



**BEAR VALLEY  
WATER DISTRICT**  
P.O. Box 5027  
Bear Valley, CA 95223  
(209) 753-2112

**BOARD OF DIRECTORS:**  
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**31 July 2010**

**Mary Boyd**  
CVRWQCB  
11020 Sun Center Drive #200  
Rancho Cordova, CA 95670-6114

Subject: Order 5-01-208, Discharge Monitoring Report (DMR), June 2010

Dear Ms. Boyd:

**Monthly Report, Waste Discharge Requirements, Order 5-01-208**

Enclosed please find tabular summaries of monitoring data from the Bear Valley Wastewater Treatment Facility for the month of June 2010. No effluent was discharged to Bloods Creek during this reporting period. In addition to the standard data tables, we enclose for your convenience a summary of metals, minerals and priority pollutant data from the Storage/Polishing Reservoir and Bloods Creek, influent metals data, Treatment Pond effluent metals data, and summaries of our accelerated pH sampling of the Polishing Reservoir and of Bloods Creek.

The new chlorine contact tank was not installed during this reporting month, however, as of the date of this report, it is now installed and in service.

Due to the late snowmelt this year, the first Tri-Annual groundwater monitoring event took place 13 July.

For your convenience, we discuss each of the attachment pages separately.

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The daily and total influent and Bloods Creek discharge flow totals and routine influent monitoring results from the influent composite sampler are presented. During June we were able to access the Treatment Pond surface to report dissolved oxygen level in the top one foot of the impoundment.

On June 7<sup>th</sup>, the first day that roads in Bear Valley were opened for traffic, we discovered a manhole collar that had been dislodged during snow removal operations and was receiving a direct stream of snowmelt. The collar was put back into position and the inflow was immediately stopped. Influent flow was then curtailed from over 0.3 MGD to under 0.2 MGD.

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Effluent from the Treatment Pond was transferred to the Storage/Polishing Reservoir at an average rate of 172 gpm from June 1-11. This resulted in an approximately 17.4 minute chlorine contact time on average for the period. As described in earlier reports, the 12-inch diameter submerged inlet was in use to accommodate the increased flows from snowmelt. On 11 June, transfer was no longer necessary and was stopped in preparation for priority pollutant monitoring of the reservoir.

Due to a minor algae bloom that appeared after the ice cleared the reservoir on 8 June, we made two modifications to our sampling practice: commencing 14 June, reservoir pH was also tested from the outfall sample tap which draws from a floating suction inlet suspended four-feet below the surface, as well as from surface samples (pH sample results reported on this page are daily averages with average surface and average outfall tap results equally weighted, see the complete pH record later in this report for individual readings); and, we commenced having reservoir effluent BOD reported as "Carbonaceous" BOD from 15 June forward. <Note> Upon, for the first time, employing the floating intake to transfer reservoir effluent to sprayfields (prior years this transfer occurred off the bottom of the reservoir) on 1 July when we began irrigation season, we report that the algae bloom was completely abated by 4 July with reservoir turbidity dipping back under 2 NTU (see next section).

We note that the reservoir samples collected from the outfall sample tap commencing on 16 June may have been impacted by Treatment Pond effluent due to the historical dual-use situation of the 12-inch line, which also serves as the outfall line. One facet of the historical operations mode of transferring Treatment Pond effluent into the Polishing Reservoir through the 12-inch submerged inlet at the reservoir bottom is that potential for mixing and diffusion of the effluent through the reservoir was somewhat limited, especially during irrigation season when that inlet was also the same point from which reservoir effluent was transferred for irrigation. Additionally, since the outfall valve has never been opened, there is a portion of that line that has never been purged, which could therefore be subject to interference from substrate growth on the ductile iron pipe as well. We note that results from TSS and Nitrogen samples collected from the outfall tap, which is fed by the submerged outfall inlet fastened to a floating buoy and suspended about four feet below the service, were similar in character to Treatment Pond effluent. With the new chlorine contact tank in place (it was placed in service on 31 July 2010), the 12-inch line will be completely dedicated to Polishing Reservoir effluent, and the 6-inch Treatment Pond outfall line, which discharges into the reservoir at the water surface at a remote location, will provide much more mixing potential.

On 23 June effluent transfer was resumed, but only through the discrete 6-inch outfall. For the balance of the month an average 120-gpm transfer rate was employed. The resulting chlorine contact time was thereby about 8 minutes. At this flowrate and contact time, a sample collected 7 July for Total Coliform was reported at <2 MPN/100 ml.

## **Page 9**

Turbidity results from the Polishing Reservoir are summarized. While turbidity monitoring is not required by either of the discharge permits that regulate the Bear Valley Water District, we have been testing this parameter as part of the evaluation of the treatment system.

During the periods 30 April through 7 June and 4 July to the present, these data show consistent compliance with the tertiary standard of 2 NTU. As above-mentioned, when the ice cleared the reservoir on 8 June, algae appeared with a concomitant elevation of turbidity readings that persisted until the algae had dissipated on 4 July.

## **Page 10**

Results from all samples collected from the surface of the Polishing Reservoir during 2010 through 14 July and analyzed for minerals and for metals regulated under the NPDES permit are presented.

As previously reported, Storage/Polishing Reservoir samples of 5 May and 2 June would meet all NPDES standards for discharge to Bloods Creek. Also, the referenced samples would unequivocally meet tertiary treatment standards as well. Please note that the definitive test for low-level Copper, ICP/MS, did not detect Copper at a detection level of 0.0005 mg/L.

The previously discussed algae bloom likely impacted results from samples collected 15 and 30 June. However, the only results that would exceed NPDES discharge standards during this reporting period are the Iron and Manganese on the 15<sup>th</sup>, and the June monthly average for Copper of 1.13 µg/L, which, should discharge to Bloods Creek have occurred, would have marginally exceeded the chronic-toxicity-based monthly average of 0.95 µg/L. The applicability of such chronic limits to an intermittent discharge such as BVWD's will be reviewed in the NPDES renewal process.

In any case, we would submit that any discharge to surface waters is far more likely to occur under conditions represented by the samples of 5 May and 2 June.

## **Page 11**

Results from samples collected from the outfall tap from 30 December 2009 through June 2010 are presented. Grab samples are reported for 12/30/09, 1/15/10, 2/24/10, and 6/16/10; composite samples are reported for 17, 20, 22, and 29 June.

As above discussed, the outfall tap draws from a dead end in the heretofore never-used 12-inch ductile iron outfall line. It is also worthy of mention that the outfall tap itself is made of galvanized

metal. While the recently-discovered low ambient pH levels that affect the Polishing Reservoir during the winter may signal the existence of an ion-mobilization mechanism at play, the elevated Total Iron results that exceed Dissolved Iron levels by double or greater may indicate an interference from the plumbing material rather than from the reservoir itself. However, Dissolved Manganese in these samples is at levels approximating Total Manganese.

To verify whether there may be interference from the outfall plumbing, a sample was collected with a submersible pump lowered to approximately five-feet below the surface and adjacent to the four-foot deep floating outfall intake on 30 June to correspond with the composite sample collected 29-30 June. Following is a comparison of results:

	<b>RESERVOIR OUTFALL SAMPLE TAP COMPOSITE</b>	<b>POLISHING RESERVOIR SURFACE</b>
<b>Parameter</b>	<b>6/29/10</b>	<b>6/30/10</b>
Aluminum (mg/L)	<0.050	<0.050
Aluminum, Dissolved (mg/L)	<0.050	<0.050
Aluminum, Acid Soluble (mg/L)	<0.050	<0.050
Copper by ICP/MS (mg/L)	0.0019	0.0011
Copper, Dissolved by ICP/MS (mg/L)	0.0024	0.0011
Copper, Acid Soluble by ICP/MS (mg/L)	0.002	0.0012
Iron (mg/L)	3.0	0.16
Iron, Dissolved (mg/L)	0.77	<0.050
Iron, Acid Soluble, (mg/L)	2.9	0.13
Manganese (mg/L)	0.47	0.029
Manganese, Dissolved (mg/L)	0.18	<0.020
Manganese, Acid Soluble (mg/L)	0.47	0.026
CBOD (mg/L)	6.9	2.7
TSS (mg/L)	15	8.8
TDS (mg/L)	98	69
EC (umhos/CM)	237	144
Hardness (mg/L)	34	40
Alkalinity, Total (mg/L)	78	24

Based on the marked disparity in Iron, Manganese, CBOD, TSS, TDS, EC, and Alkalinity levels between the samples, the results presented above appear to confirm that samples from the outfall tap do not accurately represent water quality in the reservoir. The order of magnitude difference in Iron and Manganese levels does strongly suggest that electrolysis or Iron Bacteria substrate may be affecting plumbing material and the consequent samples.

