pack, account balances are deemed delinquent. Disputes/claims are subject to monthly service/charging charges and interest calculated at 1.02% per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, costs of collection, including attorney's fees incurred prior to or in litigation whether conducted by judgment, settlement, compromise or otherwise. The person signing for the client/Company, employee, acknowledge first they are either the Client or authorized agent to the Client, and the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any indication of the analysis requested either type or quantities, will be noted and signed upon the Chain of Custody. The firm would not be responsible for any samples received after 3:00 pm will begin the next business day. 8/17/01 1:00 AM/11/11



Date Received 7/22/11

Section 1- Receiving Information

Sample Transport: ONTRAC UPS PMS Walk-In BSK-Courier GSO Fed Exp. Other: _____

Samples arrived at lab on same day sampled: Yes ___ No X Has Chilling Process Begun: Yes X No ___

Coolers/Ice Chests Description/Temperature(s): (If more than 5 received, list information in comment section)

1) 4° 2) _____ 3) _____ 4) _____ 5) _____

Was Temperature In Range: Y N N/A Received On Ice: Wet Blue Received Ambient: Y N

Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other: _____

Initial Receipt: BSK-Visalia BSK-Bakersfield BSK-SAC BSK-FAL

Were ice chest custody seals present? Y N Intact: Y N

Section 2- COC Info.

	Completed		Info From Container	Completed		Info From Container
	Yes	No		Yes	No	
Was COC Received	<u>1</u>					Analysis Requested
Date Sampled	<u>111</u>				<u>1</u>	Hold times less than 72hr
Time Sampled	<u>111</u>				<u>111</u>	Client Name
Sample ID	<u>111</u>					Address
Special Storage/Handling Ins.		<u>1</u>			<u>111</u>	Telephone #

Section 3- Bottles / Analysis

	Yes	No	N/A	Comment
Did all bottles arrive unbroken and intact?	<u>1</u>			
Were bottle custody seals present?		<u>11</u>		
Were bottle custody seals intact?		<u>11</u>		
Did all bottle labels agree with COC?	<u>111</u>			
Were correct containers used for the tests requested?	<u>111</u>			
Were correct preservations used for the tests requested?	<u>111</u>			
Was a sufficient amount of sample sent for tests indicated?	<u>111</u>			
Were bubbles present in VOA Vials? (Volatile Methods Only)		<u>1</u>		
Were Ascorbic Acid Bottles received with the VOAs?		<u>1</u>		

Section 4- Comments / Discrepancies

Sample(s) Split/Preserve: Yes No Container: _____ Preservation: _____ Dt/Time/Init _____

Container: _____ Preservation: _____ Dt/Time/Init _____

Was Client Service Rep. notified of discrepancies: Yes No N/A CSR: _____ Notified By/Time: _____

Explanations / Comments

Report Comment Entered:

Labeled by: PL @ 16:31 Labels checked by: MA @ 12:03 RUSH Paged by: _____ @ _____

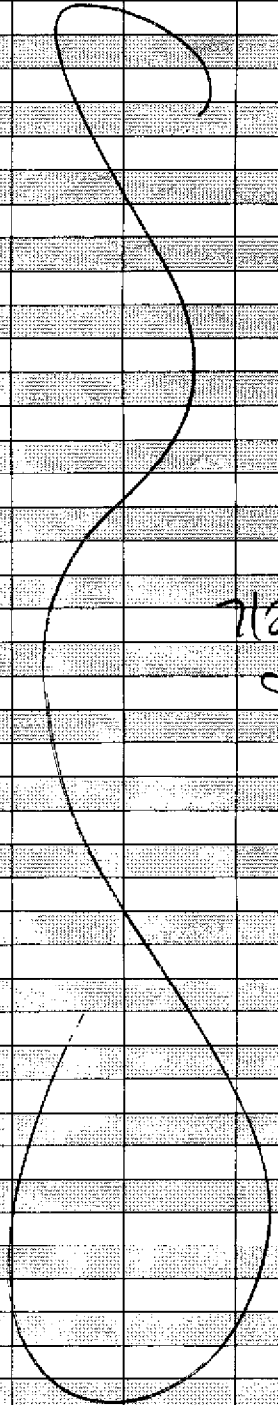
Sample Integrity Pg 2 of 2

BSK Bottles Yes ~~No~~



250ml (A) 500ml (B) 1Liter (C) Amber Glass (AG)

Container(s) Received	1-2				
Bacti Na ₂ S ₂ O ₃					
None (p) ^{White Cap}					
None (p) ^{Blue Cap} w/NH ₄ + Buffer					
HNO ₃ (p) ^{Red Cap}					
H ₂ SO ₄ (p) ^{Yellow Cap}					
NaOH (p) ^{Green Cap}					
EDA (p) ^{Brown Cap/Label}					
Other:					
Dissolved Oxygen 300ml (g)					
250ml (AG) None					
250ml (AG) H ₂ SO ₄ COD ^{Yellow Label}					
250ml (AG) Na ₂ S ₂ O ₃ 515,547 ^{Blue Label}					
250ml (AG) Na ₂ S ₂ O ₃ + MCAA 531.1 ^{Orange Label}					
250ml (AG) NH ₄ Cl 552 ^{Purple Label}	1				
250ml (AG) EDA DBPs ^{Brown Label}					
250ml (AG) Other:					
500ml (AG) None					
500ml (AG) H ₂ SO ₄ ^{Yellow Label}					
1 Liter (AG) None					
1 Liter (AG) H ₂ SO ₄ O&G / TPH-Diesel ^{Yellow Label}					
1 Liter (AG) Na ₂ S ₂ O ₃ 548 / 525 / 521 ^{Blue Label}					
1 Liter (P) Na ₂ S ₂ O ₃ + H ₂ SO ₄ 549					
1 Liter (AG) NaOH+ZnAc Sulfide					
40ml VOA Vial Clear - HCL					
40ml VOA Vial Clear - Buffer pH 4					
40ml VOA Vial Clear - None ^{Ag}	3				
40ml VOA Vial Amber - Na ₂ S ₂ O ₃	3				
40ml VOA Vial Clear - Na ₂ S ₂ O ₃ 504, 505					
40ml VOA Vial Clear - H ₃ PO ₄	3				
Other:					
1/2 Gallon (p)					
Asbestos - 1Liter Plastic/Foil					
Radon 200ml Clear (g)					
Low Level Hg/Metals Double Baggie					
Bioassay Jug					
Ampule					
PT Sample Bottle					
250 Clear Glass Jar					
500 Clear Glass Jar					
1 Liter Clear Glass Jar					
Plastic Bag					
Soil Tube Brass / Steel / Plastic					
Tedlar Bags					



7/22/11
S



CHAIN OF CUSTODY
AND ANALYSIS REQUEST DOCUMENT

TEST DESCRIPTION AND ANALYSES REQUESTED

Lab Number:
1100299

RUSH!!

Client: Monterey Bay Analytical Services
Customer Number:
Address:
4 Justin Court, Suite D. Monterey CA 93940

Phone: 831-375-6227 Fax: 831-641-0734
Email Address: 4mbas@sbcglobal.net

Contact Person: David Holland
Project Name: MPWMD

Purchase Order Number:
Quote Number:

Sampler(s): Lear, J.

Sampling Fee: _____ Pickup Fee: _____

Compositor Setup Date: _____ Time: _____

Sample Num	Location Description	Date Sampled	Time Sampled
MW 1		7/20/11	13:30
ASR 1		7/20/11	13:45

Method of Sampling: Composite (C) Grab (G)
 Number of Containers
 Type of Containers Glass (G) Plastic (P) VOA (V) Metal Tube (MT)
 Potable (P) Non-Potable (NP) Ag Water (AgW)
 Surface Water (SW) Monitoring Well (MW) Ground Water (GW)
 Travel Blank (TB) Waste Water (WW) Drinking Water (DW)
 Soil (S) Sludge (SLG) Solid (SLD) Oil (O)
 Bact: System (Sys) Source (SRC) Waste (W)
 Bact: Routine (ROUT) Repeat (RPT) Other (OTH) Replace (RPL)
 Special (SPL)
 Leaf Tissue (LT) Petiole Tissue (PET) Produce (PRD)
 Preservative: (1) NaOH + ZnAc, (2) NaOH, (3) HCl
 (4) H2SO4, (5) HNO3, (6) Na2S2O3, (7) Other _____

Gross Alpha
Radium 226

G	3L	P	DW
G	3L	P	DW
G	3L	P	DW

Remarks
78437-78438

Can you Rush these
Samples Please?

Relinquished
Holland D. 8/15/11 16:00
Received By: *[Signature]*
Date: _____ Time: _____

Relinquished
VBS 8/11/11 930
Received By: *[Signature]*
Date: _____ Time: _____

Relinquished
~~Received By: _____~~
Date: _____ Time: _____

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: 805/392-2000
FAX: 805/525-4172
CANELAP Certification No. 01110CA

Office & Laboratory
2500 Stegecoach Road
Stockton, CA 95215
TEL: 209/942-0182
FAX: 209/942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: 530/343-5818
FAX: 530/343-3807
CA ELAP Certification No. 2670

Field Office
Visalia, California
TEL: 559/734-9473
Mobile: 559/737-2399
FAX: 559/734-8435



August 26, 2011

Monterey Bay Analytical Services
4 Justin Court
Monterey, CA 93940

Lab ID : SP 1108299
Customer : 2-19144

Laboratory Report

Introduction: This report package contains total of 5 pages divided into 3 sections:

- Case Narrative (2 pages) : An overview of the work performed at FGL.
- Sample Results (2 pages) : Results for each sample submitted.
- Quality Control (1 page) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
MW 1	07/20/2011	08/17/2011	SP 1108299-001	DW
ASR 1	07/20/2011	08/17/2011	SP 1108299-002	DW

Sampling and Receipt Information: All samples were received, prepared and analyzed within the method specified holding times. All samples arrived at 9 °C. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Radio QC

900.0	08/23/2011:212349 All analysis quality controls are within established criteria
	08/18/2011:209117 All preparation quality controls are within established criteria
903.0	08/24/2011:212487 All analysis quality controls are within established criteria
	08/23/2011:209273 All preparation quality controls are within established criteria

August 26, 2011
Monterey Bay Analytical Services

Lab ID : SP 1108299
Customer : 2-19144

Certification:: I certify that this data package is in compliance with NELAC standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.**



Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2011-08-29



August 26, 2011

Lab ID : SP 1108299-001

Customer ID : 2-19144

Monterey Bay Analytical Services

4 Justin Court
Monterey, CA 93940

Sampled On : July 20, 2011-13:30

Sampled By : Lear, J

Received On : August 17, 2011-09:30

Matrix : Drinking Water

Description : MW 1

Project : MPWMD

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Radio Chemistry ^{P:15}								
Gross Alpha	2.06 ± 1.39	1.63	pCi/L	15/5	900.0	08/18/11:209117	900.0	08/23/11:212349
Total Alpha Radium (226)	0.154 ± 0.266	0.439	pCi/L	3	903.0	08/23/11:209273	903.0	08/24/11:212487

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: HNO3 pH < 2 * PQL adjusted for dilution.

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference.
MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV).
AV = Assigned Value(Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following
If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:

Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L

Uranium is less than or equal to 20 pCi/L

Radium 226 + Radium 228 is less than or equal to 5 pCi/L

Note: Samples are held for 3-6 months prior to disposal.



August 26, 2011

Lab ID : SP 1108299-002

Customer ID : 2-19144

Monterey Bay Analytical Services

4 Justin Court
Monterey, CA 93940

Sampled On : July 20, 2011-13:45

Sampled By : Lear, J

Received On : August 17, 2011-09:30

Matrix : Drinking Water

Description : ASR 1

Project : MPWMD

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Radio Chemistry^{P:15}								
Gross Alpha	0.540 ± 1.54	2.28	pCi/L	15/5	900.0	08/18/11:209117	900.0	08/23/11:212349
Total Alpha Radium (226)	0.051 ± 0.223	0.439	pCi/L	3	903.0	08/23/11:209273	903.0	08/24/11:212487

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: HNO3 pH < 2 * PQL adjusted for dilution.

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference.
MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV).
AV = Assigned Value(Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following
If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:

Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L

Uranium is less than or equal to 20 pCi/L

Radium 226 + Radium 228 is less than or equal to 5 pCi/L

Note: Samples are held for 3-6 months prior to disposal.



August 26, 2011
Monterey Bay Analytical Services

Lab ID : SP 1108299
Customer : 2-19144

Quality Control - Radio

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Radio								
Alpha	900.0	08/23/11:212349emv	CCV CCB	cpm cpm	10040	39.4 % 0.0600	38 - 47 0.15	
Gross Alpha	900.0	08/18/11:209117jmb (SP 1108308-001)	Blank LCS MS MSD MSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	150.4 150.4 150.4 150.4	0.01 99.4 % 87.1 % 87.9 % 0.8%	3 75-125 60-140 60-140 ≤30	
Alpha	903.0	08/24/11:212487mmf	CCV CCB	cpm cpm	10040	39.3 % 0.0500	38 - 47 0.15	
Total Alpha Radium (226)	903.0	08/23/11:209273fhf	RgBlk LCS BS BSD BSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	17.85 17.85 17.85 17.85	0.02 66.7 % 58.7 % 50.5 % 15.0%	2 52-89 43-92 43-92 ≤35.5	
Definition								
CCV	: Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.							
CCB	: Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.							
Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.							
RgBlk	: Method Reagent Blank - Prepared to correct for any reagent contributions to sample result.							
LCS	: Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.							
MS	: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.							
MSD	: Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.							
BS	: Blank Spikes - A blank is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.							
BSD	: Blank Spike Duplicate of BS/BSD pair - A blank duplicate is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.							
MSRPD	: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.							
BSRPD	: BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation and analysis.							
DQO	: Data Quality Objective - This is the criteria against which the quality control data is compared.							



Analytical Report

Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940	Client Project ID: MPWMD	Date Sampled: 07/20/11
		Date Received: 07/22/11
	Client Contact: David Holland	Date Reported: 07/27/11
	Client P.O.:	Date Completed: 07/25/11

WorkOrder: 1107618

July 27, 2011

Dear David:

Enclosed within are:

- 1) The results of the **2** analyzed samples from your project: **MPWMD**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.

1107618

McCAMPBELL ANALYTICAL, INC.
 1534 WILLOW PASS ROAD
 PITTSBURG, CA 94565-1701
 Website: www.mccampbell.com Email: main@mccampbell.com
 Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD
 TURN AROUND TIME
 RUSH 24 HR 48 HR 72 HR 5 DAY
 GeoTracker EDF PDF Excel Write On (DW)

Report To: David Holland Bill To:
 Company: Monterey Bay Analytical Services
 4 Justin Ct. Suite D
 Monterey, Ca 93940 E-Mail: 4mbas@sbcglobal.net
 Tele: (831) 641 - 0734 Fax: (831) 375 - 6227
 Project #: Project Name: MPWMD
 Project Location: Monterey Peninsula Water Management District
 Sampler Signature: Lear, J.

Analysis Request												Other	Comments
													Filter Samples for Metals analysis: Yes / No

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED							
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other				
	MW 1	7/20/11	13:30	3	VOA	X											X	78437
	ASR 1	7/20/11	13:45	3	VOA	X											X	78438

(+)

Relinquished By: David Holland *[Signature]* Date: 7/21 Time: 1600 Received By: *[Signature]* 7/22/11 10:35
 Relinquished By: Date: Time: Received By:
 Relinquished By: Date: Time: Received By:

ICE/° 15.8°C
 GOOD CONDITION ✓
 HEAD SPACE ABSENT ✓
 DECHLORINATED IN LAB ✓
 APPROPRIATE CONTAINERS ✓
 PRESERVED IN LAB ✓
 PRESERVATION VOAS O&G METALS OTHER pH<2

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1107618

ClientCode: MBAS

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:

David Holland
 Monterey Bay Analytical
 4 Justin Court, Suite D
 Monterey, CA 93940
 831-375-6227 FAX: 831-641-0734

Email: 4mbas@sbcglobal.net
 cc:
 PO:
 ProjectNo: MPWMD

Bill to:

Accounts Payable
 Monterey Bay Analytical
 4 Justin Court, Suite D
 Monterey, CA 93940

Requested TAT: 5 days

Date Received: 07/22/2011

Date Printed: 07/22/2011

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1107618-001	MW 1	Water	7/20/2011 13:30	<input type="checkbox"/>	A												
1107618-002	ASR 1	Water	7/20/2011 13:45	<input type="checkbox"/>	A												

Test Legend:

1	RSK174_W	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Monterey Bay Analytical**

Date and Time Received: **7/22/2011 12:16:52 PM**

Project Name: **MPWMD**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **1107618** Matrix: Water

Carrier: UPS

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
- Container/Temp Blank temperature Cooler Temp: 15.8°C NA
- Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
- Sample labels checked for correct preservation? Yes No
- Metal - pH acceptable upon receipt (pH<2)? Yes No NA
- Samples Received on Ice? Yes No

(Ice Type: BLUE ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940	Client Project ID: MPWMD	Date Sampled: 07/20/11
		Date Received: 07/22/11
	Client Contact: David Holland	Date Extracted 07/25/11
	Client P.O.:	Date Analyzed 07/25/11

Light Gas Hydrocarbons*

Extraction method: RSK 174/175

Analytical methods: RSK174/175

Work Order: 1107618

Lab ID	Client ID	Matrix	Methane	DF	% SS	Comments
1107618-001A	MW 1	W	ND	1	N/A	
1107618-002A	ASR 1	W	ND	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.4	µg/L
	S	NA	NA

* water samples are reported in µg/L.

%SS = Percent Recovery of Surrogate Standard
DF = Dilution Factor

DHS ELAP Certification 1644

 Angela Rydelius, Lab Manager



QC SUMMARY REPORT FOR RSK174/175

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 59937

WorkOrder: 1107618

EPA Method: RSK174/175		Extraction: RSK 174/175							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Methane	N/A	1.17	N/A	N/A	N/A	109	109	0	N/A	N/A	80 - 120	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 59937 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1107618-001A	07/20/11 1:30 PM	07/25/11	07/25/11 11:45 AM	1107618-002A	07/20/11 1:45 PM	07/25/11	07/25/11 11:56 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



MPWMD
 Joe Oliver
 P.O. Box 85
 Monterey, CA 93442-0085

4 Justin Court Suite D, Monterey, CA 93940
 831.375.MBAS
 montereybayanalytical@usa.net
 ELAP Certification Number: 2385

Lab Number: AA71943

Collection Date/Time: 12/21/2010 16:00 Sample Collector: LEAR, J
 Submittal Date/Time: 12/21/2010 16:35 Sample ID

Sample Description: Injectate

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Alkalinity, Total (as CaCO3)	2320B	mg/L	137		2		12/27/2010
Ammonia-N	4500NH3 D	mg/L	Not Detected		0.05		12/29/2010
Arsenic, Total	EPA200.8	ug/L	Not Detected		1	10	12/22/2010
Barium, Total	EPA200.8	ug/L	54		10	1000	12/22/2010
Bicarbonate (as HCO3-)	2320B	mg/L	167		10		12/27/2010
Boron	EPA200.7	mg/L	Not Detected		0.05		12/28/2010
Calcium	EPA200.7	mg/L	45		0.5		12/28/2010
Carbonate as CaCO3	2320B	mg/L	Not Detected		10		12/27/2010
Chloramines	SM4500-Cl G	mg/L	0.06	H	0.05		12/27/2010
Chloride	EPA300.0	mg/L	26		1	250	12/22/2010
Dissolved Organic Carbon	SM5310-C	mg/L	1.6	E	0.2		1/6/2011
Fluoride	EPA300.0	mg/L	0.17		0.10	2.0	12/22/2010
Gross Alpha	EPA900.0	pCi/L	2.14 ± 1.23	E		15	1/1/2011
Haloacetic Acids	EPA552	ug/L	20	E		60	1/4/2011
Hardness (as CaCO3)	2340B	mg/L	166		10		12/28/2010
Iron	EPA 200.7	ug/L	15		10		12/28/2010
Iron, Dissolved	EPA 200.7	ug/L	Not Detected		10	300	12/28/2010
Kjehldahl Nitrogen	4500-NH3 B,C,E	mg/L	Not Detected		0.5		12/28/2010
Langlier Index (15 deg. C)	2330B		-0.10				1/3/2011
Langlier Index (60 deg. C)	2330B		0.50				1/3/2011
Lithium	EPA200.8	ug/L	6		1		12/22/2010
Magnesium	EPA200.7	mg/L	13		0.5		12/28/2010
Manganese, Dissolved	EPA 200.7	ug/L	Not Detected		10	50	12/28/2010
Manganese, Total	EPA 200.7	ug/L	Not Detected		10	50	12/28/2010
Methane	EPA174/175	ug/L	0.43	E	5		12/23/2010
Molybdenum, Total	EPA200.8	ug/L	3		1	1000	12/22/2010
Nickel, Total	EPA200.8	ug/L	2		10	100	12/22/2010
Nitrate as NO3	EPA300.0	mg/L	Not Detected		1	45	12/22/2010
Nitrate as NO3-N	EPA300.0	mg/L	Not Detected		0.05	10	12/22/2010

mg/L: Milligrams per liter ug/L : Micrograms per liter PQL : Practical Quantitation Limit MCL: Maximum Contamination Level
 H = Analyzed outside of hold time E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

Lab Number: AA71943

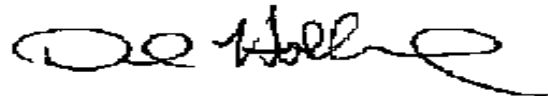
Collection Date/Time: 12/21/2010 16:00 Sample Collector: LEAR, J
 Submittal Date/Time: 12/21/2010 16:35 Sample ID

Sample Description: Injectate

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Nitrite as Nitrogen	EPA300.0	mg/L	Not Detected		0.05	1.00	12/22/2010
Nitrite as NO2-N	EPA300.0	mg/L	Not Detected		0.05	1.00	12/22/2010
o-Phosphate-P	EPA300.0	mg/L	0.23		0.05		12/22/2010
pH (Laboratory)	4500-H+B	STD. Units	7.6				12/21/2010
Phosphorus, Total	HACH 8190	mg/L	0.46		0.03		12/22/2010
Potassium	EPA200.7	mg/L	3.1		0.1		12/28/2010
QC Anion Sum x 100	Calculation	%	94%				12/28/2010
QC Anion-Cation Balance	Calculation	%	3				12/28/2010
QC Cation Sum x 100	Calculation	%	101%				12/28/2010
QC Ratio TDS/SEC	Calculation		0.59				1/3/2011
Selenium, Total	EPA200.8	ug/L	Not Detected		2	50	12/22/2010
Sodium	EPA200.7	mg/L	44		0.5		12/28/2010
Specific Conductance (E.C)	2510B	umhos/cm	527		1	900	12/20/2010
Strontium, Total	EPA200.8	ug/L	237		5		12/22/2010
Sulfate	EPA300.0	mg/L	72		1	250	12/22/2010
Total Diss. Solids	2540C	mg/L	313		10	500	12/29/2010
Total Nitrogen	Calculation	mg/L	Not Detected		0.5		12/29/2010
Total Organic Carbon	SM5310C	mg/L	1.4	E	0.20		1/4/2011
Total Radium 226	EPA903.0	pCi/L	0.000 ± 0.308	E		3	12/29/2010
Trihalomethanes	EPA524.2	ug/L	32	E		80	12/24/2010
Uranium by ICP/MS	EPA200.8	ug/L	Not Detected		1	30	12/22/2010
Vanadium, Total	EPA200.8	ug/L	Not Detected		1	1000	12/22/2010
Zinc, Total	EPA200.8	ug/L	311		10	5000	12/22/2010

Sample Comments:

Report Approved by:



David Holland, Laboratory Director

mg/L: Milligrams per liter ug/L : Micrograms per liter PQL : Practical Quantitation Limit MCL: Maximum Contamination Level
 H = Analyzed outside of hold time E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

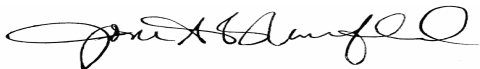
David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Dear David Holland,

Thank you for selecting BSK Analytical Laboratories for your analytical testing needs. We have prepared this report in response to your request for analytical services. Enclosed are the results of analyses for samples received by the laboratory on 12/29/2010 08:30.

If additional clarification of any information is required, please contact your Client Services Representative, Joni Blankfield at (800) 877-8310 or (559) 497-2888.

BSK ANALYTICAL LABORATORIES



Joni Blankfield
Client Services Representative

Case Narrative

Work Order Information

Client Name: Monterey Bay Analytical
Client Code: Monte6227
Work Order: AOL2039
Project: MPWMD

Submitted by: David Holland
Shipped by: ONTRAC
COC Number:
TAT: 10
PO #:

Sample Receipt Conditions

Cooler: Default Cooler **Temp. °C:** 6
Custody Seals
Containers Intact
COC/Labels Agree
Received On Wet Ice
Packing Material - Bubble Wrap
Sample(s) were received in temperature range.
Initial receipt at BSK-FAL

Report Manager

David Holland

Report Format

FAL Final Report.rpt



Certificate of Analysis

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Report Issue Date: 01/07/2011 17:57
Received Date: 12/29/2010
Received Time: 08:30

Lab Sample ID: AOL2039-01
Sample Date: 12/21/2010 16:00
Sample Type: Grab

Sampled by: Lear, J.
Matrix: Drinking Water

Sample Description: Injectate // 71943

General Chemistry

Table with 10 columns: Analyte, Method, Result, RL, Units, RL Mult, Batch, Prepared, Analyzed, Qual. Row 1: Dissolved Organic Carbon, SM 5310 C, 1.6, 0.20, mg/L, 1, A100207, 01/06/11, 01/06/11



General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
---------	--------	----	-------	-------------	---------------	------	--------	-----	-------	---------------	------

Batch: A100207

Analyst: SAB

Prepared: 01/06/2011

Blank (A100207-BLK1) SM 5310 C - Quality Control

Dissolved Organic Carbon	ND	0.20	mg/L							01/06/11	
--------------------------	----	------	------	--	--	--	--	--	--	----------	--

Blank Spike (A100207-BS1) SM 5310 C - Quality Control

Dissolved Organic Carbon	10	0.20	mg/L	10		102	80-120			01/06/11	
--------------------------	----	------	------	----	--	-----	--------	--	--	----------	--

Blank Spike Dup (A100207-BSD1) SM 5310 C - Quality Control

Dissolved Organic Carbon	10	0.20	mg/L	10		102	80-120	0	20	01/06/11	
--------------------------	----	------	------	----	--	-----	--------	---	----	----------	--

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
- Sample(s) received, prepared, and analyzed within the method specified criteria unless otherwise noted within this report.
- The results relate only to the samples analyzed in accordance with test(s) requested by the client on the Chain of Custody document. Any analytical quality control exceptions to method criteria that are to be considered when evaluating these results have been flagged and are defined in the data qualifiers section.
- All results are expressed on wet weight basis unless otherwise specified.
- All positive results for EPA Methods 504.1, 502.2, and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Results contained in this analytical report must be reproduced in its entirety.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- BSK Analytical Laboratories certifies that the test results contained in this report meet all requirements of the NELAC Standards for applicable certified drinking water chemistry analyses unless qualified or noted in the Case Narrative.
- Analytical data contained in this report may be used for regulatory purposes to meet the requirements of the Federal or State drinking water, wastewater, and hazardous waste programs.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals. Samples submitted to the laboratory have been analyzed outside of this holding time requirement.
- * - This is not a NELAP accredited analyte.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- (2) The digestion used to produce this result deviated from EPA 200.2 by excluding hydrochloric acid in order to produce acceptable recoveries for affected metals.
- (2C) Result reported from secondary analytical column.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.

Certifications:

State of California - CDPH - ELAP	1180
State of California - CDPH - NELAP	04227CA
State of New Mexico - NMED-DWB	
State of Nevada - NDEP	CA000792009A

Definitions and Flags for Data Qualifiers

mg/L:	Milligrams/Liter (ppm)	M:	Method Detection Limit	MDA:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)		:DL x Dilution	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	ND:	None Detected at RL	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	pCi/L:	Picocuries per Liter	Present:	1 or more CFU/100mLs
		NR:	Non-Reportable	RL Mult:	RL Multiplier

A0L2039

Monterey Bay Analytical

Monte6227

12292010

David Holland
MPWMD

Turnaround: Standard
Due Date: 01/13/2011

Sample ID	Sample Description	Date Sampled	Lab Notes
A0L2039-01	Injctate	12/21/2010	

BSK ANALYTICAL LABORATORIES

1414 Stanislaus Street, Fresno, CA 93706-1623
 (559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

AOL 2039
 Montie6227

12/29/2010
 10



ANALYSIS REQUESTED

* Required Fields

Client/Company Name * **Monterey Bay Analytical** Report Attention * **David Holland** Phone * # (831)-357-6227 FAX * # (831)-641-0734
 Email: **4MBAS@Sbcglobal.net**

Address * **4 Justin Ct.** City * **Monterey** State * **CA** Zip * **93940**
 Project Information **MPWMD** PO # **464** Quarter # **464**
 Carbon Copies: CDHS Fresno Co EPA Merced Co Tulare Co Other:

How would you like your completed results sent? E-Mail Fax PDD Mail Only
 Sample Name Printed / Signature **Lear, J.** QC Request STD Level II Result Request ** Surcharge STD 5 Day** 2 Day** Day**
 Regulatory Compliance Electronic Data Transfer: Y N

Matrix Types: **RSW - Raw Surface Water** CPW = Chlorinated Finished Water CW = Chlorinated Waste Water BW = Bottled Water
RGW - Raw Ground Water FW = Finished Water WW = Waste Water SW = Storm Water DW = Drinking Water SO = Solid

Sample #	#	Sampled		Sample Description / Location *	Matrix *	Comments / Station Code
		Date	Time			
		12/21/10	1600	Ingestate	DW	✓
Relinquished by: (Signature and Printed Name) David Holland Company MBAS Date 12/28/10 Time 1600 Received by: (Signature and Print Name) _____ Company _____ Relinquished by: (Signature and Printed Name) _____ Company _____ Date _____ Time _____ Received by: (Signature and Print Name) _____ Company _____						

Received By Lab by: (Signature and Printed Name) **Sto J Sto Simantva Baric - 12/28/10** Date **12/28/10** Time **1600**
 Shipping Method: **CAO UPS GSO WALK-IN SVC FED EX OTHER** Cooling Method: **WET BLUE NONE** Packing Material: _____
 Payment Received at Delivery: _____ Amount: _____ Check/Cash/Card PIA # _____ Inlt _____

Notice: Payment for services rendered as in which herein are due in full within 30 days from when invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service-chilling charges and interest calculated at 1 1/2% per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, costs of collections, including attorney's fees incurred prior to or in litigation, whether concluded by judgment, settlement, compromise or otherwise. The person signing for the client/Company, expressly acknowledges that they are either the Client or authorized agent to the Client, and the Client agrees to be responsible for payment for analytical services or this Chain of Custody. Any modification of the analysis requested, either type or quantity, will be noted and agreed upon this Chain of Custody. The run around time for any samples received after 3:00 pm will begin the next business day. SPT-0012001-01/06/08

Sample Integrity Pg. 1 of 2 WORK



Date Received 12/29/10

Section 1- Receiving Information

Sample Transport: ONTRAC UPS PMS Walk-In BSK-Courier GSO Fed Exp. Other: _____

Samples arrived at lab on same day sampled: Yes _____ No X (If Yes- Temperature is not needed)

Coolers/Ice Chests Description/Temperature(s): (If more than 4 received, list information in comment section)

1) U¹ 2) _____ 3) _____ 4) _____

Was Temperature In Range: Y N N/A Received On Ice: Wet Blue Received Ambient: Y N

Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other: _____

Initial Receipt: BSK-Visalia BSK-Bakersfield BSK-SAC BSK-FDL BSK-FAL

Were ice chest custody seals present? Y N Intact: Y N

Section 2- COC Info.

	Completed		Info From Container	Completed		Info From Container
	Yes	No		Yes	No	
Was COC Received	<u>U</u>				<u>U</u>	
Date Sampled	<u>U</u>				<u>U</u>	
Time Sampled	<u>U</u>				<u>U</u>	
Sample ID	<u>U</u>				<u>U</u>	
Special Storage/Handling Ins.		<u>-</u>			<u>U</u>	
			Analysis Requested			
			Any hold times less than 72hr		<u>-</u>	
			Client Name			
			Address			
			Telephone #			

Section 3- Bottles / Analysis

	Yes	No	N/A	Comment
Did all bottles arrive unbroken and intact?	<u>U</u>			
Were bottle custody seals present?	<u>U</u>			
Were bottle custody seals intact?	<u>U</u>			
Did all bottle labels agree with COC?	<u>U</u>			
Were correct containers used for the tests requested?	<u>U</u>			
Were correct preservations used for the tests requested?	<u>U</u>			
Was a sufficient amount of sample sent for tests indicated?	<u>U</u>			
Were bubbles present in VOA Vials? (Volatile Methods Only)			<u>U</u>	
Were Ascorbic Acid Bottles received with the VOAs?			<u>U</u>	

Section 4- Comments / Discrepancies

Sample(s) Split/Preserve: Yes No Container: _____ Preservation: _____ Dt/Time/Init _____

Container: _____ Preservation: _____ Dt/Time/Init _____

Was Client Service Rep. notified of discrepancies: Yes No N/A CSR: _____ Notified By: _____

Explanations / Comments

Report Comment Entered:

Labeled by: JHD @ 17:47 Labels checked by: [Signature] @ 17:58

Sample Integrity

Pg 2 of 2

A0L2039
Monte6227

12/29/2010
10

BSK Bottles Yes

WORK
No



250ml (A) 500ml (B) 1Liter (C) Amber Glass (AG)

Container(s) Received					
Bacti Na ₂ S ₂ O ₃	1				
None (p) ^{White Cap}	1				
None (p) ^{Blue Cap} w/NH ₄ + Buffer					
HNO ₃ (p) ^{Red Cap}					
H ₂ SO ₄ (p) ^{Yellow Cap}					
NaOH (p) ^{Green Cap}					
Other:					
Dissolved Oxygen 300ml (g)					
Centrifuge Tube HNO ₃					
250ml (AG) None					
250ml (AG) H ₂ SO ₄ COD ^{Yellow Label}					
250ml (AG) Na ₂ S ₂ O ₃ 515, 547 ^{Blue Label}					
250ml (AG) Na ₂ S ₂ O ₃ + MCAA 531.1 ^{Orange Label}					
250ml (AG) NH ₄ Cl 552 ^{Purple Label}					
250ml (AG) EDA DBPs ^{Brown Label}					
250ml (AG) Other:					
500ml (AG) None					
500ml (AG) H ₂ SO ₄ TPH-Diesel ^{Yellow Label}					
1 Liter (AG) None					
1 Liter (AG) H ₂ SO ₄ O&G ^{Yellow Label}					
1 Liter (AG) Na ₂ S ₂ O ₃ 548 / 525 / 521 ^{Blue Label}					
1 Liter (P) Na ₂ S ₂ O ₃ + H ₂ SO ₄ 549					
1 Liter (AG) NaOH+ZnAc Sulfide					
1 Liter (AG) Ascorbic/EDTA/Pot Citrate 527 ^{Grey Label}					
1 Liter (AG) CuSO ₄ /Trizma 529 ^{Turquoise Label}					
1 Liter (AG) Na ₂ SO ₃ / HCL 525 UCMR ^{Neon Green Label}					
1 Liter (AG) Ammonium Chloride 535 ^{Purple Label}					
40ml VOA Vial Clear - HCL					
40ml VOA Vial Amber - Na ₂ S ₂ O ₃					
40ml VOA Vial Clear - None					
40ml VOA Vial Clear - Na ₂ S ₂ O ₃ 504, 505					
40ml VOA Vial Clear - H ₃ PO ₄					
Other:					
Asbestos 1 Liter Plastic/Foil					
Radon 200ml Clear (g)					
Low Level Hg/Metals Double Baggie					
Bioassay Jug					
250 Clear Glass Jar					
500 Clear Glass Jar					
1 Liter Clear Glass Jar					
Plastic Bag					
Soil Tube Brass / Steel / Plastic					
Tedlar Bags					

2/29/10

88

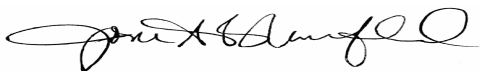
David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Dear David Holland,

Thank you for selecting BSK Analytical Laboratories for your analytical testing needs. We have prepared this report in response to your request for analytical services. Enclosed are the results of analyses for samples received by the laboratory on 12/22/2010 07:30.

If additional clarification of any information is required, please contact your Client Services Representative, Joni Blankfield at (800) 877-8310 or (559) 497-2888.

BSK ANALYTICAL LABORATORIES



Joni Blankfield
Client Services Representative

Case Narrative

Work Order Information

Client Name: Monterey Bay Analytical
Client Code: Monte6227
Work Order: AOL1608
Project: MPWMD

Submitted by: David Holland
Shipped by: ONTRAC
COC Number:
TAT: 10
PO #:

Sample Receipt Conditions

Cooler: **Default Cooler** **Temp. °C:** 4
Containers Intact
COC/Labels Agree
Received On Wet Ice
Packing Material - Bubble Wrap
Sample(s) were received in temperature range.
Initial receipt at BSK-FAL

Report Manager
David Holland

Report Format
FAL Final Report.rpt



Certificate of Analysis

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Report Issue Date: 01/06/2011 17:01
Received Date: 12/22/2010
Received Time: 07:30

Lab Sample ID: AOL1608-01
Sample Date: 12/21/2010 16:00
Sample Type: Grab

Sampled by: J Lear
Matrix: Drinking Water

Sample Description: Injectate // 71943

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Total Organic Carbon	SM 5310 C	1.4	0.20	mg/L	1	A012828	12/27/10	12/27/10	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	11	0.50	ug/L	1	A012795	12/23/10	12/24/10	
Bromoform	EPA 524.2	1.1	0.50	ug/L	1	A012795	12/23/10	12/24/10	
Chloroform	EPA 524.2	13	0.50	ug/L	1	A012795	12/23/10	12/24/10	
Dibromochloromethane	EPA 524.2	7.4	0.50	ug/L	1	A012795	12/23/10	12/24/10	

Surrogate: Bromofluorobenzene EPA 524.2 89 % Acceptable range: 70-130 %

Trihalomethanes by GC-MS

Total Trihalomethanes EPA 524.2 32 ug/L

Haloacetic Acids by GC-ECD

Dibromoacetic Acid (DBAA)	EPA 552.2	3.9	1.0	ug/L	1	A013023	12/30/10	01/04/11	
Dichloroacetic Acid (DCAA) (2C)	EPA 552.2	8.8	1.0	ug/L	1	A013023	12/30/10	01/04/11	
Monobromoacetic Acid (MBAA)	EPA 552.2	ND	1.0	ug/L	1	A013023	12/30/10	01/04/11	
Monochloroacetic Acid (MCAA) (2C)	EPA 552.2	ND	2.0	ug/L	1	A013023	12/30/10	01/04/11	
Trichloroacetic Acid (TCAA)	EPA 552.2	7.2	1.0	ug/L	1	A013023	12/30/10	01/04/11	

Surrogate: 2,3-Dibromopropionic Acid EPA 552.2 109 % Acceptable range: 70-130 %

Haloacetic Acids by GC-ECD

Total Haloacetic Acids (HAA) EPA 552.2 20 ug/L



General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A012828

Analyst: SAB

Prepared: 12/27/2010

Blank (A012828-BLK1) SM 5310 C - Quality Control

Total Organic Carbon	ND	0.20	mg/L							12/27/10	
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Blank Spike (A012828-BS1) SM 5310 C - Quality Control

Total Organic Carbon	11	0.20	mg/L	10		106	80-120			12/27/10	
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Blank Spike Dup (A012828-BSD1) SM 5310 C - Quality Control

Total Organic Carbon	11	0.20	mg/L	10		106	80-120	1	20	12/27/10	
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Matrix Spike (A012828-MS1) SM 5310 C - Quality Control

Source: A0L1608-01

Total Organic Carbon	12	0.20	mg/L	10	1.4	103	80-120			12/27/10	
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Matrix Spike (A012828-MS2) SM 5310 C - Quality Control

Source: A0L1718-01

Total Organic Carbon	14	0.20	mg/L	10	4.2	102	80-120			12/28/10	
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Matrix Spike Dup (A012828-MSD1) SM 5310 C - Quality Control

Source: A0L1608-01

Total Organic Carbon	12	0.20	mg/L	10	1.4	105	80-120	2	20	12/27/10	
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Matrix Spike Dup (A012828-MSD2) SM 5310 C - Quality Control

Source: A0L1718-01

Total Organic Carbon	15	0.20	mg/L	10	4.2	105	80-120	2	20	12/28/10	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limit	RPD	Limit	Date Analyzed	Qual
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Batch: A012795

Analyst: JGB

Prepared: 12/23/2010

Blank (A012795-BLK1) EPA 524.2 - Quality Control

Bromodichloromethane	ND	0.50	ug/L							12/24/10	
Bromoform	ND	0.50	ug/L							12/24/10	
Chloroform	ND	0.50	ug/L							12/24/10	
Dibromochloromethane	ND	0.50	ug/L							12/24/10	
Surrogate: Bromofluorobenzene	4.5			5.0		90	70-130			12/24/10	

Blank Spike (A012795-BS1) EPA 524.2 - Quality Control

Bromodichloromethane	4.2	0.50	ug/L	5.0		85	70-130			12/24/10	
Bromoform	4.4	0.50	ug/L	5.0		87	70-130			12/24/10	
Chloroform	4.5	0.50	ug/L	5.0		90	70-130			12/24/10	
Dibromochloromethane	4.1	0.50	ug/L	5.0		82	70-130			12/24/10	
Surrogate: Bromofluorobenzene	4.6			5.0		93	70-130			12/24/10	

Blank Spike Dup (A012795-BSD1) EPA 524.2 - Quality Control

Bromodichloromethane	4.2	0.50	ug/L	5.0		84	70-130	1	30	12/24/10	
Bromoform	4.4	0.50	ug/L	5.0		87	70-130	0	30	12/24/10	
Chloroform	5.0	0.50	ug/L	5.0		101	70-130	11	30	12/24/10	
Dibromochloromethane	4.2	0.50	ug/L	5.0		84	70-130	3	30	12/24/10	
Surrogate: Bromofluorobenzene	4.7			5.0		93	70-130			12/24/10	

Batch: A013023

Analyst: LBA

Prepared: 12/30/2010

Blank (A013023-BLK1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							01/04/11	
Dibromoacetic Acid (DBAA) (2C)	ND	1.0	ug/L							01/04/11	
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							01/04/11	
Dichloroacetic Acid (DCAA) (2C)	ND	1.0	ug/L							01/04/11	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							01/04/11	
Monobromoacetic Acid (MBAA) (2C)	ND	1.0	ug/L							01/04/11	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							01/04/11	
Monochloroacetic Acid (MCAA) (2C)	ND	2.0	ug/L							01/04/11	
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							01/04/11	
Trichloroacetic Acid (TCAA) (2C)	ND	1.0	ug/L							01/04/11	
Surrogate: 2,3-Dibromopropionic Acid	27			25		107	70-130			01/04/11	
Surrogate: 2,3-Dibromopropionic Acid (2C)	27			25		106	70-130			01/04/11	

Blank Spike (A013023-BS1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		109	70-130			01/04/11	
Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10		112	70-130			01/04/11	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		108	70-130			01/04/11	
Dichloroacetic Acid (DCAA) (2C)	11	1.0	ug/L	10		105	70-130			01/04/11	
Monobromoacetic Acid (MBAA)	9.7	1.0	ug/L	10		97	70-130			01/04/11	
Monobromoacetic Acid (MBAA) (2C)	9.6	1.0	ug/L	10		96	70-130			01/04/11	
Monochloroacetic Acid (MCAA)	10	2.0	ug/L	10		101	70-130			01/04/11	
Monochloroacetic Acid (MCAA) (2C)	9.4	2.0	ug/L	10		94	70-130			01/04/11	

A0L1608 FINAL 01062011 1701

1414 Stanislaus Street

Fresno, CA 93706

(559) 497-2888

FAX (559) 485-6935

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Environmental Engineering | Geotechnical Engineering | Materials Testing



Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A013023

Analyst: LBA

Prepared: 12/30/2010

Blank Spike (A013023-BS1) EPA 552.2 - Quality Control

Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		112	70-130			01/04/11	
Trichloroacetic Acid (TCAA) (2C)	11	1.0	ug/L	10		110	70-130			01/04/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	28			25		113	70-130			01/04/11	
<i>Surrogate: 2,3-Dibromopropionic Acid (2C)</i>	28			25		113	70-130			01/04/11	

Blank Spike Dup (A013023-BSD1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		111	70-130	2	30	01/04/11	
Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10		115	70-130	3	30	01/04/11	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		108	70-130	0	30	01/04/11	
Dichloroacetic Acid (DCAA) (2C)	10	1.0	ug/L	10		104	70-130	2	30	01/04/11	
Monobromoacetic Acid (MBAA)	9.5	1.0	ug/L	10		95	70-130	2	30	01/04/11	
Monobromoacetic Acid (MBAA) (2C)	9.1	1.0	ug/L	10		91	70-130	5	30	01/04/11	
Monochloroacetic Acid (MCAA)	9.7	2.0	ug/L	10		97	70-130	5	30	01/04/11	
Monochloroacetic Acid (MCAA) (2C)	8.6	2.0	ug/L	10		86	70-130	9	30	01/04/11	
Trichloroacetic Acid (TCAA)	12	1.0	ug/L	10		116	70-130	3	30	01/04/11	
Trichloroacetic Acid (TCAA) (2C)	11	1.0	ug/L	10		112	70-130	2	30	01/04/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	31			25		123	70-130			01/04/11	
<i>Surrogate: 2,3-Dibromopropionic Acid (2C)</i>	30			25		121	70-130			01/04/11	

Duplicate (A013023-DUP1) EPA 552.2 - Quality Control

Source: A0L1724-01

Dibromoacetic Acid (DBAA)	1.3	1.0	ug/L		1.2			3	30	01/04/11	
Dichloroacetic Acid (DCAA) (2C)	ND	1.0	ug/L		ND				30	01/04/11	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L		ND				30	01/04/11	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L		ND				30	01/04/11	
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L		ND				30	01/04/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	30			25		122	70-130			01/04/11	

Matrix Spike (A013023-MS1) EPA 552.2 - Quality Control

Source: A0L1606-03

Dibromoacetic Acid (DBAA)	13	1.0	ug/L	10	2.0	108	70-130			01/04/11	
Dichloroacetic Acid (DCAA) (2C)	10	1.0	ug/L	10	ND	104	70-130			01/04/11	
Monobromoacetic Acid (MBAA)	9.5	1.0	ug/L	10	ND	95	70-130			01/04/11	
Monochloroacetic Acid (MCAA)	10	2.0	ug/L	10	ND	102	70-130			01/04/11	
Trichloroacetic Acid (TCAA)	12	1.0	ug/L	10	ND	119	70-130			01/04/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	27			25		109	70-130			01/04/11	

Matrix Spike Dup (A013023-MSD1) EPA 552.2 - Quality Control

Source: A0L1606-03

Dibromoacetic Acid (DBAA)	13	1.0	ug/L	10	2.0	107	70-130	1	30	01/04/11	
Dichloroacetic Acid (DCAA) (2C)	11	1.0	ug/L	10	ND	108	70-130	4	30	01/04/11	
Monobromoacetic Acid (MBAA)	10	1.0	ug/L	10	ND	100	70-130	5	30	01/04/11	
Monochloroacetic Acid (MCAA)	11	2.0	ug/L	10	ND	106	70-130	4	30	01/04/11	
Trichloroacetic Acid (TCAA)	12	1.0	ug/L	10	ND	117	70-130	2	30	01/04/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	28			25		110	70-130			01/04/11	

Certificate of Analysis

01/06/2011

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
- Sample(s) received, prepared, and analyzed within the method specified criteria unless otherwise noted within this report.
- The results relate only to the samples analyzed in accordance with test(s) requested by the client on the Chain of Custody document. Any analytical quality control exceptions to method criteria that are to be considered when evaluating these results have been flagged and are defined in the data qualifiers section.
- All results are expressed on wet weight basis unless otherwise specified.
- All positive results for EPA Methods 504.1, 502.2, and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Results contained in this analytical report must be reproduced in its entirety.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- BSK Analytical Laboratories certifies that the test results contained in this report meet all requirements of the NELAC Standards for applicable certified drinking water chemistry analyses unless qualified or noted in the Case Narrative.
- Analytical data contained in this report may be used for regulatory purposes to meet the requirements of the Federal or State drinking water, wastewater, and hazardous waste programs.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals. Samples submitted to the laboratory have been analyzed outside of this holding time requirement.
- * - This is not a NELAP accredited analyte.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- (2) The digestion used to produce this result deviated from EPA 200.2 by excluding hydrochloric acid in order to produce acceptable recoveries for affected metals.
- (2C) Result reported from secondary analytical column.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.