## **Page 12**

Presented is a summary of priority pollutant results from Polishing Reservoir samples collected 15 and 16 June. The 15 June sample was collected from a boat with a brand-new ES-40 monitoring well pump lowered to a depth of approximately three feet. The 16 June sample was collected from the outfall tap.

Analysis and discussion of these results is under preparation and will be submitted in ROWD Addendum.

We do note that all detected parameters measured higher in the outfall tap sample.

## **Pages 13-24**

A summary of pH testing of the Polishing Reservoir and Bloods Creek from 2 April through 30 June is presented. Testing of pH in low-ionic strength water requires an elevated standard of care that we were not aware of when this special sampling project began. Upon review of the calibration record during the project we note that, of 243 total data points, 62 pH readings were recorded when the calibration slope exceeded the instrument tolerance. Those readings, although reported on the accompanying table, are identified under the slope record by the cells with a reddish-colored background and have been factored out of the summary calculations. Among other factors that may bias results is testing a low-ionic solution without adequate acclimation time after just having tested a more ionically robust solution such as Treatment Pond influent or effluent. We believe that some of the readings may have been thus affected as well, and are noted, although they have not been factored out of the summary calculations. On 25 June we became aware of the proper procedure (collecting a grab sample in a bottle without headspace to prevent atmospheric carbon dioxide from further lowering pH in the sample) to ensure that the speed of the current in Bloods Creek at its higher flowrates does not affect pH results by washing off the gel from the probe too quickly as it effuses through the glass bulb.

Even though this special sampling project did have some identified quality control issues, the inescapable observation based on the preponderance of the acceptable data is that ambient pH in both Bloods Creek and the Polishing Reservoir is lower than has been previously reported.

## **Page 25**

Results from all 2010 samples collected from Bloods Creek and analyzed for minerals and for metals regulated under the NPDES permit are presented.

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**Page 26**

Presented is a summary of priority pollutant results from Bloods Creek samples collected 15 and 16 June.

Analysis and discussion of these results is under preparation and will be submitted in ROWD Addendum.

**Page 27**

Page 27 presents a summary of influent metals data from 2009-2010

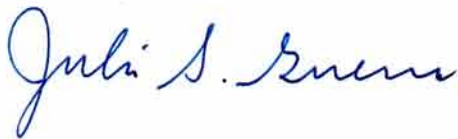
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Page 28 presents Treatment Pond effluent metals data from this year.

Please do not hesitate to contact me at (209) 753-2112 if there are any questions.

**I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and based on my inquiry of those individuals responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.**

Respectfully,



Julio S. Guerra  
General Manager

cc: Board of Directors  
Gary Ghio, District Engineer

Enclosures

**BEAR VALLEY WASTE WATER TREATMENT FACILITY**

Monitoring and Reporting Program No. 5-01-208 & R5-2005-0139  
Alpine County

Month: **June**  
Year: **2010**

INFLUENT MONITORING						NPDES	TREATMENT POND		
Day	Daily Flow (MGD)	BOD <sub>5</sub> (mg/L)	pH (SU)	Electrical Conductivity (umhos/cm)	Total Suspended Solids (mg/L)	Discharge to Bloods Creek (MGD)	Dissolved Oxygen (mg/L)	pH (SU)	Freeboard (0.1 ft)
1	0.217	15	6.5	86.9	31	0.000	8.4	7.7	3.0
2	0.238		6.4			0.000			
3	0.249		6.5			0.000			
4	0.261		6.4			0.000			
5	0.278		6.4			0.000			
6	0.336		6.4			0.000			
7	0.330		6.4			0.000			
8	0.198	23	6.4		55	0.000	7.7	6.7	2.9
9	0.174		6.4			0.000	6.2	6.4	
10	0.157		6.3			0.000			2.8
11	0.153		6.3			0.000			
12	0.156		6.4			0.000			
13	0.150		6.5			0.000			
14	0.136		6.3			0.000			
15	0.128	40	6.6		114	0.000			
16	0.120		6.6			0.000			2.8
17	0.113		6.5			0.000			
18	0.123		6.5			0.000			
19	0.129		6.3			0.000			
20	0.119		6.7			0.000			
21	0.106		6.3			0.000			
22	0.103	61	6.3		144	0.000			
23	0.102		6.3			0.000	5.0	7.3	2.6
24	0.102		6.8			0.000			
25	0.110		6.3			0.000			
26	0.131		6.3			0.000			
27	0.118		6.4			0.000			
28	0.104		6.6			0.000			
29	0.102	120	6.4		176	0.000			
30	0.100		6.7			0.000	11.3	7.4	2.8
Total	4.845					0.000			
Max	0.336	120	6.8	87	176	0.000	11.3	7.7	3.0
Min	0.100	15	6.3	87	31	0.000	5.0	6.4	2.6
Avg	0.161	52	6.4	87	61	0.000	7.7	7.1	2.8

## BEAR VALLEY WASTEWATER TREATMENT FACILITY

Monitoring and Reporting Program No. 5-01-208 & R5-2005-0139

Alpine County

Month: **June**

Year: **2010**

Treatment Pond Effluent Monitoring										Storage/Polishing Reservoir									
Day	Flow (MGD)	BOD (mg/L)	Settleable Solids (ml/L/hr)	Total Suspended Solids (mg/L)	Total Coliform Organisms (MPN/100 ml)	Total Kjeldahl Nitrogen (mg/L)	Ammonia-Nitrogen (mg/L)	Nitrate-Nitrogen (mg/L)	Total Dissolved Solids (mg/L)	Dissolved Oxygen (mg/L)	pH* (SU)	BOD** (mg/L)	Total Suspended Solids (mg/L)	Ammonia-Nitrogen (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Nitrate-Nitrogen (mg/L)	Total Nitrogen (mg/L)	Total Dissolved Solids (mg/L)	Freeboard (Feet) Total Depth: 23.5 ft
1	0.240									9.1	5.69	<1.0	<5.0	0.78	1.4	0.34	1.74	38	9.8
2	0.251	5.7		19	2	13	10	0.26	126	3.2	5.8								
3	0.243									8.9	5.48								
4	0.249									10.0	5.22								
5	0.246									12.0	5.09								
6	0.242									12.2	4.88								
7	0.242									11.7	5.51								
8	0.248									11.0	5.54								9.0
9	0.260	5.7		13	<2					10.9	5.54								
10	0.260									11.7	5.78								9.0
11	0.110									11.0	6.1								
12	0.000									8.3	6.0								
13	0.000									10.9	6.7								
14	0.000									15.1	7.71								
15	0.000										9.12	2.9	14	<0.50	8.4	0.37	8.77	222	
16	0.000									18.6	8.0	6.0	8.2	11	12	<0.05	12.05	110	9.0
17	0.000									7.7	7.9								
18	0.000									21.1	8.0								
19	0.000									16.4	10.0								
20	0.000									15.4	8.0	4.2	12					102	
21	0.000									13.0	8.1								
22	0.000									10.2	10.3	2.5	14					99	
23	0.168		<1							8.7	8.4								9.0
24	0.175									7.9	8.3								9.0
25	0.181									8.6	8.4								
26	0.173									15.3	8.3								
27	0.173									14.3	8.2								
28	0.176									12.1	8.1								
29	0.179									9.9	8.2	6.9	15	11	12	<0.05	12.05	98	
30	0.173	3.6		11						8.4	8.3	2.7	8.8	5.6	5.9	0.34	6.24	69	9
Total	3.988																		
Max	0.260	5.7	<1	19.0	2	13.0	10.0	0.3	126	21.1	10.3	6.9	15.0	11.0	12.0	0.4	12.1	222.0	9.8
Min	0.000	<1.0	<1	11.0	<2	13.0	10.0	0.3	126	3.2	4.9	<1.0	<5.0	<0.50	1.4	<0.05	1.7	38.0	9
Avg	0.133	<3.2	<1	14.3	<2	13.0	10.0	0.3	126	11.5	7.2	3.7	11.0	5.78	7.9	0.4	8.2	105.4	9

\* All pH results are daily averages; results from 6/14 forward include samples from outfall sample tap that draws from submerged inlet 4 ft below surface

\*\* Reservoir BOD reported 6/2/10 was total BOD, subsequent samples report Carbonaceous BOD

**<Note> Reservoir samples of 6/2, 6/15, and 6/30 are surface grab samples; 6/16 was a grab sample from the outfall tap, 6/20, 6/22, and 6/29 were outfall tap composite samples**

# BEAR VALLEY WATER DISTRICT

## POLISHING RESERVOIR

### Turbidity Data April-July 2010

Date	Turbidity (NTU)	Comment	Date	Turbidity (NTU)	Comment
4/14/10	3.65	<b>&lt;Note&gt; All samples from reservoir surface unless otherwise noted</b> By Outside Lab	6/26/10	4.7	From Outfall Sample Tap
4/30/10	0.297		6/26/10	13.1	
5/5/10	0.253		6/27/10	4.62	From Outfall Sample Tap
5/5/10	0.360		6/27/10	14.6	
5/12/10	0.533		6/28/10	4.42	From Outfall Sample Tap
5/19/10	0.251		6/28/10	8.28	
5/20/10	0.23		6/29/10	7.62	From Outfall Sample Tap
5/21/10	0.539		6/29/10	5.93	
5/22/10	0.536		6/30/10	6.23	From Outfall Sample Tap
5/23/10	0.585		7/1/10	4.41	
5/24/10	1.17		7/2/10	3.54	From Outfall Sample Tap
5/28/10	1.58		7/2/10	3.4	
5/29/10	0.924		7/3/10	2.82	
5/30/10	0.878		7/4/10	1.68	
5/31/10	0.676		7/5/10	1.49	
6/2/10	0.583		7/6/10	1.33	
6/2/10	0.75		7/7/10	1.22	
6/3/10	0.876	7/8/10	1.41		
6/4/10	1.2	7/9/10	1.2		
6/5/10	1.16	7/10/10	1.05		
6/6/10	1.43	7/11/10	0.97		
6/7/10	1.45	7/12/10	0.922		
6/8/10	2.15	7/13/10	0.864		
6/9/10	1.92	7/14/10	0.882		
6/10/10	3.82	7/14/10	0.93	By Outside Lab	
6/11/10	4.76	7/17/10	0.862		
6/12/10	7.04	7/18/10	0.865		
6/13/10	5.39	7/19/10	0.741		
6/14/10	6.52	7/20/10	0.956		
6/17/10	12.7	7/21/10	0.937		
6/17/10	8.21	7/22/10	1.15		
6/18/10	8.76	7/23/10	0.977		
6/19/10	19.5	7/24/10	1.12		
6/20/10	6.46	7/25/10	1.08		
6/20/10	18.0	7/26/10	1.39		
6/21/10	6.54	7/27/10	1.46		
6/21/10	17.7	7/28/10	1.72		
6/22/10	9.76	7/29/10	1.67		
6/23/10	5.69	7/30/10	1.64		
6/23/10	16.8	7/31/10	1.51		
6/24/10	24.8				
6/25/10	5.02				

# BEAR VALLEY WATER DISTRICT

## POLISHING RESERVOIR

### DATA FROM SURFACE SAMPLES 2010

	POLISHING RESERVOIR SURFACE	POLISHING RESERVOIR SURFACE	POLISHING RESERVOIR SURFACE	POLISHING RESERVOIR SURFACE	POLISHING RESERVOIR SURFACE	POLISHING RESERVOIR SURFACE	POLISHING RESERVOIR SURFACE	POLISHING RESERVOIR SURFACE	POLISHING RESERVOIR SURFACE	POLISHING RESERVOIR SURFACE
Parameter	1/15/10	3/17/10	3/19/10	3/24/10	4/2/10	5/5/10	6/2/10	6/15/10	6/30/10	7/14/10
Aluminum (mg/L)	0.078	0.141	0.114	0.104	0.073	<0.050	<0.050	0.052	<0.050	-
Aluminum, Dissolved (mg/L)	-	-	-	-	-	-	-	<0.050	<0.050	-
Aluminum, Acid Soluble (mg/L)	-	-	-	-	-	-	-	<0.050	<0.050	-
Boron (mg/L)	-	0.06	<0.05	<0.05	<0.05	<0.05	<0.0016	0.02	-	0.022
Copper (mg/L)	0.003	0.0056	0.0054	0.0033	0.0018*	-	-	-	-	-
Copper by Icp/MS	-	-	-	-	-	<0.0005	<0.0005	0.0018	0.0011	0.0019
Copper, Dissolved (mg/L)	0.0032	0.0036	<0.003	0.0035	0.0025	0.0014*	<0.0005	-	-	-
Copper, Dissolved by ICP/MS (mg/L)	-	-	-	-	-	<0.0005	<0.0005	0.0017	0.0011	0.0019
Copper, Acid Soluble by ICP/MS (mg/L)	-	-	-	-	-	-	-	0.0021	0.0012	0.0027
Iron (mg/L)	0.195	0.561	0.219	0.257	0.273	<0.050	<0.050	0.49	0.16	0.17
Iron, Dissolved (mg/L)	0.109	0.34	0.133	0.191	0.168	<0.050	<0.050	0.22	<0.050	0.12
Iron, Acid Soluble, (mg/L)	-	-	-	-	-	-	-	0.45	0.13	0.14
Manganese (mg/L)	0.138	0.081	0.026	0.012	0.053	<0.020	<0.020	0.069	0.029	0.023
Manganese, Dissolved (mg/L)	0.101	0.061	0.023	0.0097	0.047	<0.020	<0.020	0.033	<0.020	<0.020
Manganese, Acid Soluble (mg/L)	-	-	-	-	-	-	-	0.072	0.026	0.023
BOD (mg/L)	4.2	4.5	2.9	2.3	4.9	<1.0	<1.0	-	-	-
CBOD (mg/L)	1.5	-	1.9	-	-	-	-	2.9	2.7	<1.0
TSS (mg/L)	<5.0	7.7	<5.0	5.3	<5.0	<5.0	<5.0	14	8.8	<5.0
Na (mg/L)	13	23	13.6	13.8	13	<0.50	0.89	-	-	12
Cl (mg/L)	10	18	10	8.4	12	<0.50	0.58	-	-	12
Fl (mg/L)	<0.10	<0.10	<0.10	<0.10	0.1	<0.1	<0.1	<0.1	<0.1	-
TKN (mg/L)	3.6	5.3	2.2	3.9	3.8	<1.0	1.4	8.4	5.9	3.9
NO3-N (mg/L)	3.2	0.86	0.74	2.7	1.2	1.4	0.34	0.37	0.34	0.4
NH3-N (mg/L)	1.4	3.5	1.3	1.9	2.4	<0.50	0.78	<0.5	5.6	2.0
TDS (mg/L)	170	137	134	95	96	378	38	222	69	88
EC (umho/CM)	126	-	107	-	-	-	-	125	144	119
TC-15 (MPN/100 ml)	4	15	30	<2	70	<2	2	2	-	22
FC-15 (MPN/100 ml)	<2	<2	30	<2	<2	<2	<2	<2	-	2
Alkalinity, Total (mg/L)	-	-	-	-	-	-	13	40	40	29
Hardness (mg/L)	28	24	28	121	28	24	6.9	20	24	18
Turbidity (NTU)	4.6	11	3.2	3.6	4.4	0.36	0.75	-	-	0.93