Certifications:

State of California - CDPH - ELAP	1180
State of California - CDPH - NELAP	04227CA
State of New Mexico - NMED-DWB	
State of Nevada - NDEP	CA000792009A

Definitions and Flags for Data Qualifiers

mg/L:	Milligrams/Liter (ppm)	M:	Method Detection Limit	MDA:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)		:DL x Dilution	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	ND:	None Detected at RL	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	pCi/L:	Picocuries per Liter	Present:	1 or more CFU/100mLs
		NR:	Non-Reportable	RL Mult:	RL Multiplier

A0L1608

Monterey Bay Analytical

Monte6227

12222010

David Holland
MPWMD

Turnaround: Standard
Due Date: 01/07/2011

Sample ID	Sample Description	Date Sampled	Lab Notes
A0L1608-01	Injectate	12/21/2010	

BSK ANALYTICAL LABORATORIES

1414 Stanislaus Street, Fresno, CA 93706-1623
 (559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

AOL 1608
 Monte6227



12/22/2010
 10

* Required Fields

TEMP

Client/Company Name * **Monterey Bay Analytical** Report Attention * **David Holland** Phone * #: (831)-357-6227 FAX * #: (831)-641-0734
 Address * **4 Justin Ct.** City * **Monterey** State * **CA** Zip * **93940** E-mail: **4MBAS@sbccglobal.net**
 Project Information: **MPWMD** PO # **Quote # 464**

ANALYSIS REQUESTED

How would you like your completed results sent? E-Mail Fax FDD Mail Only
 Sampler Name Printed / Signature **Lear, J.** QC Request Result Request ** Surcharge STD Level II STD 5 Day** 2 Day** 1 Day**
 Matrix Types: RSW = Raw Surface Water CFW = Chlorinated Finished Water EWW = Chlorinated Waste Water BW = Bottled Water
 RGW = Raw Ground Water FW = Finished Water WYW = Waste Water DW = Drinking Water
 SW = Storm Water SO = Solid

TTHM
 HAA5
 TOC

Sample #	Bottles	Sampled Date	Sampled Time	Sample Description / Location	Matrix *	Comments / Station Code	Company
		12/21/10	16:00	Injectate	DW	71943	MBAS
Relinquished by: (Signature and Printed Name) David Holland Company MBAS Date 12/21 Time 1600 Received by: (Signature and Print Name) _____ Relinquished by: (Signature and Printed Name) _____ Company _____							

Received for Lab by: (Signature and Printed Name) _____ Date _____ Time _____
 Shipping Method: **UPS GSO WALK-IN SVC HHD EX OTHER** Cooling Method: **WET BLUE NONE**
 Payment Received at Delivery: _____ Date _____ Amount _____
 Packing Material: _____
 Check/Cash/Card P/A # _____ Date _____

Notice: Payment for services rendered as noted herein are due in full within 30 days from when invoice. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service-charging charges and interest calculated at 1.12% per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, cost of collection, including attorney's fees incurred prior to or at litigation, whether concluded by judgment, settlement, compromise or otherwise. The person signing for the client/Company expressly acknowledges that they are either the Client or authorized agent to the Client, and the Client agrees to be responsible for payment of analytical services on this Chain of Custody. Any modification of the analysis requested, other types or quantities, will be noted and agreed upon the Chain of Custody. The turn-around time for any samples received after 7:00 pm will begin the next business day.

Sample Integrity Pg. 1 of 2 WORK C



Date Received 12/22/10

Section 1- Receiving Information

Sample Transport: ONTRAC UPS PMS Walk-In BSK-Courier GSO Fed Exp. Other: _____

Samples arrived at lab on same day sampled: Yes _____ No X (If Yes- Temperature is not needed)

Coolers/Ice Chests Description/Temperature(s): (If more than 4 received, list information in comment section)

1) 4 2) WAA 4) _____
Was Temperature In Range: Y N N/A Received On Ice: Wet Blue Received Ambient: Y N

Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other: _____

Initial Receipt: BSK-Visalia BSK-Bakersfield BSK-SAC BSK-FDL BSK-FAL

Were ice chest custody seals present? Y N Intact: Y N

Section 2- COC Info.	Completed		Info From Container	Completed		Info From Container
	Yes	No		Yes	No	
Was COC Received	<u>—</u>				Analysis Requested	<u>—</u>
Date Sampled	<u>—</u>				Any hold times less than 72hr	<u>—</u>
Time Sampled	<u>—</u>				Client Name	<u>—</u>
Sample ID	<u>—</u>				Address	<u>—</u>
Special Storage/Handling Ins.	<u>—</u>				Telephone #	<u>—</u>

Section 3- Bottles / Analysis	Yes	No	N/A	Comment
Did all bottles arrive unbroken and intact?	<u>X</u>	<u>—</u>		
Were bottle custody seals present?		<u>—</u>		
Were bottle custody seals intact?		<u>—</u>		
Did all bottle labels agree with COC?	<u>—</u>			
Were correct containers used for the tests requested?	<u>—</u>			
Were correct preservations used for the tests requested?	<u>—</u>			
Was a sufficient amount of sample sent for tests indicated?	<u>—</u>			
Were bubbles present in VOA Vials? (Volatile Methods Only)		<u>—</u>		
Were Ascorbic Acid Bottles received with the VOAs?				

Section 4- Comments / Discrepancies

Sample(s) Split/Preserve: Yes No Container: _____ Preservation: _____ Dt/Time/Init _____

Container: _____ Preservation: _____ Dt/Time/Init _____

Was Client Service Rep. notified of discrepancies: Yes No N/A CSR: Sdm Notified By: WAA

Explanations / Comments
Received (1) broken Top 1

Report Comment Entered:

Labeled by: SS @ 1402 Labels checked by: WAA @ 437

Sample Integrity

Pg 2 of 2

BSK Bottles

(Yes) WOR No



250ml (A) 500ml (B) 1Liter (C) Amber Glass (AG)

Container(s) Received

Bacti Na ₂ S ₂ O ₃	1				
None (p) ^{White Cap}					
None (p) ^{Blue Cap} w/NH ₄ + Buffer					
HNO ₃ (p) ^{Red Cap}					
H ₂ SO ₄ (p) ^{Yellow Cap}					
NaOH (p) ^{Green Cap}					
Other:					
Dissolved Oxygen 300ml (g)					
Centrifuge Tube HNO ₃					
250ml (AG) None					
250ml (AG) H ₂ SO ₄ COD ^{Yellow Label}					
250ml (AG) Na ₂ S ₂ O ₃ 515,547 ^{Blue Label}					
250ml (AG) Na ₂ S ₂ O ₃ + MCAA 531.1 ^{Orange Label}					
250ml (AG) NH ₄ Cl 552 ^{Purple Label}	1				
250ml (AG) EDA DBPs ^{Brown Label}					
250ml (AG) Other:					
500ml (AG) None					
500ml (AG) H ₂ SO ₄ TPH-Diesel ^{Yellow Label}					
1 Liter (AG) None					
1 Liter (AG) H ₂ SO ₄ O&G ^{Yellow Label}					
1 Liter (AG) Na ₂ S ₂ O ₃ 548 / 525 / 521 ^{Blue Label}					
1 Liter (P) Na ₂ S ₂ O ₃ + H ₂ SO ₄ 549					
1 Liter (AG) NaOH+ZnAc Sulfide					
1 Liter (AG) Ascorbic/EDTA/Pot Citrate 527 ^{Grey Label}					
1 Liter (AG) CuSO ₄ /Trizma 529 ^{Turquoise Label}					
1 Liter (AG) Na ₂ SO ₃ /HCL 525 UCMR ^{Neon Green Label}					
1 Liter (AG) Ammonium Chloride 535 ^{Purple Label}					
40ml VOA Vial Clear - HCL					
40ml VOA Vial Amber - Na ₂ S ₂ O ₃	3				
40ml VOA Vial Clear - None					
40ml VOA Vial Clear - Na ₂ S ₂ O ₃ 504, 505	2				
40ml VOA Vial Clear - H ₃ PO ₄					
Other:					
Asbestos 1Liter Plastic/Foil					
Radon 200ml Clear (g)					
Low Level Hg/Metals Double Baggie					
Bioassay Jug					
250 Clear Glass Jar					
500 Clear Glass Jar					
1 Liter Clear Glass Jar					
Plastic Bag					
Soil Tube Brass / Steel / Plastic					
Tedlar Bags					

MA
12/22/10

Lab Number: **1013145** TEST DESCRIPTION AND ANALYSES REQUESTED

Client: Monterey Bay Analytical Services
 Customer Number:
 Address:
 4 Justin Court, Suite D. Monterey CA 93940
 Phone: 831-375-6227 Fax: 831-641-0734
 Email Address: 4mbas@sbcglobal.net
 Contact Person: David Holland
 Project Name: MPWMD
 Purchase Order Number:
 Quote Number: 2019144
 Sampler(s): Lear, J.

Sampling Fee: _____ Pickup Fee: _____
 Compositor Setup Date: _____ Time: _____

Samp Num	Location Description	Date Sampled	Time Sampled
	Injectate	10/21/10	16:00

Method of Sampling: Composite (C) Grab (G)	Number of Containers	Type of Containers: Glass (G) Plastic (P) VOA (V) Metal Tube (MT)	Potable (P) Non-Potable (NP) Ag Water (AgW)	Surface Water (SW) Monitoring Well (MW) Ground Water (GW)	Travel Blank (TB) Waste Water (WW) Drinking Water (DW)	Soil (S) Sludge (SLG) Solid (SLD) Oil (O)	Bact. System (Sys) Source (SRC) Waste (W)	Bact. Routine (ROUT) Repeat (RPT) Other (OTH) Replace (RPL) Special (SPL)	Leaf Tissue (LT) Petiole Tissue (PET) Produce (PRD)	Preservative: (1) NaOH + ZnAc, (2) NaOH, (3) HCl (4) H2SO4, (5) HNO3, (6) Na2S2O3, (7) Other _____
			G	11 P	P	DW	X	X		

1-12/10

**Gross Alpha 226
Radium 226**

Remarks: **71943**

Relinquished <i>[Signature]</i> Holland, D.	Date: 10/12/10	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:
Received By:	Date:	Time:	Received By:	Date:	Time:	Received By:	Date:	Time:

Santa Paula - Condition Upon Receipt (Attach to COC)

Sample Receipt:

- Number of ice chests/packages received: 1
Note as OTC if received over the counter unpackaged.
- Were samples received in a chilled condition? Temps: 11/1/07
Acceptable is 2° to 6° C. Also acceptable is received on ice (ROI) for the same day of sampling or received at room temperature (RRT) if sampled within one hour of receipt. Client contact for temperature failures must be documented below. If many packages are received at one time check for tests/H.T.'s/rushes/Bacti's to prioritize further review. Please notify Microbiology personnel immediately of bacti samples received.
- Do the number of bottles received agree with the COC? Yes No N/A
- Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No
- Were sample custody seals intact? N/A Yes No

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

- Were all requested analyses understood and acceptable? Yes No
- Did bottle labels correspond with the client's ID's? Yes No
- Were all bottles requiring sample preservation properly preserved? Yes No N/A FGL
- VOAs checked for Headspace? Yes No N/A
- Were all analyses within holding times at time of receipt? Yes No
- Have rush or project due dates been checked and accepted? N/A Yes No

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt, Login and Verification completed by (initials): [Signature]

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

- Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____
Resolution: _____

- Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____
Resolution: _____

12-18-144
Monterey Bay Analytical Services

SP 1013145

SPR-12/18/2010-13:11:49



Analytical Chemists
January 5, 2011

Monterey Bay Analytical Services
4 Justin Court
Monterey, CA 93940

Lab ID : SP 1013145
Customer : 2-19144

Laboratory Report

Introduction: This report package contains total of 4 pages divided into 3 sections:

Case Narrative (2 pages) : An overview of the work performed at FGL.
Sample Results (1 page) : Results for each sample submitted.
Quality Control (1 page) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
Injectate	12/21/2010	12/23/2010	SP 1013145-001	DW

Sampling and Receipt Information: The sample was received, prepared and analyzed within the method specified holding times. All samples arrived at room temperature. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Radio QC

900.0	01/01/2011:200068 All analysis quality controls are within established criteria.
	12/29/2010:213415 All preparation quality controls are within established criteria, except: The following note applies to Gross Alpha: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
903.0	12/29/2010:216801 All analysis quality controls are within established criteria.
	12/28/2010:213397 All preparation quality controls are within established criteria.

January 5, 2011
Monterey Bay Analytical Services

Lab ID : SP 1013145
Customer : 2-19144

Certification:: I certify that this data package is in compliance with NELAC standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.**



Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2011-01-05



Analytical Chemists
January 5, 2011

Lab ID : SP 1013145-001
Customer ID : 2-19144

Monterey Bay Analytical Services
4 Justin Court
Monterey, CA 93940

Sampled On : December 21, 2010-16:00
Sampled By : J. Lear
Received On : December 23, 2010-11:45
Matrix : Drinking Water

Description : Injectate
Project : MPWMD

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Radio Chemistry^{P-1}								
Gross Alpha	2.14 ± 1.23	1.25	pCi/L	15	900.0	12/29/10:213415	900.0	01/01/11:200068
Total Alpha Radium (226)	0.000 ± 0.308	0.471	pCi/L	3	903.0	12/28/10:213397	903.0	12/29/10:216801

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference.
MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV).
AV = (Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following
If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:
Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L
Uranium is less than or equal to 20 pCi/L
Radium 226 + Radium 228 is less than or equal to 5 pCi/L

Note: Samples are held for 3-6 months prior to disposal.



Analytical Chemists

January 5, 2011
Monterey Bay Analytical Services

Lab ID : SP 1013145
Customer : 2-19144

Quality Control - Radio

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Radio								
Alpha	900.0	01/01/2011:200068	CCV CCB	cpm cpm	10250	41.2 % 0.0600	38 - 47 0.12	
Gross Alpha	900.0	12/29/2010:213415 (SP 1013094-001)	Blank LCS MS MSD MSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	 149.4 149.4 149.4 149.4	 1.73 123 % 183 % 192 % 4.7%	 3 75-125 60-140 60-140 ≤30	 435 435
Alpha	903.0	12/29/2010:216801	CCV CCB	cpm cpm	10250	38.9 % 0.100	38 - 46 0.15	
Total Alpha Radium (226)	903.0	12/28/2010:213397	RgBlk LCS BS BSD BSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	 18.17 18.17 18.17 18.17	 0.09 54.9 % 44.6 % 46.1 % 3.2%	 2 52-89 43-92 43-92 ≤35.5	
Definition								
CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.								
CCB : Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.								
Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.								
RgBlk : Method Reagent Blank - Prepared to correct for any reagent contributions to sample result.								
LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.								
MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
BS : Blank Spikes - A blank is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.								
BSD : Blank Spike Duplicate of BS/BSD pair - A blank duplicate is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.								
MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.								
BSRPD : BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation and analysis.								
DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.								
Explanation								
435 : Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.								



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940	Client Project ID: MPWMD	Date Sampled: 12/21/10
		Date Received: 12/22/10
	Client Contact: David Holland	Date Reported: 12/29/10
	Client P.O.:	Date Completed: 12/29/10

WorkOrder: 1012793

December 29, 2010

Dear David:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **MPWMD**,
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701

1012793

Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

GeoTracker EDF PDF Excel Write On (DW)

Report To: David Holland Bill To: _____

Company: Monterey Bay Analytical Services

4 Justin Ct. Suite D
Monterey, Ca 93940 E-Mail: 4mbas@sbcglobal.net

Tele: (831) 641 - 0734 Fax: (831) 375 - 6227

Project #: _____ Project Name: MPWMD

Project Location: _____

Sampler Signature: Lear, J. _____

Analysis Request											Other	Comments
MTBE / BTEX & TPH as Gas (602 / 8021 + 8015)												Filter Samples for Metals analysis: Yes / No
MTBE / BTEX ONLY (EPA 602 / 8021)												
TPH as Diesel / Motor Oil (8015)												
Total Petroleum Oil & Grease (1664 / 5520 E/B&F)												
Total Petroleum Hydrocarbons (418.1)												
EPA 502.2 / 601 / 8010 / 8021 (HVOCs)												
EPA 505 / 608 / 8081 (Cl Pesticides)												
EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners												
EPA 507 / 8141 (NP Pesticides)												
EPA 515 / 8151 (Acidic Cl Herbicides)												
EPA 524.2 / 624 / 8260 (VOCs)												
EPA 525.2 / 625 / 8270 (SVOCs)												
EPA 8270 SIM / 8310 (PAHs / PNAs)												
CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)												
LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)												
Lead (200.7 / 200.8 / 6010 / 6020)												
Methane												

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED									
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other						
	Injectate	12/21/10	16:00	1 set	vov	X														

Relinquished By: <u>David Holland</u>	Date: <u>12/21</u>	Time: <u>16:00</u>	Received By: <u>[Signature]</u>
Relinquished By: _____	Date: _____	Time: _____	Received By: _____
Relinquished By: _____	Date: _____	Time: _____	Received By: _____

ICE/r° 6.4

GOOD CONDITION ✓

HEAD SPACE ABSENT ✓

DECHLORINATED IN LAB _____

APPROPRIATE CONTAINERS ✓

PRESERVED IN LAB _____

COMMENTS: _____

VOAS O&G METALS OTHER
PRESERVATION pH<2

REC'D SEALED & INTACT VIA UPS

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1012793

ClientCode: MBAS

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:	David Holland	Email: 4mbas@sbcglobal.net	Bill to:	Accounts Payable	Requested TAT:	5 days
	Monterey Bay Analytical	cc:		Monterey Bay Analytical	<i>Date Received:</i>	12/22/2010
	4 Justin Court, Suite D	PO:		4 Justin Court, Suite D	<i>Date Printed:</i>	12/22/2010
	Monterey, CA 93940	ProjectNo: MPWMD		Monterey, CA 93940		
	831-375-6227 FAX 831-641-0734					

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)													
					1	2	3	4	5	6	7	8	9	10	11	12		
1012793-001	Injectate	Water	12/21/2010 16:00	<input type="checkbox"/>	A													

Test Legend:

1	RSK174 W	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Zoraida Cortez

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Monterey Bay Analytical**

Date and Time Received: **12/22/2010 4:30:48 PM**

Project Name: **MPWMD**

Checklist completed and reviewed by: **Zoraida Cortez**

WorkOrder N°: **1012793** Matrix Water

Carrier: UPS

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
- Container/Temp Blank temperature Cooler Temp: 6.4°C NA
- Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
- Sample labels checked for correct preservation? Yes No
- Metal - pH acceptable upon receipt (pH<2)? Yes No NA
- Samples Received on Ice? Yes No

(Ice Type: BLUE ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:



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"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940	Client Project ID: MPWMD	Date Sampled: 12/21/10
		Date Received: 12/22/10
	Client Contact: David Holland	Date Extracted: 12/23/10
	Client P.O.:	Date Analyzed 12/23/10

Light Gas Hydrocarbons*

Extraction method RSK 174/175


Analytical methods RSK174/175

Work Order: 1012793

Lab ID	Client ID	Matrix	Methane	DF	% SS	Comments
1012793-001A	Injectate	W	0.43	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.4	µg/L
	S	NA	NA

* water samples are reported in µg/L.
 %SS = Percent Recovery of Surrogate Standard
 DF = Dilution Factor

 Angela Rydelius, Lab Manager



QC SUMMARY REPORT FOR RSK174/175

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 55204

WorkOrder 1012793

EPA Method RSK174/175		Extraction RSK 174/175							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Methane	N/A	1.17	N/A	N/A	N/A	96.1	94.9	1.23	N/A	N/A	80 - 120	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 55204 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1012793-001A	12/21/10 4:00 PM	12/23/10	12/23/10 12:11 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



MPWMD
 Joe Oliver
 P.O. Box 85
 Monterey, CA 93442-0085

4 Justin Court Suite D, Monterey, CA 93940
 831.375.MBAS
 montereybayanalytical@usa.net
 ELAP Certification Number: 2385

Lab Number: AA73667

Collection Date/Time: 2/24/2011 14:00 Sample Collector: LEAR, J
 Submittal Date/Time: 2/24/2011 15:56 Sample ID

Sample Description: Injectate

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Alkalinity, Total (as CaCO3)	2320B	mg/L	131		2		2/26/2011
Ammonia-N	4500NH3 D	mg/L	Not Detected		0.05		3/8/2011
Arsenic, Total	EPA200.8	ug/L	Not Detected		1	10	2/25/2011
Barium, Total	EPA200.8	ug/L	53		10	1000	2/25/2011
Bicarbonate (as HCO3-)	2320B	mg/L	160		10		2/28/2011
Boron	EPA200.7	mg/L	Not Detected		0.05		3/2/2011
Calcium	EPA200.7	mg/L	41		0.5		3/2/2011
Carbonate as CaCO3	2320B	mg/L	Not Detected		10		2/26/2011
Chloramines	SM4500-Cl G	mg/L	0.05		0.05		2/24/2011
Chloride	EPA300.0	mg/L	27		1	250	2/24/2011
Dissolved Organic Carbon	SM5310-C	mg/L	1.1	E	0.2		3/3/2011
Fluoride	EPA300.0	mg/L	0.22		0.10	2.0	2/24/2011
Gross Alpha	EPA900.0	pCi/L	1.00 ± 1.57	E		15	2/28/2011
Haloacetic Acids	EPA552	ug/L	11	E		60	3/8/2011
Hardness (as CaCO3)	2340B	mg/L	131		10		3/3/2011
Iron	EPA 200.7	ug/L	Not Detected		10		3/2/2011
Iron, Dissolved	EPA 200.7	ug/L	Not Detected		10	300	3/2/2011
Kjehldahl Nitrogen	4500-NH3 B,C,E	mg/L	Not Detected		0.5		3/1/2011
Langlier Index (15 deg. C)	2330B		-0.16				3/7/2011
Langlier Index (60 deg. C)	2330B		0.45				3/7/2011
Lithium	EPA200.8	ug/L	7		1		2/25/2011
Magnesium	EPA200.7	mg/L	7		0.5		3/2/2011
Manganese, Dissolved	EPA 200.7	ug/L	Not Detected		10	50	3/2/2011
Manganese, Total	EPA 200.7	ug/L	Not Detected		10	50	3/2/2011
Methane	EPA174/175	ug/L	Not Detected	E	5		3/8/2011
Molybdenum, Total	EPA200.8	ug/L	3		1	1000	2/25/2011
Nickel, Total	EPA200.8	ug/L	Not Detected		10	100	2/25/2011
Nitrate as NO3	EPA300.0	mg/L	Not Detected		1	45	2/24/2011
Nitrate as NO3-N	EPA300.0	mg/L	Not Detected		0.05	10	2/24/2011
Nitrite as Nitrogen	EPA300.0	mg/L	Not Detected		0.05	1.00	2/24/2011
Nitrite as NO2-N	EPA300.0	mg/L	Not Detected		0.05	1.00	2/24/2011

mg/L: Milligrams per liter ug/L : Micrograms per liter PQL : Practical Quantitation Limit MCL: Maximum Contamination Level
 H = Analyzed outside of hold time E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

Lab Number: AA73667

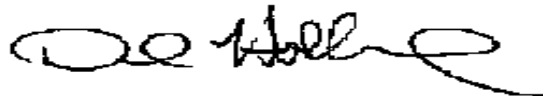
Collection Date/Time: 2/24/2011 14:00 Sample Collector: LEAR, J
 Submittal Date/Time: 2/24/2011 15:56 Sample ID

Sample Description: Injectate

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
o-Phosphate-P	EPA300.0	mg/L	0.17		0.05		2/24/2011
pH (Laboratory)	4500-H+B	STD. Units	7.6				2/24/2011
Phosphorus, Total	HACH 8190	mg/L	0.28		0.03		3/1/2011
Potassium	EPA200.7	mg/L	2.8		0.1		3/2/2011
QC Anion Sum x 100	Calculation	%	100%				3/3/2011
QC Anion-Cation Balance	Calculation	%	-2				3/3/2011
QC Cation Sum x 100	Calculation	%	97%				3/3/2011
QC Ratio TDS/SEC	Calculation		0.60				3/7/2011
Selenium, Total	EPA200.8	ug/L	Not Detected		2	50	2/25/2011
Sodium	EPA200.7	mg/L	42		0.5		3/2/2011
Specific Conductance (E.C)	2510B	umhos/cm	468		1	900	2/25/2011
Strontium, Total	EPA200.8	ug/L	206		5		2/25/2011
Sulfate	EPA300.0	mg/L	62		1	250	2/24/2011
Total Diss. Solids	2540C	mg/L	283		10	500	3/3/2011
Total Nitrogen	Calculation	mg/L	Not Detected		0.5		3/1/2011
Total Organic Carbon	SM5310C	mg/L	1.1	E	0.20		3/3/2011
Total Radium 226	EPA903.0	pCi/L	0.000 ± 0.148	E		3	3/2/2011
Trihalomethanes	EPA524.2	ug/L	22	E		80	3/8/2011
Uranium by ICP/MS	EPA200.8	ug/L	Not Detected		1	30	2/25/2011
Vanadium, Total	EPA200.8	ug/L	Not Detected		1	1000	2/25/2011
Zinc, Total	EPA200.8	ug/L	177		10	5000	2/25/2011

Sample Comments:

Report Approved by:



David Holland, Laboratory Director

mg/L: Milligrams per liter ug/L : Micrograms per liter PQL : Practical Quantitation Limit MCL: Maximum Contamination Level
 H = Analyzed outside of hold time E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Dear David Holland,

Thank you for selecting BSK Analytical Laboratories for your analytical testing needs. We have prepared this report in response to your request for analytical services. Enclosed are the results of analyses for samples received by the laboratory on 03/02/2011 08:45.

If additional clarification of any information is required, please contact your Client Services Representative, John Montierth at (800) 877-8310 or (559) 497-2888.

BSK ANALYTICAL LABORATORIES



John Montierth
Client Services Representative

Case Narrative

Work Order Information

Client Name: Monterey Bay Analytical
Client Code: Monte6227
Work Order: A1C0216
Project: MPWMD

Submitted by: David Holland
Shipped by: ONTRAC
COC Number:
TAT: 10
PO #:

Chain of Custody Notes

Date: 3/9/11

Initials: JMM

Note: Dissolved Organic Carbon samples arrived in H3PO4 preserved vials. OK to run.

Sample Receipt Conditions

Cooler: Default Cooler **Temp. °C:** 1

Containers Intact
COC/Labels Agree
Received On Wet Ice
Packing Material - Bubble Wrap
Sample(s) were received in temperature range.
Initial receipt at BSK-FAL

Report Manager

David Holland

Report Format

Final.rpt



Certificate of Analysis

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Report Issue Date: 03/09/2011 14:44
Received Date: 03/02/2011
Received Time: 08:45

Lab Sample ID: A1C0216-01
Sample Date: 02/24/2011 14:00
Sample Type: Grab

Sampled by: J Lear
Matrix: Drinking Water

Sample Description: Injectate // 73667

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Dissolved Organic Carbon	SM 5310 C	1.1	0.20	mg/L	1	A102444	03/03/11	03/03/11	
Total Organic Carbon	SM 5310 C	1.1	0.20	mg/L	1	A102445	03/03/11	03/03/11	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	7.9	0.50	ug/L	1	A102421	03/03/11	03/04/11	
Bromoform	EPA 524.2	0.86	0.50	ug/L	1	A102421	03/03/11	03/04/11	
Chloroform	EPA 524.2	7.6	0.50	ug/L	1	A102421	03/03/11	03/04/11	
Dibromochloromethane	EPA 524.2	5.8	0.50	ug/L	1	A102421	03/03/11	03/04/11	

Surrogate: Bromofluorobenzene EPA 524.2 94 % *Acceptable range: 70-130 %*

Trihalomethanes by GC-MS

Total Trihalomethanes EPA 524.2 22 ug/L

Haloacetic Acids by GC-ECD

Dibromoacetic Acid (DBAA)	EPA 552.2	2.2	1.0	ug/L	1	A102438	03/03/11	03/08/11	
Dichloroacetic Acid (DCAA) (2C)	EPA 552.2	4.4	1.0	ug/L	1	A102438	03/03/11	03/08/11	
Monobromoacetic Acid (MBAA)	EPA 552.2	ND	1.0	ug/L	1	A102438	03/03/11	03/08/11	
Monochloroacetic Acid (MCAA)	EPA 552.2	ND	2.0	ug/L	1	A102438	03/03/11	03/08/11	
Trichloroacetic Acid (TCAA)	EPA 552.2	4.0	1.0	ug/L	1	A102438	03/03/11	03/08/11	

Surrogate: 2,3-Dibromopropionic Acid EPA 552.2 120 % *Acceptable range: 70-130 %*

Haloacetic Acids by GC-ECD

Total Haloacetic Acids (HAA) EPA 552.2 11 ug/L



General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A102444

Analyst: SAB

Prepared: 03/03/2011

Blank (A102444-BLK1) SM 5310 C - Quality Control

Dissolved Organic Carbon	ND	0.20	mg/L							03/03/11	
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Blank Spike (A102444-BS1) SM 5310 C - Quality Control

Dissolved Organic Carbon	9.9	0.20	mg/L	10		99	80-120			03/03/11	
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Blank Spike Dup (A102444-BSD1) SM 5310 C - Quality Control

Dissolved Organic Carbon	9.9	0.20	mg/L	10		99	80-120	0	20	03/03/11	
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Batch: A102445

Analyst: SAB

Prepared: 03/03/2011

Blank (A102445-BLK1) SM 5310 C - Quality Control

Total Organic Carbon	ND	0.20	mg/L							03/03/11	
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Blank Spike (A102445-BS1) SM 5310 C - Quality Control

Total Organic Carbon	10	0.20	mg/L	10		100	80-120			03/03/11	
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Blank Spike Dup (A102445-BSD1) SM 5310 C - Quality Control

Total Organic Carbon	10	0.20	mg/L	10		101	80-120	0	20	03/03/11	
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Matrix Spike (A102445-MS1) SM 5310 C - Quality Control

Source: A1C0133-01

Total Organic Carbon	13	0.20	mg/L	10	2.9	99	80-120			03/03/11	
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Matrix Spike (A102445-MS2) SM 5310 C - Quality Control

Source: A1C0057-02

Total Organic Carbon	13	0.20	mg/L	10	2.8	98	80-120			03/03/11	
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Matrix Spike Dup (A102445-MSD1) SM 5310 C - Quality Control

Source: A1C0133-01

Total Organic Carbon	13	0.20	mg/L	10	2.9	99	80-120	0	20	03/03/11	
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Matrix Spike Dup (A102445-MSD2) SM 5310 C - Quality Control

Source: A1C0057-02

Total Organic Carbon	13	0.20	mg/L	10	2.8	99	80-120	1	20	03/03/11	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limit	RPD	Limit	Date Analyzed	Qual
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Batch: A102421

Analyst: JGB

Prepared: 03/03/2011

Blank (A102421-BLK1) EPA 524.2 - Quality Control

Bromodichloromethane	ND	0.50	ug/L							03/03/11	
Bromoform	ND	0.50	ug/L							03/03/11	
Chloroform	ND	0.50	ug/L							03/03/11	
Dibromochloromethane	ND	0.50	ug/L							03/03/11	
Surrogate: Bromofluorobenzene	4.9			5.0		99	70-130			03/03/11	

Blank Spike (A102421-BS1) EPA 524.2 - Quality Control

Bromodichloromethane	4.5	0.50	ug/L	5.0		91	70-130			03/03/11	
Bromoform	5.0	0.50	ug/L	5.0		100	70-130			03/03/11	
Chloroform	5.2	0.50	ug/L	5.0		103	70-130			03/03/11	
Dibromochloromethane	4.9	0.50	ug/L	5.0		99	70-130			03/03/11	
Surrogate: Bromofluorobenzene	5.2			5.0		105	70-130			03/03/11	

Blank Spike Dup (A102421-BSD1) EPA 524.2 - Quality Control

Bromodichloromethane	4.4	0.50	ug/L	5.0		89	70-130	2	30	03/03/11	
Bromoform	4.6	0.50	ug/L	5.0		91	70-130	9	30	03/03/11	
Chloroform	4.9	0.50	ug/L	5.0		98	70-130	5	30	03/03/11	
Dibromochloromethane	4.6	0.50	ug/L	5.0		92	70-130	8	30	03/03/11	
Surrogate: Bromofluorobenzene	5.1			5.0		101	70-130			03/03/11	

Batch: A102438

Analyst: KHH

Prepared: 03/03/2011

Blank (A102438-BLK1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							03/08/11	
Dibromoacetic Acid (DBAA) (2C)	ND	1.0	ug/L							03/08/11	
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							03/08/11	
Dichloroacetic Acid (DCAA) (2C)	ND	1.0	ug/L							03/08/11	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							03/08/11	
Monobromoacetic Acid (MBAA) (2C)	ND	1.0	ug/L							03/08/11	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							03/08/11	
Monochloroacetic Acid (MCAA) (2C)	ND	2.0	ug/L							03/08/11	
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							03/08/11	
Trichloroacetic Acid (TCAA) (2C)	ND	1.0	ug/L							03/08/11	
Surrogate: 2,3-Dibromopropionic Acid	26			25		103	70-130			03/08/11	
Surrogate: 2,3-Dibromopropionic Acid (2C)	27			25		108	70-130			03/08/11	

Blank Spike (A102438-BS1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		113	70-130			03/08/11	
Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10		113	70-130			03/08/11	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		106	70-130			03/08/11	
Dichloroacetic Acid (DCAA) (2C)	10	1.0	ug/L	10		103	70-130			03/08/11	
Monobromoacetic Acid (MBAA)	10	1.0	ug/L	10		104	70-130			03/08/11	
Monobromoacetic Acid (MBAA) (2C)	10	1.0	ug/L	10		101	70-130			03/08/11	
Monochloroacetic Acid (MCAA)	11	2.0	ug/L	10		112	70-130			03/08/11	
Monochloroacetic Acid (MCAA) (2C)	11	2.0	ug/L	10		107	70-130			03/08/11	

A1C0216 FINAL 03092011 1444

1414 Stanislaus Street

Fresno, CA 93706

(559) 497-2888

FAX (559) 485-6935

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Environmental Engineering | Geotechnical Engineering | Materials Testing

Organics Quality Control Report

Analyte	Result	RL	Units	Spike	Source	%REC	RPD	Date	Analyzed	Qual
				Level	Result	%REC	Limits	RPD		

Batch: A102438

Analyst: KHH

Prepared: 03/03/2011

Blank Spike (A102438-BS1) EPA 552.2 - Quality Control

Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		110	70-130			03/08/11
Trichloroacetic Acid (TCAA) (2C)	11	1.0	ug/L	10		109	70-130			03/08/11
Surrogate: 2,3-Dibromopropionic Acid	29			25		117	70-130			03/08/11
Surrogate: 2,3-Dibromopropionic Acid (2C)	29			25		115	70-130			03/08/11

Blank Spike Dup (A102438-BSD1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		111	70-130	1	30	03/08/11
Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10		115	70-130	1	30	03/08/11
Dichloroacetic Acid (DCAA)	10	1.0	ug/L	10		104	70-130	2	30	03/08/11
Dichloroacetic Acid (DCAA) (2C)	10	1.0	ug/L	10		104	70-130	1	30	03/08/11
Monobromoacetic Acid (MBAA)	10	1.0	ug/L	10		101	70-130	3	30	03/08/11
Monobromoacetic Acid (MBAA) (2C)	10	1.0	ug/L	10		101	70-130	0	30	03/08/11
Monochloroacetic Acid (MCAA)	11	2.0	ug/L	10		109	70-130	2	30	03/08/11
Monochloroacetic Acid (MCAA) (2C)	10	2.0	ug/L	10		101	70-130	6	30	03/08/11
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		110	70-130	0	30	03/08/11
Trichloroacetic Acid (TCAA) (2C)	11	1.0	ug/L	10		112	70-130	2	30	03/08/11
Surrogate: 2,3-Dibromopropionic Acid	29			25		116	70-130			03/08/11
Surrogate: 2,3-Dibromopropionic Acid (2C)	30			25		119	70-130			03/08/11

Duplicate (A102438-DUP1) EPA 552.2 - Quality Control

Source: A1C0216-01

Dibromoacetic Acid (DBAA)	2.2	1.0	ug/L		2.2			0	30	03/08/11
Dichloroacetic Acid (DCAA) (2C)	4.4	1.0	ug/L		4.4			1	30	03/08/11
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L		ND				30	03/08/11
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L		ND				30	03/08/11
Trichloroacetic Acid (TCAA)	3.9	1.0	ug/L		4.0			3	30	03/08/11
Surrogate: 2,3-Dibromopropionic Acid	28			25		111	70-130			03/08/11

Matrix Spike (A102438-MS1) EPA 552.2 - Quality Control

Source: A1B1968-03

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10	ND	115	70-130			03/08/11
Dichloroacetic Acid (DCAA) (2C)	29	1.0	ug/L	10	20	88	70-130			03/08/11
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	107	70-130			03/08/11
Monochloroacetic Acid (MCAA)	13	2.0	ug/L	10	ND	109	70-130			03/08/11
Trichloroacetic Acid (TCAA)	39	1.0	ug/L	10	28	112	70-130			03/08/11
Surrogate: 2,3-Dibromopropionic Acid	28			25		113	70-130			03/08/11

Matrix Spike Dup (A102438-MSD1) EPA 552.2 - Quality Control

Source: A1B1968-03

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10	ND	113	70-130	2	30	03/08/11
Dichloroacetic Acid (DCAA) (2C)	29	1.0	ug/L	10	20	93	70-130	2	30	03/08/11
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	106	70-130	1	30	03/08/11
Monochloroacetic Acid (MCAA)	13	2.0	ug/L	10	ND	110	70-130	1	30	03/08/11
Trichloroacetic Acid (TCAA)	38	1.0	ug/L	10	28	109	70-130	1	30	03/08/11
Surrogate: 2,3-Dibromopropionic Acid	29			25		117	70-130			03/08/11

Certificate of Analysis

03/09/2011

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
- Sample(s) received, prepared, and analyzed within the method specified criteria unless otherwise noted within this report.
- The results relate only to the samples analyzed in accordance with test(s) requested by the client on the Chain of Custody document. Any analytical quality control exceptions to method criteria that are to be considered when evaluating these results have been flagged and are defined in the data qualifiers section.
- All results are expressed on wet weight basis unless otherwise specified.
- All positive results for EPA Methods 504.1, 502.2, and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Results contained in this analytical report must be reproduced in its entirety.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- BSK Analytical Laboratories certifies that the test results contained in this report meet all requirements of the NELAC Standards for applicable certified drinking water chemistry analyses unless qualified or noted in the Case Narrative.
- Analytical data contained in this report may be used for regulatory purposes to meet the requirements of the Federal or State drinking water, wastewater, and hazardous waste programs.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals. Samples submitted to the laboratory have been analyzed outside of this holding time requirement.
- * - This is not a NELAP accredited analyte.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- (2) The digestion used to produce this result deviated from EPA 200.2 by excluding hydrochloric acid in order to produce acceptable recoveries for affected metals.
- (2C) Result reported from secondary analytical column.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.

Certifications:

State of California - CDPH - ELAP	1180
State of California - CDPH - NELAP	04227CA
State of New Mexico - NMED-DWB	
State of Nevada - NDEP	CA000792009A

Definitions and Flags for Data Qualifiers

mg/L:	Milligrams/Liter (ppm)	M:	Method Detection Limit	MDA:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)		:DL x Dilution	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	ND:	None Detected at RL	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	pCi/L:	Picocuries per Liter	Present:	1 or more CFU/100mLs
		NR:	Non-Reportable	RL Mult:	RL Multiplier

A1C0216

Monterey Bay Analytical

Monte6227

03022011

Turnaround: Standard
Due Date: 03/16/2011

BSK ANALYTICAL LABORATORIES

1414 Stanislaus Street, Fresno, CA 93706-1623
 (559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

A1C0216
 Montie6227

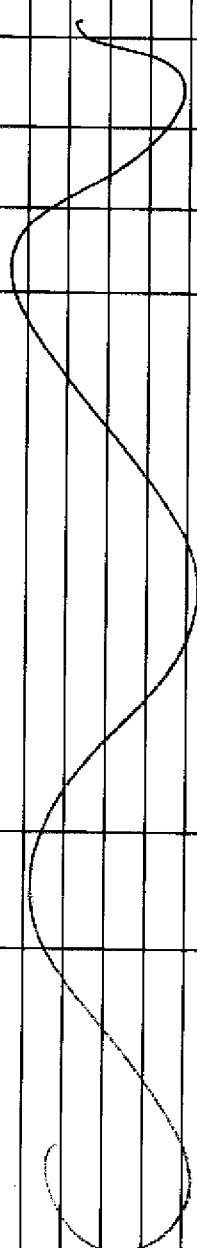
03/07

* Required Fields

TEMP: 1

ANALYSIS REQUESTED



Client/Company Name *		Report Attention *		Phone #		FAX #					
Monterey Bay Analytical		David Holland		(831)-357-6227		(831)-641-0734					
Address *		City *		State *		Zip *					
4 Justin Ct.		Monterey		CA		93940					
Project Information		PO #		Quote #		Carbon Copies:					
MPWMD				464		<input type="checkbox"/> CDHS <input type="checkbox"/> Fresno Co <input type="checkbox"/> EPA <input type="checkbox"/> Merced Co <input type="checkbox"/> Tulare Co <input type="checkbox"/> Other:					
How would you like your completed results sent?		<input checked="" type="checkbox"/> E-Mail		<input type="checkbox"/> Fax		<input type="checkbox"/> EDD					
Sampler Name Printed / Signature		QC Request		Result Request **		Surcharge					
Leal, J.		<input checked="" type="checkbox"/> STD <input type="checkbox"/> Level II		<input checked="" type="checkbox"/> STD <input type="checkbox"/> 5 Day** <input type="checkbox"/> 2 Day** <input type="checkbox"/> Day**		<input type="checkbox"/> Regulatory Compliance <input type="checkbox"/> Electronic Data Transfer: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> Z System No. *					
Matrix Types:		RSM = Raw Surface Water		CFW = Chlorinated Finished Water		CWW = Chlorinated Waste Water					
		RGW = Raw Ground Water		FW = Finished Water		WYW = Waste Water					
		SW = Storm Water		BW = Bottled Water		DW = Drinking Water					
		SO = Solid									
Sample #	Bottles	Date	Sampled Time	Sample Description / Location *	Matrix *	Comments / Station Code	TTHM	HAA5	TOC	DOC	
1	8	2/24/11	14:00	Injectate	DW	73667	✓	✓	✓	✓	
											
Relinquished by: (Signature and Printed Name)		Company		Date		Time		Received by: (Signature and Print Name)		Company	
David Holland		MBAS		3/7/11		16:00					
Relinquished by: (Signature and Printed Name)		Company		Date		Time		Received by: (Signature and Print Name)		Company	
Received for Lab by: (Signature and Printed Name)		Date		Time		Payment Received at Delivery:		Check/Cash/Card		PFA #	
		3/8/11		8:15							
Shipping Method:		Cooling Method:		Packing Material:		Date:		Amount:		Jmt	
GSO GSO WALK-IN SIVC		WET		NONE							

Notice: Payment for services rendered is noted herein and due in full within 30 days from when invoice. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service/retailing charges and interest calculated at 1.2% per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, costs of collections, including attorney's fees, incurred prior to or in litigation, whether calculated by judgment, settlement, compromise or otherwise. The person signing for the client/Company, expressly acknowledges that they are either the Client or authorized agent to the Client, and the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any modification of the analysis requested, either type or quantities, will be noted and agreed upon this Chain of Custody. The turn around time for any samples received after 2:00 pm will begin the next business day.

Sample Integrity Pg. 1 of 2 WORK



Date Received 3/2/11

Section 1- Receiving Information

Sample Transport: ONTRAC UPS PMS Walk-In BSK-Courier GSO Fed Exp. Other: _____

Samples arrived at lab on same day sampled: Yes _____ No X Has Chilling Process Begun: Yes X No _____

Coolers/Ice Chests Description/Temperature(s): (If more than 4 received, list information in comment section)

1) 1 2) _____ 3) _____ 4) _____

Was Temperature In Range: Y N N/A Received On Ice: Wet Blue Received Ambient: Y N

Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other: _____

Initial Receipt: BSK-Visalia BSK-Bakersfield BSK-SAC BSK-FDL BSK-FAL

Were ice chest custody seals present? Y N Intact: Y N

Section 2- COC Info.	Completed		Info From Container	Completed		Info From Container
	Yes	No		Yes	No	
Was COC Received	<u>—</u>					Analysis Requested
Date Sampled	<u>—</u>				<u>—</u>	Any hold times less than 72hr
Time Sampled	<u>—</u>					Client Name
Sample ID	<u>—</u>					Address
Special Storage/Handling Ins.		<u>—</u>			<u>—</u>	Telephone #

Section 3- Bottles / Analysis	Yes	No	N/A	Comment
Did all bottles arrive unbroken and intact?	<u>—</u>			
Were bottle custody seals present?	<u>—</u>			
Were bottle custody seals intact?	<u>—</u>			
Did all bottle labels agree with COC?	<u>—</u>			
Were correct containers used for the tests requested?	<u>—</u>			
Were correct preservations used for the tests requested?	<u>—</u>			
Was a sufficient amount of sample sent for tests indicated?	<u>—</u>			
Were bubbles present in VOA Vials? (Volatile Methods Only)		<u>—</u>		
Were Ascorbic Acid Bottles received with the VOAs?		<u>—</u>		

Section 4- Comments / Discrepancies

Sample(s) Split/Preserve: Yes No Container: _____ Preservation: _____ Dt/Time/Init _____

Container: _____ Preservation: _____ Dt/Time/Init _____

Was Client Service Rep. notified of discrepancies: Yes No N/A CSR: _____ Notified By/Dt/Time: _____

Explanations / Comments

Report Comment Entered:

Labeled by AKH @ 1338 Labels checked by: SK @ 1346

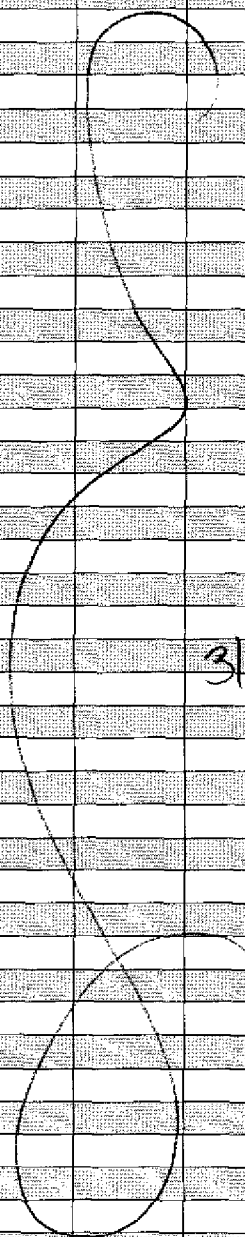
Sample Integrity Pg 2 of 2

BSK Bottles Yes ~~No~~ WORK



250ml (A) 500ml (B) 1Liter (C) Amber Glass (AG)

Container(s) Received					
Bacti Na ₂ S ₂ O ₃	1				
None (p) <small>White Cap</small>	1				
None (p) <small>Blue Cap</small> w/NH ₄ + Buffer					
HNO ₃ (p) <small>Red Cap</small>					
H ₂ SO ₄ (p) <small>Yellow Cap</small>					
NaOH (p) <small>Green Cap</small>					
Other:					
Dissolved Oxygen 300ml (g)					
Centrifuge Tube HNO ₃					
250ml (AG) None					
250ml (AG) H ₂ SO ₄ COD <small>Yellow Label</small>					
250ml (AG) Na ₂ S ₂ O ₃ 515, 547 <small>Blue Label</small>					
250ml (AG) Na ₂ S ₂ O ₃ + MCAA 531.1 <small>Orange Label</small>					
250ml (AG) NH ₄ Cl 552 <small>Purple Label</small>	1				
250ml (AG) EDA DBPs <small>Brown Label</small>					
250ml (AG) Other:					
500ml (AG) None					
500ml (AG) H ₂ SO ₄ TPH-Diesel <small>Yellow Label</small>					
1 Liter (AG) None					
1 Liter (AG) H ₂ SO ₄ O&G <small>Yellow Label</small>					
1 Liter (AG) Na ₂ S ₂ O ₃ 548 / 525 / 521 <small>Blue Label</small>					
1 Liter (P) Na ₂ S ₂ O ₃ + H ₂ SO ₄ 549					
1 Liter (AG) NaOH-ZnAc Sulfide					
1 Liter (AG) Ascorbic/EDTA/Pot Citrate 527 <small>Grey Label</small>					
1 Liter (AG) CuSO ₄ /Trizma 529 <small>Turquoise Label</small>					
1 Liter (AG) Na ₂ SO ₃ / HCL 525 UCMR <small>Neon Green Label</small>					
1 Liter (AG) Ammonium Chloride 535 <small>Purple Label</small>					
40ml VOA Vial Clear - HCL					
40ml VOA Vial Amber - Na ₂ S ₂ O ₃	3				
40ml VOA Vial Clear - None					
40ml VOA Vial Clear - Na ₂ S ₂ O ₃ 504, 505					
40ml VOA Vial Clear - H ₃ PO ₄	3				
Other:					
Asbestos 1Liter Plastic/Foil					
Radon 200ml Clear (g)					
Low Level Hg/Metals Double Baggie					
Bioassay Jug					
250 Clear Glass Jar					
500 Clear Glass Jar					
1 Liter Clear Glass Jar					
Plastic Bag					
Soil Tube Brass / Steel / Plastic					
Tedlar Bags					



3/2/11
88



Analytical Chemists

TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information

Client: Monterey Bay Analytical Services Inc.
Address: 4 Justin Court Ste D
Monterey, CA 93940
Phone: 831-375-6227 Fax: 831-641-0734
Contact Person: David Holland
Project Name: MPWMD
Purchase Order Number:
Quote Number: 2019144

Sampler(s): Brown, Jr. Leaf, J.
Sampling Fee: Pickup Fee:
Compositor Setup Date: 22/11 / Time: 1700

Lab Number: 1102057

Type: Composite (C) Grab (G)

Number of Containers

Containers: (G) Glass (P) Plastic (V) Vial (M) Metal Tube

(P) Potable (NP) Non-Potable

(SW) Surface Water (MW) Monitoring Well (GW) Ground Water (TB) Travel Bank (WW) Waste Water (DW) Drinking Water

(S) Soil (SLG) Sludge (SLD) Solid (O) Oil

Bact: (Sys) System (Src) Source (W) Waste

Bact: Routing (ROUT) Repeat (RPT) Other (OTH) Replace (RPL)

(LT) Leaf Tissue (PET) Petiole Tissue (PRD) Produce

Preservative: (1) NaOH + ZnAc (2) NaOH, (3) HCL, (4) H2SO4 (5) HNO3, (6) Na2S2O3, (7) Other

Gross Alpha

Radium 226

Re 226

Table with columns: Samp Num, Location Description, Date Sampled, Time Sampled. Row 1: Injectate, 2/24/11, 14:00

Relinquished: David Holland, Date: 2/24/11, Time: 1700

Relinquished: UPS, Date: 2/24/11, Time: 1015

Relinquished: (crossed out)

Received By: (signature), Date: , Time:

Received By: lly, Date: 2/24/11, Time: 1015

Received By: (crossed out)

Santa Paula - Condition Upon Receipt (Attach to COC)

Sample Receipt:

- Number of ice chests/packages received: 1
Note as OTC if received over the counter unpackaged.
- Were samples received in a chilled condition? Temps: RR7 / / /
Acceptable is 2° to 6° C. Also acceptable is received on ice (ROI) for the same day of sampling or received at room temperature (RRT) if sampled within one hour of receipt. Client contact for temperature failures must be documented below. If many packages are received at one time check for tests/H.T.'s/rushes/Bacti's to prioritize further review. Please notify Microbiology personnel immediately of bacti samples received.
- Do the number of bottles received agree with the COC? Yes No N/A
- Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No
- Were sample custody seals intact? N/A Yes No

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

- Were all requested analyses understood and acceptable? Yes No
- Did bottle labels correspond with the client's ID's? Yes No
- Were all bottles requiring sample preservation properly preserved? Yes No N/A FGL
- VOAs checked for Headspace? Yes No N/A
- Were all analyses within holding times at time of receipt? Yes No
- Have rush or project due dates been checked and accepted? N/A Yes No

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt, Login and Verification completed by (initials):

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: _____ Phone Number: _____
 Initiated By: _____ Date: _____
 Problem: _____
 Resolution: _____

2. Person Contacted: _____ Phone Number: _____
 Initiated By: _____ Date: _____
 Problem: _____
 Resolution: _____

(2-19144)
Monterey Bay Analytical Services

SP 1102057



Analytical Chemists
March 7, 2011

Monterey Bay Analytical Services
4 Justin Court
Monterey, CA 93940

Lab ID : SP 1102057
Customer : 2-19144

Laboratory Report

Introduction: This report package contains total of 3 pages divided into 3 sections:

Case Narrative (1 pages) : An overview of the work performed at FGL.
Sample Results (1 page) : Results for each sample submitted.
Quality Control (1 page) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
Injectate	02/24/2011	02/28/2011	SP 1102057-001	DW

Sampling and Receipt Information: The sample was received, prepared and analyzed within the method specified holding times. All samples arrived at room temperature. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Radio QC

900.0	03/02/2011:203248 All analysis quality controls are within established criteria
	02/28/2011:202245 All preparation quality controls are within established criteria
903.0	03/04/2011:203336 All analysis quality controls are within established criteria
	03/02/2011:202330 All preparation quality controls are within established criteria

Certification:: I certify that this data package is in compliance with NELAC standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.**



Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2011-03-07



Analytical Chemists
March 7, 2011

Lab ID : SP 1102057-001
Customer ID : 2-19144

Monterey Bay Analytical Services

4 Justin Court
Monterey, CA 93940

Sampled On : February 24, 2011-14:00
Sampled By : Lear. J.
Received On : February 28, 2011-10:15
Matrix : Drinking Water

Description : Injectate
Project : MPWMD

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Radio Chemistry ^{P:15}								
Gross Alpha	1.00 ± 1.57	2.14	pCi/L	15	900.0	02/28/11:202245	900.0	03/02/11:203248
Total Alpha Radium (226)	0.000 ± 0.148	0.471	pCi/L	3	903.0	03/02/11:202330	903.0	03/04/11:203336

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: HNO3 pH < 2 * PQL adjusted for dilution.