\* Estimated "J Flag" Values

# BEAR VALLEY WATER DISTRICT

## POLISHING RESERVOIR

### DATA FROM OUTFALL TAP 2010

	RESERVOIR OUTFALL SAMPLE TAP GRAB	RESERVOIR OUTFALL SAMPLE TAP GRAB	RESERVOIR OUTFALL SAMPLE TAP GRAB	RESERVOIR OUTFALL SAMPLE TAP GRAB	RESERVOIR OUTFALL SAMPLE TAP COMPOSITE	RESERVOIR OUTFALL SAMPLE TAP COMPOSITE	RESERVOIR OUTFALL SAMPLE TAP COMPOSITE	RESERVOIR OUTFALL SAMPLE TAP COMPOSITE
Parameter	12/30/09	1/15/10	2/24/10	6/16/10	6/17/10	6/20/10	6/22/10	6/29/10
Aluminum (mg/L)	0.241	0.167	0.088	0.051	<0.050	<0.050	<0.050	<0.050
Aluminum, Dissolved (mg/L)	-	-	-	<0.050	<0.050	<0.050	<0.050	<0.050
Aluminum, Acid Soluble (mg/L)	-	-	-	-	<0.050	<0.050	<0.050	<0.050
Boron (mg/L)	-	-	0.074	<0.050	-	-	-	-
Copper by ICP (mg/L)	0.0047	0.0044	0.0066	-	-	-	-	-
Copper by ICP/MS (mg/L)	-	-	-	0.003	0.0028	0.0027	0.0028	0.0019
Copper, Dissolved (mg/L)	<0.003	<0.003	0.0057	-	-	-	-	-
Copper, Dissolved by ICP/MS (mg/L)	-	-	-	0.0015	0.0024	0.0015	0.0011	0.0024
Copper, Acid Soluble by Icp/MS (mg/L)	-	-	-	0.0033	0.0027	0.0022	0.0024	0.002
Iron (mg/L)	5.65	7.03	6.1	1.6	1.4	2.1	1.8	3.0
Iron, Dissolved (mg/L)	2.52	2.37	0.486	0.7	0.55	0.73	0.56	0.77
Iron, Acid Soluble, (mg/L)	-	-	-	1.5	1.3	2.0	1.8	2.9
Manganese (mg/L)	0.643	0.647	0.38	0.24	0.26	0.39	0.37	0.47
Manganese, Dissolved (mg/L)	0.515	0.531	0.29	0.22	0.24	0.34	0.34	0.18
Manganese, Acid Soluble (mg/L)	-	-	-	0.24	0.26	0.38	0.36	0.47
BOD (mg/L)	20	16	15	-	-	-	-	-
CBOD (mg/L)	11	15	-	6.0	3.5	4.2	2.5	6.9
TSS (mg/L)	58	66	25	8.2	11	12	14	15
Na (mg/L)	29	29	-	-	-	-	16	-
Cl (mg/L)	20	20	-	-	-	-	15	-
Fl (mg/L)	-	<0.10	<0.10	<0.10	-	-	<0.10	-
TKN (mg/L)	18	16	21	12	12	-	-	-
NO3-N (mg/L)	<0.050	<0.050	0.21	<0.050	11	-	-	-
NH3-N (mg/L)	-	11	20	11	<0.050	-	-	-
TDS (mg/L)	197	185	236	110	120	102	99	98
EC (umho/CM)	333	341	-	247	235	244	233	237
TC-15 (MPN/100 ml)	80	23	4	20	-	-	-	-
FC-15 (MPN/100 ml)	<2	<2	<2	<2	-	-	-	-
Hardness (mg/L)	-	63	-	28	32	34	36	34
Alkalinity, Total (mg/L)	-	-	-	72	74	78	72	78
Turbidity (NTU)	-	40	-	5.39	-	-	-	-
pH (SU)	7.0	-	6.9	5.94	-	-	-	-

\* Estimated "J Flag" Values

# BEAR VALLEY WATER DISTRICT POLISHING RESERVOIR MONITORING PRIORITY POLLUTANTS 2010

	RESERVOIR SURFACE	OUTFALL SAMPLE TAP	
Parameter	6/15/10	6/16/10	
Asbestos (MFL)	<2.2	<2.2	
2,3,7,8-TCDD (pg/L)	<10	<10	No Dioxin Species Detected
Antimony (mg/L)	<0.0005	<0.0005	
Arsenic (mg/L)	0.00038*	0.00053	
Barium (mg/L)	0.010	0.014	
Beryllium (mg/L)	<0.0005	<0.0005	
Cadmium (mg/L)	<0.00025	<0.00025	
Chromium (mg/L)	.00033*	0.00044*	
Chromium +6 (mg/L)	<0.0050	<0.0050	
Cyanide (mg/L)	<0.005	<0.005	
Lead (mg/L)	0.0001*	0.00017*	
Mercury (µg/L)	0.0013	0.0037	
Nickel (mg/L)	0.00042*	0.00069	
Selenium (mg/L)	<0.0005	<0.0005	
Silver (mg/L)	<0.00010	<0.00019	
Thallium (mg/L)	<0.0005	<0.0005	
Zinc (mg/L)	0.0059	0.016	
Nitrite-N (mg/L)	<0.050	<0.050	
EPA 608 Pesticides	ND	ND	No Chlorinated Pesticide/PCB Compounds Detected
EPA 624	2 compounds	2 compounds	ND for all but Chloroform and Toluene
Chloroform (µg/L)	2.2	3.3	
Toluene (µg/L)	0.28*	3.2	
Methylene Chloride (µg/L)	ND	0.22*	Methylene Chloride Detected In Field Blank: 0.19* µg/L
EPA 625	ND	ND	No Semi-Volatile Organic Compounds Detected
EPA 8270	ND	ND	No Polycyclic Aromatic Hydrocarbon Compounds Detected

\* J-flag values

# BEAR VALLEY WATER DISTRICT SPECIAL SAMPLING PROJECT 2010 POLISHING RESERVOIR pH

Date/Time	pH (SU)	Temp C	Calibration Slope -58.3 (+ or - 3)	Location
4/2/10 10:30	6.56	0.0	-56.4	South End
4/8/10 10:15	6.16	0.2	-56.3	South End
4/9/10 8:21	6.53	0.4	-55.7	South End
4/9/10 13:52	6.88			South End
4/9/10 16:10	6.87	0.2		South End
4/10/10 8:45	6.97	0.1	-55.1	South End
4/10/10 13:39	7.19	0.9		South End
4/10/10 16:45	6.48	0.8		South End
4/11/10 8:05	6.69	0.1	-55	South End
4/13/10 16:00	6.51	0.4	-54.1	South End
4/14/10 8:30	6.9	0.5	-55.3	South End
4/14/10 16:00	6.48	0.3		South End
4/15/10 8:20	6.43	0.5	-54.9	South End
4/15/10 13:00	6.36	0.4		South End
4/15/10 15:30	6.45	0.5		South End
4/16/10 8:38	6.29	0.3	-54.5	South End
4/16/10 15:45	6.41	0.7		South End
4/17/10 8:43	6.75	0.7	-54.6	South End
4/18/10 8:41	7.14	1	-54.4	
4/18/10 13:25	7.7	1.3		
4/19/10 10:05	7.6	1.2	-55	
4/24/10 15:05	6.21	0.4	-54.3	South End
4/25/10 8:27	6.79	0.4	-54.6	South End
4/25/10 13:32	6.1	1.9		South End
4/26/10 8:12	5.85	0.3	-54.7	South End
4/26/10 13:34	5.23	0.3		South End
4/27/10 8:15	6.5	0.3	-54.6	South End
4/28/10 8:10	6.11	0	-54.3	South End
4/29/10 9:30	6.46	0.3	-54.4	South End
4/29/10 13:00	5.24	1.1		South End
4/30/10 11:35	6.34	0.5	-54.6	South End
4/30/10 12:58	5.89	0.4		South End
5/1/10 8:36	5.9	0.2	-55.8	South End
5/1/10 13:25	5.3	1.4		South End
5/2/10 8:45	5.99	0.4	-59.9	South End

# BEAR VALLEY WATER DISTRICT SPECIAL SAMPLING PROJECT 2010 POLISHING RESERVOIR pH

Date/Time	pH (SU)	Temp C	Calibration Slope -58.3 (+ or - 3)	Location
5/2/10 13:30	5.7	1.1		South End
5/3/10 8:15	6.48	0.3	-56	South End
5/4/10 8:50	6.79	0.2	-55.9	South End
5/5/10 8:30	7.45	1.2	-55.8	South End
5/5/10 15:00	6.7	2.3		South End
5/6/10 9:40	7.23	1.4	-56.1	South End
5/6/10 15:45	5.04	0.5		South End
5/6/10 16:00	5.54	2.5		North End
5/7/10 8:47	6.11	0.9	-56.3	South End
5/8/10 8:18	6.75	0.5	-55.7	South End
5/8/10 8:18	7.39	1.3		North End
5/8/10 13:30	7.53	0.6		South End
5/8/10 13:30	6.88	2.2		North End
5/9/10 8:12	4.93	0.4	-55.8	South End
5/9/10 8:33	5.42	0.8		North End
5/9/10 13:34	7.34	0.9		South End
5/9/10 13:40	7.06	0.8		North End
5/10/10 8:53	6.38	0.3	-56	South End
5/10/10 9:03	6.21	1.5		North End
5/10/10 13:28	5.1	0.5		South End
5/10/10 13:32	5.74	0.2		North End
5/11/10 9:02	5.23	0.3	-55.9	South End
5/11/10 9:12	5.11	0.8		North End
5/11/10 15:15	6.08	1.1		South End
5/11/10 15:30	5.81	0.7		North End
5/12/10 8:15	7.5	0.1	-56	South End
5/12/10 8:30	7.07	0.9		North End
5/12/10 13:30	5.66	1.2		South End
5/12/10 13:30	5.37	3.2		North End
5/12/10 15:30	6.8	1.3		South End
5/12/10 15:45	6.59	2.9		North End
5/13/10 11:25	5.89	4	-56.3	North End
5/14/10 9:40	7.55	0.4	-56.1	South End
5/14/10 9:50	5.38	2.1		North End
5/14/10 14:05	4.56	0.4		South End

Meter also used on Treatment Pond

5/7/10 Meter no longer used for influent

Meter also used on Treatment Pond

Meter also used on Treatment Pond

# BEAR VALLEY WATER DISTRICT SPECIAL SAMPLING PROJECT 2010 POLISHING RESERVOIR pH

Date/Time	pH (SU)	Temp C	Calibration Slope -58.3 (+ or - 3)	Location
5/14/10 14:15	5.76	4.6		South End
5/15/10 9:40	5.69	0.4	-56.2	South End
5/15/10 9:50	5.64	2.8		North End
5/15/10 16:05	5.13	1.1		South End
5/15/10 16:20	5.46	3.3		North End
5/16/10 9:25	6.6	0.4	-55.9	South End
5/16/10 9:35	6.81	1.8		North End
5/16/10 16:00	5.03	0.6		South End
5/16/10 16:10	5.67	2		North End
5/17/10 9:05	5.57	0.1	-55.9	South End
5/17/10 9:05	6.21	2.4		North End
5/18/10 8:15	4.42	1	-56	South End
5/18/10 8:15	5.6	1.6		North End
5/18/10 12:30	4.76	1		South End
5/18/10 12:30	5.8	2.8		North End
5/18/10 15:40	5.67	2.9		South End
5/18/10 15:50	5.61	2		North End
5/19/10 10:25	6.68	1	-55.8	South End
5/19/10 10:35	5.44	2		North End
5/20/10 8:15	8.19	0.9	-55.6	South End
5/20/10 8:25	7.48	1.6		North End
5/21/10 8:42	8.17	0.1	-55.9	South End
5/21/10 8:52	7.05	1.3		North End
5/21/10 16:30	5.03	0.5		South End
5/21/10 16:40	5.47	2.1		North End
5/22/10 8:50	7.52	1.7	-55.7	North End
5/22/10 9:00	6.43	1.8		South End
5/22/10 13:28	4.67	1.5		South End
5/22/10 13:34	5.61	0.8		North End
5/23/10 8:25	6.28	0.3	-55.2	South End
5/23/10 8:33	5.67	0.7		North End
5/23/10 18:15	5.4	0.6		South End
5/23/10 18:25	5.94	2.9		North End
5/24/10 11:53	5.29	0.4	-55.7	South End
5/24/10 11:58	5.4	0.3		South End

# BEAR VALLEY WATER DISTRICT SPECIAL SAMPLING PROJECT 2010 POLISHING RESERVOIR pH

Date/Time	pH (SU)	Temp C	Calibration Slope -58.3 (+ or - 3)	Location
5/24/10 12:01	5.03	0.7		South End
5/24/10 12:15	5.96	3.4		North End
5/24/10 17:15	5.4	1.2		South End
5/24/10 17:25	5.6	1.7		North End
5/25/10 8:34	5.23	0.1	-55.5	South End
5/25/10 8:45	5.98	1.3		North End
5/25/10 13:23	5.41	0.7		South End
5/25/10 13:39	5.94	2.2		North End
5/26/10 8:30	5.55	0.6	-55.2	South End
5/26/10 8:45	5.87	1.6		North End
5/27/10 8:50	5.78	0.4	-55.0	South End
5/27/10 9:00	5.84	0.9		North End
5/27/10 15:30	5.25	1.5		North End Only, Blizzard
5/28/10 8:47	5.13	0.3	-55.3	South End
5/28/10 9:00	5.21	0.1		North End
5/28/10 13:16	5.6	1.8		South End
5/28/10 13:25	5.7	2.0		North End
5/29/10 8:06	5.19	1.5	-55.4	South End
5/29/10 8:13	5.46	1.2		North End
5/29/10 13:14	5.4	1.9		South End
5/29/10 13:30	5.67	3.4		North End
5/30/10 8:23	5.21	1.2	-55.3	South End
5/30/10 8:30	5.81	1.5		North End
5/30/10 13:06	5.17	1.2		South End
5/30/10 13:15	5.88	4.5		North End
5/31/10 8:20	4.48	0.9	-54.7	South End
5/31/10 8:30	5.6	1.6		North End
5/31/10 12:42	5.41	1.1		South End
5/31/10 12:52	5.91	3.2		North End
5/31/10 17:55	5.21	0.4		South End
5/31/10 18:05	5.71	2.3		North End
6/1/10 8:31	5.88	0.6	-55.6	South End
6/1/10 8:50	5.97	2.1		North End
6/1/10 12:59	5.05	0.2		South End
6/1/10 16:45	5.59	2.5		North End