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference.

MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV).

AV = (Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following

If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:

Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L

Uranium is less than or equal to 20 pCi/L

Radium 226 + Radium 228 is less than or equal to 5 pCi/L

Note: Samples are held for 3-6 months prior to disposal.



Analytical Chemists

March 7, 2011
Monterey Bay Analytical Services

Lab ID : SP 1102057
Customer : 2-19144

Quality Control - Radio

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Radio								
Alpha	900.0	03/02/2011:203248	CCV CCB	cpm cpm	10190	43.8 % 0.0400	38 - 47 0.15	
Gross Alpha	900.0	02/28/2011:202245 (SP 1101938-001)	Blank LCS MS MSD MSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	 149.4 149.4 149.4 149.4	 0.17 112 % 83.3 % 62.6 % 28.3%	 3 75-125 60-140 60-140 ≤30	
Alpha	903.0	03/04/2011:203336	CCV CCB	cpm cpm	10190	40.0 % 0.100	38 - 46 0.15	
Total Alpha Radium (226)	903.0	03/02/2011:202330	RgBlk LCS BS BSD BSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	 18.16 18.16 18.16 18.16	 0.02 60.8 % 53.9 % 55.3 % 2.4%	 2 52-89 43-92 43-92 ≤35.5	
Definition								
CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.								
CCB : Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.								
Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.								
RgBlk : Method Reagent Blank - Prepared to correct for any reagent contributions to sample result.								
LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.								
MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
BS : Blank Spikes - A blank is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.								
BSD : Blank Spike Duplicate of BS/BSD pair - A blank duplicate is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.								
MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.								
BSRPD : BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation and analysis.								
DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.								



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940	Client Project ID: MPWMD	Date Sampled: 02/24/11
		Date Received: 03/01/11
	Client Contact: David Holland	Date Reported: 03/08/11
	Client P.O.:	Date Completed: 03/08/11

WorkOrder: 1103002

March 08, 2011

Dear David:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **MPWMD**,
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701

Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

1103002

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

GeoTracker EDF PDF Excel Write On (DW)

Report To: David Holland Bill To:

Company: Monterey Bay Analytical Services
4 Justin Ct. Suite D
Monterey, Ca 93940 E-Mail: 4mbas@sbcglobal.net

Tele: (831) 641 - 0734 Fax: (831) 375 - 6227

Project #: Project Name: MPWMD

Project Location:

Sampler Signature: Lear, J.

Analysis Request													Other	Comments				
MTBE / BTEX & TPH as Gas (602 / 8021 + 8015) MTBE / BTEX ONLY (EPA 602 / 8021) TPH as Diesel / Motor Oil (8015) Total Petroleum Oil & Grease (1664 / 5520 E/B&F) Total Petroleum Hydrocarbons (418.1) EPA 802.2 / 601 / 8010 / 8021 (HVOCs) EPA 805 / 608 / 8081 (CI Pesticides) EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners EPA 507 / 8141 (NP Pesticides) EPA 515 / 8151 (Acidic CI Herbicides) EPA 524.2 / 624 / 8260 (VOCs) EPA 525.2 / 625 / 8270 (SVOCs) EPA 8270 SIM / 8310 (PAHs / PNAS) CAM 17 Metals (200.7 / 200.8 / 6010 / 6020) LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020) Lead (200.7 / 200.8 / 6010 / 6020)													Metfrane	Filter Samples for Metals analysis: Yes / No				
SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date Time		# Containers	Type Containers	MATRIX Water Soil Air Sludge Other					METHOD PRESERVED ICE HCL HNO ₃ Other							
	Injectate	2/24/11	14:00	3	VOA	X					X						X	73667

Relinquished By: David Holland *[Signature]* Date: 2/28/11 Time: 16:00 Received By: *[Signature]* 3/1/11 10:20am

Relinquished By: Date: Time: Received By:

Relinquished By: Date: Time: Received By:

COMMENTS:

ICE# *411*
 GOOD CONDITION
 HEAD SPACE ABSENT
 DECHLORINATED IN LAB
 APPROPRIATE CONTAINERS
 PRESERVED IN LAB

VOAS O&G METALS OTHER
 PRESERVATION pH<2

REC'D SEALED & INTACT VIA UPS 3/1/11

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1103002

ClientCode: MBAS

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:
 David Holland
 Monterey Bay Analytical
 4 Justin Court, Suite D
 Monterey, CA 93940
 831-375-6227 FAX 831-641-0734

Email: 4mbas@sbcglobal.net
cc:
PO:
ProjectNo: MPWMD

Bill to:
 Accounts Payable
 Monterey Bay Analytical
 4 Justin Court, Suite D
 Monterey, CA 93940

Requested TAT: 5 days
Date Received: 03/01/2011
Date Printed: 03/01/2011

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)													
					1	2	3	4	5	6	7	8	9	10	11	12		
1103002-001	Injectate	Water	2/24/2011 14:00	<input type="checkbox"/>	A													

Test Legend:

1	RSK174 W	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Monterey Bay Analytical**

Date and Time Received: **3/1/2011 10:58:59 AM**

Project Name: **MPWMD**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **1103002** Matrix Water

Carrier: UPS

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
- Container/Temp Blank temperature Cooler Temp: 4.4°C NA
- Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
- Sample labels checked for correct preservation? Yes No
- Metal - pH acceptable upon receipt (pH<2)? Yes No NA
- Samples Received on Ice? Yes No

(Ice Type: BLUE ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:



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 Web: www.mcccampbell.com E-mail: main@mcccampbell.com
 Telephone: 877-252-9262 Fax: 925-252-9269

Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940	Client Project ID: MPWMD	Date Sampled: 02/24/11
		Date Received: 03/01/11
	Client Contact: David Holland	Date Extracted: 03/08/11
	Client P.O.:	Date Analyzed 03/08/11

Light Gas Hydrocarbons*

Extraction method RSK 174/175

Analytical methods RSK174/175

Work Order: 1103002

Lab ID	Client ID	Matrix	Methane	DF	% SS	Comments
001A	Injectate	W	ND	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.4	µg/L
	S	NA	NA

* water samples are reported in µg/L.

%SS = Percent Recovery of Surrogate Standard
 DF = Dilution Factor



QC SUMMARY REPORT FOR RSK174/175

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 56459

WorkOrder 1103002

EPA Method RSK174/175		Extraction RSK 174/175							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Methane	N/A	1.17	N/A	N/A	N/A	97.6	109	11.1	N/A	N/A	80 - 120	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 56459 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1103002-001A	02/24/11 2:00 PM	03/08/11	03/08/11 12:50 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



MPWMD
Joe Oliver
P.O. Box 85
Monterey, CA 93442-0085

4 Justin Court Suite D, Monterey, CA 93940
831.375.MBAS
montereybayanalytical@usa.net
ELAP Certification Number: 2385

Page 1 of 1

Thursday, March 31, 2011

Lab Number: AA74346

Collection Date/Time: 3/21/2011 12:30 Sample Collector: LINDBERG T
Submittal Date/Time: 3/21/2011 13:20 Sample ID

Sample Description: SMTIW Injectate

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Chloramines	SM4500-Cl G	mg/L	0.07		0.05		3/21/2011
Chloride	EPA300.0	mg/L	27		1	250	3/23/2011
Haloacetic Acids	EPA552	ug/L	12	E		60	3/25/2011
Trihalomethanes	EPA524.2	ug/L	15	E		80	3/25/2011

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Dear David Holland,

Thank you for selecting BSK Analytical Laboratories for your analytical testing needs. We have prepared this report in response to your request for analytical services. Enclosed are the results of analyses for samples received by the laboratory on 03/22/2011 08:25.

If additional clarification of any information is required, please contact your Client Services Representative, John Montierth at (800) 877-8310 or (559) 497-2888.

BSK ANALYTICAL LABORATORIES



John Montierth
Client Services Representative



Certificate of Analysis

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Report Issue Date: 03/30/2011 16:57
Received Date: 03/22/2011
Received Time: 08:25

Lab Sample ID: A1C1646-01
Sample Date: 03/21/2011 12:30
Sample Type: Grab

Sampled by: T Lindberg
Matrix: Drinking Water

Sample Description: SMTIW-Injectate // 74346

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Trihalomethanes by GC-MS</u>									
Bromodichloromethane	EPA 524.2	4.9	0.50	ug/L	1	A103260	03/25/11	03/25/11	
Bromoform	EPA 524.2	0.80	0.50	ug/L	1	A103260	03/25/11	03/25/11	
Chloroform	EPA 524.2	5.9	0.50	ug/L	1	A103260	03/25/11	03/25/11	
Dibromochloromethane	EPA 524.2	3.4	0.50	ug/L	1	A103260	03/25/11	03/25/11	
<hr/>									
Surrogate: Bromofluorobenzene	EPA 524.2	95 %	Acceptable range: 70-130 %						
<u>Trihalomethanes by GC-MS</u>									
Total Trihalomethanes	EPA 524.2	15	ug/L						
<u>Haloacetic Acids by GC-ECD</u>									
Dibromoacetic Acid (DBAA)	EPA 552.2	2.1	1.0	ug/L	1	A103159	03/23/11	03/25/11	
Dichloroacetic Acid (DCAA) (2C)	EPA 552.2	5.0	1.0	ug/L	1	A103159	03/23/11	03/25/11	
Monobromoacetic Acid (MBAA)	EPA 552.2	ND	1.0	ug/L	1	A103159	03/23/11	03/25/11	
Monochloroacetic Acid (MCAA)	EPA 552.2	ND	2.0	ug/L	1	A103159	03/23/11	03/25/11	
Trichloroacetic Acid (TCAA)	EPA 552.2	4.5	1.0	ug/L	1	A103159	03/23/11	03/25/11	
<hr/>									
Surrogate: 2,3-Dibromopropionic Acid	EPA 552.2	112 %	Acceptable range: 70-130 %						
Surrogate: 2,3-Dibromopropionic Acid (2C)	EPA 552.2	122 %	Acceptable range: 70-130 %						
<u>Haloacetic Acids by GC-ECD</u>									
Total Haloacetic Acids (HAA)	EPA 552.2	12	ug/L						

Organics Quality Control Report

Analyte	Result	RL	Units	Spike	Source	%REC	RPD	Date	Analyzed	Qual
				Level	Result	%REC	Limits	RPD		

Batch: A103159

Analyst: KHH

Prepared: 03/23/2011

Blank (A103159-BLK1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							03/25/11
Dichloroacetic Acid (DCAA) (2C)	ND	1.0	ug/L							03/25/11
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							03/25/11
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							03/25/11
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							03/25/11
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	28			25		111	70-130			03/25/11
<i>Surrogate: 2,3-Dibromopropionic Acid (2C)</i>	30			25		121	70-130			03/25/11

Blank Spike (A103159-BS1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		105	70-130			03/25/11
Dichloroacetic Acid (DCAA) (2C)	11	1.0	ug/L	10		106	70-130			03/25/11
Monobromoacetic Acid (MBAA)	10	1.0	ug/L	10		105	70-130			03/25/11
Monochloroacetic Acid (MCAA)	12	2.0	ug/L	10		116	70-130			03/25/11
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		107	70-130			03/25/11
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	27			25		110	70-130			03/25/11
<i>Surrogate: 2,3-Dibromopropionic Acid (2C)</i>	30			25		120	70-130			03/25/11

Blank Spike Dup (A103159-BSD1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		106	70-130	1	30	03/25/11
Dichloroacetic Acid (DCAA) (2C)	11	1.0	ug/L	10		108	70-130	1	30	03/25/11
Monobromoacetic Acid (MBAA)	10	1.0	ug/L	10		104	70-130	1	30	03/25/11
Monochloroacetic Acid (MCAA)	11	2.0	ug/L	10		112	70-130	3	30	03/25/11
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		107	70-130	1	30	03/25/11
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	28			25		111	70-130			03/25/11
<i>Surrogate: 2,3-Dibromopropionic Acid (2C)</i>	30			25		119	70-130			03/25/11

Duplicate (A103159-DUP1) EPA 552.2 - Quality Control

Source: A1C1667-02

Dibromoacetic Acid (DBAA)	ND	1.0	ug/L	ND					30	03/25/11
Dichloroacetic Acid (DCAA) (2C)	32	1.0	ug/L	34				6	30	03/25/11
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L	ND					30	03/25/11
Monochloroacetic Acid (MCAA)	3.8	2.0	ug/L	3.9				3	30	03/25/11
Trichloroacetic Acid (TCAA)	36	1.0	ug/L	35				2	30	03/25/11
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	28			25		111	70-130			03/25/11
<i>Surrogate: 2,3-Dibromopropionic Acid (2C)</i>	30			25		118	70-130			03/25/11

Matrix Spike (A103159-MS1) EPA 552.2 - Quality Control

Source: A1C1455-01

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10	ND	112	70-130			03/25/11
Dichloroacetic Acid (DCAA) (2C)	11	1.0	ug/L	10	ND	107	70-130			03/25/11
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	109	70-130			03/25/11
Monochloroacetic Acid (MCAA)	12	2.0	ug/L	10	ND	118	70-130			03/25/11
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10	ND	115	70-130			03/25/11
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	31			25		123	70-130			03/25/11

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A103159

Analyst: KHH

Prepared: 03/23/2011

Matrix Spike (A103159-MS1) EPA 552.2 - Quality Control

Source: A1C1455-01

Surrogate: 2,3-Dibromopropionic Acid (2C)	32			25		126	70-130			03/25/11	
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Matrix Spike Dup (A103159-MSD1) EPA 552.2 - Quality Control

Source: A1C1455-01

Dibromoacetic Acid (DBAA)	12	1.0	ug/L	10	ND	117	70-130	4	30	03/25/11	
Dichloroacetic Acid (DCAA) (2C)	11	1.0	ug/L	10	ND	114	70-130	6	30	03/25/11	
Monobromoacetic Acid (MBAA)	12	1.0	ug/L	10	ND	115	70-130	5	30	03/25/11	
Monochloroacetic Acid (MCAA)	13	2.0	ug/L	10	ND	127	70-130	7	30	03/25/11	
Trichloroacetic Acid (TCAA)	12	1.0	ug/L	10	ND	121	70-130	6	30	03/25/11	
Surrogate: 2,3-Dibromopropionic Acid	33			25		131	70-130			03/25/11	SR01
Surrogate: 2,3-Dibromopropionic Acid (2C)	34			25		137	70-130			03/25/11	SR01

Batch: A103260

Analyst: JGB

Prepared: 03/25/2011

Blank (A103260-BLK1) EPA 524.2 - Quality Control

Bromodichloromethane	ND	0.50	ug/L							03/25/11	
Bromoform	ND	0.50	ug/L							03/25/11	
Chloroform	ND	0.50	ug/L							03/25/11	
Dibromochloromethane	ND	0.50	ug/L							03/25/11	
Surrogate: Bromofluorobenzene	4.6			5.0		91	70-130			03/25/11	

Blank Spike (A103260-BS1) EPA 524.2 - Quality Control

Bromodichloromethane	5.2	0.50	ug/L	5.0		103	70-130			03/25/11	
Bromoform	5.4	0.50	ug/L	5.0		108	70-130			03/25/11	
Chloroform	5.6	0.50	ug/L	5.0		111	70-130			03/25/11	
Dibromochloromethane	4.9	0.50	ug/L	5.0		99	70-130			03/25/11	
Surrogate: Bromofluorobenzene	5.3			5.0		106	70-130			03/25/11	

Blank Spike Dup (A103260-BSD1) EPA 524.2 - Quality Control

Bromodichloromethane	3.6	0.50	ug/L	5.0		72	70-130	36	30	03/25/11	BS03
Bromoform	3.8	0.50	ug/L	5.0		76	70-130	35	30	03/25/11	BS03
Chloroform	3.9	0.50	ug/L	5.0		79	70-130	35	30	03/25/11	BS03
Dibromochloromethane	3.6	0.50	ug/L	5.0		71	70-130	33	30	03/25/11	BS03
Surrogate: Bromofluorobenzene	3.8			5.0		76	70-130			03/25/11	

Certificate of Analysis

03/30/2011

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
- Sample(s) received, prepared, and analyzed within the method specified criteria unless otherwise noted within this report.
- The results relate only to the samples analyzed in accordance with test(s) requested by the client on the Chain of Custody document. Any analytical quality control exceptions to method criteria that are to be considered when evaluating these results have been flagged and are defined in the data qualifiers section.
- All results are expressed on wet weight basis unless otherwise specified.
- All positive results for EPA Methods 504.1, 502.2, and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Results contained in this analytical report must be reproduced in its entirety.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- BSK Analytical Laboratories certifies that the test results contained in this report meet all requirements of the NELAC Standards for applicable certified drinking water chemistry analyses unless qualified or noted in the Case Narrative.
- Analytical data contained in this report may be used for regulatory purposes to meet the requirements of the Federal or State drinking water, wastewater, and hazardous waste programs.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals. Samples submitted to the laboratory have been analyzed outside of this holding time requirement.
- * - This is not a NELAP accredited analyte.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- (2) The digestion used to produce this result deviated from EPA 200.2 by excluding hydrochloric acid in order to produce acceptable recoveries for affected metals.
- (2C) Result reported from secondary analytical column.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.

Certifications:

State of California - CDPH - ELAP	1180
State of California - CDPH - NELAP	04227CA
State of New Mexico - NMED-DWB	
State of Nevada - NDEP	CA000792009A

Definitions and Flags for Data Qualifiers

mg/L:	Milligrams/Liter (ppm)	M:	Method Detection Limit	MDA:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)		:DL x Dilution	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	ND:	None Detected at RL	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	pCi/L:	Picocuries per Liter	Present:	1 or more CFU/100mLs
		NR:	Non-Reportable	RL Mult:	RL Multiplier

SR01 Surrogate recovery was above acceptance limits.

BS03 BS/BSD RPD exceeded the acceptance limit. Recovery met acceptance criteria.

A1C1646

Monterey Bay Analytical

Monte6227

03222011

Turnaround: Standard

Due Date: 04/05/2011

BSK ANALYTICAL LABORATORIES

1414 Stanislaus Street, Fresno, CA 93706-1623
 (559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

ALC1646
 Monte6227

03/22/2010

* Required Fields

Client/Company Name * **Monterey Bay Analytical** Report Attention * **David Holland** Phone * # (831)-357-6227 FAX * # (831)-641-0734
 Address * **4 Justin Ct.** City * **Monterey** State * **CA** Zip * **93940** E-mail: **4MBAS@Sbcglobal.net**

Project Information: **MPWMD** PO # **484** Carbon Copies: CDHS Fresno Co EPA Merced Co Tulare Co Other: _____

How would you like your completed results sent? E-Mail Fax EDD Mail Only
 QC Request Result Request ** Surcharge STD Level II STD 5 Day** 2 Day** 1 Day**

Sampler Name Printed / Signature **Lindberg, T.** Regulatory Compliance Electronic Data Transfer: Y N System No. * _____

Matrix Types: **RSTW = Raw Surface Water** **CFW = Chlorinated Finished Water** **CWW = Chlorinated Waste Water** **BW = Bottled Water**
RGW = Raw Ground Water **FW = Finished Water** **WY = Waste Water** **SW = Storm Water** **DW = Drinking Water** **SO = Solid**

Sample #	# Bottles	Sampled		Sample Description / Location *	Matrix *	Comments / Station Code									
		Date	Time												
		3/21/11	12:30	SMTW-Ileacate	DW	74346	✓	✓							
Relinquished by: (Signature and Printed Name) David Holland		Date 3/21/11		Company MBAS		Received by: (Signature and Print Name)		Date 3/21/11		Time 16:00		Company			
Relinquished by: (Signature and Printed Name)		Date		Company		Received by: (Signature and Print Name)		Date		Time		Company			
Received for Labby: (Signature and Printed Name)		Date		Company		Received by: (Signature and Print Name)		Date		Time		Company			
Shipping Method: CAO UPS GSO WALK-IN SVC FED EX OTHER		Cooling Method: WET BLUE NONE		Payment Received at Delivery:		Check/Cash/Card		PIA #		Packing Material: B/C		Int:			

Notice: Payment for services rendered as noted herein are due in full within 30 days from when invoiced. For so paid, security balances are deemed delinquent. Delinquent balances are subject to monthly service/fees, change and interest calculated at 1 1/2% per month, 18% per annum. BSK & Associates shall be notified to recover on delinquent accounts, costs of collections, including attorney's fees incurred prior to or in litigation whether concluded by judgment, settlement, compromise or otherwise. The past signing for the client/company expressly acknowledges that they are either the Client or authorized agent to the Client, and the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any modification of the analysis requested, other type or quantities, will be noted and agreed upon this Chain of Custody. The run around time for any samples received after 3:00 pm will begin the next business day. 5/9/10-001200 (4/14/10)

Sample Integrity Pg. 1 of 2 WORK ORDER



Date Received 3/22/11

Section 1- Receiving Information

Sample Transport: ONTRAC UPS PMS Walk-In BSK-Courier GSO Fed Exp. Other: _____

Samples arrived at lab on same day sampled: Yes _____ No X Has Chilling Process Begun: Yes X No _____

Coolers/Ice Chests Description/Temperature(s): (If more than 4 received, list information in comment section)

1) 5' 2) _____ 3) _____ 4) _____

Was Temperature In Range: Y N N/A Received On Ice: Wet Blue Received Ambient: Y N

Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other: _____

Initial Receipt: BSK-Visalia BSK-Bakersfield BSK-SAC BSK-FDL BSK-FAL

Were ice chest custody seals present? Y X Intact: Y N

Section 2- COC Info.	Completed		Info From Container	Completed		Info From Container
	Yes	No		Yes	No	
Was COC Received	<u>1</u>					Analysis Requested
Date Sampled	<u>1</u>				<u>1</u>	Any hold times less than 72hr
Time Sampled	<u>1</u>					Client Name
Sample ID	<u>1</u>				<u>1</u>	Address
Special Storage/Handling Ins.		<u>1</u>			<u>1</u>	Telephone #

Section 3- Bottles / Analysis	Yes	No	N/A	Comment
Did all bottles arrive unbroken and intact?	<u>1</u>			
Were bottle custody seals present?		<u>1</u>		
Were bottle custody seals intact?		<u>1</u>		
Did all bottle labels agree with COC?	<u>1</u>			
Were correct containers used for the tests requested?	<u>1</u>			
Were correct preservations used for the tests requested?	<u>1</u>			
Was a sufficient amount of sample sent for tests indicated?	<u>1</u>			
Were bubbles present in VOA Vials? (Volatile Methods Only)		<u>1</u>		
Were Ascorbic Acid Bottles received with the VOAs?		<u>1</u>		

Section 4- Comments / Discrepancies

Sample(s) Split/Preserve: Yes No Container: _____ Preservation: _____ Dt/Time/Init _____

Container: _____ Preservation: _____ Dt/Time/Init _____

Was Client Service Rep. notified of discrepancies: Yes No N/A CSR: _____ Notified By/Dt/Time: _____

Explanations / Comments

Report Comment Entered:

Labeled by: [Signature] @ 10:11 Labels checked by: JLH @ 12:36

BSK Bottles **Yes** No



250ml (A) 500ml (B) 1Liter (C) Amber Glass (AG)

Container(s) Received					
Bacti Na ₂ S ₂ O ₃					
None (p) ^{White Cap}					
None (p) ^{Blue Cap} w/NH ₄ + Buffer					
HNO ₃ (p) ^{Red Cap}					
H ₂ SO ₄ (p) ^{Yellow Cap}					
NaOH (p) ^{Green Cap}					
Other:					
Dissolved Oxygen 300ml (g)					
Centrifuge Tube HNO ₃					
250ml (AG) None					
250ml (AG) H ₂ SO ₄ COD ^{Yellow Label}					
250ml (AG) Na ₂ S ₂ O ₃ 515.547 ^{Blue Label}					
250ml (AG) Na ₂ S ₂ O ₃ + MCAA 531.1 ^{Orange Label}					
250ml (AG) NH ₄ Cl 552 ^{Purple Label}	1				
250ml (AG) EDA DBPs ^{Brown Label}					
250ml (AG) Other:					
500ml (AG) None					
500ml (AG) H ₂ SO ₄ TPH-Diesel ^{Yellow Label}					
1 Liter (AG) None					
1 Liter (AG) H ₂ SO ₄ O&G ^{Yellow Label}					3/22/11
1 Liter (AG) Na ₂ S ₂ O ₃ 548 / 525 / 521 ^{Blue Label}					S
1 Liter (P) Na ₂ S ₂ O ₃ + H ₂ SO ₄ 549					
1 Liter (AG) NaOH+ZnAc Sulfide					
1 Liter (AG) Ascorbic/EDTA/Pot Citrate 527 ^{Grey Label}					
1 Liter (AG) CuSO ₄ /Trizma 529 ^{Turquoise Label}					
1 Liter (AG) Na ₂ SO ₃ /HCL 525 UCMR ^{Neon Green Label}					
1 Liter (AG) Ammonium Chloride 535 ^{Purple Label}					
40ml VOA Vial Clear - HCL					
40ml VOA Vial Amber - Na ₂ S ₂ O ₃	3				
40ml VOA Vial Clear - None					
40ml VOA Vial Clear - Na ₂ S ₂ O ₃ 504, 505					
40ml VOA Vial Clear - H ₃ PO ₄					
Other:					
Asbestos 1Liter Plastic/Foil					
Radon 200ml Clear (g)					
Low Level Hg/Metals Double Baggie					
Bioassay Jug					
250 Clear Glass Jar					
500 Clear Glass Jar					
1 Liter Clear Glass Jar					
Plastic Bag					
Soil Tube Brass / Steel / Plastic					
Tedlar Bags					



MPWMD
Joe Oliver
P.O. Box 85
Monterey, CA 93442-0085

4 Justin Court Suite D, Monterey, CA 93940
831.375.MBAS
montereybayanalytical@usa.net
ELAP Certification Number: 2385

Page 1 of 1

Tuesday, May 17, 2011

Lab Number: AA75474

Collection Date/Time: 4/27/2011 11:30 Sample Collector: CINDBERG, T
Submittal Date/Time: 4/27/2011 12:05 Sample ID

Sample Description: Injectate

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Chloramines	SM4500-Cl G	mg/L	0.15		0.05		4/27/2011
Chloride	EPA300.0	mg/L	27		1	250	4/28/2011
Haloacetic Acids	EPA552	ug/L	14	E		60	5/5/2011
Trihalomethanes	EPA524.2	ug/L	14	E		80	5/6/2011

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Dear David Holland,

Thank you for selecting BSK Analytical Laboratories for your analytical testing needs. We have prepared this report in response to your request for analytical services. Enclosed are the results of analyses for samples received by the laboratory on 04/29/2011 08:00.

If additional clarification of any information is required, please contact your Client Services Representative, John Montierth at (800) 877-8310 or (559) 497-2888.

BSK ANALYTICAL LABORATORIES



John Montierth
Client Services Representative

Case Narrative

Work Order Information

Client Name: Monterey Bay Analytical
Client Code: Monte6227
Work Order: A1D2221
Project: MPWMD

Submitted by: David Holland
Shipped by: ONTRAC
COC Number:
TAT: 10
PO #:

Sample Receipt Conditions

Cooler: Default Cooler **Temp. °C:** 6
Containers Intact
COC/Labels Agree
Packing Material - Bubble Wrap
Packing Material - Paper
Sample(s) were received in temperature range.
Initial receipt at BSK-FAL

Report Manager
David Holland

Report Format
Final.rpt



Certificate of Analysis

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Report Issue Date: 05/11/2011 8:59
Received Date: 04/29/2011
Received Time: 08:00

Lab Sample ID: A1D2221-01
Sample Date: 04/28/2011 11:30
Sample Type: Grab

Sampled by: T Lindberg
Matrix: Water

Sample Description: Injectate // 75474

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Trihalomethanes by GC-MS</u>									
Bromodichloromethane	EPA 524.2	5.2	0.50	ug/L	1	A105141	05/05/11	05/06/11	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A105141	05/05/11	05/06/11	
Chloroform	EPA 524.2	5.8	0.50	ug/L	1	A105141	05/05/11	05/06/11	
Dibromochloromethane	EPA 524.2	3.1	0.50	ug/L	1	A105141	05/05/11	05/06/11	
<hr/>									
Surrogate: Bromofluorobenzene	EPA 524.2	70 %	Acceptable range: 70-130 %						
<u>Trihalomethanes by GC-MS</u>									
Total Trihalomethanes	EPA 524.2	14	ug/L						
<u>Haloacetic Acids by GC-ECD</u>									
Dibromoacetic Acid (DBAA)	EPA 552.2	3.0	1.0	ug/L	1	A104992	05/02/11	05/05/11	
Dichloroacetic Acid (DCAA) (2C)	EPA 552.2	6.2	1.0	ug/L	1	A104992	05/02/11	05/05/11	
Monobromoacetic Acid (MBAA)	EPA 552.2	ND	1.0	ug/L	1	A104992	05/02/11	05/05/11	
Monochloroacetic Acid (MCAA) (2C)	EPA 552.2	ND	2.0	ug/L	1	A104992	05/02/11	05/05/11	
Trichloroacetic Acid (TCAA)	EPA 552.2	4.9	1.0	ug/L	1	A104992	05/02/11	05/05/11	
<hr/>									
Surrogate: 2,3-Dibromopropionic Acid	EPA 552.2	104 %	Acceptable range: 70-130 %						
Surrogate: 2,3-Dibromopropionic Acid (2C)	EPA 552.2	102 %	Acceptable range: 70-130 %						
<u>Haloacetic Acids by GC-ECD</u>									
Total Haloacetic Acids (HAA)	EPA 552.2	14	ug/L						

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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Batch: A104992

Analyst: KHH

Prepared: 05/02/2011

Blank (A104992-BLK1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							05/04/11	
Dibromoacetic Acid (DBAA) (2C)	ND	1.0	ug/L							05/04/11	
Dichloroacetic Acid (DCAA) (2C)	ND	1.0	ug/L							05/04/11	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							05/04/11	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							05/04/11	
Monochloroacetic Acid (MCAA) (2C)	ND	2.0	ug/L							05/04/11	
Trichloroacetic Acid (TCAA) (2C)	ND	1.0	ug/L							05/04/11	
Surrogate: 2,3-Dibromopropionic Acid	25			25		101	70-130			05/04/11	
Surrogate: 2,3-Dibromopropionic Acid (2C)	25			25		101	70-130			05/04/11	

Blank Spike (A104992-BS1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		107	70-130			05/04/11	
Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10		113	70-130			05/04/11	
Dichloroacetic Acid (DCAA) (2C)	10	1.0	ug/L	10		101	70-130			05/04/11	
Monobromoacetic Acid (MBAA)	9.5	1.0	ug/L	10		95	70-130			05/04/11	
Monochloroacetic Acid (MCAA)	10	2.0	ug/L	10		104	70-130			05/04/11	
Monochloroacetic Acid (MCAA) (2C)	9.8	2.0	ug/L	10		98	70-130			05/04/11	
Trichloroacetic Acid (TCAA)	9.3	1.0	ug/L	10		93	70-130			05/04/11	
Surrogate: 2,3-Dibromopropionic Acid	27			25		109	70-130			05/04/11	
Surrogate: 2,3-Dibromopropionic Acid (2C)	27			25		108	70-130			05/04/11	

Blank Spike Dup (A104992-BSD1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10		103	70-130	4	30	05/05/11	
Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10		107	70-130	5	30	05/05/11	
Dichloroacetic Acid (DCAA) (2C)	9.6	1.0	ug/L	10		96	70-130	5	30	05/05/11	
Monobromoacetic Acid (MBAA)	8.9	1.0	ug/L	10		89	70-130	6	30	05/05/11	
Monochloroacetic Acid (MCAA)	9.4	2.0	ug/L	10		94	70-130	10	30	05/05/11	
Monochloroacetic Acid (MCAA) (2C)	10	2.0	ug/L	10		100	70-130	2	30	05/05/11	
Trichloroacetic Acid (TCAA)	9.6	1.0	ug/L	10		96	70-130	2	30	05/05/11	
Surrogate: 2,3-Dibromopropionic Acid	21			25		84	70-130			05/05/11	
Surrogate: 2,3-Dibromopropionic Acid (2C)	22			25		89	70-130			05/05/11	

Duplicate (A104992-DUP1) EPA 552.2 - Quality Control

Source: A1D2221-01

Dibromoacetic Acid (DBAA)	2.5	1.0	ug/L	3.0				17	30	05/05/11	
Dichloroacetic Acid (DCAA) (2C)	5.9	1.0	ug/L	6.2				5	30	05/05/11	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L	ND					30	05/05/11	
Monochloroacetic Acid (MCAA) (2C)	ND	2.0	ug/L	ND					30	05/05/11	
Trichloroacetic Acid (TCAA)	4.9	1.0	ug/L	4.9				1	30	05/05/11	
Surrogate: 2,3-Dibromopropionic Acid	21			25		85	70-130			05/05/11	
Surrogate: 2,3-Dibromopropionic Acid (2C)	22			25		87	70-130			05/05/11	

Matrix Spike (A104992-MS1) EPA 552.2 - Quality Control

Source: A1D2145-01

Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10	ND	105	70-130			05/05/11	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike	Source	%REC	RPD	Date	Analyzed	Qual
				Level	Result	%REC	Limits	RPD		

Batch: A104992

Analyst: KHH

Prepared: 05/02/2011

Matrix Spike (A104992-MS1) EPA 552.2 - Quality Control				Source: A1D2145-01						
Dichloroacetic Acid (DCAA) (2C)	14	1.0	ug/L	10	5.9	82	70-130			05/05/11
Monobromoacetic Acid (MBAA)	8.5	1.0	ug/L	10	ND	85	70-130			05/05/11
Monochloroacetic Acid (MCAA)	9.6	2.0	ug/L	10	ND	80	70-130			05/05/11
Trichloroacetic Acid (TCAA)	14	1.0	ug/L	10	5.3	86	70-130			05/05/11
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	21			25		85	70-130			05/05/11
<i>Surrogate: 2,3-Dibromopropionic Acid (2C)</i>	22			25		89	70-130			05/05/11

Matrix Spike Dup (A104992-MSD1) EPA 552.2 - Quality Control				Source: A1D2145-01						
Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10	ND	105	70-130	1	30	05/05/11
Dichloroacetic Acid (DCAA) (2C)	15	1.0	ug/L	10	5.9	92	70-130	7	30	05/05/11
Monobromoacetic Acid (MBAA)	9.1	1.0	ug/L	10	ND	91	70-130	7	30	05/05/11
Monochloroacetic Acid (MCAA)	10	2.0	ug/L	10	ND	85	70-130	5	30	05/05/11
Trichloroacetic Acid (TCAA)	14	1.0	ug/L	10	5.3	88	70-130	1	30	05/05/11
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	22			25		89	70-130			05/05/11
<i>Surrogate: 2,3-Dibromopropionic Acid (2C)</i>	23			25		94	70-130			05/05/11

Batch: A105141

Analyst: JGB

Prepared: 05/05/2011

Blank (A105141-BLK1) EPA 524.2 - Quality Control										
Bromodichloromethane	ND	0.50	ug/L							05/06/11
Bromoform	ND	0.50	ug/L							05/06/11
Chloroform	ND	0.50	ug/L							05/06/11
Dibromochloromethane	ND	0.50	ug/L							05/06/11
<i>Surrogate: Bromofluorobenzene</i>	5.1			5.0		101	70-130			05/06/11

Blank Spike (A105141-BS1) EPA 524.2 - Quality Control										
Bromodichloromethane	4.5	0.50	ug/L	5.0		90	70-130			05/06/11
Bromoform	4.7	0.50	ug/L	5.0		94	70-130			05/06/11
Chloroform	5.2	0.50	ug/L	5.0		103	70-130			05/06/11
Dibromochloromethane	4.3	0.50	ug/L	5.0		86	70-130			05/06/11
<i>Surrogate: Bromofluorobenzene</i>	5.6			5.0		112	70-130			05/06/11

Blank Spike Dup (A105141-BSD1) EPA 524.2 - Quality Control										
Bromodichloromethane	4.3	0.50	ug/L	5.0		86	70-130	5	30	05/06/11
Bromoform	4.4	0.50	ug/L	5.0		88	70-130	7	30	05/06/11
Chloroform	4.5	0.50	ug/L	5.0		90	70-130	14	30	05/06/11
Dibromochloromethane	4.2	0.50	ug/L	5.0		84	70-130	2	30	05/06/11
<i>Surrogate: Bromofluorobenzene</i>	3.6			5.0		73	70-130			05/06/11

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
- Sample(s) received, prepared, and analyzed within the method specified criteria unless otherwise noted within this report.
- The results relate only to the samples analyzed in accordance with test(s) requested by the client on the Chain of Custody document. Any analytical quality control exceptions to method criteria that are to be considered when evaluating these results have been flagged and are defined in the data qualifiers section.
- All results are expressed on wet weight basis unless otherwise specified.
- All positive results for EPA Methods 504.1, 502.2, and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Results contained in this analytical report must be reproduced in its entirety.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- BSK Analytical Laboratories certifies that the test results contained in this report meet all requirements of the NELAC Standards for applicable certified drinking water chemistry analyses unless qualified or noted in the Case Narrative.
- Analytical data contained in this report may be used for regulatory purposes to meet the requirements of the Federal or State drinking water, wastewater, and hazardous waste programs.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals. Samples submitted to the laboratory have been analyzed outside of this holding time requirement.
- * - This is not a NELAP accredited analyte.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- (2) The digestion used to produce this result deviated from EPA 200.2 by excluding hydrochloric acid in order to produce acceptable recoveries for affected metals.
- (2C) Result reported from secondary analytical column.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.

Certifications:

State of California - CDPH - ELAP	1180
State of California - CDPH - NELAP	04227CA
State of New Mexico - NMED-DWB	
State of Nevada - NDEP	CA000792009A

Definitions and Flags for Data Qualifiers

mg/L:	Milligrams/Liter (ppm)	M:	Method Detection Limit	MDA:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)		:DL x Dilution	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	ND:	None Detected at RL	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	pCi/L:	Picocuries per Liter	Present:	1 or more CFU/100mLs
		NR:	Non-Reportable	RL Mult:	RL Multiplier

A1D2221

Monterey Bay Analytical

Monte6227

04292011

Turnaround: Standard

Due Date: 05/13/2011

BSK ANALYTICAL LABORATORIES

1414 Stanislaus Street, Fresno, CA 93706-1623
 (559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

A1D2221
 Monte6227

04/29/2010



ANALYSIS REQUESTED

* Required Fields

TEMP: 10

Client/Company Name * **Monterey Bay Analytical** Report Attention * **David Holland** Phone * #: (831)-357-6227 FAX * #: (831)-641-0734
 Address * **4 Justin Ct.** City * **Monterey** State * **CA** Zip * **93940** E-mail: **4MBAS@Sbcglobal.net**

Project Information: **MPWMD** PO # **464** Quote # **464**
 Carbon Copies: CDHS Fresno Co EPA
 Merced Co Tulare Co
 Other: Regulatory Compliance Electronic Data Transfer System No. * Y N

How would you like your completed results sent? E-Mail Fax EDD Mail Only
 QC Request: STD Level II STD 5 Day** 2 Day** 1 Day**
 Result Request ** Surcharge

Sampler Name Printed / Signature: **Lindberg, T.**
 Matrix Types: RSW = Raw Surface Water CFW = Chlorinated Finished Water CWW = Chlorinated Waste Water BR = Bottled Water SO = Solid
 RW = Raw Ground Water FW = Finished Water MW = Waste Water SW = Storm Water DW = Drinking Water

Sample #	# Bottles	Date	Sampled Time	Sample Description / Location *	Matrix *	Comments / Station Code
1	4	4/28/11	11:30	Injectate	AQ	75474

Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Print Name)	Company
<i>David Holland</i> David Holland	MBAS	4/28/11	16:00		

Received by Lab by: (Signature and Printed Name) *[Signature]* **DAVID HOLLAND** Date **4/28/11** Time **16:00**
 Shipping Method: UPS GSO WALK-IN SVC FEDEX OTHER OTHER
 Cooling Method: WET BLUE NONE
 Packing Material: Check/Cash/Card P/A # Invt

Notice: Payment for services rendered as stated herein are due in full within 30 days from when invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service-charging charges and interest calculated at 1.12% per month, 18% per annum. BSK & Associates shall be entitled to recover or obtain payment accounts, costs of collection, including attorney's fees incurred prior to or at litigation whether or not judgment, settlement, compromise or otherwise. The person signing for the client/company expressly acknowledges that they are either the Client or authorized agent to the Client and the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any misapplication of the analysis requested, either type or quantity, will be noted and flagged upon this Chain of Custody. The run around time for any samples received after 3:00 pm will begin the next business day.

Sample Integrity Pg. 1 of 2



Date Received 4/29/11

Section 1- Receiving Information

Sample Transport: ~~ONTRAC~~ UPS PMS Walk-In BSK-Courier GSO Fed Exp. Other: _____

Samples arrived at lab on same day sampled: Yes _____ No X Has Chilling Process Begun: Yes X No _____

Coolers/Ice Chests Description/Temperature(s): (if more than 5 received, list information in comment section)

1) U 2) _____ 3) _____ 4) _____ 5) _____

Was Temperature In Range: Y N N/A Received On Ice: Wet Blue Received Ambient: Y N

Describe type of packing materials: Bubble Wrap ~~Foam~~ Packing Peanuts ~~Paper~~ Other: _____

Initial Receipt: BSK-Visalia BSK-Bakersfield BSK-SAC BSK-FAL

Were ice chest custody seals present? Y N Intact: Y N

Section 2- COC Info.

	Completed		Info From Container	Completed		Info From Container
	Yes	No		Yes	No	
Was COC Received	<u>—</u>					Analysis Requested
Date Sampled	<u>—</u>				<u>—</u>	Hold times less than 72hr
Time Sampled	<u>—</u>					Client Name
Sample ID	<u>—</u>					Address
Special Storage/Handling Ins.		<u>—</u>			<u>—</u>	Telephone #

Section 3- Bottles / Analysis

	Yes	No	N/A	Comment
Did all bottles arrive unbroken and intact?	<u>—</u>			
Were bottle custody seals present?		<u>—</u>		
Were bottle custody seals intact?		<u>—</u>		
Did all bottle labels agree with COC?	<u>—</u>			
Were correct containers used for the tests requested?	<u>—</u>			
Were correct preservations used for the tests requested?	<u>—</u>			
Was a sufficient amount of sample sent for tests indicated?				
Were bubbles present in VOA Vials? (Volatile Methods Only)		<u>—</u>		
Were Ascorbic Acid Bottles received with the VOAs?		<u>—</u>		

Section 4- Comments / Discrepancies

Sample(s) Split/Preserve: Yes No Container: _____ Preservation: _____ Dt/Time/Init _____

Container: _____ Preservation: _____ Dt/Time/Init _____

Was Client Service Rep. notified of discrepancies: Yes No N/A CSR: _____ Notified By/Time: _____

Explanations / Comments

Report Comment Entered:

Labeled by: AS @ 1158 Labels checked by: [Signature] @ 1205 RUSH Paged by: _____ @ _____

Sample Integrity

Pg 2 of 2

BSK Bottles Yes No



250ml (A) 500ml (B) 1Liter (C) Amber Glass (AG)

Container(s) Received									
Bacti Na ₂ S ₂ O ₃									
None (p) <small>White Cap</small>									
None (p) <small>Blue Cap</small> w/NH ₄ + Buffer									
HNO ₃ (p) <small>Red Cap</small>									
H ₂ SO ₄ (p) <small>Yellow Cap</small>									
NaOH (p) <small>Green Cap</small>									
EDA (p) <small>Brown Cap/Label</small>									
Other:									
Dissolved Oxygen 300ml (g)									
250ml (AG) None									
250ml (AG) H ₂ SO ₄ COD <small>Yellow Label</small>									
250ml (AG) Na ₂ S ₂ O ₃ 515.547 <small>Blue Label</small>									
250ml (AG) Na ₂ S ₂ O ₃ + MCAA 531.1 <small>Orange Label</small>									
250ml (AG) NH ₄ Cl 552 <small>Purple Label</small>									
250ml (AG) EDA DBPs <small>Brown Label</small>									
250ml (AG) Other:									
500ml (AG) None									
500ml (AG) H ₂ SO ₄ <small>Yellow Label</small>									
1 Liter (AG) None									
1 Liter (AG) H ₂ SO ₄ O&G / TPH-Diesel <small>Yellow Label</small>									
1 Liter (AG) Na ₂ S ₂ O ₃ 548 / 525 / 521 <small>Blue Label</small>									
1 Liter (P) Na ₂ S ₂ O ₃ + H ₂ SO ₄ 549									
1 Liter (AG) NaOH+ZnAc Sulfide									
40ml VOA Vial Clear – HCL									
40ml VOA Vial Clear – Buffer pH 4									
40ml VOA Vial Clear – None									
40ml VOA Vial Amber – Na ₂ S ₂ O ₃									
40ml VOA Vial Clear - Na ₂ S ₂ O ₃ 504, 505									
40ml VOA Vial Clear – H ₃ PO ₄									
Other:									
½ Gallon (p)									
Asbestos 1Liter Plastic/Foil									
Radon 200ml Clear (g)									
Low Level Hg/Metals Double Baggie									
Bioassay Jug									
Ampule									
PT Sample Bottle									
250 Clear Glass Jar									
500 Clear Glass Jar									
1 Liter Clear Glass Jar									
Plastic Bag									
Soil Tube Brass / Steel / Plastic									
Tedlar Bags									

2

4/29/11

S



MPWMD
 Joe Oliver
 P.O. Box 85
 Monterey, CA 93442-0085

4 Justin Court Suite D, Monterey, CA 93940
 831.375.MBAS
 montereybayanalytical@usa.net
 ELAP Certification Number: 2385

Lab Number: AA76467

Collection Date/Time: 5/20/2011 11:15 Sample Collector: LEAR J
 Submittal Date/Time: 5/20/2011 12:30 Sample ID

Sample Description: Injectate

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Alkalinity, Total (as CaCO3)	2320B	mg/L	127		2		5/24/2011
Ammonia-N	4500NH3 D	mg/L	Not Detected		0.05		5/27/2011
Arsenic, Total	EPA200.8	ug/L	Not Detected		1	10	5/25/2011
Barium, Total	EPA200.8	ug/L	49		10	1000	5/25/2011
Boron	EPA200.7	mg/L	Not Detected		0.05		5/24/2011
Calcium	EPA200.7	mg/L	39		0.5		5/24/2011
Chloramines	SM4500-Cl G	mg/L	Not Detected		0.05		5/20/2011
Chloride	EPA300.0	mg/L	26		1	250	5/19/2011
Dissolved Organic Carbon	SM5310-C	mg/L	1.2	E	0.2		5/26/2011
Gross Alpha	EPA900.0	pCi/L	0.388+/-1.31	E		15	5/25/2011
Haloacetic Acids	EPA552	ug/L	13	E		60	6/2/2011
Iron	EPA 200.7	ug/L	Not Detected		10		5/24/2011
Iron, Dissolved	EPA 200.7	ug/L	Not Detected		10	300	5/24/2011
Kjehldahl Nitrogen	4500-NH3 B,C,E	mg/L	0.6		0.2		5/24/2011
Magnesium	EPA200.7	mg/L	12		0.5		5/24/2011
Manganese, Dissolved	EPA 200.7	ug/L	Not Detected		10	50	5/24/2011
Manganese, Total	EPA 200.7	ug/L	Not Detected		10	50	5/24/2011
Methane	EPA174/175	ug/L	Not Detected	E	0.4		5/26/2011
Molybdenum, Total	EPA200.8	ug/L	3		1	1000	5/25/2011
Nitrate as NO3	EPA300.0	mg/L	Not Detected		1	45	5/24/2011
Nitrate as NO3-N	EPA300.0	mg/L	0.09		0.05	10	5/19/2011
Nitrite as Nitrogen	EPA300.0	mg/L	Not Detected		0.05	1.00	5/19/2011
Nitrite as NO2-N	EPA300.0	mg/L	Not Detected		0.05	1.00	5/19/2011
o-Phosphate-P	EPA300.0	mg/L	0.17		0.05		5/19/2011
pH (Laboratory)	4500-H+B	STD. Units	7.7				5/23/2011
Phosphorus, Total	HACH 8190	mg/L	0.35		0.03		5/26/2011
Potassium	EPA200.7	mg/L	2.8		0.1		5/24/2011
QC Anion Sum x 100	Calculation	%	99%				5/25/2011
QC Anion-Cation Balance	Calculation	%	2				5/25/2011
QC Cation Sum x 100	Calculation	%	103%				5/25/2011
QC Ratio TDS/SEC	Calculation		0.66				6/14/2011
Selenium, Total	EPA200.8	ug/L	2		2	50	5/25/2011
Sodium	EPA200.7	mg/L	42		0.5		5/24/2011
Specific Conductance (E.C)	2510B	umhos/cm	468		1	900	5/20/2011
Strontium, Total	EPA200.8	ug/L	198		5		5/25/2011
Sulfate	EPA300.0	mg/L	65		1	250	5/19/2011
Total Diss. Solids	2540C	mg/L	308		10	500	5/31/2011

mg/L: Milligrams per liter ug/L : Micrograms per liter PQL : Practical Quantitation Limit MCL: Maximum Contamination Level
 H = Analyzed outside of hold time E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

Lab Number: AA76467

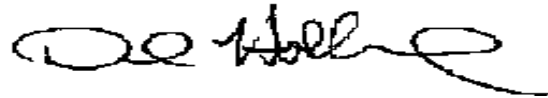
Collection Date/Time: 5/20/2011 11:15 Sample Collector: LEAR J
Submittal Date/Time: 5/20/2011 12:30 Sample ID

Sample Description: Injectate

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Total Nitrogen	Calculation	mg/L	0.7		0.2		5/25/2011
Total Organic Carbon	SM5310C	mg/L	1.3	E	0.20		5/25/2011
Total Radium 226	EPA903.0	pCi/L	0.000+/-0.152	E		3	6/7/2011
Trihalomethanes	EPA524.2	ug/L	27	E		80	5/28/2011
Uranium by ICP/MS	EPA200.8	ug/L	Not Detected		1	30	5/25/2011
Vanadium, Total	EPA200.8	ug/L	Not Detected		1	1000	5/25/2011
Zinc, Total	EPA200.8	ug/L	167		10	5000	5/25/2011

Sample Comments:

Report Approved by:



David Holland, Laboratory Director



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940	Client Project ID: MPWMD	Date Sampled: 05/20/11
		Date Received: 05/24/11
	Client Contact: David Holland	Date Reported: 05/31/11
	Client P.O.:	Date Completed: 05/31/11

WorkOrder: 1105689

May 31, 2011

Dear David:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **MPWMD**,
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

1105689

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701

Website: www.mccampbell.com Email: main@mccampbell.com

Telephone: (877) 252-9262

Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

GeoTracker EDF PDF Excel Write On (DW)

Report To: David Holland Bill To:

Company: Monterey Bay Analytical Services

4 Justin Ct. Suite D

Monterey, Ca 93940

E-Mail: 4mbas@sbcglobal.net

Tele: (831) 641 - 0734

Fax: (831) 375 - 6227

Project #:

Project Name: MPWMD

Project Location:

Sampler Signature: Lear, J.

Analysis Request

Other

Comments

- MTBE / BTEX & TPH as Gas (602 / 8021 + 8015)
- MTBE / BTEX ONLY (EPA 602 / 8021)
- TPH as Diesel / Motor Oil (8015)
- Total Petroleum Oil & Grease (1664 / 5520 E/B&F)
- Total Petroleum Hydrocarbons (418.1)
- EPA 502.2 / 601 / 8010 / 8021 (HIVOCs)
- EPA 505 / 608 / 8081 (CI Pesticides)
- EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners
- EPA 507 / 8141 (NP Pesticides)
- EPA 515 / 8151 (Acidic CI Herbicides)
- EPA 524.2 / 624 / 8260 (VOCs)
- EPA 525.2 / 625 / 8270 (SVOCs)
- EPA 8270 SIM / 8310 (PAHs / PNAs)
- CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)
- LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)
- Lead (200.7 / 200.8 / 6010 / 6020)

Methane

Filter Samples for Metals analysis: Yes / No

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED													
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other										
	Injectate	5/20/11	11:15	3	VOA	X																		

REC'D SEALED & INTACT VIA UPS

Relinquished By: David Holland / [Signature]

Date: 5/23/11

Time:

Received By:

Relinquished By:

Date: 5/24/11

Time: 1335

Received By: [Signature]

Relinquished By:

Date:

Time:

Received By:

ICE 10.2 8/10/109

COMMENTS:

- GOOD CONDITION
- HEAD SPACE ABSENT
- DECHLORINATED IN LAB
- APPROPRIATE CONTAINERS
- PRESERVED IN LAB

VOAS O&G METALS OTHER PRESERVATION pH<2

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1105689

ClientCode: MBAS

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:
 David Holland
 Monterey Bay Analytical
 4 Justin Court, Suite D
 Monterey, CA 93940
 831-375-6227 FAX 831-641-0734

Email: 4mbas@sbcglobal.net
cc:
PO:
ProjectNo: MPWMD

Bill to:
 Accounts Payable
 Monterey Bay Analytical
 4 Justin Court, Suite D
 Monterey, CA 93940

Requested TAT: 5 days
Date Received: 05/24/2011
Date Printed: 05/24/2011

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)													
					1	2	3	4	5	6	7	8	9	10	11	12		
1105689-001	Injectate	Water	5/20/2011 11:15	<input type="checkbox"/>	A													

Test Legend:

1	RSK174 W	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Ana Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Monterey Bay Analytical**

Date and Time Received: **5/24/2011 1:42:33 PM**

Project Name: **MPWMD**

Checklist completed and reviewed by: **Ana Venegas**

WorkOrder N°: **1105689** Matrix Water

Carrier: UPS

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
 - Container/Temp Blank temperature Cooler Temp: 10.2°C NA
 - Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 - Sample labels checked for correct preservation? Yes No
 - Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 - Samples Received on Ice? Yes No
- (Ice Type: BLUE ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940	Client Project ID: MPWMD	Date Sampled: 05/20/11
		Date Received: 05/24/11
	Client Contact: David Holland	Date Extracted: 05/26/11
	Client P.O.:	Date Analyzed 05/26/11

Light Gas Hydrocarbons*

Extraction method RSK 174/175

Analytical methods RSK174/175

Work Order: 1105689

Lab ID	Client ID	Matrix	Methane	DF	% SS	Comments
001A	Injectate	W	ND	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.4	µg/L
	S	NA	NA

* water samples are reported in µg/L.

%SS = Percent Recovery of Surrogate Standard
 DF = Dilution Factor



QC SUMMARY REPORT FOR RSK174/175

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 58566

WorkOrder 1105689

EPA Method RSK174/175		Extraction RSK 174/175							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Methane	N/A	1.17	N/A	N/A	N/A	94	99.9	6.09	N/A	N/A	80 - 120	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 58566 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1105689-001A	05/20/11 11:15 AM	05/26/11	05/26/11 11:24 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Dear David Holland,

Thank you for selecting BSK Analytical Laboratories for your analytical testing needs. We have prepared this report in response to your request for analytical services. Enclosed are the results of analyses for samples received by the laboratory on 05/24/2011 08:15.

If additional clarification of any information is required, please contact your Client Services Representative, John Montierth at (800) 877-8310 or (559) 497-2888.

BSK ANALYTICAL LABORATORIES



John Montierth
Client Services Representative

Case Narrative

Work Order Information

Client Name: Monterey Bay Analytical
Client Code: Monte6227
Work Order: A1E1735
Project: MPWMD

Submitted by: David Holland
Shipped by: ONTRAC
COC Number:
TAT: 10
PO #:

Sample Receipt Conditions

Cooler: Default Cooler **Temp. °C:** 6
Containers Intact
COC/Labels Agree
Received On Wet Ice
Packing Material - Bubble Wrap
Sample(s) were received in temperature range.
Initial receipt at BSK-FAL

Report Manager
David Holland

Report Format
Final.rpt



Certificate of Analysis

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Report Issue Date: 06/03/2011 16:38
Received Date: 05/24/2011
Received Time: 08:15

Lab Sample ID: A1E1735-01
Sample Date: 05/20/2011 11:15
Sample Type: Grab

Sampled by: Lear, J.
Matrix: Water

Sample Description: Injectate // 76467

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Dissolved Organic Carbon	SM 5310 C	1.2	0.20	mg/L	1	A106303	05/26/11	05/26/11	
Total Organic Carbon	SM 5310 C	1.3	0.20	mg/L	1	A106244	05/25/11	05/25/11	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	9.3	0.50	ug/L	1	A106330	05/27/11	05/28/11	
Bromoform	EPA 524.2	1.0	0.50	ug/L	1	A106330	05/27/11	05/28/11	
Chloroform	EPA 524.2	10	0.50	ug/L	1	A106330	05/27/11	05/28/11	
Dibromochloromethane	EPA 524.2	6.7	0.50	ug/L	1	A106330	05/27/11	05/28/11	

Surrogate: Bromofluorobenzene EPA 524.2 95 % *Acceptable range: 70-130 %*

Trihalomethanes by GC-MS

Total Trihalomethanes EPA 524.2 27 ug/L

Haloacetic Acids by GC-ECD

Dibromoacetic Acid (DBAA)	EPA 552.2	2.2	1.0	ug/L	1	A106427	05/31/11	06/02/11	
Dichloroacetic Acid (DCAA)	EPA 552.2	5.8	1.0	ug/L	1	A106427	05/31/11	06/02/11	
Monobromoacetic Acid (MBAA)	EPA 552.2	ND	1.0	ug/L	1	A106427	05/31/11	06/02/11	
Monochloroacetic Acid (MCAA)	EPA 552.2	ND	2.0	ug/L	1	A106427	05/31/11	06/02/11	
Total Haloacetic Acids	EPA 552.2	13	1.0	ug/L	1	A106427	05/31/11	06/02/11	
Trichloroacetic Acid (TCAA)	EPA 552.2	4.5	1.0	ug/L	1	A106427	05/31/11	06/02/11	

Surrogate: 2,3-Dibromopropionic Acid EPA 552.2 105 % *Acceptable range: 70-130 %*



General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A106244

Analyst: SAB

Prepared: 05/25/2011

Blank (A106244-BLK1) SM 5310 C - Quality Control

Total Organic Carbon	ND	0.20	mg/L							05/25/11	
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Blank Spike (A106244-BS1) SM 5310 C - Quality Control

Total Organic Carbon	10	0.20	mg/L	10		102	80-120			05/25/11	
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Blank Spike Dup (A106244-BSD1) SM 5310 C - Quality Control

Total Organic Carbon	10	0.20	mg/L	10		102	80-120	0	20	05/25/11	
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Matrix Spike (A106244-MS1) SM 5310 C - Quality Control

Source: A1E1735-01

Total Organic Carbon	11	0.20	mg/L	10	1.3	100	80-120			05/26/11	
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Matrix Spike (A106244-MS2) SM 5310 C - Quality Control

Source: A1E1735-02

Total Organic Carbon	11	0.20	mg/L	10	1.2	100	80-120			05/26/11	
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Matrix Spike Dup (A106244-MSD1) SM 5310 C - Quality Control

Source: A1E1735-01

Total Organic Carbon	11	0.20	mg/L	10	1.3	100	80-120	1	20	05/26/11	
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Matrix Spike Dup (A106244-MSD2) SM 5310 C - Quality Control

Source: A1E1735-02

Total Organic Carbon	11	0.20	mg/L	10	1.2	100	80-120	0	20	05/26/11	
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Batch: A106303

Analyst: SAB

Prepared: 05/26/2011

Blank (A106303-BLK1) SM 5310 C - Quality Control

Dissolved Organic Carbon	ND	0.20	mg/L							05/26/11	
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Blank Spike (A106303-BS1) SM 5310 C - Quality Control

Dissolved Organic Carbon	10	0.20	mg/L	10		104	80-120			05/26/11	
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Blank Spike Dup (A106303-BSD1) SM 5310 C - Quality Control

Dissolved Organic Carbon	10	0.20	mg/L	10		104	80-120	0	20	05/26/11	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A106330

Analyst: JGB

Prepared: 05/27/2011

Blank (A106330-BLK1) EPA 524.2 - Quality Control

Bromodichloromethane	ND	0.50	ug/L							05/27/11	
Bromoform	ND	0.50	ug/L							05/27/11	
Chloroform	ND	0.50	ug/L							05/27/11	
Dibromochloromethane	ND	0.50	ug/L							05/27/11	
Surrogate: Bromofluorobenzene	4.9			5.0		98	70-130			05/27/11	

Blank Spike (A106330-BS1) EPA 524.2 - Quality Control

Bromodichloromethane	4.4	0.50	ug/L	5.0		87	70-130			05/27/11	
Bromoform	4.8	0.50	ug/L	5.0		96	70-130			05/27/11	
Chloroform	5.3	0.50	ug/L	5.0		106	70-130			05/27/11	
Dibromochloromethane	4.6	0.50	ug/L	5.0		93	70-130			05/27/11	
Surrogate: Bromofluorobenzene	5.2			5.0		105	70-130			05/27/11	

Blank Spike Dup (A106330-BSD1) EPA 524.2 - Quality Control

Bromodichloromethane	4.6	0.50	ug/L	5.0		91	70-130	4	30	05/27/11	
Bromoform	5.2	0.50	ug/L	5.0		103	70-130	7	30	05/27/11	
Chloroform	5.2	0.50	ug/L	5.0		104	70-130	2	30	05/27/11	
Dibromochloromethane	4.6	0.50	ug/L	5.0		91	70-130	2	30	05/27/11	
Surrogate: Bromofluorobenzene	5.3			5.0		106	70-130			05/27/11	

Batch: A106427

Analyst: KHH

Prepared: 05/31/2011

Blank (A106427-BLK1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							06/02/11	
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							06/02/11	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							06/02/11	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							06/02/11	
Total Haloacetic Acids	ND	1.0	ug/L							06/02/11	
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							06/02/11	
Surrogate: 2,3-Dibromopropionic Acid	24			25		98	70-130			06/02/11	

Blank Spike (A106427-BS1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	9.1	1.0	ug/L	10		91	70-130			06/02/11	
Dichloroacetic Acid (DCAA)	8.5	1.0	ug/L	10		85	70-130			06/02/11	
Monobromoacetic Acid (MBAA)	8.8	1.0	ug/L	10		88	70-130			06/02/11	
Monochloroacetic Acid (MCAA)	9.5	2.0	ug/L	10		95	70-130			06/02/11	
Total Haloacetic Acids	44	1.0	ug/L	50		88	70-130			06/02/11	
Trichloroacetic Acid (TCAA)	7.9	1.0	ug/L	10		79	70-130			06/02/11	
Surrogate: 2,3-Dibromopropionic Acid	24			25		98	70-130			06/02/11	

Blank Spike Dup (A106427-BSD1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10		101	70-130	11	30	06/03/11	
Dichloroacetic Acid (DCAA)	9.5	1.0	ug/L	10		95	70-130	11	30	06/03/11	
Monobromoacetic Acid (MBAA)	9.7	1.0	ug/L	10		97	70-130	10	30	06/03/11	
Monochloroacetic Acid (MCAA)	10	2.0	ug/L	10		102	70-130	8	30	06/03/11	
Total Haloacetic Acids	49	1.0	ug/L	50		98	70-130	11	30	06/03/11	

A1E1735 FINAL 06032011 1638

1414 Stanislaus Street

Fresno, CA 93706

(559) 497-2888

FAX (559) 485-6935

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Environmental Engineering | Geotechnical Engineering | Materials Testing



Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A106427

Analyst: KHH

Prepared: 05/31/2011

Blank Spike Dup (A106427-BSD1) EPA 552.2 - Quality Control

Trichloroacetic Acid (TCAA)	9.5	1.0	ug/L	10		95	70-130	18	30	06/03/11	
Surrogate: 2,3-Dibromopropionic Acid	26			25		104	70-130			06/03/11	

Duplicate (A106427-DUP1) EPA 552.2 - Quality Control

Source: A1E1771-02

Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10				1	30	06/03/11	
Dichloroacetic Acid (DCAA)	8.5	1.0	ug/L	8.3				1	30	06/03/11	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L	ND					30	06/03/11	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L	ND					30	06/03/11	
Total Haloacetic Acids	24	1.0	ug/L	24				1	30	06/03/11	
Trichloroacetic Acid (TCAA)	5.3	1.0	ug/L	5.2				2	30	06/03/11	
Surrogate: 2,3-Dibromopropionic Acid	26			25		103	70-130			06/03/11	

Matrix Spike (A106427-MS1) EPA 552.2 - Quality Control

Source: A1E1657-01

Dibromoacetic Acid (DBAA)	9.8	1.0	ug/L	10	ND	98	70-130			06/02/11	
Dichloroacetic Acid (DCAA)	9.6	1.0	ug/L	10	ND	96	70-130			06/02/11	
Monobromoacetic Acid (MBAA)	9.8	1.0	ug/L	10	ND	98	70-130			06/02/11	
Monochloroacetic Acid (MCAA)	11	2.0	ug/L	10	ND	108	70-130			06/02/11	
Total Haloacetic Acids	49	1.0	ug/L	50	ND	98	70-130			06/02/11	
Trichloroacetic Acid (TCAA)	9.0	1.0	ug/L	10	ND	90	70-130			06/02/11	
Surrogate: 2,3-Dibromopropionic Acid	26			25		105	70-130			06/02/11	

Matrix Spike Dup (A106427-MSD1) EPA 552.2 - Quality Control

Source: A1E1657-01

Dibromoacetic Acid (DBAA)	9.1	1.0	ug/L	10	ND	91	70-130	8	30	06/02/11	
Dichloroacetic Acid (DCAA)	8.8	1.0	ug/L	10	ND	88	70-130	9	30	06/02/11	
Monobromoacetic Acid (MBAA)	9.1	1.0	ug/L	10	ND	91	70-130	8	30	06/02/11	
Monochloroacetic Acid (MCAA)	10	2.0	ug/L	10	ND	101	70-130	7	30	06/02/11	
Total Haloacetic Acids	46	1.0	ug/L	50	ND	91	70-130	8	30	06/02/11	
Trichloroacetic Acid (TCAA)	8.5	1.0	ug/L	10	ND	85	70-130	6	30	06/02/11	
Surrogate: 2,3-Dibromopropionic Acid	23			25		94	70-130			06/02/11	

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
- Sample(s) received, prepared, and analyzed within the method specified criteria unless otherwise noted within this report.
- The results relate only to the samples analyzed in accordance with test(s) requested by the client on the Chain of Custody document. Any analytical quality control exceptions to method criteria that are to be considered when evaluating these results have been flagged and are defined in the data qualifiers section.
- All results are expressed on wet weight basis unless otherwise specified.
- All positive results for EPA Methods 504.1, 502.2, and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Results contained in this analytical report must be reproduced in its entirety.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- BSK Analytical Laboratories certifies that the test results contained in this report meet all requirements of the NELAC Standards for applicable certified drinking water chemistry analyses unless qualified or noted in the Case Narrative.
- Analytical data contained in this report may be used for regulatory purposes to meet the requirements of the Federal or State drinking water, wastewater, and hazardous waste programs.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals. Samples submitted to the laboratory have been analyzed outside of this holding time requirement.
- * - This is not a NELAP accredited analyte.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- (2) The digestion used to produce this result deviated from EPA 200.2 by excluding hydrochloric acid in order to produce acceptable recoveries for affected metals.
- (2C) Result reported from secondary analytical column.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.

Certifications:

State of California - CDPH - ELAP	1180
State of California - CDPH - NELAP	04227CA
State of New Mexico - NMED-DWB	
State of Nevada - NDEP	CA000792009A

Definitions and Flags for Data Qualifiers

mg/L:	Milligrams/Liter (ppm)	M:	Method Detection Limit	MDA:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)		:DL x Dilution	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	ND:	None Detected at RL	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	pCi/L:	Picocuries per Liter	Present:	1 or more CFU/100mLs
		NR:	Non-Reportable	RL Mult:	RL Multiplier

A1E1735

Monterey Bay Analytical

Monte6227

05242011

Turnaround: Standard

Due Date: 06/08/2011

* Required Fields

TEMP: _____

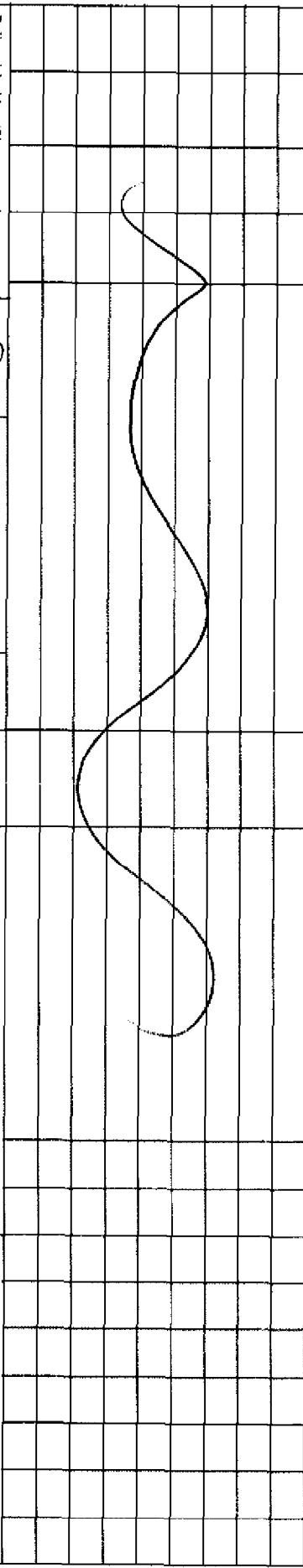
Client/Company Name *: **Monterey Bay Analytical** Report Attention *: **David Holland** Phone #: (831)-357-6227 FAX #: (831)-641-0734
 Address *: **4 Justin Ct. Monterey CA 93940** State *: **CA** Zip *: **93940** E-mail: **4MBAS@Sbcglobal.net**

Project Information: **MPWMD** PO #: **464** Quote #: **464**
 How would you like your completed results sent? E-Mail Fax HDD Mail Only
 Sampler Name Printed / Signature: **Leair, J.** QC Request: STD Level II Result Request: Surcharge 5 Day** 2 Day** Day**

Matrix Types: **RSW - Raw Surface Water CFW - Corrosated Finished Water CWV - Corrosated Waste Water BW - Borted Water**
RGW - Raw Ground Water FW - Finished Water WW - Waste Water SW - Storm Water DW - Drinking Water SO - Solid

Carbon Copies: CDHS Fresno Co EPA Merced Co Tulare Co Other: _____
 Regulatory Compliance Electronic Data Transfer: Y N System No. *

Sample #	Bottles	Date	Sampled Time	Sample Description / Location *	Matrix *	Comments / Station Code
		5/20/11	11:15	Injectate	FW	76457 ✓ ✓ ✓ ✓
		5/20/11	11:20	MW1		76458 ✓ ✓ ✓ ✓



Relinquished by: (Signature and Printed Name) **David Holland** Company **MBAS** Date **5/23/11** Time **16:40**
 Received by: (Signature and Print Name) _____ Date _____ Time _____
 Relinquished by: (Signature and Printed Name) _____ Company _____ Date _____ Time _____

Received for Lab by: (Signature and Printed Name) **David Holland** Date **5/23/11** Time **8:15**
 Payment Received at Delivery: _____ Date _____ Amount: _____
 Shipping Method: **CA UPS GSO WALK-IN SVC FEDEX OTHER** Cooling Method: **NET BLUE NONE** Packing Material: **BUB**

Notes: Payment for services rendered as noted herein are due in full within 30 days from when billed. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service-charge delays and interest calculated at 1 1/2 % per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, costs of collection, including attorney's fees incurred prior to or in litigation whether concluded by judgment, settlement, compromise, or otherwise. The person signing for the client company expressly authorizes BSK & Associates to bill the client and the client agrees to be responsible for payment for analytical services on this form of invoice. Any modification of the analysis requested, either type or quantity, will be noted and agreed upon prior to the start of analysis. This turn around time for any samples received after 5:00 pm will begin the next business day. SPT-10-2007 New/rev

Sample Integrity

Pg. 1 of 2

A1E1735
Monte6227

05/24/2011
10



Date Received 5/24/11

Section 1- Receiving Information

Sample Transport: CONTRAC UPS PMS Walk-In BSK-Courier GSO Fed Exp. Other: _____

Samples arrived at lab on same day sampled: Yes ___ No Has Chilling Process Begun: Yes No ___

Coolers/Ice Chests Description/Temperature(s): (If more than 5 received, list information in comment section)

1) 6 2) _____ 3) _____ 4) _____ 5) _____

Was Temperature In Range: Y N N/A Received On Ice: Wet Blue Received Ambient: Y N

Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other: _____

Initial Receipt: BSK-Visalia BSK-Bakersfield BSK-SAC BSK-FAL

Were ice chest custody seals present? Y N Intact: Y N

Section 2- COC Info.

	Completed		Info From Container	Completed		Info From Container
	Yes	No		Yes	No	
Was COC Received	<input checked="" type="checkbox"/>					Analysis Requested
Date Sampled	<input checked="" type="checkbox"/>					Hold times less than 72hr
Time Sampled	<input checked="" type="checkbox"/>					Client Name
Sample ID	<input checked="" type="checkbox"/>					Address
Special Storage/Handling Ins.		<input checked="" type="checkbox"/>				Telephone #

Section 3- Bottles / Analysis

	Yes	No	N/A	Comment
Did all bottles arrive unbroken and intact?	<input checked="" type="checkbox"/>			
Were bottle custody seals present?	<input checked="" type="checkbox"/>			
Were bottle custody seals intact?	<input checked="" type="checkbox"/>			
Did all bottle labels agree with COC?	<input checked="" type="checkbox"/>			
Were correct containers used for the tests requested?	<input checked="" type="checkbox"/>			
Were correct preservations used for the tests requested?	<input checked="" type="checkbox"/>			
Was a sufficient amount of sample sent for tests indicated?	<input checked="" type="checkbox"/>			
Were bubbles present in VOA Vials? (Volatile Methods Only)		<input checked="" type="checkbox"/>		
Were Ascorbic Acid Bottles received with the VOAs?		<input checked="" type="checkbox"/>		

Section 4- Comments / Discrepancies

Sample(s) Split/Preserve: Yes No Container: _____ Preservation: _____ Dt/Time/Init _____

Container: _____ Preservation: _____ Dt/Time/Init _____

Was Client Service Rep. notified of discrepancies: Yes No N/A CSR: _____ Notified By/Time: _____

Explanations / Comments

Report Comment Entered:

Labeled by: AK @ 1217 Labels checked by: SS @ 1307 RUSH Paged by: _____ @ _____

Sample Integrity Pg 2 of 2

BSK Bottles Yes 4 No



250ml (A) 500ml (B) 1Liter (C) Amber Glass (AG)

Container(s) Received	1-2				
Bacti-Na ₂ S ₂ O ₃					
None (p) <small>White Cap</small>	*10				
None (p) <small>Blue Cap</small> w/NH ₄ + Buffer					
HNO ₃ (p) <small>Red Cap</small>					
H ₂ SO ₄ (p) <small>Yellow Cap</small>					
NaOH (p) <small>Green Cap</small>					
EDA (p) <small>Brown Cap/Label</small>					
Other:					
Dissolved Oxygen 300ml (g)					
250ml (AG) None					
250ml (AG) H ₂ SO ₄ COD <small>Yellow Label</small>					
250ml (AG) Na ₂ S ₂ O ₃ 515,547 <small>Blue Label</small>					
250ml (AG) Na ₂ S ₂ O ₃ + MCAA 531.1 <small>Orange Label</small>					
250ml (AG) NH ₄ Cl 552 <small>Purple Label</small>	1				
250ml (AG) EDA DBPs <small>Brown Label</small>					
250ml (AG) Other:					
500ml (AG) None					
500ml (AG) H ₂ SO ₄ <small>Yellow Label</small>					
1 Liter (AG) None					
1 Liter (AG) H ₂ SO ₄ O&G /TPH-Diesel <small>Yellow Label</small>					
1 Liter (AG) Na ₂ S ₂ O ₃ 548 / 525 / 521 <small>Blue Label</small>					
1 Liter (P) Na ₂ S ₂ O ₃ + H ₂ SO ₄ 549					
1 Liter (AG) NaOH+ZnAc Sulfide					
40ml VOA Vial Clear – HCL					
40ml VOA Vial Clear – Buffer pH 4					
40ml VOA Vial Clear – None					
40ml VOA Vial Amber – Na ₂ S ₂ O ₃	3				
40ml VOA Vial Clear - Na ₂ S ₂ O ₃ 504, 505					
40ml VOA Vial Clear – H ₃ PO ₄	3				
Other:					
1/2 Gallon (p)					
Asbestos 1Liter Plastic/Foil					
Radon 200ml Clear (g)					
Low Level Hg/Metals Double Baggie					
Bioassay Jug					
Ampule					
PT Sample Bottle					
250 Clear Glass Jar					
500 Clear Glass Jar					
1 Liter Clear Glass Jar					
Plastic Bag					
Soil Tube Brass / Steel / Plastic					
Tedlar Bags					

S

stout



June 13, 2011

Monterey Bay Analytical Services
4 Justin Court
Monterey, CA 93940

Lab ID : SP 1105142
Customer : 2-19144

Laboratory Report

Introduction: This report package contains total of 4 pages divided into 3 sections:

- Case Narrative (2 pages) : An overview of the work performed at FGL.
- Sample Results (1 page) : Results for each sample submitted.
- Quality Control (1 page) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
Injectate	05/20/2011	05/25/2011	SP 1105142-001	DW

Sampling and Receipt Information: The sample was received, prepared and analyzed within the method specified holding times. All samples arrived at 17 °C. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Radio QC

900.0	05/27/2011:207716 All analysis quality controls are within established criteria.
	05/25/2011:205665 All preparation quality controls are within established criteria.
903.0	06/09/2011:208324 All analysis quality controls are within established criteria.
	06/07/2011:206077 All preparation quality controls are within established criteria, except: The following note applies to Total Alpha Radium (226): 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

June 13, 2011
Monterey Bay Analytical Services

Lab ID : SP 1105142
Customer : 2-19144

Certification:: I certify that this data package is in compliance with NELAC standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.**



Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2011-06-14



June 13, 2011

Lab ID : SP 1105142-001

Customer ID : 2-19144

Monterey Bay Analytical Services

4 Justin Court
Monterey, CA 93940

Sampled On : May 20, 2011-11:15

Sampled By : R. Schmidt

Received On : May 25, 2011-09:30

Matrix : Drinking Water

Description : Injectate

Project : MPWMD

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Radio Chemistry^P								
Gross Alpha	0.388 ± 1.31	2.00	pCi/L	15	900.0	05/25/11:205665	900.0	05/27/11:207716
Total Alpha Radium (226)	0.000 ± 0.152	0.412	pCi/L	3	903.0	06/07/11:206077	903.0	06/09/11:208324

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A * PQL adjusted for dilution.

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference.
MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV).
AV = (Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following
If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:

Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L

Uranium is less than or equal to 20 pCi/L

Radium 226 + Radium 228 is less than or equal to 5 pCi/L

Note: Samples are held for 3-6 months prior to disposal.



June 13, 2011
Monterey Bay Analytical Services

Lab ID : SP 1105142
Customer : 2-19144

Quality Control - Radio

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Radio								
Alpha	900.0	05/27/2011:207716	CCV CCB	cpm cpm	10120	42.5 % 0.100	40 - 49 0.17	
Gross Alpha	900.0	05/25/2011:205665 (SP 1105142-001)	Blank LCS MS MSD MSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	150.4 150.4 150.4 150.4	0.32 100 % 82.4 % 81.3 % 1.3%	3 75-125 60-140 60-140 ≤30	
Alpha	903.0	06/09/2011:208324	CCV CCB	cpm cpm	10110	37.9 % 0.0500	38 - 47 0.15	
Total Alpha Radium (226)	903.0	06/07/2011:206077	RgBlk LCS BS BSD BSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	17.85 17.85 17.85 17.85	0.02 52.1 % 44.1 % 40.6 % 8.2%	2 52-89 43-92 43-92 ≤35.5	435
Definition								
CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.								
CCB : Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.								
Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.								
RgBlk : Method Reagent Blank - Prepared to correct for any reagent contributions to sample result.								
LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.								
MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
BS : Blank Spikes - A blank is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.								
BSD : Blank Spike Duplicate of BS/BSD pair - A blank duplicate is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.								
MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.								
BSRPD : BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation and analysis.								
DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.								
Explanation								
435 : Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.								



MPWMD
Joe Oliver
P.O. Box 85
Monterey, CA 93442-0085

4 Justin Court Suite D, Monterey, CA 93940
831.375.MBAS
montereybayanalytical@usa.net
ELAP Certification Number: 2385

Page 1 of 1

Wednesday, March 02, 2011

Lab Number: AA73335

Collection Date/Time: 2/14/2011 0:00 Sample Collector:
Submittal Date/Time: 2/14/2011 15:51 Sample ID

Sample Description: MW #1

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Chloramines	SM4500-Cl G	mg/L	Not Detected		0.05		2/14/2011
Chloride	EPA300.0	mg/L	29		1	250	2/24/2011
Haloacetic Acids	EPA552	ug/L	Attached	E		60	2/25/2011
Trihalomethanes	EPA524.2	ug/L	38	E		80	2/17/2011

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Dear David Holland,

Thank you for selecting BSK Analytical Laboratories for your analytical testing needs. We have prepared this report in response to your request for analytical services. Enclosed are the results of analyses for samples received by the laboratory on 02/16/2011 08:10.

If additional clarification of any information is required, please contact your Client Services Representative, Joni Blankfield at (800) 877-8310 or (559) 497-2888.

BSK ANALYTICAL LABORATORIES



John Montieth For Joni Blankfield
Client Services Representative

Case Narrative

Work Order Information

Client Name:	Monterey Bay Analytical	Submitted by:	David Holland
Client Code:	Monte6227	Shipped by:	ONTRAC
Work Order:	A1B1169	COC Number:	
Project:	MPWMD		TAT: 10
			PO #:

Sample Receipt Conditions

Cooler:	Default Cooler	Temp. °C:	6
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Containers Intact
 COC/Labels Agree
 Received On Wet Ice
 Packing Material - Bubble Wrap
 Sample(s) were received in temperature range.
 Initial receipt at BSK-FAL

Report Manager
 David Holland

Report Format
 Final.rpt



Certificate of Analysis

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Report Issue Date: 02/28/2011 15:48
Received Date: 02/16/2011
Received Time: 08:10

Lab Sample ID: A1B1169-01
Sample Date: 02/14/2011 13:00
Sample Type: Grab

Sampled by: J Lear
Matrix: Drinking Water

Sample Description: MW #1 // 73335

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Trihalomethanes by GC-MS</u>									
Bromodichloromethane	EPA 524.2	12	0.50	ug/L	1	A101885	02/17/11	02/17/11	
Bromoform	EPA 524.2	0.89	0.50	ug/L	1	A101885	02/17/11	02/17/11	
Chloroform	EPA 524.2	19	0.50	ug/L	1	A101885	02/17/11	02/17/11	
Dibromochloromethane	EPA 524.2	6.4	0.50	ug/L	1	A101885	02/17/11	02/17/11	
<hr/>									
Surrogate: Bromofluorobenzene	EPA 524.2	88 %	Acceptable range: 70-130 %						
<u>Trihalomethanes by GC-MS</u>									
Total Trihalomethanes	EPA 524.2	38	ug/L						
<u>Haloacetic Acids by GC-ECD</u>									
Dibromoacetic Acid (DBAA)	EPA 552.2	ND	1.0	ug/L	1	A102064	02/23/11	02/25/11	
Dichloroacetic Acid (DCAA) (2C)	EPA 552.2	1.5	1.0	ug/L	1	A102064	02/23/11	02/25/11	
Monobromoacetic Acid (MBAA)	EPA 552.2	ND	1.0	ug/L	1	A102064	02/23/11	02/25/11	
Monochloroacetic Acid (MCAA) (2C)	EPA 552.2	ND	2.0	ug/L	1	A102064	02/23/11	02/25/11	
Trichloroacetic Acid (TCAA)	EPA 552.2	5.6	1.0	ug/L	1	A102064	02/23/11	02/25/11	
<hr/>									
Surrogate: 2,3-Dibromopropionic Acid	EPA 552.2	109 %	Acceptable range: 70-130 %						
<u>Haloacetic Acids by GC-ECD</u>									
Total Haloacetic Acids (HAA)	EPA 552.2	7.1	ug/L						



Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A101885

Analyst: JGB

Prepared: 02/17/2011

Blank (A101885-BLK1) EPA 524.2 - Quality Control

Bromodichloromethane	ND	0.50	ug/L							02/17/11	
Bromoform	ND	0.50	ug/L							02/17/11	
Chloroform	ND	0.50	ug/L							02/17/11	
Dibromochloromethane	ND	0.50	ug/L							02/17/11	
<i>Surrogate: Bromofluorobenzene</i>	4.3			5.0		86	70-130			02/17/11	

Blank Spike (A101885-BS1) EPA 524.2 - Quality Control

Bromodichloromethane	4.1	0.50	ug/L	5.0		82	70-130			02/17/11	
Bromoform	4.2	0.50	ug/L	5.0		84	70-130			02/17/11	
Chloroform	4.6	0.50	ug/L	5.0		93	70-130			02/17/11	
Dibromochloromethane	4.0	0.50	ug/L	5.0		81	70-130			02/17/11	
<i>Surrogate: Bromofluorobenzene</i>	4.6			5.0		91	70-130			02/17/11	

Blank Spike Dup (A101885-BSD1) EPA 524.2 - Quality Control

Bromodichloromethane	3.9	0.50	ug/L	5.0		78	70-130	5	30	02/17/11	
Bromoform	3.8	0.50	ug/L	5.0		76	70-130	10	30	02/17/11	
Chloroform	4.5	0.50	ug/L	5.0		90	70-130	4	30	02/17/11	
Dibromochloromethane	3.9	0.50	ug/L	5.0		78	70-130	4	30	02/17/11	
<i>Surrogate: Bromofluorobenzene</i>	4.4			5.0		88	70-130			02/17/11	

Batch: A102064

Analyst: KHH

Prepared: 02/23/2011

Blank (A102064-BLK1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							02/24/11	
Dibromoacetic Acid (DBAA) (2C)	ND	1.0	ug/L							02/24/11	
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							02/24/11	
Dichloroacetic Acid (DCAA) (2C)	ND	1.0	ug/L							02/24/11	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							02/24/11	
Monobromoacetic Acid (MBAA) (2C)	ND	1.0	ug/L							02/24/11	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							02/24/11	
Monochloroacetic Acid (MCAA) (2C)	ND	2.0	ug/L							02/24/11	
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							02/24/11	
Trichloroacetic Acid (TCAA) (2C)	ND	1.0	ug/L							02/24/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	22			25		88	70-130			02/24/11	
<i>Surrogate: 2,3-Dibromopropionic Acid (2C)</i>	22			25		88	70-130			02/24/11	

Blank Spike (A102064-BS1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		105	70-130			02/24/11	
Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10		108	70-130			02/24/11	
Dichloroacetic Acid (DCAA)	10	1.0	ug/L	10		103	70-130			02/24/11	
Dichloroacetic Acid (DCAA) (2C)	10	1.0	ug/L	10		100	70-130			02/24/11	
Monobromoacetic Acid (MBAA)	9.9	1.0	ug/L	10		99	70-130			02/24/11	
Monobromoacetic Acid (MBAA) (2C)	9.8	1.0	ug/L	10		98	70-130			02/24/11	
Monochloroacetic Acid (MCAA)	11	2.0	ug/L	10		107	70-130			02/24/11	
Monochloroacetic Acid (MCAA) (2C)	12	2.0	ug/L	10		123	70-130			02/24/11	



Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	RPD	Date
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Batch: A102064

Analyst: KHH

Prepared: 02/23/2011

Blank Spike (A102064-BS1) EPA 552.2 - Quality Control

Trichloroacetic Acid (TCAA)	9.7	1.0	ug/L	10		97	70-130	02/24/11
Trichloroacetic Acid (TCAA) (2C)	9.6	1.0	ug/L	10		96	70-130	02/24/11
Surrogate: 2,3-Dibromopropionic Acid	24			25		97	70-130	02/24/11
Surrogate: 2,3-Dibromopropionic Acid (2C)	25			25		98	70-130	02/24/11

Blank Spike Dup (A102064-BSD1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		108	70-130	2	30	02/25/11
Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10		108	70-130	0	30	02/25/11
Dichloroacetic Acid (DCAA)	10	1.0	ug/L	10		102	70-130	1	30	02/25/11
Dichloroacetic Acid (DCAA) (2C)	9.6	1.0	ug/L	10		96	70-130	3	30	02/25/11
Monobromoacetic Acid (MBAA)	9.7	1.0	ug/L	10		97	70-130	2	30	02/25/11
Monobromoacetic Acid (MBAA) (2C)	9.5	1.0	ug/L	10		95	70-130	3	30	02/25/11
Monochloroacetic Acid (MCAA)	10	2.0	ug/L	10		102	70-130	5	30	02/25/11
Monochloroacetic Acid (MCAA) (2C)	11	2.0	ug/L	10		114	70-130	8	30	02/25/11
Trichloroacetic Acid (TCAA)	9.7	1.0	ug/L	10		97	70-130	0	30	02/25/11
Trichloroacetic Acid (TCAA) (2C)	9.4	1.0	ug/L	10		94	70-130	2	30	02/25/11
Surrogate: 2,3-Dibromopropionic Acid	22			25		88	70-130			02/25/11
Surrogate: 2,3-Dibromopropionic Acid (2C)	22			25		88	70-130			02/25/11

Duplicate (A102064-DUP1) EPA 552.2 - Quality Control

Source: A1B1212-01

Dibromoacetic Acid (DBAA)	ND	1.0	ug/L		ND				30	02/25/11
Dichloroacetic Acid (DCAA) (2C)	ND	1.0	ug/L		ND				30	02/25/11
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L		ND				30	02/25/11
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L		ND				30	02/25/11
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L		ND				30	02/25/11
Surrogate: 2,3-Dibromopropionic Acid	20			25		79	70-130			02/25/11

Matrix Spike (A102064-MS1) EPA 552.2 - Quality Control

Source: A1B1134-06

Dibromoacetic Acid (DBAA)	12	1.0	ug/L	10	ND	117	70-130			02/24/11
Dichloroacetic Acid (DCAA) (2C)	30	1.0	ug/L	10	20	100	70-130			02/24/11
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	107	70-130			02/24/11
Monochloroacetic Acid (MCAA)	12	2.0	ug/L	10	ND	118	70-130			02/24/11
Trichloroacetic Acid (TCAA)	31	1.0	ug/L	10	23	82	70-130			02/24/11
Surrogate: 2,3-Dibromopropionic Acid	28			25		112	70-130			02/24/11

Matrix Spike Dup (A102064-MSD1) EPA 552.2 - Quality Control

Source: A1B1134-06

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10	ND	108	70-130	9	30	02/24/11
Dichloroacetic Acid (DCAA) (2C)	28	1.0	ug/L	10	20	85	70-130	5	30	02/24/11
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	107	70-130	0	30	02/24/11
Monochloroacetic Acid (MCAA)	12	2.0	ug/L	10	ND	117	70-130	1	30	02/24/11
Trichloroacetic Acid (TCAA)	31	1.0	ug/L	10	23	77	70-130	2	30	02/24/11
Surrogate: 2,3-Dibromopropionic Acid	24			25		97	70-130			02/24/11

Certificate of Analysis

02/28/2011

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
- Sample(s) received, prepared, and analyzed within the method specified criteria unless otherwise noted within this report.
- The results relate only to the samples analyzed in accordance with test(s) requested by the client on the Chain of Custody document. Any analytical quality control exceptions to method criteria that are to be considered when evaluating these results have been flagged and are defined in the data qualifiers section.
- All results are expressed on wet weight basis unless otherwise specified.
- All positive results for EPA Methods 504.1, 502.2, and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Results contained in this analytical report must be reproduced in its entirety.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- BSK Analytical Laboratories certifies that the test results contained in this report meet all requirements of the NELAC Standards for applicable certified drinking water chemistry analyses unless qualified or noted in the Case Narrative.
- Analytical data contained in this report may be used for regulatory purposes to meet the requirements of the Federal or State drinking water, wastewater, and hazardous waste programs.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals. Samples submitted to the laboratory have been analyzed outside of this holding time requirement.
- * - This is not a NELAP accredited analyte.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- (2) The digestion used to produce this result deviated from EPA 200.2 by excluding hydrochloric acid in order to produce acceptable recoveries for affected metals.
- (2C) Result reported from secondary analytical column.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.

Certifications:

State of California - CDPH - ELAP	1180
State of California - CDPH - NELAP	04227CA
State of New Mexico - NMED-DWB	
State of Nevada - NDEP	CA000792009A

Definitions and Flags for Data Qualifiers

mg/L:	Milligrams/Liter (ppm)	M:	Method Detection Limit	MDA:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)		:DL x Dilution	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	ND:	None Detected at RL	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	pCi/L:	Picocuries per Liter	Present:	1 or more CFU/100mLs
		NR:	Non-Reportable	RL Mult:	RL Multiplier

A1B1169

Monterey Bay Analytical

Monte6227

02162011

Turnaround: Standard

Due Date: 03/03/2011

BSK ANALYTICAL LABORATORIES

1414 Stanislaus Street, Fresno, CA 93706-1623
(559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

ALB1169
Monite6227



02/16/10

* Required Fields

TEMP. _____

Client/Company Name * **Monterey Bay Analytical** Report Attention * **David Holland** Phone * #: (831)-357-6227 FAX * #: (831)-641-0734
 Address * **4 Justin Ct.** City * **Monterey** State * **CA** Zip * **93940** E-mail: **4MBAS@Shcglobal.net**
 Project Information: **MPWMD** PO # **464** Quote # **464**
 How would you like your completed results sent? E-Mail Fax EDD Mail Only
 Sampler Name Printed / Signature **Leat, J.** QOC Request STD Level II Result Request ** Surecharge 5 Day ** 2 Day ** 1 Day **

Matrix Types: **RSW** - Raw Surface Water **CFW** - Chlorinated Finished Water **CWW** - Chlorinated Waste Water **BW** - Bottled Water
RGW - Raw Ground Water **FW** - Finished Water **WW** - Waste Water **SW** - Storm Water **DW** - Drinking Water **SO** - Solid
 Carbon Copies: CDHS Fresno Co EPA Merced Co Talara Co Other:
 Regulatory Compliance Electronic Data Transfer System No. * Y N Z
 TTHM _____ HAA5 _____

Sample #	Bottles	Sampled		Sample Description / Location *	Matrix *	Comments / Station Code
		Date	Time			
1	4	2/14/11	13:00	MMW #1	DW	73335 ✓ ✓

Relinquished by: (Signature and Printed Name) **Holland, D.** Company **MBAS** Date **2/15/11** Time **16:00** Received by: (Signature and Print Name) _____
 Relinquished by: (Signature and Printed Name) _____ Company _____ Date _____ Time _____ Received by: (Signature and Print Name) _____
 Received for Lab by: (Signature and Printed Name) **Sherina Garcia** Date **2/11/11** Time **8:00** Payment Received at Delivery: _____
 Shipping Method: **CA9 UPS GSO WALK-IN SVC FEDEX OTHER** Cooling Method: **NONE** Packing Material: **31** Int. _____

* Since Payment for services rendered as noted herein are due in full within 30 days from when invoiced. If not so paid, account balances are subject to monthly service/holding charges and interest calculated at 1 1/2% per month. BSK & Associates shall be entitled to recover on delinquent accounts costs of collections, including attorney's fees incurred prior to or in litigation whether concluded by judgment, settlement, compromise or otherwise. The person signing for the client's company represents and acknowledges that they are either the Client or authorized agent to the Client, and the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any modification of the analysis requested, either type or quantity, will be noted and quoted upon this Chain of Custody. The turn-around time for any samples received after 5:00 pm will begin the next business day.

Sample Integrity Pg. 1 of 2 WOR



Date Received 2/16/11

Section 1- Receiving Information

Sample Transport: ONTRAC UPS PMS Walk-In BSK-Courier GSO Fed Exp. Other: _____

Samples arrived at lab on same day sampled: Yes _____ No X Has Chilling Process Begun: Yes X No _____

Coolers/Ice Chests Description/Temperature(s): (If more than 4 received, list information in comment section)

1) 6 2) _____ 3) _____ 4) _____

Was Temperature In Range: Y N N/A Received On Ice: Wet Blue Received Ambient: Y N

Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other: _____

Initial Receipt: BSK-Visalia BSK-Bakersfield BSK-SAC BSK-FDL BSK-FAD

Were ice chest custody seals present? Y N Intact: Y N

Section 2- COC Info.