# BEAR VALLEY WATER DISTRICT SPECIAL SAMPLING PROJECT 2010 POLISHING RESERVOIR pH

Date/Time	pH (SU)	Temp C	Calibration Slope -58.3 (+ or -)	Location
6/1/10 17:00	5.79	2.8		South End
6/2/10 8:20	5.5	3.3	-54.9	South End
6/2/10 8:30	6.35	3.7		North End
6/2/10 13:10	5.68	5.7		South End
6/2/10 13:20	5.73	4.6		North End
6/2/10 17:20	5.74	4.3		South End
6/2/10 17:30	5.82	5.2		North End
6/3/10 8:40	4.42	1.8	-55.1	South End
6/3/10 8:50	6.11	3.1		North End
6/3/10 16:50	5.54	4.6		South End
6/3/10 17:00	5.84	3.1		North End
6/4/10 8:30	4.67	2.2	-55.1	South End
6/4/10 8:50	5.73	2.7		North End
6/4/10 17:10	4.89	2.8		South End
6/4/10 17:20	5.56	3.5		North End
6/5/10 8:42	4.95	1.9	-54.9	South End
6/5/10 8:50	5.33	2.7		North End
6/5/10 16:35	4.96	1.8		South End
6/5/10 16:45	5.12	4.6		North End
6/6/10 8:45	4.71	3	-54.9	South End
6/6/10 8:55	4.86	1.8		North End
6/6/10 16:10	4.91	4		South End
6/6/10 16:25	4.95	5		North End
6/7/10 8:30	5.19	3.7	-57.2	South End
6/7/10 8:45	5.42	5.8		North End
6/7/10 17:30	5.9	6.2		South End
6/7/10 17:45	5.54	6.1		North End
6/8/10 8:15	5.52	5.8	-56.7	South End
6/8/10 8:30	5.37	6.3		North End
6/8/10 13:20	5.87	5.7		South End
6/8/10 13:30	5.38	8.9		North End
6/9/10 8:00	5.49	5.6	-56.4	South End
6/9/10 8:20	5.35	6.6		North End
6/9/10 16:50	5.58	5.8		South End
6/9/10 17:00	5.73	6.9		North End

Ice Cleared

# BEAR VALLEY WATER DISTRICT SPECIAL SAMPLING PROJECT 2010 POLISHING RESERVOIR pH

Date/Time	pH (SU)	Temp C	Calibration Slope -58.3 (+ or - 3)	Location
6/10/10 8:05	5.58	7.9	-56.1	South End
6/10/10 8:20	5.93	8.2		North End
6/10/10 16:50	5.63	7.7		South End
6/10/10 17:05	5.96	8.5		North End
6/11/10 8:29	5.78	7.8	-55.4	South End
6/11/10 8:43	6.01	7.8		North End
6/11/10 17:10	6.25	9.4		South End
6/11/10 17:45	6.34	9.5		North End
6/12/10 8:25	6.11	7.5	-55.1	South End
6/12/10 8:35	6.06	7.8		North End
6/12/10 16:10	5.98	7.8		South End
6/12/10 16:20	6.03	7.9		North End
6/13/10 8:30	6.01	9.1	-56.2	South End
6/13/10 8:41	6.51	8.9		North End
6/13/10 16:00	6.64	12.6		South End
6/13/10 16:15	7.62	13		North End
6/14/10 8:15	8.7	14.77	-56.1	South End
6/14/10 8:30	8.46	12.1		North End
6/14/10 9:10	6.26	8		Outfall Sample Tap, 4 ft Deep
6/14/10 16:55	9.69	13.1		South End
6/14/10 17:00	9.11	17.3		North End
6/14/10 17:30	6.61	7.9		Outfall Sample Tap, 4 ft Deep
6/15/10 9:30	10.3	12.2	-56.2	South End Surface From Boat
6/15/10 9:45	7.93	10.7		From Boat 3 Feet Below Surface w/pump
6/15/10 17:18	9.76	14.5		South End
6/15/10 17:25	9.43	15.9		North End
6/15/10 17:40	6.07	6.4		Outfall Sample Tap, 4 ft Deep
6/16/10 7:45	5.94	8.2	-55.6	Outfall Sample Tap, 4 ft Deep
6/16/10 8:00	9.35	13.3		North End
6/16/10 16:25	10.27	19.3		North End
6/16/10 16:40	6.31	6.3		Outfall Sample Tap, 4 ft Deep
6/17/10 7:45	9.72	14.2	-56.0	North End
6/17/10 8:00	6.15	6		Outfall Sample Tap, 4 ft Deep
6/18/10 7:52	9.87	15.1	-56.1	North End

# BEAR VALLEY WATER DISTRICT SPECIAL SAMPLING PROJECT 2010 POLISHING RESERVOIR pH

Date/Time	pH (SU)	Temp C	Calibration Slope -58.3 (+ or - 3)	Location
6/18/10 8:25	6.27	6		Outfall Sample Tap, 4 ft Deep
6/18/10 16:55	6.31	7		Outfall Sample Tap, 4 ft Deep
6/18/10 17:05	9.43	17.6		North End
6/19/10 7:57	9.96	15	-55.7	North End
6/20/10 7:49	9.88	15.6	-55.9	North End
6/20/10 8:13	6.07	6		Outfall Sample Tap, 4 ft Deep
6/21/10 7:33	9.68	14.8	-56.1	North End
6/21/10 7:50	6.21	5.9		Outfall Sample Tap, 4 ft Deep
6/21/10 17:10	10.15	20.5		North End
6/21/10 17:20	6.19	6.6		Outfall Sample Tap, 4 ft Deep
6/23/10 17:45	10.29	21.9	-58.1	North End <b>NEW PROBE</b>
6/23/10 17:47	6.92	6.1		Outfall Sample Tap, 4 ft Deep
6/24/10 7:40	6.39	7.3	-57.9	Outfall Sample Tap, 4 ft Deep
6/24/10 7:50	9.87	18.2		North End
6/24/10 17:15	6.71	7		Outfall Sample Tap, 4 ft Deep
6/24/10 17:25	10.32	20.6		North End
6/25/10 8:40	6.72	6.3	-57.8	Outfall Sample Tap, 4 ft Deep
6/25/10 17:10	6.67	8.2		Outfall Sample Tap, 4 ft Deep
6/25/10 17:20	10.26	18.2		North End
6/26/10 8:26	6.63	6.3	-57.8	Outfall Sample Tap, 4 ft Deep
6/26/10 9:22	10.05	17.3		North End
6/27/10 8:18	6.57	6.4	-57.5	Outfall Sample Tap, 4 ft Deep
6/27/10 8:20	10.08	17.6		North End
6/27/10 16:50	6.35	8.1		Outfall Sample Tap, 4 ft Deep
6/27/10 17:05	9.77	24.1		North End
6/28/10 8:00	6.67	6.6	-57.5	Outfall Sample Tap, 4 ft Deep
6/28/10 8:05	9.67	20		North End
6/28/10 16:45	9.29	24.9		North End
6/28/10 16:55	6.96	7.3		Outfall Sample Tap, 4 ft Deep
6/29/10 7:54	6.54	6.6	-57.5	Outfall Sample Tap, 4 ft Deep
6/29/10 8:02	10.1	20.1		North End
6/30/10 7:45	6.2	12.9		From Boat 5 Feet Below Surface w/pump

# BEAR VALLEY WATER DISTRICT SPECIAL SAMPLING PROJECT 2010 POLISHING RESERVOIR pH

Date/Time	pH (SU)	Temp C	Calibration Slope -58.3 (+ or - 3)	Location
6/30/10 8:15	6.76	6.3	-57.8	Outfall Sample Tap, 4 ft Deep
6/30/10 8:30	10.16	6.3	-57.8	North End

HIGH pH 4/2/10-6/30/10: 10.32  
 LOW pH 4/2/10-6/30/10: 4.42  
 AVG pH 4/2/10-6/30/10: 6.60  
 Valid Data Points: 181

# BEAR VALLEY WATER DISTRICT SPECIAL SAMPLING PROJECT 2010 BLOODS CREEK pH

Date/Time	pH (SU)	Temp C	Calibration Slope
4/9/10 8:00	6.25		-55.7
4/9/10 13:44	6.39		
4/9/10 15:45	5.85	3.4	
4/10/10 8:20	6.55		-55.1
4/10/10 13:29	6.95		
4/10/10 16:30	5.87		
4/11/10 7:48	6.36	1.1	-55
4/12/10 9:25	6.27	0.1	-55
4/12/10 13:54	5.6	0.9	
4/13/10 15:40	5.62	4	-54.1
4/14/10 8:13	6.21	0.9	-55.3
4/14/10 15:40	5.68	3.07	
4/15/10 8:50	6.37	0.9	-54.9
4/15/10 12:45	5.67	3.5	
4/15/10 15:00	5.95	4.5	
4/16/10 8:20	6.08	1.4	-54.5
4/16/10 15:15	5.92	4	
4/17/10 8:23	6.06	1	-54.6
4/17/10 15:45	5.65	3.6	
4/18/10 8:22	6.15	1.1	-55
4/18/10 13:17	6.32	3.6	
4/19/10 8:18	6.25	0.9	-55
4/19/10 13:58	5.91	2	
4/20/10 9:20	5.73	0.3	-54.9
4/20/10 13:40	6.8	0.9	
4/21/10 8:10	6.66	1.2	-54.7
4/22/10 8:10	6.39	1.3	-54.7
4/22/10 12:15	5.91	3.3	
4/23/10 8:05	6.78	1.3	-54.7
4/23/10 13:08	6.6	4.6	
4/24/10 8:05	5.98	1.3	-54.3
4/24/10 14:22	6.1	4.2	
4/25/10 13:20	5.93	3.5	-54.6
4/26/10 8:02	6.08	1.2	-54.7
4/26/10 13:23	5.95	3.3	
4/27/10 8:01	5.26	0.6	-54.6
4/27/10 14:30	6.44	1.2	
4/28/10 8:10	6.22	1.1	-54.3
4/29/10 9:15	6.45	1.3	-54.4
4/29/10 12:55	5.82	3.4	
4/30/10 11:30	5.95	3.3	-54.6
4/30/10 12:48	5.82	3.4	
5/1/10 8:20	6.05	1.4	-55.8
5/1/10 13:20	6.0	5.2	
5/2/10 8:34	5.91	1.4	-59.9
5/2/10 13:17	5.99	4.3	
5/3/10 8:03	6.04	1.3	56
5/3/10 14:30	5.77	3.7	

<NOTE> Colored cells: slope out of range

# BEAR VALLEY WATER DISTRICT SPECIAL SAMPLING PROJECT 2010 BLOODS CREEK pH

Date/Time	pH (SU)	Temp C	Calibration Slope
5/4/10 8:24	6.21	1.3	-55.9
5/5/10 8:10	6.13	1.2	55.8
5/5/10 14:45	5.74	2.7	
5/6/10 9:15	6.41	1.7	56.1
5/6/10 16:15	6.03	3.2	
5/7/10 8:29	6.34	1.4	-56.3
5/8/10 8:18	6.29	1.3	-55.7
5/8/10 13:22	6.69	4.2	
5/11/10 15:45	5.87	5.5	55.9
5/12/10 8:40	6.21	1.8	-56
5/12/10 13:30	5.66	6.2	
5/12/10 16:00	6.42	5.7	
5/13/10 11:40	5.98	4.2	-56.3
5/14/10 9:55	6.2	2.9	-56.1
5/14/10 14:20	5.72	4.6	
5/15/10 9:00	5.3	2.2	-56.2
5/15/10 16:30	5.88	2	
5/16/10 9:40	6.46	2.7	-55.9
5/16/10 16:20	5.78	2.5	
5/18/10 8:45	5.62	1.8	-56
5/18/10 12:30	5.78	4	
5/18/10 16:00	5.95	3.3	
5/19/10 10:45	5.93	3.5	-55.8
5/21/10 9:00	6.64	2	-55.9
5/22/10 9:05	6.41	1.8	-55.7
5/22/10 13:40	5.72	3	
5/23/10 18:30	6.16	2.7	-55.2
5/24/10 8:45	6.17	1.8	-55.7
5/24/10 13:00	6.16	3.7	
5/24/10 17:30	6.07	3.5	
5/25/10 9:00	6.12	2.1	-55.5
5/25/10 13:46	6.19	5.9	
5/26/10 8:55	6.54	1.9	-55.2
5/27/10 9:10	6.17	1	-55
5/27/10 15:30	5.28	1.9	
5/28/10 9:10	5.38	0.8	-55.3
5/28/10 13:40	6.11	5.9	
5/29/10 8:24	6.32	1.7	-55.4
5/29/10 13:37	6.21	7.9	
5/30/10 8:58	6.17	2.6	-55.3
5/30/10 13:17	5.97	7.2	
5/31/10 8:56	6.15	2.6	-54.7
5/31/10 12:57	6.19	5	
5/31/10 18:15	5.78	2.3	
6/1/10 8:59	6.2	2.4	-55.6
6/1/10 17:05	5.89	2.9	
6/2/10 8:10	5.88	1.9	-54.9
6/2/10 13:30	5.62	5.5	

# BEAR VALLEY WATER DISTRICT SPECIAL SAMPLING PROJECT 2010 BLOODS CREEK pH

Date/Time	pH (SU)	Temp C	Calibration Slope
6/2/10 17:30	5.81	4.9	
6/3/10 9:00	5.9	2.1	-55.1
6/3/10 17:15	6.04	2.5	
6/4/10 8:55	5.84	2.1	-55.1
6/4/10 17:30	6.02	2.3	
6/5/10 9:04	5.43	2.7	-54.9
6/5/10 16:55	5.62	2.6	
6/6/10 9:03	5.18	2.8	-54.9
6/6/10 16:35	5.25	3.1	
6/7/10 9:00	5.38	3.2	
6/7/10 18:00	5.33	3.5	-57.2
6/8/10 9:00	6.29	3.1	-56.7
6/8/10 13:45	5.18	7.5	
6/9/10 7:30	6.17	3.4	-56.4
6/10/10 8:45	5.9	2.5	-56.1
6/10/10 17:20	5.94	3.1	
6/11/10 8:50	5.89	2.7	-55.4
6/11/10 17:45	5.51	5.2	
6/12/10 8:49	5.85	3.1	-55.1
6/12/10 16:35	5.87	3.1	
6/13/10 8:59	6.06	3.6	-56.2
6/13/10 16:25	6.32	8.5	
6/14/10 8:40	6.7	3.4	-56.1
6/15/10 8:30	5.61	3.7	-56.2
6/15/10 17:40	6.4	7	
6/16/10 9:00	6.78	3.8	-55.6
6/16/10 17:00	6.84	3.9	
6/17/10 7:55	6.33	2.8	-56
6/18/10 8:01	6.57	3.3	-56.1
6/18/10 17:20	6.26	9.1	
6/19/10 8:10	6.29	3.5	-55.7
6/20/10 8:01	6.91	3.3	-55.9
6/21/10 7:42	6.82	4	-56.1
6/23/10 17:40	6.84	10.1	-58.1
6/24/10 8:00	8.29	5.3	-57.9
6/24/10 17:05	6.31	10.1	
6/25/10 8:30	6.87	5.7	-57.8
6/25/10 9:50	5.9	7.5	<b>IMPLEMENT LOW-IONIC STRENGTH METHOD</b>
6/25/10 17:00	6.09	10.5	
6/26/10 8:21	6.23	7.9	-57.8
6/27/10 8:12	6.19	7.9	-57.5
6/27/10 16:45	6.52	15.7	
6/28/10 8:00	6.06	8.3	-57.5
6/28/10 17:05	6.08	8.3	
6/28/10 17:10	6.05	16.4	
6/29/10 7:48	6.13	9.3	-57.5
6/30/10 8:15	6.31	8.6	-57.6

<Note> Reservoir Tested Prior

<Note> Reservoir Tested Prior

<Note> Reservoir Tested Prior

<Note> Reservoir Tested Prior

**NEW PROBE**

<Note> Reservoir Tested Prior

**BEAR VALLEY WATER DISTRICT  
SPECIAL SAMPLING PROJECT 2010  
BLOODS CREEK pH**

Date/Time	pH (SU)	Temp C	Calibration Slope
HIGH pH:	6.87		
LOW pH:	5.18		
AVERAGE pH:	6.07		
Valid Data Points:	83		