	Completed		Info From Container		Completed		Info From Container
	Yes	No			Yes	No	
Was COC Received	<u>1</u>			Analysis Requested	<u>1</u>		
Date Sampled	<u>1</u>			Any hold times less than 72hr		<u>1</u>	
Time Sampled	<u>1</u>			Client Name	<u>1</u>		
Sample ID	<u>1</u>			Address	<u>1</u>		
Special Storage/Handling Ins.		<u>1</u>		Telephone #	<u>1</u>		

Section 3- Bottles / Analysis

	Yes	No	N/A	Comment
Did all bottles arrive unbroken and intact?	<u>1</u>			
Were bottle custody seals present?		<u>1</u>		
Were bottle custody seals intact?		<u>1</u>		
Did all bottle labels agree with COC?	<u>1</u>			
Were correct containers used for the tests requested?	<u>1</u>			
Were correct preservations used for the tests requested?	<u>1</u>			
Was a sufficient amount of sample sent for tests indicated?	<u>1</u>			
Were bubbles present in VOA Vials? (Volatile Methods Only)		<u>1</u>		
Were Ascorbic Acid Bottles received with the VOAs?		<u>1</u>		

Section 4- Comments / Discrepancies

Sample(s) Split/Preserve: Yes No Container: _____ Preservation: _____ Dt/Time/Init _____

Container: _____ Preservation: _____ Dt/Time/Init _____

Was Client Service Rep. notified of discrepancies: Yes No N/A CSR: _____ Notified By/Dt/Time: _____

Explanations / Comments

Report Comment Entered:

Labeled by: SS @ 944 Labels checked by: AE @ 1036

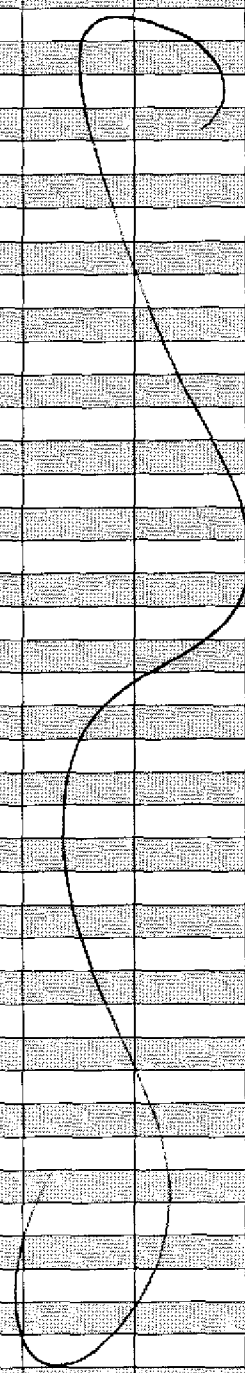
Sample Integrity Pg 2 of 2

BSK Bottles Yes^W



250ml (A) 500ml (B) 1Liter (C) Amber Glass (AG)

Container(s) Received								
Bacti-Na ₂ S ₂ O ₃								
None (p) ^{White Cap}								
None (p) ^{Blue Cap} w/NH ₄ + Buffer								
HNO ₃ (p) ^{Red Cap}								
H ₂ SO ₄ (p) ^{Yellow Cap}								
NaOH (p) ^{Green Cap}								
Other:								
Dissolved Oxygen 300ml (g)								
Centrifuge Tube HNO ₃								
250ml (AG) None								
250ml (AG) H ₂ SO ₄ COD ^{Yellow Label}								
250ml (AG) Na ₂ S ₂ O ₃ 515, 547 ^{Blue Label}								
250ml (AG) Na ₂ S ₂ O ₃ + MCAA 531.1 ^{Orange Label}								
250ml (AG) NH ₄ Cl 552 ^{Purple Label}	1							
250ml (AG) EDA DBPs ^{Brown Label}								
250ml (AG) Other:								
500ml (AG) None								
500ml (AG) H ₂ SO ₄ TPH-Diesel ^{Yellow Label}								
1 Liter (AG) None								
1 Liter (AG) H ₂ SO ₄ O&G ^{Yellow Label}								
1 Liter (AG) Na ₂ S ₂ O ₃ 548 / 525 / 521 ^{Blue Label}								
1 Liter (P) Na ₂ S ₂ O ₃ + H ₂ SO ₄ 549								
1 Liter (AG) NaOH+ZnAc Sulfide								
1 Liter (AG) Ascorbic/EDTA/Pot Citrate 527 ^{Grey Label}								
1 Liter (AG) CuSO ₄ /Trizma 529 ^{Turquoise Label}								
1 Liter (AG) Na ₂ SO ₃ / HCL 525 UCMR ^{Neon Green Label}								
1 Liter (AG) Ammonium Chloride 535 ^{Purple Label}								
40ml VOA Vial Clear - HCL								
40ml VOA Vial Amber - Na ₂ S ₂ O ₃	3							
40ml VOA Vial Clear - None								
40ml VOA Vial Clear - Na ₂ S ₂ O ₃ 504, 505								
40ml VOA Vial Clear - H ₃ PO ₄								
Other:								
Asbestos 1Liter Plastic/Foil								
Radon 200ml Clear (g)								
Low Level Hg/Metals Double Baggie								
Bioassay Jug								
250 Clear Glass Jar								
500 Clear Glass Jar								
1 Liter Clear Glass Jar								
Plastic Bag								
Soil Tube Brass / Steel / Plastic								
Tedlar Bags								



2/16/11
[Signature]



MPWMD
Joe Oliver
P.O. Box 85
Monterey, CA 93442-0085

4 Justin Court Suite D, Monterey, CA 93940
831.375.MBAS
montereybayanalytical@usa.net
ELAP Certification Number: 2385

Page 1 of 1

Thursday, March 10, 2011

Lab Number: AA73701

Collection Date/Time: 2/25/2011 10:00 Sample Collector: LINDBERG, T
Submittal Date/Time: 2/25/2011 10:10 Sample ID

Sample Description: MW-1

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Chloramines	SM4500-Cl G	mg/L	Not Detected		0.05		2/25/2011
Chloride	EPA300.0	mg/L	29		1	250	2/28/2011
Haloacetic Acids	EPA552	ug/L	20	E		60	3/8/2011
Trihalomethanes	EPA524.2	ug/L	77	E		80	3/3/2011

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Dear David Holland,

Thank you for selecting BSK Analytical Laboratories for your analytical testing needs. We have prepared this report in response to your request for analytical services. Enclosed are the results of analyses for samples received by the laboratory on 03/02/2011 08:45.

If additional clarification of any information is required, please contact your Client Services Representative, John Montierth at (800) 877-8310 or (559) 497-2888.

BSK ANALYTICAL LABORATORIES



John Montierth
Client Services Representative

Case Narrative

Work Order Information

Client Name: Monterey Bay Analytical
Client Code: Monte6227
Work Order: A1C0215
Project: General
Client Project: Pueblo Water Resources

Submitted by: David Holland
Shipped by: ONTRAC
COC Number:
TAT: 10
PO #:

Sample Receipt Conditions

Cooler: Default Cooler **Temp. °C:** 1
Containers Intact
COC/Labels Agree
Received On Wet Ice
Packing Material - Bubble Wrap
Sample(s) were received in temperature range.
Initial receipt at BSK-FAL

Report Manager
David Holland

Report Format
Final.rpt



Certificate of Analysis

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Report Issue Date: 03/09/2011 14:38
Received Date: 03/02/2011
Received Time: 08:45

Lab Sample ID: A1C0215-01
Sample Date: 02/25/2011 10:00
Sample Type: Grab

Client Project: Pueblo Water Resources
Sampled by: T Lindberg
Matrix: Drinking Water

Sample Description: MW-1 // 73701

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Trihalomethanes by GC-MS</u>									
Bromodichloromethane	EPA 524.2	21	0.50	ug/L	1	A102421	03/03/11	03/03/11	
Bromoform	EPA 524.2	1.2	0.50	ug/L	1	A102421	03/03/11	03/03/11	
Chloroform	EPA 524.2	44	0.50	ug/L	1	A102421	03/03/11	03/03/11	
Dibromochloromethane	EPA 524.2	10	0.50	ug/L	1	A102421	03/03/11	03/03/11	
<hr/>									
Surrogate: Bromofluorobenzene	EPA 524.2	91 %	Acceptable range: 70-130 %						
<u>Trihalomethanes by GC-MS</u>									
Total Trihalomethanes	EPA 524.2	77	ug/L						
<u>Haloacetic Acids by GC-ECD</u>									
Dibromoacetic Acid (DBAA)	EPA 552.2	2.2	1.0	ug/L	1	A102438	03/03/11	03/08/11	
Dichloroacetic Acid (DCAA) (2C)	EPA 552.2	9.8	1.0	ug/L	1	A102438	03/03/11	03/08/11	
Monobromoacetic Acid (MBAA)	EPA 552.2	ND	1.0	ug/L	1	A102438	03/03/11	03/08/11	
Monochloroacetic Acid (MCAA) (2C)	EPA 552.2	ND	2.0	ug/L	1	A102438	03/03/11	03/08/11	
Trichloroacetic Acid (TCAA)	EPA 552.2	8.4	1.0	ug/L	1	A102438	03/03/11	03/08/11	
<hr/>									
Surrogate: 2,3-Dibromopropionic Acid	EPA 552.2	113 %	Acceptable range: 70-130 %						
<u>Haloacetic Acids by GC-ECD</u>									
Total Haloacetic Acids (HAA)	EPA 552.2	20	ug/L						



Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A102421

Analyst: JGB

Prepared: 03/03/2011

Blank (A102421-BLK1) EPA 524.2 - Quality Control

Bromodichloromethane	ND	0.50	ug/L							03/03/11	
Bromoform	ND	0.50	ug/L							03/03/11	
Chloroform	ND	0.50	ug/L							03/03/11	
Dibromochloromethane	ND	0.50	ug/L							03/03/11	
<i>Surrogate: Bromofluorobenzene</i>	4.9			5.0		99	70-130			03/03/11	

Blank Spike (A102421-BS1) EPA 524.2 - Quality Control

Bromodichloromethane	4.5	0.50	ug/L	5.0		91	70-130			03/03/11	
Bromoform	5.0	0.50	ug/L	5.0		100	70-130			03/03/11	
Chloroform	5.2	0.50	ug/L	5.0		103	70-130			03/03/11	
Dibromochloromethane	4.9	0.50	ug/L	5.0		99	70-130			03/03/11	
<i>Surrogate: Bromofluorobenzene</i>	5.2			5.0		105	70-130			03/03/11	

Blank Spike Dup (A102421-BSD1) EPA 524.2 - Quality Control

Bromodichloromethane	4.4	0.50	ug/L	5.0		89	70-130	2	30	03/03/11	
Bromoform	4.6	0.50	ug/L	5.0		91	70-130	9	30	03/03/11	
Chloroform	4.9	0.50	ug/L	5.0		98	70-130	5	30	03/03/11	
Dibromochloromethane	4.6	0.50	ug/L	5.0		92	70-130	8	30	03/03/11	
<i>Surrogate: Bromofluorobenzene</i>	5.1			5.0		101	70-130			03/03/11	

Batch: A102438

Analyst: KHH

Prepared: 03/03/2011

Blank (A102438-BLK1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							03/08/11	
Dibromoacetic Acid (DBAA) (2C)	ND	1.0	ug/L							03/08/11	
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							03/08/11	
Dichloroacetic Acid (DCAA) (2C)	ND	1.0	ug/L							03/08/11	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							03/08/11	
Monobromoacetic Acid (MBAA) (2C)	ND	1.0	ug/L							03/08/11	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							03/08/11	
Monochloroacetic Acid (MCAA) (2C)	ND	2.0	ug/L							03/08/11	
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							03/08/11	
Trichloroacetic Acid (TCAA) (2C)	ND	1.0	ug/L							03/08/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	26			25		103	70-130			03/08/11	
<i>Surrogate: 2,3-Dibromopropionic Acid (2C)</i>	27			25		108	70-130			03/08/11	

Blank Spike (A102438-BS1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		113	70-130			03/08/11	
Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10		113	70-130			03/08/11	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		106	70-130			03/08/11	
Dichloroacetic Acid (DCAA) (2C)	10	1.0	ug/L	10		103	70-130			03/08/11	
Monobromoacetic Acid (MBAA)	10	1.0	ug/L	10		104	70-130			03/08/11	
Monobromoacetic Acid (MBAA) (2C)	10	1.0	ug/L	10		101	70-130			03/08/11	
Monochloroacetic Acid (MCAA)	11	2.0	ug/L	10		112	70-130			03/08/11	
Monochloroacetic Acid (MCAA) (2C)	11	2.0	ug/L	10		107	70-130			03/08/11	

A1C0215 FINAL 03092011 1438

1414 Stanislaus Street

Fresno, CA 93706

(559) 497-2888

FAX (559) 485-6935

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Environmental Engineering | Geotechnical Engineering | Materials Testing

Organics Quality Control Report

Analyte	Result	RL	Units	Spike	Source	%REC	RPD	Date	Analyzed	Qual
				Level	Result	%REC	Limits	RPD		

Batch: A102438

Analyst: KHH

Prepared: 03/03/2011

Blank Spike (A102438-BS1) EPA 552.2 - Quality Control

Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		110	70-130			03/08/11
Trichloroacetic Acid (TCAA) (2C)	11	1.0	ug/L	10		109	70-130			03/08/11
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	29			25		117	70-130			03/08/11
<i>Surrogate: 2,3-Dibromopropionic Acid (2C)</i>	29			25		115	70-130			03/08/11

Blank Spike Dup (A102438-BSD1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		111	70-130	1	30	03/08/11
Dibromoacetic Acid (DBAA) (2C)	11	1.0	ug/L	10		115	70-130	1	30	03/08/11
Dichloroacetic Acid (DCAA)	10	1.0	ug/L	10		104	70-130	2	30	03/08/11
Dichloroacetic Acid (DCAA) (2C)	10	1.0	ug/L	10		104	70-130	1	30	03/08/11
Monobromoacetic Acid (MBAA)	10	1.0	ug/L	10		101	70-130	3	30	03/08/11
Monobromoacetic Acid (MBAA) (2C)	10	1.0	ug/L	10		101	70-130	0	30	03/08/11
Monochloroacetic Acid (MCAA)	11	2.0	ug/L	10		109	70-130	2	30	03/08/11
Monochloroacetic Acid (MCAA) (2C)	10	2.0	ug/L	10		101	70-130	6	30	03/08/11
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		110	70-130	0	30	03/08/11
Trichloroacetic Acid (TCAA) (2C)	11	1.0	ug/L	10		112	70-130	2	30	03/08/11
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	29			25		116	70-130			03/08/11
<i>Surrogate: 2,3-Dibromopropionic Acid (2C)</i>	30			25		119	70-130			03/08/11

Duplicate (A102438-DUP1) EPA 552.2 - Quality Control

Source: A1C0216-01

Dibromoacetic Acid (DBAA)	2.2	1.0	ug/L		2.2			0	30	03/08/11
Dichloroacetic Acid (DCAA) (2C)	4.4	1.0	ug/L		4.4			1	30	03/08/11
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L		ND				30	03/08/11
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L		ND				30	03/08/11
Trichloroacetic Acid (TCAA)	3.9	1.0	ug/L		4.0			3	30	03/08/11
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	28			25		111	70-130			03/08/11

Matrix Spike (A102438-MS1) EPA 552.2 - Quality Control

Source: A1B1968-03

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10	ND	115	70-130			03/08/11
Dichloroacetic Acid (DCAA) (2C)	29	1.0	ug/L	10	20	88	70-130			03/08/11
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	107	70-130			03/08/11
Monochloroacetic Acid (MCAA)	13	2.0	ug/L	10	ND	109	70-130			03/08/11
Trichloroacetic Acid (TCAA)	39	1.0	ug/L	10	28	112	70-130			03/08/11
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	28			25		113	70-130			03/08/11

Matrix Spike Dup (A102438-MSD1) EPA 552.2 - Quality Control

Source: A1B1968-03

Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10	ND	113	70-130	2	30	03/08/11
Dichloroacetic Acid (DCAA) (2C)	29	1.0	ug/L	10	20	93	70-130	2	30	03/08/11
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	106	70-130	1	30	03/08/11
Monochloroacetic Acid (MCAA)	13	2.0	ug/L	10	ND	110	70-130	1	30	03/08/11
Trichloroacetic Acid (TCAA)	38	1.0	ug/L	10	28	109	70-130	1	30	03/08/11
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	29			25		117	70-130			03/08/11

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
- Sample(s) received, prepared, and analyzed within the method specified criteria unless otherwise noted within this report.
- The results relate only to the samples analyzed in accordance with test(s) requested by the client on the Chain of Custody document. Any analytical quality control exceptions to method criteria that are to be considered when evaluating these results have been flagged and are defined in the data qualifiers section.
- All results are expressed on wet weight basis unless otherwise specified.
- All positive results for EPA Methods 504.1, 502.2, and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Results contained in this analytical report must be reproduced in its entirety.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- BSK Analytical Laboratories certifies that the test results contained in this report meet all requirements of the NELAC Standards for applicable certified drinking water chemistry analyses unless qualified or noted in the Case Narrative.
- Analytical data contained in this report may be used for regulatory purposes to meet the requirements of the Federal or State drinking water, wastewater, and hazardous waste programs.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals. Samples submitted to the laboratory have been analyzed outside of this holding time requirement.
- * - This is not a NELAP accredited analyte.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- (2) The digestion used to produce this result deviated from EPA 200.2 by excluding hydrochloric acid in order to produce acceptable recoveries for affected metals.
- (2C) Result reported from secondary analytical column.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.

Certifications:

State of California - CDPH - ELAP	1180
State of California - CDPH - NELAP	04227CA
State of New Mexico - NMED-DWB	
State of Nevada - NDEP	CA000792009A

Definitions and Flags for Data Qualifiers

mg/L:	Milligrams/Liter (ppm)	M:	Method Detection Limit	MDA:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)		:DL x Dilution	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	ND:	None Detected at RL	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	pCi/L:	Picocuries per Liter	Present:	1 or more CFU/100mLs
		NR:	Non-Reportable	RL Mult:	RL Multiplier

A1C0215

Monterey Bay Analytical

Monte6227

03022011

Turnaround: Standard

Due Date: 03/16/2011

BSK ANALYTICAL LABORATORIES

1414 Stanislaus Street, Fresno, CA 93706-1623
(559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

ALC0215
Monte6227



03/02

* Required Fields

Client/Company Name *

Monterey Bay Analytical

Report Attention *

David Holland

Phone * # (831)-357-6227

FAX * # (831)-644-0734

Email: 4MBAS@Sbglobal.net

ANALYSIS REQUESTED

Address * 4 Justin Ct. Monterey CA 93940

Project Information: Pueblo Water Resources

PO #
Quote # 464

City * State * Zip *

Monterey CA 93940

Carbon Copies:
 CDHS Fresno Co EPA
 Merced Co Tulare Co
Other: _____

How would you like your completed results sent? E-Mail Fax EDD Mail Only

QC Request STD Level II STD 5 Day ** 2 Day ** Day **

Result Request ** Surcharge

Regulatory Compliance Y N
Electronic Data Transfer System No. *

Sample Name Printed / Signature
Lindeberg, T.

Matrix Types: RSW = Raw Surface Water CFW = Chlorinated Finished Water CWW = Chlorinated Waste Water BW = Bottled Water
RGW = Raw Ground Water FW = Finished Water WW = Waste Water SW = Storm Water DW = Drinking Water SO = Solid

Comments / Station Code

Sample #	Bottles	Sampled		Sample Description / Location *	Matrix *	Comments / Station Code	TTHM	HAA5									
		Date	Time														
	1	2/25/11	10:00	MW-1	DW	73701	✓	✓									

Relinquished by: (Signature and Printed Name)
David Holland [Signature] MBAS Date: 3/1/11 Time: 16:00
Received by: (Signature and Print Name) _____ Company: _____
Relinquished by: (Signature and Printed Name) _____ Company: _____
Received by: (Signature and Print Name) _____ Company: _____

Received for Lab by: (Signature and Printed Name)
[Signature] SIMONTE DARRI Date: 3/1/11 Time: 8:45
Payment Received at Delivery: _____
Shipping Method: CAQ UPS GSO WALK-IN SVC FED EX OTHER
Cooling Method: WET BLUE NONE
Packing Material: _____ Int: _____

Notice: Payment for services rendered is noted herein, due in full within 30 days from when invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service-levying charges and interest calculated at 1.72% per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, costs of collection, including attorney's fees, incurred prior to or as judgment whether exercised by judgment, settlement, compromise or otherwise. The person signing for the client/company expressly acknowledges that they are either the Client or authorized agent to the Client, and the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any modification of the analysis requested, either type or quantity, will be noted and agreed upon this Chain of Custody. The turn around time for any samples received after 3:00 pm will begin the next business day. SP-FL-0012-0301-ANAL-02/01

Sample Integrity

Pg. 1 of 2

WORK OR

A1C0215
Monte6227

03/02/2011

10



Date Received 3/2/11

Section 1- Receiving Information

Sample Transport: INTRAC UPS PMS Walk-In BSK-Courier GSO Fed Exp. Other: _____

Samples arrived at lab on same day sampled: Yes _____ No X Has Chilling Process Begun: Yes X No _____

Coolers/Ice Chests Description/Temperature(s): (if more than 4 received, list information in comment section)

1) _____ 2) _____ 3) _____ 4) _____

Was Temperature In Range: Y N N/A Received On Ice: Wet Blue Received Ambient: Y N

Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other: _____

Initial Receipt: BSK-Visalia BSK-Bakersfield BSK-SAC BSK-FDL BSK-FAL

Were ice chest custody seals present? Y N Intact: Y N

Section 2- COC Info.

	Completed		Info From Container	Completed		Info From Container
	Yes	No		Yes	No	
Was COC Received	<u>Y</u>					
Date Sampled	<u>Y</u>					
Time Sampled	<u>Y</u>					
Sample ID	<u>Y</u>					
Special Storage/Handling Ins.		<u>Y</u>				
			Analysis Requested	<u>Y</u>		
			Any hold times less than 72hr		<u>Y</u>	
			Client Name	<u>Y</u>		
			Address	<u>Y</u>		
			Telephone #	<u>Y</u>		

Section 3- Bottles / Analysis

	Yes	No	N/A	Comment
Did all bottles arrive unbroken and intact?	<u>Y</u>			
Were bottle custody seals present?		<u>Y</u>		
Were bottle custody seals intact?		<u>Y</u>		
Did all bottle labels agree with COC?	<u>Y</u>			
Were correct containers used for the tests requested?	<u>Y</u>			
Were correct preservations used for the tests requested?	<u>Y</u>			
Was a sufficient amount of sample sent for tests indicated?	<u>Y</u>			
Were bubbles present in VOA Vials? (Volatile Methods Only)		<u>Y</u>		
Were Ascorbic Acid Bottles received with the VOAs?		<u>Y</u>		

Section 4- Comments / Discrepancies

Sample(s) Split/Preserve: Yes No Container: _____ Preservation: _____ Dt/Time/Init _____

Container: _____ Preservation: _____ Dt/Time/Init _____

Was Client Service Rep. notified of discrepancies: Yes No N/A CSR: _____ Notified By/Dt/Time: _____

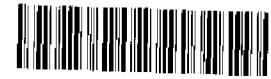
Explanations / Comments

Report Comment Entered:

Labeled by JWH @ 1339 Labels checked by: SC @ 1316

Sample Integrity Pg 2 of 2

WORI
BSK Bottles (Yes) No



250ml (A) 500ml (B) 1Liter (C) Amber Glass (AG)

Container(s) Received	1								
Bacti Na ₂ S ₂ O ₃									
None (p) ^{White Cap}									
None (p) ^{Blue Cap} w/NH ₄ + Buffer									
HNO ₃ (p) ^{Red Cap}									
H ₂ SO ₄ (p) ^{Yellow Cap}									
NaOH (p) ^{Green Cap}									
Other:									
Dissolved Oxygen 300ml (g)									
Centrifuge Tube HNO ₃									
250ml (AG) None									
250ml (AG) H ₂ SO ₄ COD ^{Yellow Label}									
250ml (AG) Na ₂ S ₂ O ₃ 515, 547 ^{Blue Label}									
250ml (AG) Na ₂ S ₂ O ₃ + MCAA 531.1 ^{Orange Label}									
250ml (AG) NH ₄ Cl 552 ^{Purple Label}	1								
250ml (AG) EDA DBPs ^{Brown Label}									
250ml (AG) Other:									
500ml (AG) None									
500ml (AG) H ₂ SO ₄ TPH-Diesel ^{Yellow Label}									
1 Liter (AG) None									
1 Liter (AG) H ₂ SO ₄ O&G ^{Yellow Label}									
1 Liter (AG) Na ₂ S ₂ O ₃ 548 / 525 / 521 ^{Blue Label}									
1 Liter (P) Na ₂ S ₂ O ₃ + H ₂ SO ₄ 549									3/2/11
1 Liter (AG) NaOH+ZnAc Sulfide									5
1 Liter (AG) Ascorbic/EDTA/Pot Citrate 527 ^{Grey Label}									
1 Liter (AG) CuSO ₄ /Trizma 529 ^{Turquoise Label}									
1 Liter (AG) Na ₂ SO ₃ / HCL 525 UCMR ^{Neon Green Label}									
1 Liter (AG) Ammonium Chloride 535 ^{Purple Label}									
40ml VOA Vial Clear - HCL									
40ml VOA Vial Amber - Na ₂ S ₂ O ₃	5								
40ml VOA Vial Clear - None									
40ml VOA Vial Clear - Na ₂ S ₂ O ₃ 504, 505									
40ml VOA Vial Clear - H ₃ PO ₄									
Other:									
Asbestos 1Liter Plastic/Foil									
Radon 200ml Clear (g)									
Low Level Hg/Metals Double Baggie									
Bioassay Jug									
250 Clear Glass Jar									
500 Clear Glass Jar									
1 Liter Clear Glass Jar									
Plastic Bag									
Soil Tube Brass / Steel / Plastic									
Tedlar Bags									



MPWMD
 Joe Oliver
 P.O. Box 85
 Monterey, CA 93442-0085

4 Justin Court Suite D, Monterey, CA 93940
 831.375.MBAS
 montereybayanalytical@usa.net
 ELAP Certification Number: 2385

Lab Number: AA76468

Collection Date/Time: 5/20/2011 11:20 Sample Collector: LEAR J
 Submittal Date/Time: 5/20/2011 12:30 Sample ID

Sample Description: MW 1

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Alkalinity, Total (as CaCO3)	2320B	mg/L	133		2		5/24/2011
Ammonia-N	4500NH3 D	mg/L	Not Detected		0.05		5/27/2011
Boron	EPA200.7	mg/L	Not Detected		0.05		5/24/2011
Calcium	EPA200.7	mg/L	44		0.5		5/24/2011
Chloramines	SM4500-Cl G	mg/L	0.05		0.05		5/20/2011
Chloride	EPA300.0	mg/L	26		1	250	5/19/2011
Dissolved Organic Carbon	SM5310-C	mg/L	1.1	E	0.2		5/26/2011
Haloacetic Acids	EPA552	ug/L	19	E		60	6/2/2011
Iron	EPA 200.7	ug/L	Not Detected		10		5/24/2011
Iron, Dissolved	EPA 200.7	ug/L	Not Detected		10	300	5/24/2011
Kjehldahl Nitrogen	4500-NH3 B,C,E	mg/L	Not Detected		0.2		5/24/2011
Magnesium	EPA200.7	mg/L	10		0.5		5/24/2011
Manganese, Dissolved	EPA 200.7	ug/L	Not Detected		10	50	5/24/2011
Manganese, Total	EPA 200.7	ug/L	Not Detected		10	50	5/24/2011
Nitrate as NO3	EPA300.0	mg/L	Not Detected		1	45	5/24/2011
Nitrate as NO3-N	EPA300.0	mg/L	0.09		0.05	10	5/19/2011
Nitrite as Nitrogen	EPA300.0	mg/L	Not Detected		0.05	1.00	5/19/2011
Nitrite as NO2-N	EPA300.0	mg/L	Not Detected		0.05	1.00	5/19/2011
o-Phosphate-P	EPA300.0	mg/L	Not Detected		0.05		5/19/2011
pH (Laboratory)	4500-H+B	STD. Units	7.9				5/23/2011
Phosphorus, Total	HACH 8190	mg/L	0.08		0.03		5/26/2011
Potassium	EPA200.7	mg/L	2.6		0.1		5/24/2011
QC Anion Sum x 100	Calculation	%	98%				5/25/2011
QC Anion-Cation Balance	Calculation	%	1				5/25/2011
QC Cation Sum x 100	Calculation	%	101%				5/25/2011
Sodium	EPA200.7	mg/L	41		0.5		5/24/2011
Specific Conductance (E.C)	2510B	umhos/cm	483		1	900	5/20/2011
Sulfate	EPA300.0	mg/L	65		1	250	5/19/2011
Total Diss. Solids	2540C	mg/L	310		10	500	5/31/2011
Total Nitrogen	Calculation	mg/L	Not Detected		0.2		5/25/2011
Total Organic Carbon	SM5310C	mg/L	1.2	E	0.20		5/26/2011
Trihalomethanes	EPA524.2	ug/L	60	E		80	5/28/2011

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Dear David Holland,

Thank you for selecting BSK Analytical Laboratories for your analytical testing needs. We have prepared this report in response to your request for analytical services. Enclosed are the results of analyses for samples received by the laboratory on 05/24/2011 08:15.

If additional clarification of any information is required, please contact your Client Services Representative, John Montierth at (800) 877-8310 or (559) 497-2888.

BSK ANALYTICAL LABORATORIES



John Montierth
Client Services Representative

Case Narrative

Work Order Information

Client Name: Monterey Bay Analytical
Client Code: Monte6227
Work Order: A1E1735
Project: MPWMD

Submitted by: David Holland
Shipped by: ONTRAC
COC Number:
TAT: 10
PO #:

Sample Receipt Conditions

Cooler: Default Cooler **Temp. °C:** 6
Containers Intact
COC/Labels Agree
Received On Wet Ice
Packing Material - Bubble Wrap
Sample(s) were received in temperature range.
Initial receipt at BSK-FAL

Report Manager
David Holland

Report Format
Final.rpt



Certificate of Analysis

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Report Issue Date: 06/03/2011 16:38
Received Date: 05/24/2011
Received Time: 08:15

Lab Sample ID: A1E1735-02
Sample Date: 05/20/2011 11:20
Sample Type: Grab

Sampled by: Lear, J.
Matrix: Water

Sample Description: MW1 // 76468

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Dissolved Organic Carbon	SM 5310 C	1.1	0.20	mg/L	1	A106303	05/26/11	05/26/11	
Total Organic Carbon	SM 5310 C	1.2	0.20	mg/L	1	A106244	05/26/11	05/26/11	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	18	0.50	ug/L	1	A106330	05/27/11	05/28/11	
Bromoform	EPA 524.2	1.1	0.50	ug/L	1	A106330	05/27/11	05/28/11	
Chloroform	EPA 524.2	33	0.50	ug/L	1	A106330	05/27/11	05/28/11	
Dibromochloromethane	EPA 524.2	8.2	0.50	ug/L	1	A106330	05/27/11	05/28/11	

Surrogate: Bromofluorobenzene EPA 524.2 94 % Acceptable range: 70-130 %

Trihalomethanes by GC-MS

Total Trihalomethanes EPA 524.2 60 ug/L

Haloacetic Acids by GC-ECD

Dibromoacetic Acid (DBAA)	EPA 552.2	2.1	1.0	ug/L	1	A106427	05/31/11	06/02/11	
Dichloroacetic Acid (DCAA)	EPA 552.2	9.3	1.0	ug/L	1	A106427	05/31/11	06/02/11	
Monobromoacetic Acid (MBAA)	EPA 552.2	ND	1.0	ug/L	1	A106427	05/31/11	06/02/11	
Monochloroacetic Acid (MCAA)	EPA 552.2	ND	2.0	ug/L	1	A106427	05/31/11	06/02/11	
Total Haloacetic Acids	EPA 552.2	19	1.0	ug/L	1	A106427	05/31/11	06/02/11	
Trichloroacetic Acid (TCAA)	EPA 552.2	7.5	1.0	ug/L	1	A106427	05/31/11	06/02/11	

Surrogate: 2,3-Dibromopropionic Acid EPA 552.2 96 % Acceptable range: 70-130 %



General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A106244

Analyst: SAB

Prepared: 05/25/2011

Blank (A106244-BLK1) SM 5310 C - Quality Control

Total Organic Carbon	ND	0.20	mg/L							05/25/11	
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Blank Spike (A106244-BS1) SM 5310 C - Quality Control

Total Organic Carbon	10	0.20	mg/L	10		102	80-120			05/25/11	
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Blank Spike Dup (A106244-BSD1) SM 5310 C - Quality Control

Total Organic Carbon	10	0.20	mg/L	10		102	80-120	0	20	05/25/11	
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Matrix Spike (A106244-MS1) SM 5310 C - Quality Control

Source: A1E1735-01

Total Organic Carbon	11	0.20	mg/L	10	1.3	100	80-120			05/26/11	
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Matrix Spike (A106244-MS2) SM 5310 C - Quality Control

Source: A1E1735-02

Total Organic Carbon	11	0.20	mg/L	10	1.2	100	80-120			05/26/11	
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Matrix Spike Dup (A106244-MSD1) SM 5310 C - Quality Control

Source: A1E1735-01

Total Organic Carbon	11	0.20	mg/L	10	1.3	100	80-120	1	20	05/26/11	
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Matrix Spike Dup (A106244-MSD2) SM 5310 C - Quality Control

Source: A1E1735-02

Total Organic Carbon	11	0.20	mg/L	10	1.2	100	80-120	0	20	05/26/11	
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Batch: A106303

Analyst: SAB

Prepared: 05/26/2011

Blank (A106303-BLK1) SM 5310 C - Quality Control

Dissolved Organic Carbon	ND	0.20	mg/L							05/26/11	
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Blank Spike (A106303-BS1) SM 5310 C - Quality Control

Dissolved Organic Carbon	10	0.20	mg/L	10		104	80-120			05/26/11	
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Blank Spike Dup (A106303-BSD1) SM 5310 C - Quality Control

Dissolved Organic Carbon	10	0.20	mg/L	10		104	80-120	0	20	05/26/11	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A106330

Analyst: JGB

Prepared: 05/27/2011

Blank (A106330-BLK1) EPA 524.2 - Quality Control

Bromodichloromethane	ND	0.50	ug/L							05/27/11	
Bromoform	ND	0.50	ug/L							05/27/11	
Chloroform	ND	0.50	ug/L							05/27/11	
Dibromochloromethane	ND	0.50	ug/L							05/27/11	
<i>Surrogate: Bromofluorobenzene</i>	4.9			5.0		98	70-130			05/27/11	

Blank Spike (A106330-BS1) EPA 524.2 - Quality Control

Bromodichloromethane	4.4	0.50	ug/L	5.0		87	70-130			05/27/11	
Bromoform	4.8	0.50	ug/L	5.0		96	70-130			05/27/11	
Chloroform	5.3	0.50	ug/L	5.0		106	70-130			05/27/11	
Dibromochloromethane	4.6	0.50	ug/L	5.0		93	70-130			05/27/11	
<i>Surrogate: Bromofluorobenzene</i>	5.2			5.0		105	70-130			05/27/11	

Blank Spike Dup (A106330-BSD1) EPA 524.2 - Quality Control

Bromodichloromethane	4.6	0.50	ug/L	5.0		91	70-130	4	30	05/27/11	
Bromoform	5.2	0.50	ug/L	5.0		103	70-130	7	30	05/27/11	
Chloroform	5.2	0.50	ug/L	5.0		104	70-130	2	30	05/27/11	
Dibromochloromethane	4.6	0.50	ug/L	5.0		91	70-130	2	30	05/27/11	
<i>Surrogate: Bromofluorobenzene</i>	5.3			5.0		106	70-130			05/27/11	

Batch: A106427

Analyst: KHH

Prepared: 05/31/2011

Blank (A106427-BLK1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							06/02/11	
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							06/02/11	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							06/02/11	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							06/02/11	
Total Haloacetic Acids	ND	1.0	ug/L							06/02/11	
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							06/02/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	24			25		98	70-130			06/02/11	

Blank Spike (A106427-BS1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	9.1	1.0	ug/L	10		91	70-130			06/02/11	
Dichloroacetic Acid (DCAA)	8.5	1.0	ug/L	10		85	70-130			06/02/11	
Monobromoacetic Acid (MBAA)	8.8	1.0	ug/L	10		88	70-130			06/02/11	
Monochloroacetic Acid (MCAA)	9.5	2.0	ug/L	10		95	70-130			06/02/11	
Total Haloacetic Acids	44	1.0	ug/L	50		88	70-130			06/02/11	
Trichloroacetic Acid (TCAA)	7.9	1.0	ug/L	10		79	70-130			06/02/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	24			25		98	70-130			06/02/11	

Blank Spike Dup (A106427-BSD1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10		101	70-130	11	30	06/03/11	
Dichloroacetic Acid (DCAA)	9.5	1.0	ug/L	10		95	70-130	11	30	06/03/11	
Monobromoacetic Acid (MBAA)	9.7	1.0	ug/L	10		97	70-130	10	30	06/03/11	
Monochloroacetic Acid (MCAA)	10	2.0	ug/L	10		102	70-130	8	30	06/03/11	
Total Haloacetic Acids	49	1.0	ug/L	50		98	70-130	11	30	06/03/11	

A1E1735 FINAL 06032011 1638

1414 Stanislaus Street

Fresno, CA 93706

(559) 497-2888

FAX (559) 485-6935

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Environmental Engineering | Geotechnical Engineering | Materials Testing



Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A106427

Analyst: KHH

Prepared: 05/31/2011

Blank Spike Dup (A106427-BSD1) EPA 552.2 - Quality Control

Trichloroacetic Acid (TCAA)	9.5	1.0	ug/L	10		95	70-130	18	30	06/03/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	26			25		104	70-130			06/03/11	

Duplicate (A106427-DUP1) EPA 552.2 - Quality Control

Source: A1E1771-02

Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10				1	30	06/03/11	
Dichloroacetic Acid (DCAA)	8.5	1.0	ug/L	8.3				1	30	06/03/11	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L	ND					30	06/03/11	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L	ND					30	06/03/11	
Total Haloacetic Acids	24	1.0	ug/L	24				1	30	06/03/11	
Trichloroacetic Acid (TCAA)	5.3	1.0	ug/L	5.2				2	30	06/03/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	26			25		103	70-130			06/03/11	

Matrix Spike (A106427-MS1) EPA 552.2 - Quality Control

Source: A1E1657-01

Dibromoacetic Acid (DBAA)	9.8	1.0	ug/L	10	ND	98	70-130			06/02/11	
Dichloroacetic Acid (DCAA)	9.6	1.0	ug/L	10	ND	96	70-130			06/02/11	
Monobromoacetic Acid (MBAA)	9.8	1.0	ug/L	10	ND	98	70-130			06/02/11	
Monochloroacetic Acid (MCAA)	11	2.0	ug/L	10	ND	108	70-130			06/02/11	
Total Haloacetic Acids	49	1.0	ug/L	50	ND	98	70-130			06/02/11	
Trichloroacetic Acid (TCAA)	9.0	1.0	ug/L	10	ND	90	70-130			06/02/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	26			25		105	70-130			06/02/11	

Matrix Spike Dup (A106427-MSD1) EPA 552.2 - Quality Control

Source: A1E1657-01

Dibromoacetic Acid (DBAA)	9.1	1.0	ug/L	10	ND	91	70-130	8	30	06/02/11	
Dichloroacetic Acid (DCAA)	8.8	1.0	ug/L	10	ND	88	70-130	9	30	06/02/11	
Monobromoacetic Acid (MBAA)	9.1	1.0	ug/L	10	ND	91	70-130	8	30	06/02/11	
Monochloroacetic Acid (MCAA)	10	2.0	ug/L	10	ND	101	70-130	7	30	06/02/11	
Total Haloacetic Acids	46	1.0	ug/L	50	ND	91	70-130	8	30	06/02/11	
Trichloroacetic Acid (TCAA)	8.5	1.0	ug/L	10	ND	85	70-130	6	30	06/02/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	23			25		94	70-130			06/02/11	

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
- Sample(s) received, prepared, and analyzed within the method specified criteria unless otherwise noted within this report.
- The results relate only to the samples analyzed in accordance with test(s) requested by the client on the Chain of Custody document. Any analytical quality control exceptions to method criteria that are to be considered when evaluating these results have been flagged and are defined in the data qualifiers section.
- All results are expressed on wet weight basis unless otherwise specified.
- All positive results for EPA Methods 504.1, 502.2, and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Results contained in this analytical report must be reproduced in its entirety.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- BSK Analytical Laboratories certifies that the test results contained in this report meet all requirements of the NELAC Standards for applicable certified drinking water chemistry analyses unless qualified or noted in the Case Narrative.
- Analytical data contained in this report may be used for regulatory purposes to meet the requirements of the Federal or State drinking water, wastewater, and hazardous waste programs.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals. Samples submitted to the laboratory have been analyzed outside of this holding time requirement.
- * - This is not a NELAP accredited analyte.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- (2) The digestion used to produce this result deviated from EPA 200.2 by excluding hydrochloric acid in order to produce acceptable recoveries for affected metals.
- (2C) Result reported from secondary analytical column.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.

Certifications:

State of California - CDPH - ELAP	1180
State of California - CDPH - NELAP	04227CA
State of New Mexico - NMED-DWB	
State of Nevada - NDEP	CA000792009A

Definitions and Flags for Data Qualifiers

mg/L:	Milligrams/Liter (ppm)	M:	Method Detection Limit	MDA:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)		:DL x Dilution	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	ND:	None Detected at RL	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	pCi/L:	Picocuries per Liter	Present:	1 or more CFU/100mLs
		NR:	Non-Reportable	RL Mult:	RL Multiplier

A1E1735

Monterey Bay Analytical

Monte6227

05242011

Turnaround: Standard

Due Date: 06/08/2011

* Required Fields

TEMP: _____

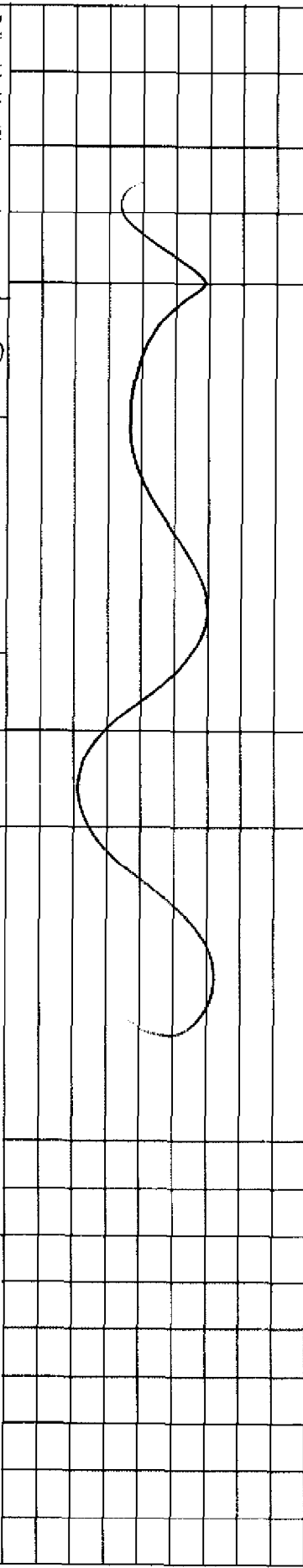
Client/Company Name *: **Monterey Bay Analytical** Report Attention *: **David Holland** Phone #: (831)-357-6227 FAX #: (831)-641-0734
 Address *: **4 Justin Ct. Monterey CA 93940** State *: **CA** Zip *: **93940** E-mail: **4MBAS@Sbcglobal.net**

Project Information: **MPWMD** PO #: **464** Quote #: **464**
 How would you like your completed results sent? E-Mail Fax HDD Mail Only
 Sampler Name Printed / Signature: **Leair, J.** QC Request: STD Level II Result Request: Surcharge 5 Day** 2 Day** Day**

Matrix Types: **RSW - Raw Surface Water CFW - Contaminated Finished Water CWV - Contaminated Waste Water BW - Borted Water**
RGW - Raw Ground Water FW - Finished Water WW - Waste Water SW - Storm Water DW - Drinking Water SO - Solid

Carbon Copies: CDHS Fresno Co EPA Merced Co Tulare Co Other: _____
 Regulatory Compliance Electronic Data Transfer: Y N System No. *

Sample #	Bottles	Date	Sampled Time	Sample Description / Location *	Matrix *	Comments / Station Code
		5/20/11	11:15	Injectate	FW	76457 ✓ ✓ ✓ ✓
		5/20/11	11:20	MW1		76458 ✓ ✓ ✓ ✓



Relinquished by: (Signature and Printed Name) **David Holland** Company **MBAS** Date **5/23/11** Time **16:40**
 Relinquished by: (Signature and Printed Name) _____ Company _____ Date _____ Time _____

Received for Lab by: (Signature and Printed Name) **David Holland** Date **5/23/11** Time **8:15**
 Shipping Method: **CAD UPS GSO WALK-IN SVC FEDEX OTHER** Cooling Method: **NET BLUE NONE BUD**

Payment Received at Delivery: _____ Amount: _____ Check/Cash/Card PIA # _____
 Packing Material: _____

Notes: Payment for services rendered as noted herein are due in full within 30 days from when billed. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service-charge delays and interest calculated at 1 1/2 % per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, costs of collection, including attorney's fees incurred prior to or in litigation whether concluded by judgment, settlement, compromise, or otherwise. The person signing for the client company expressly authorizes BSK & Associates to bill the client and the client agrees to be responsible for payment for analytical services on this form of invoice. Any modification of the analysis requested, either type or quantity, will be noted and agreed upon prior to the start of analysis. This turn around time for any samples received after 5:00 pm will begin the next business day. SPT-1-12-2007 New/rev

Sample Integrity Pg. 1 of 2



Date Received 5/24/11

Section 1- Receiving Information

Sample Transport: CONTRAC UPS PMS Walk-In BSK-Courier GSO Fed Exp. Other: _____

Samples arrived at lab on same day sampled: Yes ___ No Has Chilling Process Begun: Yes No ___

Coolers/Ice Chests Description/Temperature(s): (If more than 5 received, list information in comment section)

1) 6 2) _____ 3) _____ 4) _____ 5) _____

Was Temperature In Range: Y N N/A Received On Ice: Wet Blue Received Ambient: Y N

Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other: _____

Initial Receipt: BSK-Visalia BSK-Bakersfield BSK-SAC BSK-FAL

Were ice chest custody seals present? Y N Intact: Y N

Section 2- COC Info.

	Completed		Info From Container		Completed		Info From Container
	Yes	No			Yes	No	
Was COC Received	<input checked="" type="checkbox"/>			Analysis Requested	<input checked="" type="checkbox"/>		
Date Sampled	<input checked="" type="checkbox"/>			Hold times less than 72hr		<input checked="" type="checkbox"/>	
Time Sampled	<input checked="" type="checkbox"/>			Client Name	<input checked="" type="checkbox"/>		
Sample ID	<input checked="" type="checkbox"/>			Address	<input checked="" type="checkbox"/>		
Special Storage/Handling Ins.		<input checked="" type="checkbox"/>		Telephone #	<input checked="" type="checkbox"/>		

Section 3- Bottles / Analysis

	Yes	No	N/A	Comment
Did all bottles arrive unbroken and intact?	<input checked="" type="checkbox"/>			
Were bottle custody seals present?	<input checked="" type="checkbox"/>			
Were bottle custody seals intact?	<input checked="" type="checkbox"/>			
Did all bottle labels agree with COC?	<input checked="" type="checkbox"/>			
Were correct containers used for the tests requested?	<input checked="" type="checkbox"/>			
Were correct preservations used for the tests requested?	<input checked="" type="checkbox"/>			
Was a sufficient amount of sample sent for tests indicated?	<input checked="" type="checkbox"/>			
Were bubbles present in VOA Vials? (Volatile Methods Only)		<input checked="" type="checkbox"/>		
Were Ascorbic Acid Bottles received with the VOAs?		<input checked="" type="checkbox"/>		

Section 4- Comments / Discrepancies

Sample(s) Split/Preserve: Yes No Container: _____ Preservation: _____ Dt/Time/Init _____

Container: _____ Preservation: _____ Dt/Time/Init _____

Was Client Service Rep. notified of discrepancies: Yes No N/A CSR: _____ Notified By/Time: _____

Explanations / Comments

Report Comment Entered:

Labeled by: AK @ 1217 Labels checked by: SS @ 1307 RUSH Paged by: _____ @ _____

Sample Integrity Pg 2 of 2

BSK Bottles Yes 4 No



250ml (A) 500ml (B) 1Liter (C) Amber Glass (AG)

Container(s) Received	1-2				
Bacti-Na ₂ S ₂ O ₃					
None (p) <small>White Cap</small>	*10				
None (p) <small>Blue Cap</small> w/NH ₄ + Buffer					
HNO ₃ (p) <small>Red Cap</small>					
H ₂ SO ₄ (p) <small>Yellow Cap</small>					
NaOH (p) <small>Green Cap</small>					
EDA (p) <small>Brown Cap/Label</small>					
Other:					
Dissolved Oxygen 300ml (g)					
250ml (AG) None					
250ml (AG) H ₂ SO ₄ COD <small>Yellow Label</small>					
250ml (AG) Na ₂ S ₂ O ₃ 515,547 <small>Blue Label</small>					
250ml (AG) Na ₂ S ₂ O ₃ + MCAA 531.1 <small>Orange Label</small>					
250ml (AG) NH ₄ Cl 552 <small>Purple Label</small>	1				
250ml (AG) EDA DBPs <small>Brown Label</small>					
250ml (AG) Other:					
500ml (AG) None					
500ml (AG) H ₂ SO ₄ <small>Yellow Label</small>					
1 Liter (AG) None					
1 Liter (AG) H ₂ SO ₄ O&G /TPH-Diesel <small>Yellow Label</small>					stout
1 Liter (AG) Na ₂ S ₂ O ₃ 548 / 525 / 521 <small>Blue Label</small>					2
1 Liter (P) Na ₂ S ₂ O ₃ + H ₂ SO ₄ 549					
1 Liter (AG) NaOH+ZnAc Sulfide					
40ml VOA Vial Clear – HCL					
40ml VOA Vial Clear – Buffer pH 4					
40ml VOA Vial Clear – None					
40ml VOA Vial Amber – Na ₂ S ₂ O ₃	3				
40ml VOA Vial Clear - Na ₂ S ₂ O ₃ 504, 505					
40ml VOA Vial Clear – H ₃ PO ₄	3				
Other:					
½ Gallon (p)					
Asbestos 1Liter Plastic/Foil					
Radon 200ml Clear (g)					
Low Level Hg/Metals Double Baggie					
Bioassay Jug					
Ampule					
PT Sample Bottle					
250 Clear Glass Jar					
500 Clear Glass Jar					
1 Liter Clear Glass Jar					
Plastic Bag					
Soil Tube Brass / Steel / Plastic					
Tedlar Bags					



MPWMD
Joe Oliver
P.O. Box 85
Monterey, CA 93442-0085

4 Justin Court Suite D, Monterey, CA 93940
831.375.MBAS
montereybayanalytical@usa.net
ELAP Certification Number: 2385

Lab Number: AA79515

Collection Date/Time: 8/24/2011 13:30 Sample Collector: LEAR J
Submittal Date/Time: 8/24/2011 14:30 Sample ID

Sample Description: MW1

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Chloramines	SM4500-Cl G	mg/L	Not Detected		0.05		8/24/2011
Chloride	EPA300.0	mg/L	29		1	250	8/24/2011
Haloacetic Acids	EPA552	ug/L	Not Detected	E		60	9/7/2011
Trihalomethanes	EPA524.2	ug/L	67	E		80	9/1/2011

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Dear David Holland,

Thank you for selecting BSK Analytical Laboratories for your analytical testing needs. We have prepared this report in response to your request for analytical services. Enclosed are the results of analyses for samples received by the laboratory on 08/26/2011 08:52.