# BEAR VALLEY WATER DISTRICT BLOODS CREEK MONITORING 2010

	BLOODS CREEK UNDER BRIDGE	BLOODS CREEK UNDER BRIDGE	BLOODS CREEK UNDER BRIDGE	BLOODS CREEK UNDER BRIDGE	BLOODS CREEK UNDER BRIDGE	BLOODS CREEK UNDER BRIDGE	BLOODS CREEK UNDER BRIDGE	BLOODS CREEK UNDER BRIDGE
Parameter	1/15/10	2/24/10	4/2/10	4/21/10	5/5/10	6/2/10	6/15/10	6/16/10
Aluminum (mg/L)	<0.050	<0.050	<0.050	0.088	0.100	<0.050	0.070	<0.050
Aluminum, Dissolved (mg/L)	-	-	-	-	-	-	<0.050	<0.050
Aluminum, Acid Soluble (mg/L)	-	-	-	-	-	-	<0.050	<0.050
Copper (mg/L)	<0.003	<0.003	<0.001*	<0.003	<0.003	-	-	-
Copper by Icp/MS						<0.0005	<0.0005	<0.0005
Copper, Dissolved (mg/L)	<0.003	0.0033	<0.002	<0.003	<0.003	0.00091	-	-
Copper, Dissolved by ICP/MS (mg/L)	-	-	-	-	-	-	<0.0005	<0.0005
Copper, Acid Soluble by ICP/MS (mg/L)	-	-	-	-	-	-	<0.0005	<0.0005
Iron (mg/L)	19.1	0.65	0.083	0.059	0.075	<0.050	0.057	<0.050
Iron, Dissolved (mg/L)	18.0	0.33	0.057	0.04	<0.050	<0.020	<0.050	<0.050
Iron, Acid Soluble, (mg/L)	-	-	-	-	-	-	<0.050	<0.050
Manganese (mg/L)	4.28	0.075	0.014	0.0092	<0.020	<0.020	<0.020	<0.020
Manganese, Dissolved (mg/L)	4.27	0.073	0.013	0.0087	<0.020	<0.020	<0.020	<0.020
Manganese, Acid Soluble (mg/L)	-	-	-	-	-	-	<0.020	<0.020
Na (mg/L)	6.9	3.44	2.8	2.4	1.9	1.9	-	-
Cl (mg/L)	8.6	4.5	3.6	2.4	1.4	0.96	-	-
Fluoride (mg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	0.1	<0.10	0.1
TKN (mg/L)	<1.0	<1.0	<1.0	<0.050	<0.050	<1.0	1.1	<1.0
NO3-N (mg/L)	<0.050	0.097	<0.050	0.097	<0.050	<0.050	<0.050	<0.050
NH3-N (mg/L)	0.67	<0.50	0.56	<0.50	0.56	<0.50	<0.5	<0.50
TDS (mg/L)	142	61	58	37	42	30	42	40
EC (umho/CM)	251	61.9	42.3	35.8	29.9	26.5	29.9	27.2
TC-15 (MPN/100 ml)	300	240	80	70	27	110	90	80
FC-15 (MPN/100 ml)	<2	17	<2	2	<2	13	4	4
Hardness (mg/L)	91	36	20	20	20	14	12	10
Alkalinity (mg/L)	-	-	-	-	-	12	10	14
Turbidity (NTU)	18	1.4	0.3	1.0	0.7	0.5	-	-

# BEAR VALLEY WATER DISTRICT BLOODS CREEK MONITORING 2010

Parameter	BLOODS CREEK UNDER BRIDGE	BLOODS CREEK UNDER BRIDGE	
	6/15/10	6/16/10	
Asbestos (MFL)	<2.2	<0.2	
2,3,7,8-TCDD (pg/L)	<10	<10	No Dioxin Species Detected
Antimony (mg/L)	<0.0005	<0.0005	
Arsenic (mg/L)	<0.0005	<0.0005	
Barium (mg/L)	0.0098	0.010	
Beryllium (mg/L)	<0.0005	<0.0005	
Cadmium (mg/L)	<0.00025	<0.00025	
Chromium (mg/L)	0.00042*	0.00026*	
Chromium +6 (mg/L)	<0.0050	<0.0050	
Cyanide (mg/L)	<0.005	<0.005	
Lead (mg/L)	<0.0005	<0.0005	
Mercury (µg/L)	0.00095	0.00094	
Nickel (mg/L)	0.00012*	<0.0005	
Selenium (mg/L)	<0.0005	<0.0005	
Silver (mg/L)	<0.00019	<0.00019	
Thallium (mg/L)	<0.0005	<0.0005	
Zinc (mg/L)	0.0032	0.0019	
Nitrite-N (mg/L)	<0.050	<0.050	
EPA 608 Pesticides	ND	ND	No Chlorinated Pesticide/PCB Compounds Detected
EPA 624	ND	ND	No Volatile Organic Compounds Detected
EPA 625	ND	ND	No Semi-Volatile Organic Compounds Detected
EPA 8270	ND	ND	No Polycyclic Aromatic Hydrocarbon Compounds Detected

\* J-flag values

**BEAR VALLEY WATER DISTRICT  
INFLUENT METALS and NITROGEN  
2009-2010**

<b>Parameter</b>	<b>1/7/09</b>	<b>2/4/09</b>	<b>3/4/09</b>	<b>9/30/09</b>	<b>12/22/09</b>	<b>2/15/10</b>	<b>4/1/10</b>	<b>5/4/10</b>	<b>6/2/10</b>	<b>7/7/10</b>	<b>Average</b>
Aluminum (mg/L)	NA	NA	NA	0.62	0.519	0.28	0.22	0.12	0.095	0.77	0.375
Copper (mg/L)	0.03	0.019	0.017	0.059	0.055	0.038	0.026	0.0076	0.010	0.038	0.030
Copper, Dissolved (mg/L)	0.02	0.01	0.0056	NA	0.015	0.021	0.0073	0.0046	0.003	0.021	0.012
Fluoride mg/L	NA	NA	NA	<0.10	2.5	<0.10	<0.10	<0.10	0.1	<.1	<0.44
Hardness as CaCO3 (mg/L)	45	51	39	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Dissolved (mg/L)	45	64	32	NA	NA	NA	NA	NA	NA	NA	NA
Iron (mg/L)	0.385	0.307	0.535	0.634	0.843	0.367	0.438	0.07	0.25	1.3	0.513
Iron, Dissolved (mg/L)	0.173	0.142	0.091	NA	0.098	0.130	0.073	<0.050	<0.050	0.210	0.113
Manganese (mg/L)	0.033	0.025	0.02	0.047	0.049	0.038	0.029	<0.02	<0.02	0.054	0.034
Manganese, Dissolved (mg/L)	0.017	0.019	0.012	NA	0.01	0.015	0.013	<0.005	<0.02	0.031	0.016
Nitrate+Nitrite (N)	NA	NA	NA	NA	NA	NA	0.37	NA	NA	NA	0.370
Ammonia (N)	NA	NA	NA	NA	NA	NA	14	NA	NA	NA	14.0
TKN	NA	NA	NA	NA	NA	NA	23	NA	NA	NA	23.0

NA: Not Analyzed

**BEAR VALLEY WATER DISTRICT  
TREATMENT POND  
EFFLUENT METALS 2010**

<b>Parameter</b>	<b>2/12/10</b>	<b>4/2/10</b>	<b>5/5/10</b>	<b>6/2/10</b>	<b>7/7/10</b>	<b>Average</b>
Aluminum (mg/L)	<0.05	0.088	0.11	0.097	0.25	0.119
Boron (mg/L)	0.075	0.11	0.057	0.034	0.038	0.0628
Copper (mg/L)	0.0066	0.009	0.0066	0.004	0.0082	0.007
Copper, Dissolved (mg/L)	0.0076	0.0062	0.0064	0.0027	0.007	0.0060
Iron (mg/L)	0.591	0.721	0.46	0.27	0.67	0.542
Iron, Dissolved (mg/L)	0.332	0.36	0.26	0.055	0.32	0.265
Manganese (mg/L)	0.115	0.138	0.096	0.058	0.097	0.101
Manganese, Dissolved (mg/L)	0.108	0.117	0.082	<0.02	0.058	0.077