If additional clarification of any information is required, please contact your Client Services Representative, John Montierth at (800) 877-8310 or (559) 497-2888.

BSK ANALYTICAL LABORATORIES



John Montierth
Client Services Representative

Case Narrative

Work Order Information

Client Name: Monterey Bay Analytical
Client Code: Monte6227
Work Order: A1H2316
Project: MPWMD
Client Project: MPWMD

Submitted by: David Holland
Shipped by: ONTRAC
COC Number:
TAT: 10
PO #:

Sample Receipt Conditions

Cooler: Default Cooler **Temp. °C:** 6
Containers Intact
COC/Labels Agree
Received On Wet Ice
Packing Material - Bubble Wrap
Sample(s) were received in temperature range.
Initial receipt at BSK-FAL

Report Manager
David Holland

Report Format
Final.rpt



Certificate of Analysis

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Report Issue Date: 09/08/2011 8:26
Received Date: 08/26/2011
Received Time: 08:52

Lab Sample ID: A1H2316-01
Sample Date: 08/24/2011 13:30
Sample Type: Grab

Client Project: MPWMD
Sampled by: Lear, J.
Matrix: Water

Sample Description: MW 1 // 79515

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Trihalomethanes by GC-MS</u>									
Bromodichloromethane	EPA 524.2	17	0.50	ug/L	1	A110466	08/31/11	09/01/11	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A110466	08/31/11	09/01/11	
Chloroform	EPA 524.2	45	0.50	ug/L	1	A110466	08/31/11	09/01/11	
Dibromochloromethane	EPA 524.2	5.4	0.50	ug/L	1	A110466	08/31/11	09/01/11	
<i>Surrogate: Bromofluorobenzene</i>									
	EPA 524.2	99 %							<i>Acceptable range: 70-130 %</i>
*Total Trihalomethanes, EPA 524.2		67	0.50	ug/L					
<u>Haloacetic Acids by GC-ECD</u>									
Dibromoacetic Acid (DBAA)	EPA 552.2	ND	1.0	ug/L	1	A110556	09/01/11	09/07/11	
Dichloroacetic Acid (DCAA)	EPA 552.2	ND	1.0	ug/L	1	A110556	09/01/11	09/07/11	
Monobromoacetic Acid (MBAA)	EPA 552.2	ND	1.0	ug/L	1	A110556	09/01/11	09/07/11	
Monochloroacetic Acid (MCAA)	EPA 552.2	ND	2.0	ug/L	1	A110556	09/01/11	09/07/11	
Trichloroacetic Acid (TCAA)	EPA 552.2	ND	1.0	ug/L	1	A110556	09/01/11	09/07/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>									
	EPA 552.2	94 %							<i>Acceptable range: 70-130 %</i>
*Total Haloacetic Acids, EPA 552.2		ND	2.0	ug/L					



Organics Quality Control Report

Analyte	Result	RL	Units	Spike	Source	%REC	RPD	Date	Analyzed	Qual
				Level	Result	%REC	Limits	RPD		

Batch: A110466

Analyst: JGB

Prepared: 08/31/2011

Blank (A110466-BLK1) EPA 524.2 - Quality Control

Bromodichloromethane	ND	0.50	ug/L						08/31/11	
Bromoform	ND	0.50	ug/L						08/31/11	
Chloroform	ND	0.50	ug/L						08/31/11	
Dibromochloromethane	ND	0.50	ug/L						08/31/11	
<i>Surrogate: Bromofluorobenzene</i>	4.7			5.0		93	70-130		08/31/11	

Blank Spike (A110466-BS1) EPA 524.2 - Quality Control

Bromodichloromethane	10	0.50	ug/L	10		102	70-130		08/31/11	
Bromoform	11	0.50	ug/L	10		113	70-130		08/31/11	
Chloroform	11	0.50	ug/L	10		108	70-130		08/31/11	
Dibromochloromethane	11	0.50	ug/L	10		105	70-130		08/31/11	
<i>Surrogate: Bromofluorobenzene</i>	5.3			5.0		106	70-130		08/31/11	

Blank Spike Dup (A110466-BSD1) EPA 524.2 - Quality Control

Bromodichloromethane	9.6	0.50	ug/L	10		96	70-130	6	30	08/31/11
Bromoform	9.6	0.50	ug/L	10		96	70-130	16	30	08/31/11
Chloroform	10	0.50	ug/L	10		100	70-130	8	30	08/31/11
Dibromochloromethane	9.5	0.50	ug/L	10		95	70-130	10	30	08/31/11
<i>Surrogate: Bromofluorobenzene</i>	4.6			5.0		92	70-130			08/31/11

Batch: A110556

Analyst: XHX

Prepared: 09/01/2011

Blank (A110556-BLK1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							09/07/11
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							09/07/11
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							09/07/11
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							09/07/11
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							09/07/11
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	25			25		100	70-130			09/07/11

Blank Spike (A110556-BS1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	9.7	1.0	ug/L	10		97	70-130			09/07/11
Dichloroacetic Acid (DCAA)	9.7	1.0	ug/L	10		97	70-130			09/07/11
Monobromoacetic Acid (MBAA)	9.5	1.0	ug/L	10		95	70-130			09/07/11
Monochloroacetic Acid (MCAA)	23	2.0	ug/L	20		116	70-130			09/07/11
Trichloroacetic Acid (TCAA)	10	1.0	ug/L	10		101	70-130			09/07/11
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	25			25		100	70-130			09/07/11

Blank Spike Dup (A110556-BSD1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	9.5	1.0	ug/L	10		95	70-130	2	30	09/07/11
Dichloroacetic Acid (DCAA)	9.5	1.0	ug/L	10		95	70-130	3	30	09/07/11
Monobromoacetic Acid (MBAA)	9.4	1.0	ug/L	10		94	70-130	1	30	09/07/11
Monochloroacetic Acid (MCAA)	23	2.0	ug/L	20		116	70-130	0	30	09/07/11
Trichloroacetic Acid (TCAA)	9.9	1.0	ug/L	10		99	70-130	2	30	09/07/11
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	24			25		97	70-130			09/07/11

A1H2316 FINAL 09082011 0826

1414 Stanislaus Street

Fresno, CA 93706

(559) 497-2888

FAX (559) 485-6935

www.bsklabs.com

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Environmental Engineering | Geotechnical Engineering | Materials Testing

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Date Analyzed	Qual
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Batch: A110556

Analyst: XHX

Prepared: 09/01/2011

Duplicate (A110556-DUP1) EPA 552.2 - Quality Control

Source: A1H2329-08

Dibromoacetic Acid (DBAA)	3.7	1.0	ug/L		3.5			5	30	09/07/11	
Dichloroacetic Acid (DCAA)	6.0	1.0	ug/L		5.6			7	30	09/07/11	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L		ND				30	09/07/11	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L		ND				30	09/07/11	
Trichloroacetic Acid (TCAA)	3.1	1.0	ug/L		2.9			6	30	09/07/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	24			25		96	70-130			09/07/11	

Matrix Spike (A110556-MS1) EPA 552.2 - Quality Control

Source: A1H2309-01

Dibromoacetic Acid (DBAA)	8.4	1.0	ug/L	10	ND	84	70-130			09/07/11	
Dichloroacetic Acid (DCAA)	8.5	1.0	ug/L	10	ND	85	70-130			09/07/11	
Monobromoacetic Acid (MBAA)	8.4	1.0	ug/L	10	ND	84	70-130			09/07/11	
Monochloroacetic Acid (MCAA)	21	2.0	ug/L	20	ND	103	70-130			09/07/11	
Trichloroacetic Acid (TCAA)	10	1.0	ug/L	10	ND	103	70-130			09/07/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	22			25		89	70-130			09/07/11	

Matrix Spike Dup (A110556-MSD1) EPA 552.2 - Quality Control

Source: A1H2309-01

Dibromoacetic Acid (DBAA)	8.3	1.0	ug/L	10	ND	83	70-130	1	30	09/07/11	
Dichloroacetic Acid (DCAA)	8.5	1.0	ug/L	10	ND	85	70-130	1	30	09/07/11	
Monobromoacetic Acid (MBAA)	8.3	1.0	ug/L	10	ND	83	70-130	2	30	09/07/11	
Monochloroacetic Acid (MCAA)	20	2.0	ug/L	20	ND	102	70-130	1	30	09/07/11	
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10	ND	109	70-130	5	30	09/07/11	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>	22			25		87	70-130			09/07/11	

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Certifications:

State of California - CDPH - ELAP	1180
State of California - CDPH - NELAP	04227CA
State of New Mexico - NMED-DWB	
State of Nevada - NDEP	CA000792009A

Definitions and Flags for Data Qualifiers

mg/L:	Milligrams/Liter (ppm)	M:	Method Detection Limit	MDA:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)		:DL x Dilution	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	ND:	None Detected at RL	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	pCi/L:	Picocuries per Liter	Present:	1 or more CFU/100mLs
		NR:	Non-Reportable	RL Mult:	RL Multiplier

A1H2316

Monterey Bay Analytical

Monte6227

08262011

Turnaround: Standard

Due Date: 09/12/2011

* Required Fields

Client/Company Name: **Monterey Bay Analytical** Report Attention: **David Holland** Phone #: (831)-357-6227 FAX #: (831)-641-0734
 Address: **4 Justin Ct.** City: **Monterey** State: **CA** Zip: **93940** E-mail: **4MBAS@sbccglobal.net**
 Project Information: **Monterey Peninsula Water Management District** PO #: **464**
 How would you like your completed results sent? E-Mail Fax BDD Mail Only
 Sampler Name Printed / Signature: **Leaf, J.** QC Request: Result Request: Surcharge STD Level II STD 5 Day 2 Day Day

Carbon Copies: CDHS Fresno Co EPA
 Merced Co Tulare Co
 Other: _____
 Regulatory Compliance Electronic Data Transfer: Y N
 System No. * _____
 Matrix Types: RSW = Raw Surface Water CPW = Chlorinated Finished Water CWVW = Chlorinated Waste Water BW = Bottled Water
 RGW = Raw Ground Water FW = Finished Water W = Waste Water SW = Storm Water DW = Drinking Water SO = Solid

Sample #	Bottles	Sampled		Sample Description / Location *	Matrix *	Comments / Station Code	✓	✓	Packing Material:
		Date	Time						
1		8/24/11	13:30	MW 1	FW	79515			

Relinquished by: (Signature and Printed Name) **David Holland** Company: **MBAS** Date: **8/25/11** Time: **16:00**
 Received by: (Signature and Printed Name) _____ Company: _____
 Relinquished by: (Signature and Printed Name) _____ Company: _____ Date: _____ Time: _____
 Received by: (Signature and Printed Name) _____ Company: _____

Received for Lab by: (Signature and Printed Name) **Bo Simontabana** Date: **8/25/11** Time: **3:52**
 Shipping Method: **CAO UPS GSO WALK-IN SVC FED EX OTHER**
 Cooling Method: **AWET** RI UF NONE
 Packing Material: _____

Notice: Payment for services rendered as noted herein are due within 30 days from when invoiced. If not so paid, account balances are delinquent. Delinquent balances are subject to promptly service-charging charges and interest calculated at 1.17% per month, 1.8% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, costs of collections, including attorney's fees incurred, prior to or in litigation, whether concluded by judgment, settlement, compromise or otherwise. The person signing for the client/Company represents and warrants that they are either the Client or authorized agent to the Client, and the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any modification of the analysis requested, either type or quantities, will be noted and agreed upon this Chain of Custody. The turn-around time for any samples received after 3:00 pm will begin the next business day. SPM-2011-00 (Rev 08/2011)

Sample Integrity

Pg. 1 of 2

A1H2316
Monte6227

08/26/2011
10



Date Received 8/26/11

Section 1- Receiving Information

Sample Transport: ONTRAC UPS PMS Walk-In BSK-Courier GSO Fed Exp. Other: _____

Samples arrived at lab on same day sampled: Yes _____ No X Has Chilling Process Begun: Yes V No _____

Coolers/Ice Chests Description/Temperature(s): (If more than 5 received, list information in comment section)

1) 6 2) _____ 3) _____ 4) _____ 5) _____

Was Temperature In Range: Y N N/A Received On Ice: Wet Blue Received Ambient: Y N

Describe type of packing materials: ~~Bubble Wrap~~ Foam Packing Peanuts ~~Paper~~ Other: _____

Initial Receipt: BSK-Visalia BSK-Bakersfield BSK-SAC BSK-FAD

Were ice chest custody seals present? Y N Intact: Y N

Section 2- COC Info.	Completed		Info From Container		Completed		Info From Container
	Yes	No			Yes	No	
Was COC Received	<u>Y</u>			Analysis Requested	<u>Y</u>		
Date Sampled	<u>8/26/11</u>			Hold times less than 72hr		<u>Y</u>	
Time Sampled	<u>11:00</u>			Client Name	<u>Y</u>		
Sample ID	<u>1111</u>			Address	<u>Y</u>		
Special Storage/Handling Ins.		<u>Y</u>		Telephone #	<u>Y</u>		

Section 3- Bottles / Analysis	Yes	No	N/A	Comment
Did all bottles arrive unbroken and intact?	<u>Y</u>			
Were bottle custody seals present?		<u>Y</u>		
Were bottle custody seals intact?		<u>Y</u>		
Did all bottle labels agree with COC?	<u>Y</u>			
Were correct containers used for the tests requested?	<u>Y</u>			
Were correct preservations used for the tests requested?	<u>Y</u>			
Was a sufficient amount of sample sent for tests indicated?	<u>Y</u>			
Were bubbles present in VOA Vials? (Volatile Methods Only)		<u>Y</u>		
Were Ascorbic Acid Bottles received with the VOAs?		<u>Y</u>		

Section 4- Comments / Discrepancies

Sample(s) Split/Preserve: Yes No Container: _____ Preservation: _____ Dt/Time/Init _____

Container: _____ Preservation: _____ Dt/Time/Init _____

Was Client Service Rep. notified of discrepancies: Yes No N/A CSR: _____ Notified By/Time: _____

Explanations / Comments

Report Comment Entered:

Labeled by: JLH @ 1411 Labels checked by: JLH @ 15:20 RUSH Paged by: _____ @ _____

BSK Bottles (Yes) No



250ml (A) 500ml (B) 1Liter (C) Amber Glass (AG)

Container(s) Received					
Bacti Na ₂ S ₂ O ₃					
None (p) ^{White Cap}					
None (p) ^{Blue Cap} w/NH4 + Buffer					
HNO ₃ (p) ^{Red Cap}					
H ₂ SO ₄ (p) ^{Yellow Cap}					
NaOH (p) ^{Green Cap}					
EDA (p) ^{Brown Cap/Label}					
Other:					
Dissolved Oxygen 300ml (g)					
250ml (AG) None					
250ml (AG) H ₂ SO ₄ COD ^{Yellow Label}					
250ml (AG) Na ₂ S ₂ O ₃ 515, 547 ^{Blue Label}					
250ml (AG) Na ₂ S ₂ O ₃ + MCAA 531.1 ^{Orange Label}					
250ml (AG) NH ₄ Cl 552 ^{Purple Label}	1				
250ml (AG) EDA DBPs ^{Brown Label}					
250ml (AG) Other:					
500ml (AG) None					
500ml (AG) H ₂ SO ₄ ^{Yellow Label}					
1 Liter (AG) None					
1 Liter (AG) H ₂ SO ₄ O&G / TPH-Diesel ^{Yellow Label}					
1 Liter (AG) Na ₂ S ₂ O ₃ 548 / 525 / 521 ^{Blue Label}					
1 Liter (P) Na ₂ S ₂ O ₃ + H ₂ SO ₄ 549					
1 Liter (AG) NaOH+ZnAc Sulfide					
40ml VOA Vial Clear - HCL					
40ml VOA Vial Clear - Buffer pH.4					
40ml VOA Vial Clear - None					
40ml VOA Vial Amber - Na ₂ S ₂ O ₃	3				
40ml VOA Vial Clear - Na ₂ S ₂ O ₃ 504, 505					
40ml VOA Vial Clear - H ₃ PO ₄					
Other:					
1/2 Gallon (p)					
Asbestos 1Liter Plastic/Foil					
Radon 200ml Clear (g)					
Low Level Hg/Metals Double Baggie					
Bioassay Jug					
Ampule					
PT Sample Bottle					
250 Clear Glass Jar					
500 Clear Glass Jar					
1 Liter Clear Glass Jar					
Plastic Bag					
Soil Tube Brass / Steel / Plastic					
Tedlar Bags					

8/26/11
S



Pueblo Water Resources, Inc
 Michael Burke
 4478 Market St., Suite 705
 Ventura, CA 93003

4 Justin Court Suite D, Monterey, CA 93940
 831.375.MBAS
 montereybayanalytical@usa.net
 ELAP Certification Number: 2385

Lab Number: AA70533

Collection Date/Time: 10/22/2010 7:00
 Submittal Date/Time: 10/22/2010 9:20

Sample Collector: MARKS R
 Sample ID

Sample Description: SMSTW

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Alkalinity, Total (as CaCO3)	2320B	mg/L	249		2		10/22/2010
Aluminum, Total	EPA200.8	ug/L	Not Detected		10	1000	10/27/2010
Ammonia-N	4500NH3 D	mg/L	Not Detected		0.05		11/5/2010
Arsenic, Total	EPA200.8	ug/L	4		1	10	10/27/2010
Barium, Total	EPA200.8	ug/L	50		10	1000	10/27/2010
Bicarbonate (as HCO3-)	2320B	mg/L	304		10		10/22/2010
Boron	EPA200.7	mg/L	0.08		0.05		10/22/2010
Bromide	EPA300.0	mg/L	0.18		0.05		10/22/2010
Calcium	EPA200.7	mg/L	76		0.5		10/22/2010
Carbonate as CaCO3	2320B	mg/L	Not Detected		10		10/22/2010
Chloride	EPA300.0	mg/L	107		1	250	10/22/2010
Chromium, Total	EPA200.8	ug/L	5		2	50	10/27/2010
Copper, Total	EPA200.8	ug/L	Not Detected		4	1300	10/27/2010
Dissolved Organic Carbon	SM5310-C	mg/L	0.71	E	0.2		11/1/2010
Fluoride	EPA300.0	mg/L	0.14		0.10	2.0	10/22/2010
Haloacetic Acids	EPA552	ug/L	Not Detected	E		60	11/2/2010
Hardness (as CaCO3)	2340B	mg/L	264		10		12/1/2010
Heterotrophic Plate Count	SimPlate	MPN/mL	270		2		10/22/2010
Hydrogen Sulfide	SM4500-S2- F	ug/L	4		2		10/28/2010
Iodide	EPA9056M	ug/L	52	E	10		11/1/2010
Iron	EPA 200.7	ug/L	21		10		10/22/2010
Iron, Dissolved	EPA 200.7	ug/L	21		10	300	10/22/2010
Kjehldahl Nitrogen	4500-NH3 B,C,E	mg/L	Not Detected		0.2		11/2/2010
Langlier Index (15 deg. C)	2330B		0.43				11/8/2010
Langlier Index (60 deg. C)	2330B		1.02				11/8/2010
Lead, Total	EPA200.8	ug/L	Not Detected		5	15	10/27/2010
Lithium	EPA200.8	ug/L	36		1		10/27/2010
Magnesium	EPA200.7	mg/L	18		0.5		10/22/2010
Manganese, Dissolved	EPA 200.7	ug/L	27		10	50	10/22/2010
Manganese, Total	EPA 200.7	ug/L	27		10	50	10/22/2010
MBAS (Surfactants)	5540C	mg/L	Not Detected		0.05	0.50	10/28/2010
Mercury, Total	EPA200.8	ug/L	Not Detected		0.5	2	10/27/2010
Methane	EPA174/175	ug/L	Not Detected	E	5		11/1/2010
Nickel, Total	EPA200.8	ug/L	Not Detected		10	100	10/27/2010
Nitrate as NO3	EPA300.0	mg/L	1		1	45	10/22/2010
Nitrate as NO3-N	EPA300.0	mg/L	0.16		0.05	10	10/22/2010
Nitrite as NO2-N	EPA300.0	mg/L	Not Detected		0.05	1.00	10/22/2010

mg/L: Milligrams per liter ug/L : Micrograms per liter PQL : Practical Quantitation Limit MCL: Maximum Contamination Level
 H = Analyzed outside of hold time E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

Lab Number: AA70533

Collection Date/Time: 10/22/2010 7:00
 Submittal Date/Time: 10/22/2010 9:20

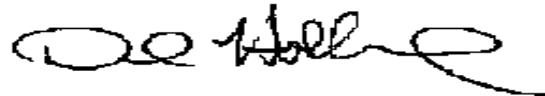
Sample Collector: MARKS R
 Sample ID

Sample Description: SMSTW

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
o-Phosphate-P	EPA300.0	mg/L	Not Detected		0.05		10/22/2010
pH (Laboratory)	4500-H+B	STD. Units	7.7				10/22/2010
Phosphorus, Total	HACH 8190	mg/L	0.03		0.03		11/13/2010
Potassium	EPA200.7	mg/L	4.5		0.1		10/22/2010
QC Anion Sum x 100	Calculation	%	96%				12/1/2010
QC Anion-Cation Balance	Calculation	%	3				12/1/2010
QC Cation Sum x 100	Calculation	%	103%				12/1/2010
QC Ratio TDS/SEC	Calculation		0.60				12/1/2010
SAR (Sodium Adsorption Ratio)	Suarez, 1981		2.7				12/1/2010
SAR, Adjusted	Suarez, 1981		3.5				12/1/2010
Selenium, Total	EPA200.8	ug/L	Not Detected		2	50	10/27/2010
Silica as SiO2, Total	EPA200.7	mg/L	42		0.5		10/22/2010
Sodium	EPA200.7	mg/L	102		0.5		10/22/2010
Specific Conductance (E.C)	2510B	umhos/cm	954		1	900	10/22/2010
Strontium Isotopic analyses by TIMS	TIMS		0.709085	E			12/2/2010
Strontium, Total	EPA200.8	ug/L	403		5		10/29/2010
Sulfate	EPA300.0	mg/L	56		1	250	10/22/2010
Sulfides	SM4500-S2- D	ug/L	28		2		10/28/2010
Total Diss. Solids	2540C	mg/L	575		10	500	10/26/2010
Total Nitrogen	Calculation	mg/L	Not Detected		0.5		12/1/2010
Total Organic Carbon	SM5310C	mg/L	0.70	E	0.20		11/1/2010
Trihalomethanes	EPA524.2	ug/L	Not Detected	E		80	10/27/2010

Sample Comments:

Report Approved by:



David Holland, Laboratory Director

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Dear David Holland,

Thank you for selecting BSK Analytical Laboratories for your analytical testing needs. We have prepared this report in response to your request for analytical services. Enclosed are the results of analyses for samples received by the laboratory on 10/26/2010 08:30.

If additional clarification of any information is required, please contact your Client Services Representative, Paul Erickson at (800) 877-8310 or (559) 497-2888.

BSK ANALYTICAL LABORATORIES



Paul Erickson
Client Services Representative

Case Narrative

Work Order Information

Client Name: Monterey Bay Analytical	Submitted by: David Holland
Client Code: Monte6227	Shipped by: ONTRAC
Work Order: A0J1758	COC Number:
Project: General Chemistry	TAT: 10
Client Project: Pueblo Water Resources, INC.	PO #:

Sample Receipt Conditions

Cooler:	Default Cooler	Temp. °C:	5
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Containers Intact
COC/Labels Agree
Received On Wet Ice
Received On Blue Ice
Packing Material - Bubble Wrap
Sample(s) were received in temperature range.
Initial receipt at BSK-FAL

Report Manager

David Holland

Report Format

FAL Final Report.rpt



Certificate of Analysis

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

Report Issue Date: 11/04/2010 15:16
Received Date: 10/26/2010
Received Time: 08:30

Lab Sample ID: A0J1758-01
Sample Date: 10/22/2010 07:00
Sample Type: Grab

Client Project: Pueblo Water Resources, INC.
Sampled by: Marks, R.
Matrix: Water

Sample Description: SMSTW // 70533

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qualifiers
Dissolved Organic Carbon	SM 5310 C	0.71	0.20	mg/L	1	A010780	11/01/10	11/01/10	
Total Organic Carbon	SM 5310 C	0.70	0.20	mg/L	1	A010781	11/01/10	11/01/10	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qualifiers
Total Trihalomethanes by EPA 524.2									
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A010615	10/27/10	10/27/10	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A010615	10/27/10	10/27/10	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A010615	10/27/10	10/27/10	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A010615	10/27/10	10/27/10	

Total Trihalomethanes by EPA 524.2

Total Trihalomethanes EPA 524.2 ND ug/L

Haloacetic Acids

Dibromoacetic Acid (DBAA)	EPA 552.2	ND	1.0	ug/L	1	A010736	10/29/10	11/02/10	
Dichloroacetic Acid (DCAA)	EPA 552.2	ND	1.0	ug/L	1	A010736	10/29/10	11/02/10	
Monobromoacetic Acid (MBAA)	EPA 552.2	ND	1.0	ug/L	1	A010736	10/29/10	11/02/10	
Monochloroacetic Acid (MCAA)	EPA 552.2	ND	2.0	ug/L	1	A010736	10/29/10	11/02/10	
Trichloroacetic Acid (TCAA)	EPA 552.2	ND	1.0	ug/L	1	A010736	10/29/10	11/02/10	

Haloacetic Acids

Total Haloacetic Acids (HAA) EPA 552.2 ND ug/L

	<u>Method</u>	<u>Result</u>	
Surrogate: Bromofluorobenzene	EPA 524.2	87 %	Acceptable range: 70-130 %
Surrogate: 2,3-Dibromopropionic Acid	EPA 552.2	121 %	Acceptable range: 70-130 %



General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
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Batch: A010780

Analyst: SAB

Prepared & Analyzed: 11/01/2010

Blank (A010780-BLK1) SM 5310 C - Quality Control

Dissolved Organic Carbon ND 0.20 mg/L

Blank Spike (A010780-BS1) SM 5310 C - Quality Control

Dissolved Organic Carbon 10 0.20 mg/L 10 101 80-120

Blank Spike Dup (A010780-BSD1) SM 5310 C - Quality Control

Dissolved Organic Carbon 10 0.20 mg/L 10 101 80-120 0.2 20

Batch: A010781

Analyst: SAB

Prepared & Analyzed: 11/01/2010

Blank (A010781-BLK1) SM 5310 C - Quality Control

Total Organic Carbon ND 0.20 mg/L

Blank Spike (A010781-BS1) SM 5310 C - Quality Control

Total Organic Carbon 10 0.20 mg/L 10 103 80-120

Blank Spike Dup (A010781-BSD1) SM 5310 C - Quality Control

Total Organic Carbon 10 0.20 mg/L 10 103 80-120 0 20

Matrix Spike (A010781-MS1) SM 5310 C - Quality Control

Source: A0J1757-04

Total Organic Carbon 13 0.20 mg/L 10 2.8 102 80-120

Matrix Spike (A010781-MS2) SM 5310 C - Quality Control

Source: A0J1758-01

Total Organic Carbon 11 0.20 mg/L 10 0.70 102 80-120

Matrix Spike Dup (A010781-MSD1) SM 5310 C - Quality Control

Source: A0J1757-04

Total Organic Carbon 13 0.20 mg/L 10 2.8 102 80-120 0.1 20

Matrix Spike Dup (A010781-MSD2) SM 5310 C - Quality Control

Source: A0J1758-01

Total Organic Carbon 11 0.20 mg/L 10 0.70 102 80-120 0.7 20



Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
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Batch: A010615

Analyst: JGB

Prepared & Analyzed: 10/27/2010

Blank (A010615-BLK1) EPA 524.2 - Quality Control

Bromodichloromethane	ND	0.50	ug/L							
Bromoform	ND	0.50	ug/L							
Chloroform	ND	0.50	ug/L							
Dibromochloromethane	ND	0.50	ug/L							
<i>Surrogate: Bromofluorobenzene</i>		4.9		5.0		98	70-130			

Blank Spike (A010615-BS1) EPA 524.2 - Quality Control

Bromodichloromethane	4.5	0.50	ug/L	5.0		90	70-130			
Bromoform	4.6	0.50	ug/L	5.0		92	70-130			
Chloroform	5.3	0.50	ug/L	5.0		105	70-130			
Dibromochloromethane	4.4	0.50	ug/L	5.0		87	70-130			
<i>Surrogate: Bromofluorobenzene</i>		4.6		5.0		93	70-130			

Blank Spike Dup (A010615-BSD1) EPA 524.2 - Quality Control

Bromodichloromethane	5.1	0.50	ug/L	5.0		102	70-130	12	30	
Bromoform	5.5	0.50	ug/L	5.0		110	70-130	17	30	
Chloroform	6.0	0.50	ug/L	5.0		121	70-130	14	30	
Dibromochloromethane	5.2	0.50	ug/L	5.0		103	70-130	17	30	
<i>Surrogate: Bromofluorobenzene</i>		5.3		5.0		106	70-130			

Batch: A010736

Analyst: KHH

Prepared: 10/29/2010 Analyzed: 11/02/2010

Blank (A010736-BLK1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							
Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		25		25		98	70-130			
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		25		25		102	70-130			

Blank Spike (A010736-BS1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10		103	70-130			
Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10		104	70-130			
Dichloroacetic Acid (DCAA)	9.5	1.0	ug/L	10		95	70-130			
Dichloroacetic Acid (DCAA)	9.6	1.0	ug/L	10		96	70-130			
Monobromoacetic Acid (MBAA)	9.2	1.0	ug/L	10		92	70-130			
Monobromoacetic Acid (MBAA)	9.5	1.0	ug/L	10		95	70-130			
Monochloroacetic Acid (MCAA)	11	2.0	ug/L	10		109	70-130			

A0J1758 FINAL 11042010 1516

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
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Batch: A010736

Analyst: KHH

Prepared: 10/29/2010 Analyzed: 11/02/2010

Blank Spike (A010736-BS1) EPA 552.2 - Quality Control

Monochloroacetic Acid (MCAA)	13	2.0	ug/L	10		128	70-130			
Trichloroacetic Acid (TCAA)	9.9	1.0	ug/L	10		99	70-130			
Trichloroacetic Acid (TCAA)	9.9	1.0	ug/L	10		99	70-130			
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		30		25		120	70-130			
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		31		25		123	70-130			

Blank Spike Dup (A010736-BSD1) EPA 552.2 - Quality Control

Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10		102	70-130	0.5	30	
Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10		104	70-130	0.2	30	
Dichloroacetic Acid (DCAA)	9.7	1.0	ug/L	10		97	70-130	1	30	
Dichloroacetic Acid (DCAA)	10	1.0	ug/L	10		100	70-130	4	30	
Monobromoacetic Acid (MBAA)	9.3	1.0	ug/L	10		93	70-130	0.6	30	
Monobromoacetic Acid (MBAA)	9.6	1.0	ug/L	10		96	70-130	1	30	
Monochloroacetic Acid (MCAA)	11	2.0	ug/L	10		114	70-130	5	30	
Monochloroacetic Acid (MCAA)	13	2.0	ug/L	10		126	70-130	1	30	
Trichloroacetic Acid (TCAA)	10	1.0	ug/L	10		102	70-130	3	30	
Trichloroacetic Acid (TCAA)	10	1.0	ug/L	10		103	70-130	4	30	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		30		25		121	70-130			
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		30		25		122	70-130			

Duplicate (A010736-DUP1) EPA 552.2 - Quality Control

Source: A0J1777-01

Dibromoacetic Acid (DBAA)	2.0	1.0	ug/L	1.9				9	30	
Dichloroacetic Acid (DCAA)	12	1.0	ug/L	12				3	30	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L	ND					30	
Monochloroacetic Acid (MCAA)	4.5	2.0	ug/L	4.2				6	30	
Trichloroacetic Acid (TCAA)	13	1.0	ug/L	12				7	30	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		29		25		116	70-130			

Matrix Spike (A010736-MS1) EPA 552.2 - Quality Control

Source: A0J1667-05

Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10	0.41	97	70-130			
Dichloroacetic Acid (DCAA)	12	1.0	ug/L	10	ND	118	70-130			
Monobromoacetic Acid (MBAA)	9.8	1.0	ug/L	10	0.24	95	70-130			
Monochloroacetic Acid (MCAA)	12	2.0	ug/L	10	0.54	115	70-130			
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10	1.7	90	70-130			
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		25		25		101	70-130			

Matrix Spike Dup (A010736-MSD1) EPA 552.2 - Quality Control

Source: A0J1667-05

Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10	0.41	98	70-130	1		
Dichloroacetic Acid (DCAA)	12	1.0	ug/L	10	ND	117	70-130	1		
Monobromoacetic Acid (MBAA)	9.8	1.0	ug/L	10	0.24	95	70-130	0.2		
Monochloroacetic Acid (MCAA)	12	2.0	ug/L	10	0.54	111	70-130	4		

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
---------	--------	----	-------	-------------	---------------	------	-------------	-----	-----------	------------

Batch: A010736

Analyst: KHH

Prepared: 10/29/2010 Analyzed: 11/02/2010

Matrix Spike Dup (A010736-MSD1) EPA 552.2 - Quality Control

Source: A0J1667-05

Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10	1.7	94	70-130	4		
Surrogate: 2,3-Dibromopropionic Acid		28		25		112	70-130			

Certificate of Analysis

11/04/2010

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
- Sample(s) received, prepared, and analyzed within the method specified criteria unless otherwise noted within this report.
- The results relate only to the samples analyzed in accordance with test(s) requested by the client on the Chain of Custody document. Any analytical quality control exceptions to method criteria that are to be considered when evaluating these results have been flagged and are defined in the data qualifiers section.
- All results are expressed on wet weight basis unless otherwise specified.
- All positive results for EPA Methods 504.1, 502.2, and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Results contained in this analytical report must be reproduced in its entirety.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- BSK Analytical Laboratories certifies that the test results contained in this report meet all requirements of the NELAC Standards for applicable certified drinking water chemistry analyses unless qualified or noted in the Case Narrative.
- Analytical data contained in this report may be used for regulatory purposes to meet the requirements of the Federal or State drinking water, wastewater, and hazardous waste programs.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals. Samples submitted to the laboratory have been analyzed outside of this holding time requirement.
- * - This is not a NELAP accredited analyte.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- (2) The digestion used to produce this result deviated from EPA 200.2 by excluding hydrochloric acid in order to produce acceptable recoveries for affected metals.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.

Certifications:

State of California - CDPH - ELAP	1180
State of California - CDPH - NELAP	04227CA
State of New Mexico - NMED-DWB	
State of Nevada - NDEP	CA000792009A

Definitions and Flags for Data Qualifiers

mg/L:	Milligrams/Liter (ppm)	M:	Method Detection Limit	MDA:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)		:DL x Dilution	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	ND:	None Detected at RL	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	pCi/L:	Picocuries per Liter	Present:	1 or more CFU/100mLs
				RL Mult:	RL Multiplier

A0J1758

Monterey Bay Analytical

Monte6227

10262010

Monterey Bay Analytical
No Project

Turnaround: Standard
Due Date: 11/09/2010

Sample ID	Sample Description	Date Sampled	Lab Notes
A0J1758-01	SMSTW	10/22/2010	

BSK ANALYTICAL LABORATORIES

1414 Stanislaus Street, Fresno, CA 93706-1623
 (559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

A011758
 Montec6227

* Required Fields

TEMP: _____

Client/Company Name * **Monterey Bay Analytical** Report Attention * **David Holland** Phone # * **(831)-357-6227** FAX # * **(831)-641-0734**
 Address * **4 Justin Ct.** City * **Monterey** State * **CA** Zip * **93940** E-mail: **4MBAS@sbglobal.net**

ANALYSIS REQUESTED

Project Information: **Pueblo Water Resources, INC.** PO # **Quote # 464**

Carbon Copies: CDHS Fresno Co EPA Merced Co Tulare Co Other: _____

How would you like your completed results sent? E-Mail Fax EDD Mail Only
 Sampler Name Printed / Signature **Marks, R.** QC Request STD Level II Result Request ** Surcharge STD 5 Day** 2 Day** 1 Day**

Regulatory Compliance Electronic Data Transfer System No. * Y N Z

Matrix Types: **RSW = Raw Surface Water** **CFW = Chlorinated Finished Water** **CWW = Chlorinated Waste Water** **BW = Bottled Water** **RGW = Raw Ground Water** **FW = Finished Water** **WW = Waste Water** **SW = Storm Water** **DW = Drinking Water** **SO = Solid**

TTHM
 HAA5
 DOC
 TOC

Sample #	Bottles	Sampled		Sample Description / Location *	Matrix *	Comments / Station Code														
		Date	Time																	
1	2	10/22/10	7:00	SMSTW	DW	70533	✓	✓	✓	✓										
Relinequished by: (Signature and Printed Name) David Holland Company MBAS Date 10/25/10 Time 1600 Relinequished by: (Signature and Printed Name) _____ Company _____ Date _____ Time _____ Received for Lab by: (Signature and Printed Name) _____ Date 10/14/10 Time 830 Received by: (Signature and Print Name) _____ Company _____ Payment Received at Delivery: _____ Date _____ Amount _____ Check/Cash/Card P/a _____ Init _____ Shipping Method: CAO UPS GSO WALK-IN SVC FEDEX OTHER Cooling Method: WET BLUE NONE Packing Material: _____																				

Notice: Payment for services rendered as noted herein are due in full within 30 days from when invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service-chilling charges and interest calculated at 1.12% per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, costs of collections, including attorneys fees incurred prior to or in litigation whether conducted by judgment, settlement, compromise or otherwise. The person signing for the client/Company expressly indemnifies and holds harmless that they are either the Client or authorized agent to the Client and the Client agrees to be responsible for payment for analytical services on the Chain of Custody. Any modification of the analysis requested, either type or quantity, will be noted and agreed upon the Chain of Custody. The run around time for any samples received after 3:00 pm will begin the next business day.

Sample Integrity

Pg. 1 of 2 WOI



Date Received 10/26/10

Section 1- Receiving Information

Sample Transport: ONTRAC UPS PMS Walk-In BSK-Courier GSO Fed Exp. Other: _____

Samples arrived at lab on same day sampled: Yes _____ No X (If Yes- Temperature is not needed)

Coolers/Ice Chests Description/Temperature(s): (If more than 1 received, list information in comment section)

1) 5 2) UAA 4) _____

Was Temperature In Range: Y N N/A Received On Ice: Wet Blue Received Ambient: Y N

Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other: _____

Initial Receipt: BSK-Visalia BSK-Bakersfield BSK-SAC BSK-FDL BSK-FAL

Were ice chest custody seals present? Y N Intact: Y N

Section 2- COC Info.

	Completed		Info From Container	Completed		Info From Container			
	Yes	No		Yes	No				
Was COC Received	<u>✓</u>					Analysis Requested	<u>✓</u>		
Date Sampled	<u>✓</u>					Any hold times less than 72hr		<u>✓</u>	
Time Sampled	<u>✓</u>					Client Name	<u>✓</u>		
Sample ID	<u>✓</u>					Address	<u>✓</u>		
Special Storage/Handling Ins.						Telephone #	<u>✓</u>		

Section 3- Bottles / Analysis

	Yes	No	N/A	Comment
Did all bottles arrive unbroken and intact?	<u>✓</u>			
Were bottle custody seals present?		<u>✓</u>		
Were bottle custody seals intact?		<u>✓</u>		
Did all bottle labels agree with COC?	<u>✓</u>			
Were correct containers used for the tests requested?	<u>✓</u>			
Were correct preservations used for the tests requested?	<u>✓</u>			
Was a sufficient amount of sample sent for tests indicated?	<u>✓</u>			
Were bubbles present in VOA Vials? (Volatile Methods Only)			<u>✓</u>	
Were Ascorbic Acid Bottles received with the VOAs?			<u>✓</u>	

Section 4- Comments / Discrepancies

Sample(s) Split/Preserve: Yes No Container: _____ Preservation: _____ Dt/Time/Init _____

Container: _____ Preservation: _____ Dt/Time/Init _____

Was Client Service Rep. notified of discrepancies: Yes No N/A CSR: _____ Notified By: _____

Explanations / Comments

Report Comment Entered:

Labeled by: 88 @ 1030 Labels checked by: MAA @ 1129

88 1110

Sample Integrity Pg 2 of 2

BSK Bottles

WOI
Yes No



250ml (A) 500ml (B) 1Liter (C) Amber Glass (AG)

Container(s) Received					
Bacti Na ₂ S ₂ O ₃					
None (p) ^{White Cap}					
None (p) ^{Blue Cap} w/NH ₄ + Buffer					
HNO ₃ (p) ^{Red Cap}					
H ₂ SO ₄ (p) ^{Yellow Cap}					
NaOH (p) ^{Green Cap}					
Other:					
Dissolved Oxygen 300ml (g)					
Centrifuge Tube HNO ₃					
250ml (AG) None					
250ml (AG) H ₂ SO ₄ COD ^{Yellow Label}					
250ml (AG) Na ₂ S ₂ O ₃ 515,547 ^{Blue Label}					
250ml (AG) Na ₂ S ₂ O ₃ + MCAA 531.1 ^{Orange Label}					
250ml (AG) NH ₄ Cl 552 ^{Purple Label}	1				
250ml (AG) EDA DBPs ^{Brown Label}					
250ml (AG) Other:					
500ml (AG) None					
500ml (AG) H ₂ SO ₄ TPH-Diesel ^{Yellow Label}					
1 Liter (AG) None					
1 Liter (AG) H ₂ SO ₄ O&G ^{Yellow Label}					
1 Liter (AG) Na ₂ S ₂ O ₃ 548 / 525 / 521 ^{Blue Label}					
1 Liter (P) Na ₂ S ₂ O ₃ + H ₂ SO ₄ 549					
1 Liter (AG) NaOH+ZnAc Sulfide					
1 Liter (AG) Ascorbic/EDTA/Pot Citrate 527 ^{Grey Label}					
1 Liter (AG) CuSO ₄ /Trizma 529 ^{Turquoise Label}					
1 Liter (AG) Na ₂ SO ₃ / HCL 525 UCMR ^{Neon Green Label}					
1 Liter (AG) Ammonium Chloride 535 ^{Purple Label}					
40ml VOA Vial Clear - HCL					
40ml VOA Vial Amber - Na ₂ S ₂ O ₃	3				
40ml VOA Vial Clear - None					
40ml VOA Vial Clear - Na ₂ S ₂ O ₃ 504, 505					
40ml VOA Vial Clear - H ₃ PO ₄	3				
Other:					
Asbestos 1Liter Plastic/Foil					
Radon 200ml Clear (g)					
Low Level Hg/Metals Double Baggie					
Bioassay Jug					
250 Clear Glass Jar					
500 Clear Glass Jar					
1 Liter Clear Glass Jar					
Plastic Bag					
Soil Tube Brass / Steel / Plastic					
Tedlar Bags					

1A

1

3

3

MM
10/26/10



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940	Client Project ID: Pueblo, INC.	Date Sampled: 10/22/10
		Date Received: 10/27/10
	Client Contact: David Holland	Date Reported: 11/02/10
	Client P.O.:	Date Completed: 11/02/10

WorkOrder: 1010750

November 02, 2010

Dear David:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **Pueblo, INC.,**
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

1010750

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701

Website: www.mccampbell.com Email: main@mccampbell.com

Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

- RUSH
 24 HR
 48 HR
 72 HR
 5 DAY
- GeoTracker EDF
 PDF
 Excel
 Write On (DW)

Report To: David Holland Bill To:

Company: Monterey Bay Analytical Services

4 Justin Ct. Suite D

Monterey, Ca 93940 E-Mail: 4mbas@sbcglobal.net

Tele: (831) 641 - 0734 Fax: (831) 375 - 6227

Project #: Project Name: Pueblo, INC.

Project Location:

Sampler Signature: Marks, R.

Analysis Request

- MTBE / BTEX & TPH as Gas (602 / 8021 + 8015)
- MTBE / BTEX ONLY (EPA 602 / 8021)
- TPH as Diesel / Motor Oil (8015)
- Total Petroleum Oil & Grease (1664 / 5520 E/B&F)
- Total Petroleum Hydrocarbons (418.1)
- EPA 502.2 / 601 / 8010 / 8021 (HVOCs)
- EPA 505/ 608 / 8081 (CI Pesticides)
- EPA 608 / 8082 PCB'S ONLY; Aroclors / Congeners
- EPA 507 / 8141 (NP Pesticides)
- EPA 515 / 8151 (Acidic CI Herbicides)
- EPA 524.2 / 624 / 8260 (VOCs)
- EPA 525.2 / 625 / 8270 (SVOCs)
- EPA 8270 SIM / 8310 (PAHs / PNAs)
- CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)
- LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)
- Lead (200.7 / 200.8 / 6010 / 6020)
- Methane

Other Comments

Filter
Samples
for Metals
analysis:
Yes / No

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED							
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other				
	SMSTW	10/22/10	7:00	1 set	gl	X											X	70533

Relinquished By: *David Holland* Date: 10/25/10 Time: 16:00 Received By: *Mel Vall* 10/27/10 2:45p

Relinquished By: Date: Time: Received By:

Relinquished By: Date: Time: Received By:

COMMENTS:
 ICE# *10-8*
 GOOD CONDITION
 HEAD SPACE ABSENT
 DECHLORINATED IN LAB
 APPROPRIATE CONTAINERS
 PRESERVED IN LAB
 VOAS O&G METALS OTHER
 PRESERVATION pH<2

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1010750

ClientCode: MBAS

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

David Holland
 Monterey Bay Analytical
 4 Justin Court, Suite D
 Monterey, CA 93940
 831-375-6227 FAX 831-641-0734

Email: 4mbas@sbcglobal.net
 cc:
 PO:
 ProjectNo: Pueblo, INC.

Bill to:

Accounts Payable
 Monterey Bay Analytical
 4 Justin Court, Suite D
 Monterey, CA 93940

Requested TAT: 5 days

Date Received: 10/27/2010

Date Printed: 10/27/2010

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)													
					1	2	3	4	5	6	7	8	9	10	11	12		
1010750-001	SMSTW	Water	10/22/2010 7:00	<input type="checkbox"/>	A													

Test Legend:

1	RSK174 W	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Monterey Bay Analytical**

Date and Time Received: **10/27/2010 3:35:06 PM**

Project Name: **Pueblo, INC.**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **1010750** Matrix Water

Carrier: UPS

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
- Container/Temp Blank temperature Cooler Temp: 10.8°C NA
- Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
- Sample labels checked for correct preservation? Yes No
- Metal - pH acceptable upon receipt (pH<2)? Yes No NA
- Samples Received on Ice? Yes No

(Ice Type: BLUE ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
 Web: www.mcccampbell.com E-mail: main@mcccampbell.com
 Telephone: 877-252-9262 Fax: 925-252-9269

Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940	Client Project ID: Pueblo, INC.	Date Sampled: 10/22/10
		Date Received: 10/27/10
	Client Contact: David Holland	Date Extracted: 11/01/10
	Client P.O.:	Date Analyzed 11/01/10

Light Gas Hydrocarbons*

Extraction method RSK 174/175

Analytical methods RSK174/175

Work Order: 1010750

Lab ID	Client ID	Matrix	Methane	DF	% SS	Comments
1010750-001A	SMSTW	W	ND	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.4	µg/L
	S	NA	NA

* water samples are reported in µg/L.
 %SS = Percent Recovery of Surrogate Standard
 DF = Dilution Factor



QC SUMMARY REPORT FOR RSK174/175

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 53933

WorkOrder 1010750

EPA Method RSK174/175		Extraction RSK 174/175							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Methane	N/A	1.17	N/A	N/A	N/A	94.9	95.2	0.352	N/A	N/A	80 - 120	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 53933 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1010750-001A	10/22/10 7:00 AM	11/01/10	11/01/10 6:15 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Geochronology and Isotopic Geochemistry

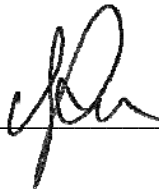
Work Order No.: **A10-7796**

Date: **December 2, 2010**

Customer: **Monterey Bay Analytical Services**
Project name:
Number of samples: **1**
Sample type: **water**
Analytical works: **Sr analysis by TIMS**
Contact person: **David Holland**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

CERTIFIED BY:



Dr. Yakov Kapusta
Geochronology and Isotopic Geochemistry
General Manager

I. Sr Isotope analysis

II. Sr Isotope analysis

Rb and Sr were separated using conventional cation-exchange techniques. The analysis was performed on multi-collector mass-spectrometer (TIMS) in static mode.

Sample	$^{87}\text{Sr}/^{86}\text{Sr}$	+/-2s
SMSTW	0.709085	0.000010

Long term reproducibility of NBS-987: 0.710238 ± 0.000018



AMERICAN WATER

AMERICAN WATER WORKS SERVICE COMPANY, INC.

Central Laboratory - 1115 South Illinois Street Belleville, IL 62220-3102
Phone: (618)235-3600 - Fax: (618)235-6349



DBP Analysis Report

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility ID:
Site ID: 2710004-048

Date of Report: 07/15/10
Drinking Water Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location	PARALTA WELL	Collection Date:	07/08/10	Received Date:	07/09/10
Sample Type	RAW	Collection Time:	13:35	Received Time:	09:00
		SDG:	791029	Received Temp:	3 °C

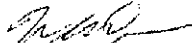
Case Narrative:

Results are at or above the reporting limit for the following analytes:

- BROMODICHLOROMETHANE
- CHLORODIBROMOMETHANE
- CHLOROFORM

TOTAL HAA (5) Result: 0
TOTAL THM Result: 8.1

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Technical Director or Designee

CA	703
10070041	
COC and Report Number	

Report Details

Sample Number: CP61997

Regulated Haloacetic Acids	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time	
DIBROMOACETIC ACID		SM6251BMOD	82721		1.0	ND	ug/L	BC	07/14/10	20:34
DICHLOROACETIC ACID		SM6251BMOD	77288		1.0	ND	ug/L	BC	07/14/10	20:34
MONOBROMOACETIC ACID		SM6251BMOD	A-041		1.0	ND	ug/L	BC	07/14/10	20:34
MONOCHLOROACETIC ACID		SM6251BMOD			1.0	ND	ug/L	BC	07/14/10	20:34
TRICHLOROACETIC ACID		SM6251BMOD			1.0	ND	ug/L	BC	07/14/10	20:34
HAA5 TOTAL		SM6251BMOD	A-049	60	1.0	ND	ug/L	BC	07/14/10	20:34

Sample Number: CP61997

Unregulated Haloacetic Acids	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time	
BROMOCHLOROACETIC ACID		SM6251BMOD	A-038		1.0	ND	ug/L	BC	07/14/10	20:34

Sample Number: CP62000

Trihalomethanes	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time	
BROMOFORM		502.2R2.1	32104		0.5	ND	ug/L	CRK	07/10/10	00:02
BROMODICHLOROMETHANE		502.2R2.1	32101		0.5	2.5	ug/L	CRK	07/10/10	00:02
CHLORODIBROMOMETHANE		502.2R2.1	32105		0.5	0.7	ug/L	CRK	07/10/10	00:02
CHLOROFORM		502.2R2.1	32106		0.5	4.9	ug/L	CRK	07/10/10	00:02
TOTAL TRIHALOMETHANES		502.2R2.1	82080	80	0.5	8.1	ug/L	CRK	07/10/10	00:02



CA	703
10070041	
COC and Report Number	

Starting Sample: CP61997



AMERICAN WATER

AMERICAN WATER WORKS SERVICE COMPANY, INC.

Central Laboratory - 1115 South Illinois Street Belleville, IL 62220-3102
Phone: (618)235-3600 - Fax: (618)235-6349



Inorganic Chemical (IOC) Analysis Report

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility:
Site ID: 2710004-048

Date of Report: 07/15/10
Drinking Water Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location PARALTA WELL
Sample Type RAW

Collection Date: 07/08/10
Collection Time: 13:35
SDG: 791029

Received Date: 07/09/10
Received Time: 09:00
Received Temp: 3 °C

Case Narrative:

Results are at or above the reporting limit for the following analytes:

ARSENIC	SELENIUM
MOLYBDENUM	MANGANESE
BARIUM	STRONTIUM

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Technical Director or Designee



CA 703

10040544

COC and Report Number

Starting Sample: CP30349

Page 1 of 2

Report Details

Sample Number: CP30349

ICP Metals	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
IRON		200.7R4.4	01045	0.3(s)	0.06	ND	mg/L	LG	07/12/10 13:12
STRONTIUM		200.7R4.4			0.050	0.296	mg/L	LG	07/12/10 13:12

Sample Number: CP30349

ICP/MS Metals	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
ARSENIC		200.8R5.4	01002	0.010	0.001	0.002	mg/L	LG	07/13/10 13:28
SELENIUM		200.8R5.4		0.05	0.002	0.003	mg/L	LG	07/13/10 13:28
BARIUM		200.8R5.4	01007	1	0.001	0.051	mg/L	LG	07/12/10 12:35
MANGANESE		200.8R5.4	01055	0.05(s)	0.010	0.023	mg/L	LG	07/12/10 12:35
ZINC		200.8R5.4	01092	5.0(s)	0.050	ND	mg/L	LG	07/12/10 12:35
MOLYBDENUM		200.8R5.4	01062		0.001	0.009	mg/L	LG	07/12/10 12:35
VANADIUM		200.8R5.4	01087		0.050	ND	mg/L	LG	07/12/10 12:35



CA	703
10040544	
COC and Report Number	

Starting Sample: CP30349



AMERICAN WATER

AMERICAN WATER WORKS SERVICE COMPANY, INC.

Central Laboratory - 1115 South Illinois Street Belleville, IL 62220-3102
Phone: (618)235-3600 - Fax: (618)235-6349



DBP Analysis Report

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility ID:
Site ID: 2710004-048

Date of Report: 12/03/10
Lab Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location PARATTA WELL
Sample Type RAW

Collection Date: 11/09/10
Collection Time: 13:30
SDG: 11121015

Received Date: 11/12/10
Received Time: 09:00
Received Temp: 6 °C

Case Narrative:

Results are at or above the reporting limit for the following analytes:

MONOCHLOROACETIC ACID BROMODICHLOROMETHANE
CHLOROFORM

TOTAL HAA (5) Result: 1.2

TOTAL THM Result: 5.2

Revised report to correct DV Code per utility request

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Technical Director or Designee



CA 703
10080215
COC and Report Number

REVISED
12/3/2010

Starting Sample: CP69671
Page 1 of 2

Report Details

Sample Number: CP69671

Regulated Haloacetic Acids	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time	
DIBROMOACETIC ACID		SM6251BMOD	82721		1.0	ND	ug/L	KAY	11/18/10	03:21
DICHLOROACETIC ACID		SM6251BMOD	77288		1.0	ND	ug/L	KAY	11/18/10	03:21
MONOBROMOACETIC ACID		SM6251BMOD	A-041		1.0	ND	ug/L	KAY	11/18/10	03:21
MONOCHLOROACETIC ACID		SM6251BMOD			1.0	1.2	ug/L	KAY	11/18/10	03:21
TRICHLOROACETIC ACID		SM6251BMOD			1.0	ND	ug/L	KAY	11/18/10	03:21
HAA5 TOTAL		SM6251BMOD	A-049	60	1.0	1.2	ug/L	KAY	11/18/10	03:21

Sample Number: CP69671

Unregulated Haloacetic Acids	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time	
BROMOCHLOROACETIC ACID		SM6251BMOD	A-038		1.0	ND	ug/L	KAY	11/18/10	03:21

Sample Number: CP69674

Trihalomethanes	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time	
BROMOFORM		502.2R2.1	32104		0.5	ND	ug/L	TD	11/13/10	02:43
BROMODICHLOROMETHANE		502.2R2.1	32101		0.5	1.1	ug/L	TD	11/13/10	02:43
CHLORODIBROMOMETHANE		502.2R2.1	32105		0.5	ND	ug/L	TD	11/13/10	02:43
CHLOROFORM		502.2R2.1	32106		0.5	4.1	ug/L	TD	11/13/10	02:43
TOTAL TRIHALOMETHANES		502.2R2.1	82080	80	0.5	5.2	ug/L	TD	11/13/10	02:43



CA 703

10080215

COC and Report Number

REVISED
12/3/2010

Starting Sample: CP69671

Page 2 of 2



AMERICAN WATER

AMERICAN WATER WORKS SERVICE COMPANY, INC.

Central Laboratory - 1115 South Illinois Street Belleville, IL 62220-3102
Phone: (618)235-3600 - Fax: (618)235-6349



Inorganic Chemical (IOC) Analysis Report

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility:
Site ID: 2710004-048

Date of Report: 11/19/10
Drinking Water Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location: PARALTA WELL
Sample Type: RAW

Collection Date: 11/09/10
Collection Time: 13:30
SDG: 11121014

Received Date: 11/12/10
Received Time: 09:00
Received Temp: 13 °C

Case Narrative:

Results are at or above the reporting limit for the following analytes:

ARSENIC	SELENIUM
MOLYBDENUM	MANGANESE
BARIUM	STRONTIUM

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Technical Director or Designee



CA 703
10080990
COC and Report Number

Starting Sample: CP71786
Page 1 of 2

Report Details

Sample Number: CP71786

ICP Metals	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
IRON		200.7R4.4	01045	0.3(s)	0.06	ND	mg/L	JLG	11/15/10 12:50
STRONTIUM		200.7R4.4			0.050	0.313	mg/L	JLG	11/15/10 12:50

Sample Number: CP71786

ICP/MS Metals	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
ARSENIC		200.8R5.4	01002	0.010	0.001	0.002	mg/L	LKR	11/18/10 13:54
BARIUM		200.8R5.4	01007	1	0.001	0.053	mg/L	LKR	11/18/10 13:54
MANGANESE		200.8R5.4	01055	0.05(s)	0.010	0.026	mg/L	LKR	11/18/10 13:54
SELENIUM		200.8R5.4	01147	0.05	0.002	0.003	mg/L	LKR	11/18/10 13:54
ZINC		200.8R5.4	01092	5.0(s)	0.050	ND	mg/L	LKR	11/18/10 13:54
MOLYBDENUM		200.8R5.4	01062		0.001	0.006	mg/L	LKR	11/18/10 13:54
VANADIUM		200.8R5.4	01087		0.050	ND	mg/L	LKR	11/18/10 13:54



CA 703
10080990
 COC and Report Number



Cal Am Water Company
Susy Jacobson / Leslie Jordan
511 Pacific Lodge Road, Suite 100
Pacific Grove, CA 93950

4 Justin Court Suite D, Monterey, CA 93940
831.375.MBAS
montereybayanalytical@usa.net
ELAP Certification Number: 2385

Page 1 of 1

Thursday, August 12, 2010

Lab Number: AA67417

Collection Date/Time: 7/8/2010 10:35 Sample Collector: JACOBSON S
Submittal Date/Time: 7/8/2010 14:11 Sample ID

Sample Description: Ord Grove Well 02

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Chloramines	SM4500-Cl G	mg/L	Not detected		0.05		7/8/2010
Chlorine Residual (Field Test)	4500-Cl G	mg/L	0.04		0.05	2.00	7/8/2010
Dissolved Oxygen	4500-O G	mg/L	6.00		0.5		7/8/2010
Lithium	EPA200.8	ug/L	17		1		8/3/2010
Methane	EPA174/175	ug/L	1.0	E	5		7/22/2010

Sample Comments:

Lab Number: AA67418

Collection Date/Time: 7/8/2010 13:35 Sample Collector: JACOBSON S
Submittal Date/Time: 7/8/2010 14:11 Sample ID

Sample Description: Paralta Well

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Chloramines	SM4500-Cl G	mg/L	Not detected		0.05		7/8/2010
Chlorine Residual (Field Test)	4500-Cl G	mg/L	0.05		0.05	2.00	7/8/2010
Dissolved Oxygen	4500-O G	mg/L	6.70		0.5		7/8/2010
Lithium	EPA200.8	ug/L	21		1		8/3/2010
Methane	EPA174/175	ug/L	0.69	E	5		7/22/2010

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

Certificate of Analysis

Leslie Jordan
 California American Water
 PO Box 951
 Monterey, CA 93942-0951

Report Issue Date: 8/13/2010 14:46
 Received Date: 07/15/2010
 Received Time: 09:00

Lab Sample ID: A0G1095-02

Sample Date: 07/08/2010 13:35

Sample Type: Grab

Sampled by: Susy Jacobson

Matrix: Ground Water

Sample Description: Paralta Well

Metals

Analyte	Method	Result	RL	Units	Dil.	Batch	Prepared	Analyzed	Qualifiers
*Uranium	EPA 200.8	ND	1.0	ug/L	1	A006346	07/26/10	07/26/10	
*Uranium, Radiological		< 0.67		pCi/L					

Radiological

Analyte	Method	Result	Units	MDA	Batch	Prepared	Analyzed	Qualifiers
*Gross Alpha	EPA 00-02	2.65	pCi/L	2.41	A006333	07/26/10	07/26/10	
*1.65 Sigma Uncertainty		0.290	±					



Pace Analytical Services, Inc.
 1638 Roseytown Road - Suites 2,3,4
 Greensburg, PA 15601
 (724)850-5600

ANALYTICAL RESULTS

Project: A0G1095
 Pace Project No.: 3031484

Sample: A0G1095-01/Ord Grove Well 02		Lab ID: 3031484001	Collected: 07/08/10 10:35	Received: 07/26/10 10:00	Matrix: Drinking Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	1.91 ± 0.718 (0.484)	pCi/L	08/05/10 10:59	13982-63-3	
Radium-228	EPA 904.0	1.35 ± 0.486 (0.853)	pCi/L	08/11/10 12:17	15262-20-1	

Sample: A0G1095-02/Paralta Well		Lab ID: 3031484002	Collected: 07/08/10 13:35	Received: 07/26/10 10:00	Matrix: Drinking Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	2.03 ± 0.733 (0.677)	pCi/L	08/05/10 10:59	13982-63-3	
Radium-228	EPA 904.0	2.01 ± 0.513 (0.811)	pCi/L	08/11/10 12:18	15262-20-1	





Pace Analytical Services, Inc.
 1638 Roseytown Road - Suites 2,3,4
 Greensburg, PA 15601
 (724)850-5600

ANALYTICAL RESULTS

Project: A0K0907
 Pace Project No.: 3037757

Sample: A0K0907-01/Ord Grove Well 02		Lab ID: 3037757001	Collected: 11/09/10 13:00	Received: 11/23/10 10:00	Matrix: Drinking Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	3.14 ± 0.938 (0.198)	pCi/L	12/09/10 13:22	13982-63-3	

Sample: A0K0907-02/Paralta Well		Lab ID: 3037757002	Collected: 11/09/10 13:30	Received: 11/23/10 10:00	Matrix: Drinking Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	1.12 ± 0.639 (0.694)	pCi/L	12/09/10 13:22	13982-63-3	

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RADIOACTIVITY ANALYSIS (9/99)

Date of Report: 10/12/15 Sample ID No. 3037757002/K0907-02
 Laboratory Signature Lab
 Name: PACE ANALYTICAL SERVICES, INC-GREENSBURG Director: David M. ...
 Name of Sampler: Susy Jacobson Employed By: CA American Water
 Date/Time Sample Date/Time Sample Date Analyses
 Collected: 10/11/09/1300 Received @ Lab: 10/11/23/1000 Completed: 10/12/09

System System
 Name: CAL AM WATER COMPANY - MONTEREY Number: 2710004
 Name or Number of Sample Source: PARALTA WELL - RAW

 * User ID: HEN Station Number: 2710004-C48 *
 * Date/Time of Sample: [10|11|09|1300] Laboratory Code: 0010 *
 * YY MM DD TTTT YY MM DD *
 * Date Analysis completed: [10|12|09| *
 * Submitted by: Phone #: *

MCL REPORT	CHEMICAL	STORET	ANALYSES	DLR
UNITS		CODE	RESULTS	
pCi/L	TITLE 22 CALIFORNIA CODE OF REGULATIONS			
pCi/L	SECTION 64442 (22 CCR 64442)			
15 pCi/L	Gross Alpha	01501		3.0
pCi/L	Gross Alpha Counting Error	01502		
pCi/L	Gross Alpha MDA95 *	A-072		
20 pCi/L	Uranium	28012		1.0
pCi/L	Uranium Counting Error	A-028		
pCi/L	Uranium MDA95	A-073		
pCi/L	Radium 226	09501	1.12	1.0
pCi/L	Radium 226 Counting Error	09502	0.639	
pCi/L	Radium 226 MDA95	A-074		
pCi/L	Radium 228	11501		1.0
pCi/L	Radium 228 Counting Error	11502		
pCi/L	Radium 228 MDA95	A-075		
5 pCi/L	Ra 226 + Ra 228, Combined	11503		
pCi/L	Ra 226 + Ra 228 Counting Error, Combined	11504		
pCi/L	Ra 226 + Ra 229 MDA95, Combined	A-076		
pCi/L	RADIUM, TOTAL, (FOR NTNC ONLY, BY 903.0)			
pCi/L	Radium, Total	A-380		
pCi/L	Radium, Total, Counting Error	A-381		
pCi/L	Radium, Total, MDA95	A-082		
pCi/L	TITLE 22 CALIFORNIA CODE OF REGULATIONS			
pCi/L	SECTION 64443 (22 CCR 64443)			
50 pCi/L	Gross Beta	03501		4.0

	pCi/L Gross Beta Counting Error	03502		
	pCi/L Gross Beta MDA95	A-077		
4	pCi/L Gross Beta, Calculated Dose Equivalent *	A-071		
8	pCi/L Strontium 90	13501		2.0
	pCi/L Strontium 90 Counting Error	13502		
	pCi/L Strontium 90 MDA95	A-078		
20000	pCi/L Tritium	07000		1000
	pCi/L Tritium Counting Error	07001		
	pCi/L Tritium MDA95	A-079		
	pCi/L RADON			
	pCi/L Radon 222	82303		100.0
	pCi/L Radon 222 Counting Error	82302		
	pCi/L			
	pCi/L *MDA95 is Minimum Detectable Activity at			
	pCi/L the 95% confidence level, per			
	pCi/L 22 CCR 64442 and 64443.			
	pCi/L			
	pCi/L **Gross Beta, Calculated Total Body or			
	pCi/L Organ Dose Equivalent, Per 22 CCR 64443			
	pCi/L			

BSK Analytical Laboratories

EDT

Date of Report: 10|12|17|1229

Sample ID No.: AOK0907-02

Laboratory Name: BSK Analytical Laboratories

Signature Lab Director: 

Name of Sampler: Susy Jacobson

Date/Time Sample

Date/Time Sample

Date Analyses

Collected: 10|11|09|1330

Received @ Lab : 10|11|12|0745

Completed: 10|11|22

System Name: CAL AM WATER COMPANY - MONTEREY

System Number: 2710004

Name or Number of Sample Source: **PARALTA WELL - RAW**

User ID: HEN

Station Number: 2710004-048

Date/Time of Sample: 10|11|09|1330

Laboratory Code: 5810

Submitted by: BSK Analytical Laboratories

Date Analyses Completed: 10|11|22

Phone #: 559-497-2888

MCL	REPORTING UNITS	CHEMICAL	ENTRY #	ANALYSES RESULTS	DLR
-----	-----------------	----------	---------	------------------	-----

Title 22 California Code of Regulations, Section 64442 (22 CCR 64442)

15	pCi/L	Gross Alpha	01501	5.96	3.0
	pCi/L	Gross Alpha Counting Error	01502	± 0.350	
20	pCi/L	Uranium	28012	ND	1.0

Certificate of Analysis

Leslie Jordan
 California American Water
 PO Box 951
 Monterey, CA 93942-0951

Report Issue Date: 12/17/2010 12:30
Received Date: 11/12/2010
Received Time: 07:45

Lab Sample ID: A0K0907-02
Sample Date: 11/09/2010 13:30
Sample Type: Grab

Client Project: ASR Bi-Annual Monitoring/Radiologicals
Sampled by: Susy Jacobson
Matrix: Ground Water

Sample Description: Paralta Well

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Uranium	EPA 200.8	ND	1.0	ug/L	1	A011635	11/22/10	11/22/10	
*Uranium, Radiological		< 0.67		pCi/L					

Radiological

Analyte	Method	Result	Units	MDA	Batch	Prepared	Analyzed	Qual
*Gross Alpha	EPA 00-02	5.96	pCi/L	1.39	A011424	11/17/10	11/18/10	
*1.65 Sigma Uncertainty		0.350	±					



4 Justin Court Suite D, Monterey, CA 93940
831.375.MBAS

montereybayanalytical@usa.net
ELAP Certification Number: 2385

Cal Am Water Company
Susy Jacobson / Leslie Jordan
511 Pacific Lodge Road, Suite 100
Pacific Grove, CA 93950

Thursday, November 18, 2010

Lab Number: AA70946

Collection Date/Time: 11/9/2010 13:30 Sample Collector: JACOBSON, S
Submittal Date/Time: 11/9/2010 14:15 Sample ID

Sample Description: Paralta Well

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Chloramines	SM4500-Cl G	mg/L	Not Detected		0.05		11/9/2010
Dissolved Oxygen	4500-O G	mg/L	5.90		0.5		11/9/2010
Lithium	EPA200.8	ug/L	30		1		11/12/2010
Methane	EPA174/175	ug/L	1.4	E	5		11/15/2010

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed outside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD



AMERICAN WATER

AMERICAN WATER WORKS SERVICE COMPANY, INC.

Central Laboratory - 1115 South Illinois Street Belleville, IL 62220-3102
Phone: (618)235-3600 - Fax: (618)235-6349



DBP Analysis Report

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility ID:
Site ID: 2710004-024

Date of Report: 07/15/10
Drinking Water Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location ORD GROVE WELL 02
Sample Type RAW

Collection Date: 07/08/10
Collection Time: 10:35
SDG: 791029

Received Date: 07/09/10
Received Time: 09:00
Received Temp: 3 °C

Case Narrative:

TOTAL HAA (5) Result: 0
TOTAL THM Result: 0

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Technical Director or Designee



CA 703
10070042
COC and Report Number

Starting Sample: CP62003
Page 1 of 2

Report Details

Sample Number: CP62003

Regulated Haloacetic Acids	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time	
DIBROMOACETIC ACID		SM6251BMOD	82721		1.0	ND	ug/L	BC	07/14/10	21:13
DICHLOROACETIC ACID		SM6251BMOD	77288		1.0	ND	ug/L	BC	07/14/10	21:13
MONOBROMOACETIC ACID		SM6251BMOD	A-041		1.0	ND	ug/L	BC	07/14/10	21:13
MONOCHLOROACETIC ACID		SM6251BMOD			1.0	ND	ug/L	BC	07/14/10	21:13
TRICHLOROACETIC ACID		SM6251BMOD			1.0	ND	ug/L	BC	07/14/10	21:13
HAA5 TOTAL		SM6251BMOD	A-049	60	1.0	ND	ug/L	BC	07/14/10	21:13

Sample Number: CP62003

Unregulated Haloacetic Acids	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time	
BROMOCHLOROACETIC ACID		SM6251BMOD	A-038		1.0	ND	ug/L	BC	07/14/10	21:13

Sample Number: CP62006

Trihalomethanes	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time	
BROMOFORM		502.2R2.1	32104		0.5	ND	ug/L	CRK	07/09/10	22:06
BROMODICHLOROMETHANE		502.2R2.1	32101		0.5	ND	ug/L	CRK	07/09/10	22:06
CHLORODIBROMOMETHANE		502.2R2.1	32105		0.5	ND	ug/L	CRK	07/09/10	22:06
CHLOROFORM		502.2R2.1	32106		0.5	ND	ug/L	CRK	07/09/10	22:06
TOTAL TRIHALOMETHANES		502.2R2.1	82080	80	0.5	ND	ug/L	CRK	07/09/10	22:06



CA	703
10070042	
COC and Report Number	

Starting Sample: CP62003
Page 2 of 2



AMERICAN WATER

AMERICAN WATER WORKS SERVICE COMPANY, INC.

Central Laboratory - 1115 South Illinois Street Belleville, IL 62220-3102
Phone: (618)235-3600 - Fax: (618)235-6349



Inorganic Chemical (IOC) Analysis Report

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility:
Site ID: 2710004-024

Date of Report: 07/15/10
Drinking Water Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location ORD GROVE WELL 02
Sample Type RAW

Collection Date: 07/08/10
Collection Time: 10:35
SDG: 791029

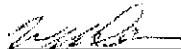
Received Date: 07/09/10
Received Time: 09:00
Received Temp: 3 °C

Case Narrative:

Results are at or above the reporting limit for the following analytes:

- | | |
|----------|------------|
| ARSENIC | MOLYBDENUM |
| SELENIUM | MANGANESE |
| BARIUM | STRONTIUM |

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Technical Director or Designee



CA 703
10040543
COC and Report Number

Starting Sample: CP30348

Report Details

Sample Number: CP30348

ICP Metals	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
IRON		200.7R4.4	01045	0.3(s)	0.06	ND	mg/L	LG	07/12/10 13:07
STRONTIUM		200.7R4.4			0.050	0.362	mg/L	LG	07/12/10 13:07

Sample Number: CP30348

ICP/MS Metals	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
ARSENIC		200.8R5.4	01002	0.010	0.001	0.002	mg/L	LG	07/13/10 13:24
SELENIUM		200.8R5.4		0.05	0.002	0.006	mg/L	LG	07/13/10 13:24
BARIUM		200.8R5.4	01007	1	0.001	0.053	mg/L	LG	07/12/10 12:32
MANGANESE		200.8R5.4	01055	0.05(s)	0.010	0.018	mg/L	LG	07/12/10 12:32
ZINC		200.8R5.4	01092	5.0(s)	0.050	ND	mg/L	LG	07/12/10 12:32
MOLYBDENUM		200.8R5.4	01062		0.001	0.006	mg/L	LG	07/12/10 12:32
VANADIUM		200.8R5.4	01087		0.050	ND	mg/L	LG	07/12/10 12:32



CA	703
10040543	
COC and Report Number	

Starting Sample: CP30348



AMERICAN WATER

AMERICAN WATER WORKS SERVICE COMPANY, INC.

Central Laboratory - 1115 South Illinois Street Belleville, IL 62220-3102
Phone: (618)235-3600 - Fax: (618)235-6349



DBP Analysis Report

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility ID:
Site ID: 2710004-024

Date of Report: 12/03/10
Lab Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location ORD GROVE WELL 02
Sample Type RAW

Collection Date: 11/09/10
Collection Time: 13:00
SDG: 11121015

Received Date: 11/12/10
Received Time: 09:00
Received Temp: 6 °C

Case Narrative:

Results are at or above the reporting limit for the following analytes:

MONOCHLOROACETIC ACID

TOTAL HAA (5) Result: 1.8

TOTAL THM Result: 0

Revised report to correct DV Code per utility request

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Technical Director or Designee



CA 703

10080195

COC and Report Number

**REVISED
12/3/2010**

Starting Sample: CP69594

Page 1 of 2

Report Details

Sample Number: CP69594

Regulated Haloacetic Acids	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time	
DIBROMOACETIC ACID		SM6251BMOD	82721		1.0	ND	ug/L	KAY	11/18/10	02:41
DICHLOROACETIC ACID		SM6251BMOD	77288		1.0	ND	ug/L	KAY	11/18/10	02:41
MONOBROMOACETIC ACID		SM6251BMOD	A-041		1.0	ND	ug/L	KAY	11/18/10	02:41
MONOCHLOROACETIC ACID		SM6251BMOD			1.0	1.8	ug/L	KAY	11/18/10	02:41
TRICHLOROACETIC ACID		SM6251BMOD			1.0	ND	ug/L	KAY	11/18/10	02:41
HAA5 TOTAL		SM6251BMOD	A-049	60	1.0	1.8	ug/L	KAY	11/18/10	02:41

Sample Number: CP69594

Unregulated Haloacetic Acids	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time	
BROMOCHLOROACETIC ACID		SM6251BMOD	A-038		1.0	ND	ug/L	KAY	11/18/10	02:41

Sample Number: CP69598

Trihalomethanes	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time	
BROMOFORM		502.2R2.1	32104		0.5	ND	ug/L	TD	11/12/10	23:35
BROMODICHLOROMETHANE		502.2R2.1	32101		0.5	ND	ug/L	TD	11/12/10	23:35
CHLORODIBROMOMETHANE		502.2R2.1	32105		0.5	ND	ug/L	TD	11/12/10	23:35
CHLOROFORM		502.2R2.1	32106		0.5	ND	ug/L	TD	11/12/10	23:35
TOTAL TRIHALOMETHANES		502.2R2.1	82080	80	0.5	ND	ug/L	TD	11/12/10	23:35

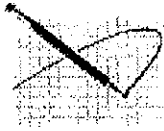


CA 703

10080195
COC and Report Number

REVISED
12/3/2010

Starting Sample: CP69594
Page 2 of 2



Leslie
Jordan/CAWC/AWWSC
12/03/2010 12:52 PM

To Alyssa A Webb/SERVCO/AWWSC@AWW
cc
bcc

Subject November monitoring

Alyssa
Can you please change the DVCode on a couple of samples?

Chain of Custody	Sample Location	Sample Date	Starting Sample	DVCode in
Powerflow 10080195 703	Actual DVCode Ord Grove Well 02	11/09/2010	CP69594	714
10080215 703	Paralta Well	11/09/2010	CP69671	714

Thank you

Leslie

Leslie Q. Jordan, Water Quality Superintendent
California American Water
Central Division
leslie.jordan@amwater.com
1-831-646-3258 (desk)
1-831-236-7533 (cell)
1-831-375-4367 (fax)



AMERICAN WATER WORKS SERVICE COMPANY, INC.

Central Laboratory - 1115 South Illinois Street Belleville, IL 62220-3102
Phone: (618)235-3600 - Fax: (618)235-6349



Inorganic Chemical (IOC) Analysis Report

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility:
Site ID: 2710004-024

Date of Report: 11/19/10
Drinking Water Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location ORD GROVE WELL 02
Sample Type RAW

Collection Date: 11/09/10
Collection Time: 13:00
SDG: 11121014

Received Date: 11/12/10
Received Time: 09:00
Received Temp: 13 °C

Case Narrative:

Results are at or above the reporting limit for the following analytes:

ARSENIC	MOLYBDENUM
SELENIUM	MANGANESE
BARIUM	STRONTIUM

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Technical Director or Designee



CA 703
10080989
CQC and Report Number

Starting Sample: CP71785

Page 1 of 2

Report Details

Sample Number: CP71785

ICP Metals	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
IRON		200.7R4.4	01045	0.3(s)	0.06	ND	mg/L	JLG	11/15/10 12:46
STRONTIUM		200.7R4.4			0.050	0.370	mg/L	JLG	11/15/10 12:46

Sample Number: CP71785

ICP/MS Metals	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
ARSENIC		200.8R5.4	01002	0.010	0.001	0.002	mg/L	LKR	11/18/10 13:50
BARIUM		200.8R5.4	01007	1	0.001	0.052	mg/L	LKR	11/18/10 13:50
MANGANESE		200.8R5.4	01055	0.05(s)	0.010	0.018	mg/L	LKR	11/18/10 13:50
SELENIUM		200.8R5.4	01147	0.05	0.002	0.007	mg/L	LKR	11/18/10 13:50
ZINC		200.8R5.4	01092	5.0(s)	0.050	ND	mg/L	LKR	11/18/10 13:50
MOLYBDENUM		200.8R5.4	01062		0.001	0.006	mg/L	LKR	11/18/10 13:50
VANADIUM		200.8R5.4	01087		0.050	ND	mg/L	LKR	11/18/10 13:50



CA 703
10080989
CDC and Report Number



MONTEREY BAY ANALYTICAL SERVICES

PRECISION • ACCURACY • DEPENDABILITY

4 Justin Court Suite D, Monterey, CA 93940

831.375.MBAS

montereybayanalytical@usa.net

ELAP Certification Number: 2385

Cal Am Water Company
Susy Jacobson / Leslie Jordan
511 Pacific Lodge Road, Suite 100
Pacific Grove, CA 93950

Page 1 of 1

Thursday, August 12, 2010

Lab Number: AA67417

Collection Date/Time: 7/8/2010 10:35
Submittal Date/Time: 7/8/2010 14:11

Sample Collector: JACOBSON S
Sample ID

Sample Description: Ord Grove Well 02

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Chloramines	SM4500-Cl G	mg/L	Not detected		0.05		7/8/2010
Chlorine Residual (Field Test)	4500-Cl G	mg/L	0.04		0.05	2.00	7/8/2010
Dissolved Oxygen	4500-O G	mg/L	6.00		0.5		7/8/2010
Lithium	EPA200.8	ug/L	17		1		8/3/2010
Methane	EPA174/175	ug/L	1.0	E	5		7/22/2010

Sample Comments:

Lab Number: AA67418

Collection Date/Time: 7/8/2010 13:35
Submittal Date/Time: 7/8/2010 14:11

Sample Collector: JACOBSON S
Sample ID

Sample Description: Paralta Well

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Chloramines	SM4500-Cl G	mg/L	Not detected		0.05		7/8/2010
Chlorine Residual (Field Test)	4500-Cl G	mg/L	0.05		0.05	2.00	7/8/2010
Dissolved Oxygen	4500-O G	mg/L	6.70		0.5		7/8/2010
Lithium	EPA200.8	ug/L	21		1		8/3/2010
Methane	EPA174/175	ug/L	0.89	E	5		7/22/2010

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter ug/L: Micrograms per liter PQL: Practical Quantitation Limit MCL: Maximum Contamination Level
H = Analyzed outside of hold time E = Analysis performed by External Laboratory; See External Laboratory Report attachments.



MONTEREY BAY ANALYTICAL SERVICES

PRECISION • ACCURACY • DEFENDABILITY

4 Justin Court Suite D, Monterey, CA 93940

831.375.MBAS

montereybayanalytical@usa.net

ELAP Certification Number: 2385

Cal Am Water Company
Susy Jacobson / Leslie Jordan
511 Pacific Lodge Road, Suite 100
Pacific Grove, CA 93950

Thursday, November 18, 2010

Lab Number: AA70945

Collection Date/Time: 11/9/2010 13:00 Sample Collector: JACOBSON, S
Submittal Date/Time: 11/9/2010 14:15 Sample ID

Sample Description: Ord Grove Well 02

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Chloramines	SM4500-Cl G	mg/L	Not Detected		0.05		11/9/2010
Dissolved Oxygen	4500-O G	mg/L	7.95		0.5		11/9/2010
Lithium	EPA200.8	ug/L	24		1		11/12/2010
Methane	EPA174/175	ug/L	1.1	E	5		11/15/2010

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed outside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD

Certificate of Analysis

Leslie Jordan
 California American Water
 PO Box 951
 Monterey, CA 93942-0951

Report Issue Date: 8/13/2010 14:46
 Received Date: 07/15/2010
 Received Time: 09:00

Lab Sample ID: A0G1095-01

Sample Date: 07/08/2010 10:35

Sample Type: Grab

Sampled by: Susy Jacobson

Matrix: Ground Water

Sample Description: **Ord Grove Well 02**

Metals

Analyte	Method	Result	RL	Units	Dil.	Batch	Prepared	Analyzed	Qualifiers
*Uranium	EPA 200.8	1.1	1.0	ug/L	1	A006346	07/26/10	07/26/10	
*Uranium, Radiological		0.73		pCi/L					

Radiological

Analyte	Method	Result	Units	MDA	Batch	Prepared	Analyzed	Qualifiers
*Gross Alpha	EPA 00-02	5.30	pCi/L	2.41	A006333	07/26/10	07/26/10	
*1.65 Sigma Uncertainty		0.360	±					



Pace Analytical Services, Inc.
 1638 Roseytown Road - Suites 2,3,4
 Greensburg, PA 15601
 (724)850-5600

ANALYTICAL RESULTS

Project: A0G1095
 Pace Project No.: 3031484

Sample: A0G1095-01/Ord Grove Well 02 Lab ID: 3031484001 Collected: 07/08/10 10:35 Received: 07/26/10 10:00 Matrix: Drinking Water

PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	1.91 ± 0.718 (0.484)	pCi/L	08/05/10 10:59	13982-63-3	
Radium-228	EPA 904.0	1.35 ± 0.486 (0.853)	pCi/L	08/11/10 12:17	15262-20-1	

Sample: A0G1095-02/Paralta Well Lab ID: 3031484002 Collected: 07/08/10 13:35 Received: 07/26/10 10:00 Matrix: Drinking Water

PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	2.03 ± 0.733 (0.677)	pCi/L	08/05/10 10:59	13982-63-3	
Radium-228	EPA 904.0	2.01 ± 0.513 (0.811)	pCi/L	08/11/10 12:18	15262-20-1	





Pace Analytical Services, Inc.
 1638 Roseytown Road - Suites 2,3,4
 Greensburg, PA 15601
 (724)850-5600

ANALYTICAL RESULTS

Project: A0K0907
 Pace Project No.: 3037757

Sample: A0K0907-01/Ord Grove Well 02 Lab ID: 3037757001 Collected: 11/09/10 13:00 Received: 11/23/10 10:00 Matrix: Drinking Water

PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	3.14 ± 0.938 (0.198)	pCi/L	12/09/10 13:22	13982-63-3	

Sample: A0K0907-02/Paralta Well Lab ID: 3037757002 Collected: 11/09/10 13:30 Received: 11/23/10 10:00 Matrix: Drinking Water

PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	1.12 ± 0.639 (0.694)	pCi/L	12/09/10 13:22	13982-63-3	



RADIOACTIVITY ANALYSIS (9/99)

Date of Report: 10/12/15 Sample ID No.3037757001/K0907-01
 Laboratory Signature Lab
 Name: PACE ANALYTICAL SERVICES, INC-GREENSBURG Director: *Carol Comaforemk 12/15/10*
 Name of Sampler: Susy Jacobson Employed By: CA American Water
 Date/Time Sample Date/Time Sample Date Analyses
 Collected: 10/11/09/1300 Received @ Lab: 10/11/23/1000 Completed: 10/12/09

=====
 System System
 Name: CAL AM WATER COMPANY - MONTEREY Number: 2710004
 Name or Number of Sample Source: ORD GROVE WELL 02 - RAW

 * User ID: HEN Station Number: 2710004-024 *
 * Date/Time of Sample: |10|11|09|1300| Laboratory Code: 0010 *
 * YY MM DD TTTT YY MM DD *
 * Date Analysis completed: |10|12|09| *
 * Submitted by: Phone #: *

MCL REPORT	CHEMICAL	STORET	ANALYSES	DLR
UNITS		CODE	RESULTS	
pCi/L	TITLE 22 CALIFORNIA CODE OF REGULATIONS			
pCi/L	SECTION 64442 (22 CCR 64442)			
15 pCi/L	Gross Alpha	01501		3.0
pCi/L	Gross Alpha Counting Error	01502		
pCi/L	Gross Alpha MDA95 *	A-072		
20 pCi/L	Uranium	28012		1.0
pCi/L	Uranium Counting Error	A-028		
pCi/L	Uranium MDA95	A-073		
pCi/L	Radium 226	09501	3.14	1.0
pCi/L	Radium 226 Counting Error	09502	0.938	
pCi/L	Radium 226 MDA95	A-074		
pCi/L	Radium 228	11501		1.0
pCi/L	Radium 228 Counting Error	11502		
pCi/L	Radium 228 MDA95	A-075		
5 pCi/L	Ra 226 + Ra 228, Combined	11503		
pCi/L	Ra 226 + Ra 228 Counting Error, Combined	11504		
pCi/L	Ra 226 + Ra 229 MDA95, Combined	A-076		
pCi/L	RADIUM, TOTAL, (FOR NTNC ONLY, BY 903.0)			
pCi/L	Radium, Total	A-080		
pCi/L	Radium, Total, Counting Error	A-081		
pCi/L	Radium, Total, MDA95	A-082		
pCi/L	TITLE 22 CALIFORNIA CODE OF REGULATIONS			
pCi/L	SECTION 64443 (22 CCR 64443)			
50 pCi/L	Gross Beta	03501		4.0

	pCi/L Gross Beta Counting Error	03502		
	pCi/L Gross Beta MDA95	A-077		
4	pCi/L Gross Beta, Calculated Dose Equivalent *	A-071		
8	pCi/L Strontium 90	13501		2.0
	pCi/L Strontium 90 Counting Error	13502		
	pCi/L Strontium 90 MDA95	A-078		
20000	pCi/L Tritium	07000		1000
	pCi/L Tritium Counting Error	07001		
	pCi/L Tritium MDA95	A-079		
	pCi/L RADON			
	pCi/L Radon 222	82303		100.0
	pCi/L Radon 222 Counting Error	82302		
	pCi/L			
	pCi/L *MDA95 is Minimum Detectable Activity at			
	pCi/L the 95% confidence level, per			
	pCi/L 22 CCR 64442 and 64443.			
	pCi/L			
	pCi/L **Gross Beta, Calculated Total Body or			
	pCi/L Organ Dose Equivalent, Per 22 CCR 64443			
	pCi/L			

BSK Analytical Laboratories

EDT

Date of Report: 10|12|17|1229

Sample ID No.: A0K0907-01

Laboratory Name: BSK Analytical Laboratories

Signature Lab Director: 

Name of Sampler: Susy Jacobson

Date/Time Sample Collected: 10|11|09|1300

Date/Time Sample Received @ Lab: 10|11|12|0745

Date Analyses Completed: 10|11|12

System Name: CAL AM WATER COMPANY - MONTEREY

System Number: 2710004

Name or Number of Sample Source: ORD GROVE WELL 02 - RAW

User ID: HEN

Station Number: 2710004-024

Date/Time of Sample: 10|11|09|1300

Laboratory Code: 5810

Submitted by: BSK Analytical Laboratories

Date Analyses Completed: 10|11|12

Phone #: 559-497-2888

MCL	REPORTING UNITS	CHEMICAL	ENTRY #	ANALYSES RESULTS	DLR
Title 22 California Code of Regulations, Section 64442 (22 CCR 64442)					
15	pCi/L	Gross Alpha	01501	5.96	3.0
	pCi/L	Gross Alpha Counting Error	01502	± 0.350	
20	pCi/L	Uranium	28012	ND	1.0

Certificate of Analysis

Leslie Jordan
 California American Water
 PO Box 951
 Monterey, CA 93942-0951

Report Issue Date: 12/17/2010 12:30
Received Date: 11/12/2010
Received Time: 07:45

Lab Sample ID: A0K0907-01
Sample Date: 11/09/2010 13:00
Sample Type: Grab

Client Project: ASR Bi-Annual Monitoring/Radiologicals
Sampled by: Susy Jacobson
Matrix: Ground Water

Sample Description: Ord Grove Well 02

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Uranium	EPA 200.8	1.0	1.0	ug/L	1	A011635	11/22/10	11/22/10	
*Uranium, Radiological		0.70		pCi/L					

Radiological

Analyte	Method	Result	Units	MDA	Batch	Prepared	Analyzed	Qual
*Gross Alpha	EPA 00-02	5.96	pCi/L	1.39	A011424	11/17/10	11/18/10	
*1.65 Sigma Uncertainty		0.350	±					



AMERICAN WATER

AMERICAN WATER WORKS SERVICE COMPANY, INC.

Central Laboratory - 1115 South Illinois Street Belleville, IL 62220-3102
Phone: (618)235-3600 - Fax: (618)235-6349



Inorganic Chemical (IOC) Analysis Report
PROCESS

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility:
Site ID: 2710004-048

Date of Report: 08/02/11
Lab Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location: PARALTA WELL
Sample Type RAW

Collection Date: 07/27/11
Collection Time: 12:00
SDG: 72811-15

Received Date: 07/28/11
Received Time: 09:15
Received Temp: 5 °C

Case Narrative:

Process Sample - Analyte(s) is(are) not acceptable for compliance purposes.

Results are at or above the reporting limit for the following analytes:

- | | |
|-----------|-----------|
| ARSENIC | SELENIUM |
| MANGANESE | BORON |
| STRONTIUM | MAGNESIUM |
| CALCIUM | SODIUM |

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Technical Director or Designee



CA 703
11072086
COC and Report Number

Starting Sample: CS78706

Report Details

Sample Number: CS78706

ICP Metals	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
IRON		200.7R4.4	01045	0.3(s)	0.1	ND	mg/L	LG	07/29/11 16:50
CALCIUM		200.7R4.4	00916		1	62	mg/L	LG	07/29/11 16:50
MAGNESIUM		200.7R4.4	00927		1	15	mg/L	LG	07/29/11 16:50
POTASSIUM		200.7R4.4	00937		5	ND	mg/L	LG	07/29/11 16:50
SODIUM		200.7R4.4			0.2	80.6	mg/L	LG	07/29/11 16:50
STRONTIUM		200.7R4.4			0.1	0.3	mg/L	LG	07/29/11 16:50

Sample Number: CS78706

ICP/MS Metals	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
ARSENIC		200.8R5.4	01002	0.010	0.001	0.002	mg/L	LKR	07/29/11 19:37
BARIUM		200.8R5.4	01007	1	0.1	ND	mg/L	LKR	07/29/11 19:37
MANGANESE		200.8R5.4	01055	0.05(s)	0.010	0.022	mg/L	LKR	07/29/11 19:37
NICKEL		200.8R5.4	01067	0.1	0.005	ND	mg/L	LKR	07/29/11 19:37
SELENIUM		200.8R5.4	01147	0.05	0.002	0.003	mg/L	LKR	07/29/11 19:37
ZINC		200.8R5.4	01092	5.0(s)	0.050	ND	mg/L	LKR	07/29/11 19:37
BORON		200.8R5.4	01020		0.050	0.081	mg/L	LKR	07/29/11 19:37
MOLYBDENUM		200.8R5.4	01062		0.1	ND	mg/L	LKR	07/29/11 19:37
VANADIUM		200.8R5.4	01087		0.050	ND	mg/L	LKR	07/29/11 19:37

CA 703

11072086

COC and Report Number

Starting Sample: CS78706

Page 2 of 2



Jul 2011

618-235-3600

Belleville, IL 62220-3102

1115 South Illinois Street

American Water Central Laboratory

SPEC-PROC

PWSID:
Facility ID:

CA 703
MONTEREY DISTRICT

CHAIN OF CUSTODY # 11072086



PRIOR TO SHIPPING - COMPLETE ALL FIELDS

Location: PARALTA WELL

SiteID: 2710004-048

Sample Type (RAW, EFF, DIST, etc.): Raw

Sampler's First Initial and Last Name: S. JACOBSON

Date Sampled: 07/27/11 Time Sampled: 1200 Military (24 hr) Format

Contact Person: SUSAN JACOBSON

Contact Phone # 831-646-3259

Relinquished by 1 [Signature] 2 3 4

Date/Time Releing 1 [Signature] 2 3 4

For compliance purposes? NO

State Reporting by Lab? NO

CCR Report?: NO

FOR LAB USE ONLY

Temperature: 11072086

Temperature, C: 5

Tracking #: 1Z8336200142156084

Shipping Method: UPS

Received Date: 07/28/2011 72811-15

Received Time: 09:15 ULogin: NO

Received by: MS Logged By TS

Lab Comments:

COMMENTS:
ASRB - Annual P/2 Chg in (End Season)
on-line

Sample ID #	QC Type	Analysis	Method	Pre-Preservation	FIELD PRESERVATION			Analysis Codes
					Preservation Description	Date	Time	
CS78706		METALS	EPA 200.8	Nitric Acid	None			\$2008CAASR



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AMERICAN WATER WORKS SERVICE COMPANY, INC.

Central Laboratory - 1115 South Illinois Street Belleville, IL 62220-3102
Phone: (618)235-3600 - Fax: (618)235-6349



DBP Analysis Report

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility ID:
Site ID: 2710004-048

Date of Report: 08/03/11
Drinking Water Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location	PARALTA WELL	Collection Date:	07/27/11	Received Date:	07/28/11
Sample Type	RAW	Collection Time:	12:00	Received Time:	09:15
		SDG:	72811-15	Received Temp:	5 °C

Case Narrative:

Results are at or above the reporting limit for the following analytes:

BROMODICHLOROMETHANE

CHLOROFORM

TOTAL HAA (5) Result: 0

TOTAL THM Result: 9.8

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Technical Director or Designee



CA	703
11052756	
COC and Report Number	

Starting Sample: CS53555

Report Details

Sample Number: CS53555

Regulated Haloacetic Acids	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time	
DIBROMOACETIC ACID		552.3R1.0	82721		1.0	ND	ug/L	BC	08/02/11	13:31
DICHLOROACETIC ACID		552.3R1.0	77288		1.0	ND	ug/L	BC	08/02/11	13:31
MONOBROMOACETIC ACID		552.3R1.0	A-041		1.0	ND	ug/L	BC	08/02/11	13:31
MONOCHLOROACETIC ACID		552.3R1.0			2.0	ND	ug/L	BC	08/02/11	13:31
TRICHLOROACETIC ACID		552.3R1.0			1.0	ND	ug/L	BC	08/02/11	13:31
HAA5 TOTAL		552.3R1.0	A-049	60	1.0	ND	ug/L	BC	08/02/11	13:31

Sample Number: CS53555

Unregulated Haloacetic Acids	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time	
BROMOCHLOROACETIC ACID		552.3R1.0	A-038		1.0	ND	ug/L	BC	08/02/11	13:31

Sample Number: CS53557

Trihalomethanes	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time	
BROMOFORM		524.2R4.1	32104		0.5	ND	ug/L	CRK	07/28/11	12:35
BROMODICHLOROMETHANE		524.2R4.1	32101		0.5	2.0	ug/L	CRK	07/28/11	12:35
DIBROMOCHLOROMETHANE		524.2R4.1	32105		0.5	ND	ug/L	CRK	07/28/11	12:35
CHLOROFORM		524.2R4.1	32106		0.5	7.8	ug/L	CRK	07/28/11	12:35
TOTAL TRIHALOMETHANES		524.2R4.1	82080	80	0.5	9.8	ug/L	CRK	07/28/11	12:35



CA	703
11052756	
COC and Report Number	

Starting Sample: CS53555
Page 2 of 2

SCHE

American Water Central Laboratory

1115 South Illinois Street

Belleville, IL 62220-3102

618-235-3600

Jun 2011

PWSID: CA2710004

Facility ID:

CHAIN OF CUSTODY # 11052756

CA 703

MONTEREY DISTRICT



PRIOR TO SHIPPING - COMPLETE ALL FIELDS

Location: PARALTA WELL SiteID: 2710004-048

Sample Type (RAW, EFF, DIST, etc.): RAW

Sampler's First Initial and Last Name: S. JACOBSON

Date Sampled: 07/07/11 Time Sampled: 1200 Military (24 hr) Format

Contact Phone # 831-646-3259

Contact Person: SUSAN JACOBSON

Relinquished by: 1 [Signature] 2

Date/Time Relinq: 1 [Signature] 2

For compliance purposes? NO

State Reporting by Lab? NO

CCR Report? NO

Field Chlorine Residual: 0.05 mg/L

FOR LAB USE ONLY

Temperature: C: 5 11052756
Tracking #: 128336200142156084
Shipping Method: UPS
Received Date: 07/28/2011 72811-15
Received Time: 09:15 ULogin:NO
Logged By: TS

Lab Comments

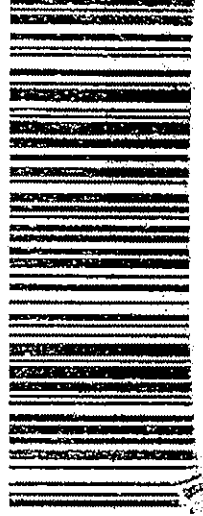
COMMENTS: ASR Bi-Annual 1st/2 (begin/end soon)

m-line

Sample ID #	QC Type	Analysis	Method	Pre-Preservation	FIELD PRESERVATION			Analysis Codes
					Preservation Description	Date	Time	
CS53555		HAA	EPA 552.3	65mg Ammonium Chloride				\$5523
CS53556	DUP	HAA	EPA 552.3	65mg Ammonium Chloride				\$5523
CS53557		TTHM	EPA 524.2	3mg Sodium Thiosulfate				\$5242T
CS53558	DUP	TTHM	EPA 524.2	3mg Sodium Thiosulfate				\$5242T
CS53559	DUP	TTHM	EPA 524.2	3mg Sodium Thiosulfate				\$5242T
CS53560	FB	TTHM	EPA 524.2	3mg Sodium Thiosulfate				\$5242T

UPS NEXT DAY AIR

TRACKING #: 1Z 833 620 01 4215 6084





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Phone: (618)235-3600 - Fax: (618)235-6349



Organic Carbon Analysis Report
PROCESS

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility:
Site ID: 2710004-048

Date of Report: 08/03/11
Lab Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location	PARALTA WELL	Collection Date:	07/27/11	Received Date:	07/28/11
Sample Type	RAW	Collection Time:	12:00	Received Time:	09:15
		SDG:	72811-15	Received Temp:	5 °C

Case Narrative:

Results are at or above the reporting limit for the following analytes:
TOC

Process Sample - Analyte(s) is(are) not acceptable for compliance purposes.

Report Details

Sample Number: CS78710

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
TOC		SM5310C			0.25	0.80	mg/L	RS	07/29/11 17:45

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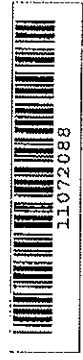
Technical Director or Designee

Starting Sample: CS78710
Page 1 of 1



CA	703
11072088	
COC and Report Number	

CHAIN OF CUSTODY # 11072088



FOR LAB USE ONLY

PRIOR TO SHIPPING - COMPLETE ALL FIELDS

Location: PARALTA WELL SiteID: 8710084-048

Sample Type (RAW, EFF, DIST, etc.): RAW

Sampler's First Initial and Last Name: S. JACOBSON

Date Sampled: 07/27/11 Time Sampled: 1200 Military (24 hr) Format

Contact Person: SUSAN JACOBSON Contact Phone #: 831-646-3259

Relinquished by: [Signature] 2 3 4

Date/Time Relinq: 07/27/11 2 3 4

Temperature, C: 5 11072088

Tracking #: 1Z8336200142156084

Shipping Method: UPS

Received Date: 07/28/2011 72811-15

Received Time: 09:15 ULogin: NO TS

Received by: MS Logged By

Lab Comments:

COMMENTS:

*AS R Bi Annual 1st/2 Chg in End Season
online*

Field Alkalinity Reading: _____ mg/L

Sample ID #	QC Type	Analysis	Method	Pre-Preservation	FIELD PRESERVATION			Analysis Codes
					Preservation Description	Date	Time	
CS78710		TOC	SM 5310C	0.5 ml Phosphoric Acid	None			\$5310CTOC
CS78711	DUP	TOC <u>W</u>	SM 5310C	0.5 ml Phosphoric Acid	None			\$5310CTOC
CS78712	DUP	TOC	SM 5310C	0.5 ml Phosphoric Acid	None			\$5310CTOC

PWSID:
Facility ID:
MONTEREY DISTRICT

SPEC-PROC

American Water Central Laboratory

1115 South Illinois Street

Belleville, IL 62220-3102

618-235-3600

Jul 2011

CA 702 PWSID: Facility ID:
MONTEREY DISTRICT

CHAIN OF CUSTODY # 11072088



PRIOR TO SHIPPING - COMPLETE ALL FIELDS

Location: PARALTA WELL SiteID: 2710004-048

Sample Type (RAW, EFF, DIST, etc.): RAW

Sampler's First Initial and Last Name: S. JACOBSON

Date Sampled: 07/27/11 Time Sampled: 1200 Military (24 hr) Format

Contact Phone # 831-646-3259

Contact Person: SUSAN JACOBSON

Relinquished by: [Signature] 2 3 4

Date/Time Relinq: 07/27/11 1200 2 3 4

For compliance purposes? NO

State Reporting by Lab? NO

CCR Report?: NO

Field Alkalinity Reading: _____ mg/L

COMMENTS:

ASR Bi Annual 1st/2nd Cycle (End Season)
on-line

FOR LAB USE ONLY

Container: _____

Label: _____

Shipping Method: _____

Processed By: _____

Received Date: _____

Received by: _____

Lab Comments: _____

Sample ID #	QC Type	Analysis	Method	Pre-Preservation	FIELD PRESERVATION			Analysis Codes
					Preservation Description	Date	Time	
CS78710		TOC	SM 5310C	0.5 ml Phosphoric Acid	None			\$5310CTOC
CS78711	DUP	TOC	SM 5310C	0.5 ml Phosphoric Acid	None			\$5310CTOC
CS78712	DUP	TOC	SM 5310C	0.5 ml Phosphoric Acid	None			\$5310CTOC

CS78711 red H₂O broken in field
07/27/11



AMERICAN WATER

AMERICAN WATER WORKS SERVICE COMPANY, INC.

Central Laboratory - 1115 South Illinois Street Belleville, IL 62220-3102

Phone: (618)235-3600 - Fax: (618)235-6349



Inorganic Chemical (IOC) Analysis Report PROCESS

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility:
Site ID: 2710004-048

Date of Report: 08/04/11
Lab Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location: PARALTA WELL	Collection Date: 07/27/11	Received Date: 07/28/11
Sample Type: RAW	Collection Time: 12:00	Received Time: 09:15
	SDG: 72811-15	Received Temp: 5 °C

Case Narrative:

Process Sample - Analyte(s) is(are) not acceptable for compliance purposes.

Results are at or above the reporting limit for the following analytes:

TOTAL KJELDAHL NITROGEN (TKN)

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Technical Director or Designee



CA	703
11072082	
COC and Report Number	

Starting Sample: CS78702

Report Details

Sample Number: CS78702

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
TOTAL KJELDAHL NITROGEN (TKN)		351.2R2.0			0.25	0.31	mg/L	RE	08/03/11 14:16

Sample Number: CS78702

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
Minerals TOTAL PHOSPHORUS		385.4			0.1	ND	mg/L	RE	08/03/11 14:16

CA 703

11072082

COC and Report Number

Starting Sample: CS78702

Page 2 of 2



SPEC-PROC

American Water Central Laboratory

1115 South Illinois Street

Belleville, IL 62220-3102

618-235-3600

Jul 2011

PWSID: CA 703
Facility ID: MONTEREY DISTRICT

CHAIN OF CUSTODY # 11072082



PRIOR TO SHIPPING - COMPLETE ALL FIELDS

Location: PARALTA WELL
 Site ID: 2710004-048
 Sample Type (RAW, EFF, DIST, etc.): RAW
 Sampler's First Initial and Last Name: S. Jacobson
 Date Sampled: 5/18/11
 Time Sampled: 1200
 Military (24 hr) Format: 4
 Contact Person: SUSAN JACOBSON
 Contact Phone #: 831-646-3259
 Relinquished by: 1
 Date/Time Relinq: 5/18/11 2
 For compliance purposes: NO
 State Reporting by Lab?: NO
 CCR Report?: NO

FOR LAB USE ONLY

Temperature, C: 5
 Tracking #: 128336200142155084
 Shipping Method: UPS
 Shipping Date: 07/28/2011
 Received Time: 09:15
 Received by: MS
 Tracking #: 72811-15
 ULogin: NO
 Logged By: TS

Lab Comments:

COMMENTS: AS & B - Annual 15/12 (begin/end season)
 on-line

Sample ID #	QC Type	Analysis	Method	Pre-Preservation	FIELD PRESERVATION			Analysis Codes
					Preservation Description	Date	Time	
CS78702		TPHOS	365.4MOD	NONE	Sulfuric Acid	07/27/11 12:15	SS	\$3664
CS78702		TKN	351.2MOD	NONE	Sulfuric Acid	07/27/11 12:15	SS	\$3512



AMERICAN WATER

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Central Laboratory - 1115 South Illinois Street Belleville, IL 62220-3102
Phone: (618)235-3600 - Fax: (618)235-6349



Inorganic Chemical (IOC) Analysis Report
PROCESS

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility:
Site ID: 2710004-048

Date of Report: 08/04/11
Lab Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location: PARALTA WELL
Sample Type RAW

Collection Date: 07/27/11
Collection Time: 12:00
SDG: 72811-15

Received Date: 07/28/11
Received Time: 09:15
Received Temp: 5 °C

Case Narrative:

Process Sample - Analyte(s) is(are) not acceptable for compliance purposes.

Results are at or above the reporting limit for the following analytes:

MANGANESE - Dissolved	NITRATE-N
DOC	ALKALINITY (as CaCO3)
Total Dissolved Solids (TDS)	SULFATE
CONDUCTIVITY	CHLORIDE

For sample number CS78700:

See Report Details M14 - Matrix related quality control for the sample batch did not meet control limits.

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Technical Director or Designee



CA	703
11072080	
COC and Report Number	

Starting Sample: CS78700

Report Details

Sample Number: CS78700

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
ALKALINITY (as CaCO3)		SM2320B	00410		7	192	mg/L	RE	07/28/11 18:53
DOC		SM5310C			0.25	0.77	mg/L	RS	07/29/11 17:28
Total Dissolved Solids (TDS)		SM2540C	70300	500 (s)	135	460	mg/L	RE	07/28/11 14:10

M14

Sample Number: CS78700

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
Minerals									
NITRATE-N		300.0R2.1		10	0.1	0.2	mg/L	AMH	07/28/11 19:22
NITRITE-N		300.0R2.1		1	0.1	ND	mg/L	AMH	07/28/11 19:22

Sample Number: CS78700

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
Other									
CONDUCTIVITY		SM2510B	00095		1	710	umhos/cm	MS	07/29/11 12:15

Sample Number: CS78700

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
Minerals									
CHLORIDE		300.0R2.1A		250(s)	1.0	85.5	mg/L	MS	07/29/11 07:26
ORTHO-PHOSPHATE-P		300.0R2.1			0.25	ND	mg/L	AMH	07/28/11 19:22
SULFATE		300.0R2.1A		250(s)	0.5	68.3	mg/L	MS	07/29/11 07:26

Sample Number: CS78700

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
ICP Metals									
IRON - Dissolved		200.7R4.4		0.3(s)	0.1	ND	mg/L	LG	07/29/11 18:06

Sample Number: CS78700

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
ICP/MS Metals									
MANGANESE - Dissolved		200.8R5.4		0.05(s)	0.010	0.021	mg/L	LKR	07/29/11 19:56



CA 703
11072080
 COC and Report Number

Starting Sample: CS78700

CHAIN OF CUSTODY # 11072080

PWSID: Facility ID: MONTEREY DISTRICT



FOR LAB USE ONLY

PRIOR TO SHIPPING - COMPLETE ALL FIELDS

Location: PARALTA WELL
 SiteID: 2710084-048
 Sample Type (RAW, EFF, DIST, etc.): RAW
 Sampler's First Initial and Last Name: S. JACOBSON
 Date Sampled: 07/27/11 Time Sampled: 1200 Military (24 hr) Format
 Contact Person: SUSAN JACOBSON
 Relinquished By: [Signature] 2 3 4
 Date/Time Relinquished: 07/27/11 2 3 4
 For compliance purposes? NO
 State Reporting by Lab? NO
 CCR Report?: NO

Filtered By: _____
 Field Alkalinity Reading: _____ mg/L

COMMENTS: ASR Bi Annual 1st/2 Chagrin-Emperson
 on-line Δ Orthophosphate as P

Sample ID #	QC Type	Analysis	Method	Pre-Preservation	FIELD PRESERVATION			Analysis Codes
					Preservation Description	Date	Time	
CS78700	DOC		SM 5210C	None				\$5310CDOC
CS78700	METALS		EPA 200.8	None	Nitric Acid added at Lab	07/27/11	1315	\$2008MM-D
CS78700	METALS		EPA 200.7R4.4	None	Nitric Acid added at Lab	07/27/11	1315	\$2007FE-D
CS78700	ALKALINITY		SM 232D	NONE				\$232D
CS78700	TDS		SM 2540C	NONE				\$2540C-TDS
CS78700	* NITRATE & NITRITE		EPA 300.0A	None	include Total Nitrogen			\$NOXILCA
CS78760	Δ ORTHO-PHOSPHATE Only		EPA 300.0A	None	ortho as P			\$6PHOSASPO4
CS78700	MINERALS		EPA 300.0A	None				\$SULFATE
CS78700	CHLORIDE		EPA 300.0A	None				\$CHLORID
CS78700	CONDUCTIVITY		EPA 2510B	NONE				\$2510

MPWMD

SRP
SDI

PS Field

pH 7.42
 TOC 22.2
 chl2 0.05
 conductivity (EC) 755
 DO 6.20 mg/L (MBAS)

* Please include Total Nitrogen



AMERICAN WATER WORKS SERVICE COMPANY, INC.

Central Laboratory - 1115 South Illinois Street Belleville, IL 62220-3102
Phone: (618)235-3600 - Fax: (618)235-6349



**Inorganic Chemical (IOC) Analysis Report
PROCESS**

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility:
Site ID: 2710004-048

Date of Report: 08/04/11
Lab Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location: PARALTA WELL
Sample Type RAW

Collection Date: 07/27/11
Collection Time: 12:00
SDG: 72811-15

Received Date: 07/28/11
Received Time: 09:15
Received Temp: 5 °C

Case Narrative:

Process Sample - Analyte(s) is(are) not acceptable for compliance purposes.

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Technical Director or Designee



CA	703
11072084	
COC and Report Number	

Starting Sample: CS78704

Report Details

Sample Number: CS78704

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
AMMONIA AS N		350.1R2.0MOD			0.05	ND	mg/L	RE	08/02/11 15:17



CA	703
11072084	
COC and Report Number	

Starting Sample: CS78704
Page 2 of 2

SPEC-PROC

American Water Central Laboratory

1115 South Illinois Street

Belleville, IL 62220-3102

618-235-3600

Jul 2011

PWSID:
Facility ID:

CHAIN OF CUSTODY # 11072084



CA 703
MONTEREY DISTRICT

PRIOR TO SHIPPING - COMPLETE ALL FIELDS

Location: PARALTA WELL
 Site ID: 0710004-048
 Sample Type (RAW, EFF, DIST, etc.): RAW
 Sampler's First Initial and Last Name: S. Jacobson
 Date Sampled: 07/27/11 Time Sampled: 1:00 Military (24 hr) Format
 Contact Person # 831-646-3259
 Contact Person: SUSAN JACOBSON
 Relinquished by: 1 [Signature] 2
 Date/Time Relinq: 1 [Signature] 2
 For compliance purposes? NO
 State Reporting by Lab? NO
 CCR Report? NO

FOR LAB USE ONLY

Temperature: C: 5 11972084
 Tracking #: 178336200142156084
 Shipping Method: UPS
 Received Date: 07/28/2011 72811-15
 Received Time: 09:15 ULogin: NO
 Logged By: TS

Lab Comments:

COMMENTS:

ASRB - Annual 1st/2 (Login/End Seam)
on-line

Sample ID #	QC Type	Analysis	Method	Pre-Preservation	FIELD PRESERVATION			Analysis Codes	
					Preservation Description	Date	Time		Initials
CS78704		AMMONIA	EPA 350.1	25 mg Sodium Thiosulfate	Sulfuric Acid	07/27/11	13:15	TS	\$3501

Certificate of Analysis

Leslie Jordan
 California American Water
 PO Box 951
 Monterey, CA 93942-0951

Report Issue Date: 9/2/2011 8:07
Received Date: 07/29/2011
Received Time: 08:15

Lab Sample ID: A1G2314-02
Sample Date: 07/27/2011 12:00
Sample Type: Grab

Client Project: ASR Bi-Annual/Radiologicals
Sampled by: Susy Jacobson
Matrix: Ground Water

Sample Description: Paralta Well

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Uranium	EPA 200.8	ND	1.0	ug/L	1	A109429	08/09/11	08/09/11	
*Uranium, Radiological		< 0.67		pCi/L					

Radiological

Analyte	Method	Result	Units	MDA	Batch	Prepared	Analyzed	Qual
*Gross Alpha	EPA 00-02	ND	pCi/L	2.78	A109033	08/01/11	08/03/11	
*1.65 Sigma Uncertainty		0.270	±					



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: A1G2314
Pace Project No.: 3051619

Sample: A1G2314-01 Lab ID: 3051619001 Collected: 07/27/11 11:10 Received: 08/08/11 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	2.24 ± 0.902 (0.773)	pCi/L	08/18/11 12:45	13982-83-3	

Sample: A1G2314-02 Lab ID: 3051619002 Collected: 07/27/11 12:00 Received: 08/08/11 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	1.31 ± 0.662 (0.640)	pCi/L	08/18/11 13:02	13982-83-3	

*and
Grave
well

Parake
well*

Date: 08/28/2011 03:14 PM

REPORT OF LABORATORY ANALYSIS

Page 5 of 7

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BSK ANALYTICAL LABORATORIES

1414 STANISLAUS ST., FRESNO, CA 93706
(559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

ANALYTICAL

*** Required Fields**

Client/Company Name: Americas Water Report Attention: Susy Jacobson Phone: 831-646-3259 Fax:
 Address: Po Box 951 Monterey CA 93942-0951 City: Monterey State: CA Zip: 93942-0951 Email: sjacobson@water.com

Project Information: ASR Bi-Annual Radiologicals PO#: Quote#:
 How would you like your completed results sent? E-Mail Fax EDD Mail Only
 Sampler Name Printed/Signature: Susy Jacobson QC Request: STD Level II Result Request: STD 5Day** 2Day** 1 Day**

REGULATORY COMPLIANCE: Electronic Data Transfer: Y System No.: Monterey
 Matrix Types: RSW = Raw Surface Water CFW = Chlorinated Finished Water CW = Chlorinated Waste Water BW = Bottled Water
RGW = Raw Ground Water FW = Finished Water WW = Waste Water SW = Storm Water DW = Drinking Water SO = Solid

Sample #	Date	Time	Sample Description/Location	Matrix	Comments / Station Code
08/23/11	08/23/11	07:00	Ord Srav Well 02	RSW	
08/23/11	08/23/11	07:11	Paralta Well 1	RSW	

**** Analyze for radium 228 if requested based on results**
1st/2 Clogin/End season - Bi-Annual ASR monitoring

ANALYSIS REQUESTED	Carbon Copies: (Circle One)	CDHS	Fresno Co	EPA	Merced Co	Tulare Co	Other:
Radium 226		X	X	X	X	X	X
Radium 228		X	X	X	X	X	X
uranium		X	X	X	X	X	X
hydrogen		X	X	X	X	X	X

Remanded by: (Signature and Printed Name) Susy Jacobson Company Americas Water Date 08/23/11 Time 1630
 Received by: (Signature and Printed Name) _____ Company _____ Date _____ Time _____
 Remanded by: (Signature and Printed Name) _____ Company _____ Date _____ Time _____
 Received by: (Signature and Printed Name) _____ Company _____ Date _____ Time _____

Shipping Method	COG	DTS	CSO	WALK-IN	SNVC	FED EX	OTHER	Shipping Method	COG	DTS	CSO	WALK-IN	SNVC	FED EX	OTHER

Notice: Payment for services rendered as noted herein are due in full within 30 days from when invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service-charge changes and settlement, compromise or offsets. The person signing for the client/company expressly acknowledges that they are either the Client or authorized agent to the Client, and the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any modification of the analysis requested, either type or quantity, will be noted and agreed upon this Chain of Custody. The turn around time for any samples received after 3:00pm will begin the next business day.



4 Justin Court Suite D, Monterey, CA 93940
831.375.MBAS

montereybayanalytical@usa.net
ELAP Certification Number: 2385

Wednesday, August 03, 2011

Cal Am Water Company
Susy Jacobson / Leslie Jordan
511 Pacific Lodge Road, Suite 100
Pacific Grove, CA 93950

Lab Number: AA78625

Collection Date/Time: 7/27/2011 12:00
Submittal Date/Time: 7/27/2011 12:50

Sample Collector: JACBSON S
Sample ID

Sample Description: Paralta Well

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Chloramines	SM4500-Cl G	mg/L	Not Detected		0.05		7/27/2011
Lithium	EPA200.8	ug/L	24		1		7/28/2011
Methane	EPA174/175	ug/L	1.2	E	5		7/29/2011

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed outside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD



MONTEREY BAY ANALYTICAL SERVICES
 PRECISION • ACCURACY • DEPENDABILITY

Chain of Custody / Analysis Request

4 Justin Court, Suite D
 Monterey, CA 93940
 831-375-MBAS (6227)
 831-641-0734 Fax
montereybayanalytical@usa.net

Client Name		California American Water		Attn to:		Susy Jacobson/Leslie Jordan		Analysis Requested	
Address		PO Box 951		Copy to:		DPH EDT			
City, State, Zip		Monterey CA 93942-0951		Phone #		831-646-3259		Email: sjacobson@amwater.com	
Laboratory #	Sample ID	Site / Description / Field Point Name	Collection Date	Collection Time	Chlorine Residual	Type of Sample	# of Containers	Size / Type / preservative	Container
		Drd Grove W21102	7/27/11	1110					X Lithium
		Paradise W2111	7/27/11	1200					X Chloramines
		- NO State Reports / NO EDT							X Dissolved Metals
		- Bi-Annual ASR monitoring (1st 2 - beginning / End Season)							

Printed Name	Signature	Date and Time	Comment
Susy Jacobson	<i>[Signature]</i>	7/27/11	EDF Logcode:
Susy Jacobson	<i>[Signature]</i>	7/27/11 1250	EDF Global ID:
TERREN CHANG	<i>[Signature]</i>	7/27/11 1250	

Payment received Amount: _____ Check # _____ Receipt # _____ Date: _____



AMERICAN WATER

AMERICAN WATER WORKS SERVICE COMPANY, INC.

Central Laboratory - 1115 South Illinois Street Belleville, IL 62220-3102

Phone: (618)235-3600 - Fax: (618)235-6349



Inorganic Chemical (IOC) Analysis Report PROCESS

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility:
Site ID: 2710004-024

Date of Report: 08/02/11
Lab Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location: **ORD GROVE WELL 02**
Sample Type: RAW

Collection Date: **07/27/11**
Collection Time: 11:10
SDG: 72811-15

Received Date: 07/28/11
Received Time: 09:15
Received Temp: 5 °C

Case Narrative:

Process Sample - Analyte(s) is(are) not acceptable for compliance purposes.

Results are at or above the reporting limit for the following analytes:

ARSENIC	SELENIUM
MANGANESE	BORON
STRONTIUM	MAGNESIUM
CALCIUM	SODIUM

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Technical Director or Designee



CA	703
11072085	
COC and Report Number	

Starting Sample: **CS78705**

Page 1 of 2

Report Details

Sample Number: CS78705

ICP Metals	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
IRON		200.7R4.4	01045	0.3(s)	0.1	ND	mg/L	LG	07/29/11 17:28
CALCIUM		200.7R4.4	00916		1	66	mg/L	LG	07/29/11 17:28
MAGNESIUM		200.7R4.4	00927		1	19	mg/L	LG	07/29/11 17:28
POTASSIUM		200.7R4.4	00937		5	ND	mg/L	LG	07/29/11 17:28
SODIUM		200.7R4.4			0.2	96.8	mg/L	LG	07/29/11 17:28
STRONTIUM		200.7R4.4			0.1	0.4	mg/L	LG	07/29/11 17:28

Sample Number: CS78705

ICP/MS Metals	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
ARSENIC		200.8R5.4	01002	0.010	0.001	0.002	mg/L	LKR	07/29/11 20:05
BARIUM		200.8R5.4	01007	1	0.1	ND	mg/L	LKR	07/29/11 20:05
MANGANESE		200.8R5.4	01055	0.05(s)	0.010	0.018	mg/L	LKR	07/29/11 20:05
NICKEL		200.8R5.4	01067	0.1	0.005	ND	mg/L	LKR	07/29/11 20:05
SELENIUM		200.8R5.4	01147	0.05	0.002	0.006	mg/L	LKR	07/29/11 20:05
ZINC		200.8R5.4	01092	5.0(s)	0.050	ND	mg/L	LKR	07/29/11 20:05
BORON		200.8R5.4	01020		0.050	0.132	mg/L	LKR	07/29/11 20:05
MOLYBDENUM		200.8R5.4	01062		0.1	ND	mg/L	LKR	07/29/11 20:05
VANADIUM		200.8R5.4	01067		0.050	ND	mg/L	LKR	07/29/11 20:05



CA 703

11072085

COC and Report Number

Starting Sample: CS78705

SPEC-PROC

CA 703

MONTEREY DISTRICT

1115 South Illinois Street

Belleville, IL 62220-3102

618-235-3600

Jul 2011

PWSID:

Facility ID:

CHAIN OF CUSTODY # 11072085

ORD GROVE WELL 02

Sample Type (RAW, EFF, DIST, etc.)

Raw

PRIOR TO SHIPPING - COMPLETE ALL FIELDS

Location: ORD GROVE WELL 02
 SiteID: 2710504-024

Sampler's First Initial and Last Name: S. JACOBSON

Date Sampled: 07/27/11 Time Sampled: 1110

Contact Person: SUSAN JACOBSON

Relinquished by: 1 2 3 4

Date/Time Relinq: 1 2 3 4

Military (24 hr) Format: 4

Temperature: C: 5 11072085

Tracking #: 128336200142156084

Shipping Method: UPS

Received Date: 07/28/2011 72811-15

Received Time: 09:15 ULogin: NO TS

Received by: MS Logged By TS

Lab Comments:

COMMENTS: ASR Bi-Annual CIP/a-beg/17-end 5/20/11 on-line

FOR LAB USE ONLY

Sample ID #	QC Type	Analysis	Method	Pre-Preservation	FIELD PRESERVATION			Analysis Codes
					Preservation Description	Date	Time	
CS78705		METALS	EPA:200.8	Nitric Acid	None			\$2008CAASR

For compliance purposes? NO

State Reporting by Lab? NO

CCR Report?: NO



AMERICAN WATER WORKS SERVICE COMPANY, INC.

Central Laboratory - 1115 South Illinois Street Belleville, IL 62220-3102
Phone: (618)235-3600 - Fax: (618)235-6349



Inorganic Chemical (IOC) Analysis Report PROCESS

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility:
Site ID: 2710004-024

Date of Report: 08/11/11
Lab Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location: ORD GROVE WELL 02
Sample Type RAW

Collection Date: 07/27/11
Collection Time: 11:10
SDG: 72811-15

Received Date: 07/28/11
Received Time: 09:15
Received Temp: 5 °C

Case Narrative:

Process Sample - Analyte(s) is(are) not acceptable for compliance purposes.

For sample number CS78699:

Utility determined resample unnecessary.

Results are at or above the reporting limit for the following analytes:

MANGANESE - Dissolved	DOC
NITRATE-N	CHLORIDE
ALKALINITY (as CaCO ₃)	Total Dissolved Solids (TDS)
SULFATE	CONDUCTIVITY

Results are equal to or exceed regulated MCL for the analytes listed below.

Total Dissolved Solids (TDS)

For sample number CS78699:

See Report Details N6 - Above Secondary MCL.

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Technical Director or Designee



CA 703
11072079
COC and Report Number

Starting Sample: CS78699

Page 1 of 2

Report Details

Sample Number: CS78699

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
ALKALINITY (as CaCO3)		SM2320B	00410		7	181	mg/L	RE	07/28/11 18:31
DOC		SM5310C			0.25	0.67	mg/L	RS	07/29/11 15:59
Total Dissolved Solids (TDS)		SM2540C	70300	500 (s)	135	534	mg/L	RE	07/28/11 14:10
N6									

Sample Number: CS78699

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
Minerals									
NITRATE-N		300.0R2.1		10	0.1	1.7	mg/L	AMH	07/28/11 18:56
NITRITE-N		300.0R2.1		1	0.1	ND	mg/L	AMH	07/28/11 18:56

Sample Number: CS78699

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
Other									
CONDUCTIVITY		SM2510B	00095		1	902	umhos/cm	MS	07/29/11 12:15

Sample Number: CS78699

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
Minerals									
CHLORIDE		300.0R2.1A		250(s)	1.0	132.3	mg/L	AMH	08/10/11 02:20
ORTHO-PHOSPHATE-P		300.0R2.1			0.25	ND	mg/L	AMH	07/28/11 18:56
SULFATE		300.0R2.1A		250(s)	0.5	64.0	mg/L	MS	07/29/11 07:01

Sample Number: CS78699

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
ICP Metals									
IRON - Dissolved		200.7R4.4		0.3(s)	0.1	ND	mg/L	LG	07/29/11 18:02

Sample Number: CS78699

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
ICP/MS Metals									
MANGANESE - Dissolved		200.8R5.4		0.05(s)	0.010	0.018	mg/L	LKR	07/29/11 19:53



CA 703

11072079

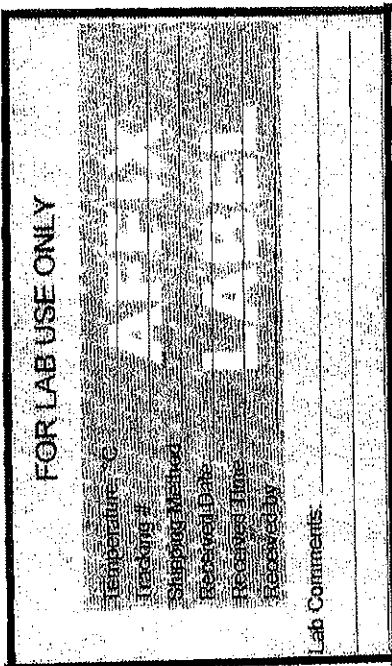
COC and Report Number

Starting Sample: CS78699

SPEC-PROC
CA 703
MONTEREY DISTRICT

Facility ID: 11072079

CHAIN OF CUSTODY # 11072079



PRIOR TO SHIPPING - COMPLETE ALL FIELDS

Location: ORD GROVE WELL 02 Site ID: 2710004-024

Sample Type (RAW, EFF, DIST, etc.): RAW

Sampler's First Initial and Last Name: S JACOBSON

Date Sampled: 07/27/11 Time Sampled: 1110 Military (24 hr) Format: 4

Contact Person: SUSAN JACOBSON

Relinquished by: [Signature] 2 3 4

Date/Time Relinquished: 07/27/11 2 3 4

For compliance purposes? NO

State Reporting by Lab? NO

CCR Report? NO

Filtered By: _____

Field & Lab Reading: _____ mg/L

COMMENTS: ASR Bi-Annual
1st/2 Cbg in/End Season
on-line (includes new analytes since 2010)

Sample ID #	QC Type	Analysis	Method	Pre-Preservation	FIELD PRESERVATION			Analysis Codes
					Preservation Description	Date	Time	
CS78699		DOC	SM 5310C	None	None			\$5310CDOC
CS78699		METALS	EPA 200.8	None	Nitric Acid added at Lab	07/27/11 1315	SI	\$2008MIN-D
CS78699		METALS	EPA 200.7/94-4	None	Nitric Acid added at Lab	07/27/11 1315	SI	\$2007FE-D
CS78699		ALKALINITY	SM 2320	NONE	NONE			\$2320
CS78699		TDS	SM 2540C	NONE	NONE			\$2540C-TDS
CS78699	*	NITRATE & NITRITE	EPA 300.0A	None	None			\$N0X1LCA
CS78699	*	ORTHOPHOSPHATE	EPA 300.0A	None	None			\$OPHOSest-PO4
CS78699		ORNY		None				
CS78699		MINERALS	EPA 300.0A	None				\$SULFATE
CS78699		CHLORIDE	EPA 300.0A	None				\$CHLORID
CS78699		CONDUCTIVITY	EPA-2510B	NONE				\$2510

mpwmd

PS Field

ORP
SDI

pH 6.94 Conductivity (EC) 872
Toc 22.7 DO 6.16 mg/L (MBAS)

* Include Total Nitrogen and Ortho as "P"
Avg

Cl₂ 0.05
H₂S 15 µg/L



AMERICAN WATER

AMERICAN WATER WORKS SERVICE COMPANY, INC.

Central Laboratory - 1115 South Illinois Street Belleville, IL 62220-3102
Phone: (618)235-3600 - Fax: (618)235-6349



Inorganic Chemical (IOC) Analysis Report
PROCESS

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility:
Site ID: 2710004-024

Date of Report: 08/04/11
Lab Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location: ORD GROVE WELL 02
Sample Type RAW

Collection Date: 07/27/11
Collection Time: 11:10
SDG: 72811-15

Received Date: 07/28/11
Received Time: 09:15
Received Temp: 5 °C

Case Narrative:

Process Sample - Analyte(s) is(are) not acceptable for compliance purposes.

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Technical Director or Designee



CA 703

11072083

COC and Report Number

Starting Sample: CS78703

Report Details

Sample Number: CS78703

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
AMMONIA AS N		350.1R2.0MOD			0.05	ND	mg/L	RE	08/02/11 15:16



CA	703
11072083	
COC and Report Number	

Starting Sample: CS78703

Page 2 of 2

Jul 2011

618-235-3600

Belleville, IL 62220-3102

1115 South Illinois Street

American Water Central Laboratory

SPEC-PROC

CA 703
MONTEREY DISTRICT

CHAIN OF CUSTODY # 11072083



FOR LAB USE ONLY

Temperature, C: 5
Tracking #: 1Z8336200142156084
Shipping Method: UPS
Received Date: 07/28/2011 72811-15
Received Time: 09:15 ULogin: NO
Received by: MS Logged By TS

Lab Comments:

PRIOR TO SHIPPING - COMPLETE ALL FIELDS

Location: ORD GROVE WELL 02 SiteID: 2710004-024
Sample Type (RAW, EFF, DIST, etc.) Raw
Sampler's First Initial and Last Name S. JACOBSON
Date Sampled 07/27/11 Time Sampled 1110 Military (24 hr) Format
Contact Person SUSAN JACOBSON
Relinquished by [Signature] 2 3 4
Date/Time Relinq 1 [Signature] 2 3 4
For compliance purposes? NO
State Reporting by Lab? NO
CCR Report?: NO

COMMENTS: ASR Bi-Annual Cist/2 Basin/End
on-line

Sample ID #	QC Type	Analysis	Method	Pre-Preservation	FIELD PRESERVATION			Analysis Codes
					Preservation Description	Date	Time Initials	
CS78703	AMMONIA	EPA 350.1	25 mg Sodium Thiosulfate	Sulfuric Acid	07/27/11	1315	SJ	S3501



AMERICAN WATER WORKS SERVICE COMPANY, INC.

Central Laboratory - 1115 South Illinois Street Belleville, IL 62220-3102
Phone: (618)235-3600 - Fax: (618)235-6349



Inorganic Chemical (IOC) Analysis Report PROCESS

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility:
Site ID: 2710004-024

Date of Report: 08/04/11
Lab Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location: ORD GROVE WELL 02
Sample Type RAW

Collection Date: 07/27/11
Collection Time: 11:10
SDG: 72811-15

Received Date: 07/28/11
Received Time: 09:15
Received Temp: 5 °C

Case Narrative:

Process Sample - Analyte(s) is(are) not acceptable for compliance purposes.

Results are at or above the reporting limit for the following analytes:

TOTAL KJELDAHL NITROGEN (TKN)

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Technical Director or Designee



CA 703
11072081
COC and Report Number

Starting Sample: CS78701

Page 1 of 2

Report Details

Sample Number: CS78701

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
TOTAL KJELDAHL NITROGEN (TKN)		351.2R2.0			0.25	0.36	mg/L	RE	08/03/11 14:13

Sample Number: CS78701

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
Minerals TOTAL PHOSPHORUS		365.4			0.1	ND	mg/L	RE	08/03/11 14:13

CA	703
11072081	
COC and Report Number	



SPEC-PROC

CA 703

MONTEREY DISTRICT

Location: ORD GROVE WELL 02

Sample Type (RAW, EFF, DIST, etc.)

Sampler's First Initial and Last Name

Date Sampled

PWSID:

Facility ID:

CHAIN OF CUSTODY # 11072081

Time Sampled

Contact Person



Site ID: 2710004-024

Raw

S. JACOBSON

07/27/11

Temperature: C: 5

Tracking #: 128336200142156084

Military (24 hr) Format

Shipping Method: UPS

Received Date: 07/28/2011

Received by: MS

ULogin: NO

Logged By

TS

11072081

FOR LAB USE ONLY

PRIOR TO SHIPPING - COMPLETE ALL FIELDS

Lab Comments

COMMENTS: ASK Bi-Annual Custal began season

Relinquished by 1 [Signature] 2 3 4
Date/Time Relinq 1 [Signature] 2 3 4
For compliance purposes? NO
State Reporting by Lab? NO
CCR Report?: NO

Sample ID #	QC Type	Analysis	Method	Pre-Preservation	FIELD PRESERVATION			Analysis Codes
					Preservation Description	Date	Time	
CS78701		TPHOS	365.4MOD	NONE	Sulfuric Acid	07/27/11 13:15	JS	\$3654
CS78701		TKN	351.2MOD	NONE	Sulfuric Acid	07/27/11 13:15	JS	\$3512



AMERICAN WATER

AMERICAN WATER WORKS SERVICE COMPANY, INC.

Central Laboratory - 1115 South Illinois Street Belleville, IL 62220-3102
Phone: (618)235-3600 - Fax: (618)235-6349



Organic Carbon Analysis Report
PROCESS

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility:
Site ID: 2710004-024

Date of Report: 08/03/11
Lab Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location	ORD GROVE WELL 02	Collection Date:	07/27/11	Received Date:	07/28/11
Sample Type	RAW	Collection Time:	11:10	Received Time:	09:15
		SDG:	72811-15	Received Temp:	5 °C

Case Narrative:

Results are at or above the reporting limit for the following analytes:
TOC

Process Sample - Analyte(s) is(are) not acceptable for compliance purposes.

Report Details

Sample Number: CS78707

	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time
TOC		SM5310C			0.25	0.62	mg/L	RS	07/29/11 16:17

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Technical Director or Designee



CA	703
11072087	
COC and Report Number	

Starting Sample: CS78707
Page 1 of 1

SPEC-PROC

PWSID:
Factory ID:

American Water Central Laboratory

1115 South Illinois Street Belleville, IL 62220-3102

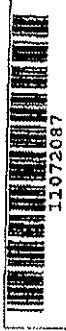
618-235-3600

Jul 2011

CA 732

CHAIN OF CUSTODY # 11072087

MONTEREY DISTRICT



PRIOR TO SHIPPING - COMPLETE ALL FIELDS

Location: ORD GROVE WELL 02 Site ID: 2710004-024

Sample Type (RAW, EFF, DIST, etc.): RAW

Sampler's First Initial and Last Name: S JACOBSON

Date Sampled: 5/27/11 Time Sampled: 1110 Military (24 hr) Format

Contact Person: SUSAN JACOBSON Contact Phone #: 831-646-3259

Relinquished by: [Signature] 2 3 4

Date/Time Relinq: 5/27/11 1630 2 3 4

For compliance purposes? NO

State Reporting by Lab? NO

CCR Report? NO

Field Alkalinity Reading: _____ mg/L

FOR LAB USE ONLY

Temperatures: _____

Tracking #: _____

Shipping Method: _____

Received Date: _____

Received Time: _____

Received by: _____

Lab Comments: _____

COMMENTS: FSR Bi-Annual 1st/2 (begin/end season)
on-line

Sample ID #	QC Type	Analysis	Method	Pre-Preservation	FIELD PRESERVATION			Analysis Codes
					Preservation Description	Date	Time	
CS78707	TOC	TOC	SM 5310C	0.5 ml Phosphoric Acid				\$5310CTOC
CS78708	DUP	TOC	SM 5310C	0.5 ml Phosphoric Acid				\$5310CTOC
CS78709	DUP	TOC	SM 5310C	0.5 ml Phosphoric Acid				\$5310CTOC



AMERICAN WATER

AMERICAN WATER WORKS SERVICE COMPANY, INC.

Central Laboratory - 1115 South Illinois Street Belleville, IL 62220-3102
Phone: (618)235-3600 - Fax: (618)235-6349



DBP Analysis Report

CALIFORNIA-AMERICAN WATER CO
MONTEREY DISTRICT
LESLIE JORDAN
PO BOX 951
MONTEREY CA 93942-0951

PWS ID: CA2710004
County: MONTEREY
Facility ID:
Site ID: 2710004-024

Date of Report: 08/03/11
Drinking Water Certification No.: 01161CA
Federal Lab ID No.: IL00028

Report Summary

Location	ORD GROVE WELL 02	Collection Date:	07/27/11	Received Date:	07/28/11
Sample Type	RAW	CollectionTime:	11:10	Received Time:	09:15
		SDG:	72811-15	Received Temp:	5 °C

Case Narrative:

TOTAL HAA (5) Result: 0
TOTAL THM Result: 0

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Technical Director or Designee



CA	703
11052755	
COC and Report Number	

Starting Sample: CS53549
Page 1 of 2

Report Details

Sample Number: CS53549

Regulated Haloacetic Acids	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time	
DIBROMOACETIC ACID		552.3R1.0	82721		1.0	ND	ug/L	BC	08/02/11	12:59
DICHLOROACETIC ACID		552.3R1.0	77288		1.0	ND	ug/L	BC	08/02/11	12:59
MONOBROMOACETIC ACID		552.3R1.0	A-041		1.0	ND	ug/L	BC	08/02/11	12:59
MONOCHLOROACETIC ACID		552.3R1.0			2.0	ND	ug/L	BC	08/02/11	12:59
TRICHLOROACETIC ACID		552.3R1.0			1.0	ND	ug/L	BC	08/02/11	12:59
HAA5 TOTAL		552.3R1.0	A-049	60	1.0	ND	ug/L	BC	08/02/11	12:59

Sample Number: CS53549

Unregulated Haloacetic Acids	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time	
BROMOCHLOROACETIC ACID		552.3R1.0	A-038		1.0	ND	ug/L	BC	08/02/11	12:59

Sample Number: CS53551

Trihalomethanes	Qualifier Code	Analysis Method	State Code	MCL	Reporting Limit	Result	Unit	Analyst	Analysis Date / Time	
BROMOFORM		524.2R4.1	32104		0.5	ND	ug/L	CRK	07/28/11	16:57
BROMODICHLOROMETHANE		524.2R4.1	32101		0.5	ND	ug/L	CRK	07/28/11	16:57
DIBROMOCHLOROMETHANE		524.2R4.1	32105		0.5	ND	ug/L	CRK	07/28/11	16:57
CHLOROFORM		524.2R4.1	32106		0.5	ND	ug/L	CRK	07/28/11	16:57
TOTAL TRIHALOMETHANES		524.2R4.1	82080	80	0.5	ND	ug/L	CRK	07/28/11	16:57



CA	703
11052755	
COC and Report Number	

Starting Sample: CS53549
Page 2 of 2

SCHE

American Water Central Laboratory

1115 South Illinois Street

Belleville, IL 62220-3102

618-235-3600

Jun 2011

PWSID: CA2710004

Facility ID:

CA 703

CHAIN OF CUSTODY # 11052755

MONTEREY DISTRICT



PRIOR TO SHIPPING - COMPLETE ALL FIELDS

Location: ORD GROVE WELL 02 SiteID: 2710004-024

Sample Type (RAW, EFF, DIST, etc.) RAW

Sampler's First Initial and Last Name S. JACOBSON

Date Sampled 07/27/11 Time Sampled 1110 Military (24 hr) Format

Contact Phone # 831-646-3259

Contact Person SUSAN JACOBSON

Relinquished by 1 2/2/11 2 3 4

Date/Time Relinq 07/27/11 1:30 2 3 4

For compliance purposes NO

State Reporting by Lab? NO

CCR Report?: NO

Field Chlorine Residual: _____ mg/L

FOR LAB USE ONLY

Temperature, C: 5 11852755
Tracking #: 178336200142155084
Shipping Method: UPS
Received Date: 07/28/2011 72811-15
Received Time: 09:15 ULogin: NO
Received by: MS Logged By TS

Lab Comments

COMMENTS: ASR Bi - Annual 1 1/2 (begin/end season)
on-line

Sample ID #	QC Type	Analysis	Method	Pre-Preservation	FIELD PRESERVATION			Analysis Codes
					Preservation Description	Date	Time	
CS53549		HAA	EPA 552.3	65mg Ammonium Chloride	None			\$5523
CS53550	DUP	HAA	EPA 552.3	65mg Ammonium Chloride	None			\$5523
CS53551		TTHM	EPA 524.2	3mg Sodium Thiosulfate	NONE			\$52421
CS53552	DUP	TTHM	EPA 524.2	3mg Sodium Thiosulfate	NONE			\$52421
CS53553	DUP	TTHM	EPA 524.2	3mg Sodium Thiosulfate	NONE			\$52421
CS53554	FB	TTHM	EPA 524.2	3mg Sodium Thiosulfate	NONE			\$52421

Certificate of Analysis

Report Issue Date: 9/2/2011 8:07
Received Date: 07/29/2011
Received Time: 08:15

Leslie Jordan
 California American Water
 PO Box 951
 Monterey, CA 93942-0951

Lab Sample ID: A1G2314-01
Sample Date: 07/27/2011 11:10
Sample Type: Grab

Client Project: ASR Bi-Annual/Radiologicals
Sampled by: Susy Jacobson
Matrix: Ground Water

Sample Description: Ord Grove Well 02

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
*Uranium	EPA 200.8	1.1	1.0	ug/L	1	A109393	08/08/11	08/09/11	
*Uranium, Radiological		0.73		pCi/L					

Radiological

Analyte	Method	Result	Units	MDA	Batch	Prepared	Analyzed	Qual
*Gross Alpha	EPA 00-02	9.28	pCi/L	2.78	A109033	08/01/11	08/03/11	
*1.65 Sigma Uncertainty		0.470	±					



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: A1G2314
Pace Project No.: 3051619

*See
Brow
well 02*

Sample: A1G2314-01	Lab ID: 3051619001	Collected: 07/27/11 11:10	Received: 08/08/11 09:30	Matrix: Water		
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	2.24 ± 0.902 (0.773)	pCi/L	08/18/11 12:45	13982-63-3	

*Pasalta
well*

Sample: A1G2314-02	Lab ID: 3051619002	Collected: 07/27/11 12:00	Received: 08/08/11 09:30	Matrix: Water		
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	1.31 ± 0.662 (0.640)	pCi/L	08/18/11 13:02	13982-63-3	

BSK ANALYTICAL LABORATORIES

1414 STANISLAUS ST., FRESNO, CA 93706
(559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

ANALYTICAL

* Required Fields

Client/Company Name: American Water Report Attention: Sisy Jacobson Phone: 831.646.3259 Fax:
 Address: PO Box 951 Monterey CA 93942-0951 City: Monterey State: CA Zip: 93942-0951 Email: sjacobson@americanwater.com
 Project Information: ASR Bi-Annual Radiology/als PO#: Quote#:
 How would you like your completed results sent? E-Mail Fax EDD Mail Only
 Sampler Name Printed/Signature: Sisy Jacobson QC Request: Result Request: **Surcharge STD: 5Day** 2Day** 1 Day**

Matrix Types: RSW = Raw Surface Water CFW = Chlorinated Finished Water CWW = Chlorinated Waste Water BW = Bottled Water
 RGW = Raw Ground Water FW = Finished Water WW = Waste Water SW = Storm Water DW = Drinking Water SO = Solid

Sample #	Matrix	Sample Description/Location	Comments / Station Code
07/27/11	RSW	Ord Stone Well 02	
07/27/11	RSW	Paralta Well 11	

** Analyze for radium 228 if required, based on results
 1st/2 (begin/end season - Bi-Annual ASR monitoring)

ANALYSIS REQUESTED

Element	Units	Request	Request	Request
LEADONIUM		X	X	X
RADIUM 226		X	X	X
RADIUM 228		X	X	X

Relinquished by: (Signature and Printed Name) Sisy Jacobson Date: 07/28/11 Time: 1630 Company:
 Received by: (Signature and Printed Name) Date: Time: Company:

Received for lab by: (Signature and Printed Name) Date: Time: Company:
 Payment Received at Delivery: Date: Amount:

Shipping Method: CAO UPS GSO WALK-IN SJVC FED EX OTHER Cooling Method: WET BLUE NONE
 Packing Material: Check/Cash/Card: PIA#: Init:

Notice: Payment for services rendered as noted herein are due in full within 30 days from when invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service/re-billings charges and interest calculated at 1 1/2% per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, cost of collections, including attorneys' fees incurred prior to or in litigation whether concluded by judgment. Client, on the Client agrees to be responsible for payment for analytical services settlement, compromise or otherwise. The person signing for the client/Company expressly acknowledges that they are either the Client or authorized agent to the Client, on the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any modification of the analysis requested, either type or quantities, will be noted and agreed upon this Chain of Custody. The turn around time for any samples received after 3:00pm will begin the next business day.



MONTEREY BAY ANALYTICAL SERVICES

PRECISION • ACCURACY • DEPENDABILITY

4 Justin Court Suite D, Monterey, CA 93940

831.375.MBAS

montereybayanalytical@usa.net

ELAP Certification Number: 2385

Wednesday, August 03, 2011

Cal Am Water Company
Susy Jacobson / Leslie Jordan
511 Pacific Lodge Road, Suite 100
Pacific Grove, CA 93950

Lab Number: AA78624

Collection Date/Time: 7/27/2011 11:10

Sample Collector: JACBSON S

Submittal Date/Time: 7/27/2011 12:50

Sample ID

Sample Description: Ord Grove Well 02

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed
Chloramines	SM4500-Cl G	mg/L	Not Detected		0.05		7/27/2011
Lithium	EPA200.8	ug/L	22		1		7/28/2011
Methane	EPA174/175	ug/L	0.45	E	5		7/29/2011

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed outside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD



MONTEREY BAY ANALYTICAL SERVICES
 PRECISION • ACCURACY • DEPENDABILITY

Chain of Custody / Analysis Request

4 Justin Court, Suite D
 Monterey, CA 93940
 831-375-MBAS (6227)
 831-641-0734 Fax
 montereybayanalytical@usa.net

Client Name California American Water		Attn to: Susy Jacobson/Leslie Jordan							
Address PO Box 951		DPH EDT							
City, State, Zip Monterey CA 93942-0951		Phone # 831-646-3259	Email: sjacobson@amwater.com						
Laboratory #	Sample ID	Site / Description / Field Point Name	Collection Date	Collection Time	Chlorine Residual	Type of Sample	# of Containers	Container Size / Type / preservative	Analysis Requested
		Old Grove Well 02	12/27/11	1110					X Lithium X Chromium X Dissolved Matter
		Paralta Well	12/27/11	1200					X Lithium X Chromium X Dissolved Matter
		- NO State Repts / NO EDT =							
		- Bi Annual ASR monitoring (1st 2 - beginning / End Season)							

Printed Name	Signature	Date and Time	Comment
Susy Jacobson	<i>[Signature]</i>	12/27/11	EDF Logcode:
Susy Jacobson	<i>[Signature]</i>	12/27/11 1250	EDF Global ID:
TERRI CHANG	<i>[Signature]</i>	1/27/11 1250	
Received by:			
Relinquished by:			
Received by:			
Relinquished by:			

Payment received Amount: _____ Check # _____ Receipt # _____ Date: _____